Erie County
Community Health Needs Assessment
2018

Erie County, Pennsylvania

Public Health
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Erie County Department of Health
Erie County, Pennsylvania

Erie County Community Health Needs Assessment

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Introduction

A community health needs assessment (CHNA) is a tool used to evaluate the health status of residents and identify areas of concern within the community. Data comes from multiple sources, including input from residents themselves. The long-range goal is to provide focus areas for collaborative action and outreach among community stakeholders and residents.

Under the Patient Protection and Affordable Care Act (ACA), nonprofit, tax-exempt hospitals must conduct a CHNA every three years for their primary service area in collaboration with community partners including public health. As part of the national public health accreditation process, the Erie County Department of Health (ECDH), in order to maintain its current national public health accreditation status, must complete a CHNA every five years in collaboration with community partners including the nonprofit, tax-exempt hospitals within its jurisdiction. The first collaborative CHNA was completed in 2012. A basic community health improvement plan was initiated.

The objectives of the 2018 Erie County Community Health Needs Assessment are to (1) provide a comprehensive overview of the health status of Erie County, (2) identify priority health needs within the county, (3) organize these priorities into strategic issues, (4) share this information with the community at large, including stakeholders, and (5) use these priorities to guide community outreach and future collaborative action among organizations within the community.

Mobilizing for Action through Planning and Partnerships (MAPP), developed by the National Association of County and City Health Officials (NACCHO), was selected as a guide for this assessment (Figure 1).

Figure 1. MAPP Planning Process

MAPP relies on four assessments to provide the information needed to develop strategic issues, goals, strategies, and action plans for the community. These assessments are: (1) Community Health Status Assessment, which provides quantitative and qualitative data about the health needs of residents, (2) Community Themes and Strengths Assessment, which helps to identify issues and topics of interest to the community, (3) Forces of Change Assessment, which identifies current or future issues that may affect the community or public health system, and (4) Local Public Health System Assessment, which identifies organizations that contribute to the public's health.

Overview and Methodology

The MAPP process provides a roadmap for both a CHNA and a Community Health Improvement Plan (CHIP) and allows for integration of activities between the two. It is facilitated by public health leaders, focuses on collaboration, allows for community input, and facilitates both the prioritization of public health issues and the identification of community resources. Priorities and strategic issues identified through the CHNA process will be used in implementing the CHIP. This document includes the CHNA and its recommendations for community action.

ECDH epidemiologists Valerie Bukowski, MS and Jeff Quirk, PhD authored the Health Needs Assessment. Valerie Bukowski, MS coordinated the assessment process.

This report is divided into the following sections: (1) Demographics, (2) Maternal, Infant, and Child Health, (3) Mortality, Cancer, and Injury, (4) Infectious Diseases, (5) Chronic Diseases and Conditions, (6) Preventive Health Services, (7) Health Risk Behaviors, (8) Mental and Behavioral Health, (9) Special Populations, (10) Health-Related Quality of Life, (11) Health Care Access, (12) Health Care Providers, (13) Safety and Crime, (14) Environmental Health, (15) Quality of Life, and (16) Focus Groups. Selected Healthy People 2010 and 2020 goals are also included. Data sources are listed at the end of each section.

Because this is a comprehensive needs assessment, both quantitative and qualitative data are included. Health indicators are reported as individual data points and are also included in trend analyses. Statistics for gender, race, ethnicity, age, education, and income are listed when available. Finally, indicators are compared to state, national, and Healthy People 2020 data. Qualitative data was compiled from six focus groups conducted throughout Erie County. Using the same questions for each group, participant responses provided perceptual views from county residents about the health of their community.

Priorities for Erie County were identified using a priority matrix, ranking system, and asset inventory. Final strategic issues and overarching challenges were then developed.

Executive Committee

As a collaborative project, the assessment process was guided by a group of leaders representing a cross section of the community. The process began in July 2017 with an organizational teleconference among the four nonprofit hospitals and ECDH. Erie County was identified as the service area for all hospitals and fiscal year deadlines were identified. A draft report with delivery on or after July 1, 2018 met timeline requirements for all four hospitals.

With the Erie County Department of Health (ECDH) as lead agency, Corry Memorial Hospital, Millcreek Community Hospital, Saint Vincent Hospital, UPMC Hamot, Community Health Net, the Erie Community Foundation, Erie County Office of Drug and Alcohol Abuse, Safe Harbor Behavioral Health of UPMC Hamot, and the United Way of Erie County formed a collaboration in order to complete a comprehensive Erie County Community Health Needs Assessment. Members of the committee are listed below.

Executive Committee Members

Melissa Lyon	Director	Erie County Department of Health
Barbara Nichols	Chief Executive Officer	Corry Memorial Hospital
John Bergquist	Controller	Millcreek Community Hospital
Henry Ward	Vice President of Affiliated Services	Saint Vincent Hospital
Carrie Ennis	Director, Strategic Planning Corporate Secretary	UPMC Hamot
Craig Ulmer	CEO	Community Health Net
Michael Batchelor	President	Erie Community Foundation
David Sanner	Executive Director	Erie County Office of Drug & Alcohol Abuse
Amy Eisert	Director	Mercyhurst Civic Institute
Mandy Fauble	Executive Director	Safe Harbor Behavioral Health of UPMC Hamot
Emily Francis	Community Impact Manager	United Way of Erie County
Patricia Stubber	Focus Group Facilitator	
Valerie Bukowski	Assessment Coordinator Epidemiologist	Erie County Department of Health

The schedule for meetings/teleconferences/email communications is listed below.

Executive Committee

July 10, 2017	Organizational: Hospitals & ECDH
September 28, 2017	Full Committee: Overview, Scope of Work, Timeline
November 7, 2017	Qualitative Data: Focus Group Selection & Questions
January 10, 2018	Qualitative Data: Focus Group Update; Final Questions
January 23, 2018	Qualitative Data: Focus Group Update; Participants
April 24, 2018	Draft of 2018 Erie County CHNA; Data Sheets
May 8, 2018	Prioritization Session

June 4, 2018	Final Selection of Health Priorities
July 5, 2018	Final Document

Focus Groups

January 25, 2018	Leaders of Organizations that Service Refugees, Migrants, and Immigrants
January 25, 3018	Leaders of the African American Population
February 1, 2018	Members of the LGBTQ Population
February 15, 2018	Members of the Amish Population
February 15, 2018	Leaders of the City of Corry
February 22, 2018	Leaders of the City of Erie

Community Themes and Strengths: Qualitative Data – Focus Groups

Focus groups are used to provide perceptions and narratives of health issues within the community. They can consist of community leaders, whose responses represent the interests of the population they serve, or they can consist of members of targeted population groups. Building on the 2012 and 2015 health needs assessments, the committee opted to enhance information previously gleaned from members of the African American and refugee/migrant/immigrant populations by including leaders of these populations in the 2018 focus groups. The goals for the 2018 focus groups were to: (1) include population groups for whom we have limited health-related information, (2) include leaders from both the City of Erie and the City of Corry, (3) include community leaders who represent socioeconomically diverse populations within Erie County, and (4) include end users of the health system.

Groups were facilitated by Patricia Stubber, PhD and conducted in January and February of 2018. Five health-related questions, crafted by the Executive Committee and building on questions from previous assessments, were used for all groups. Participant responses provided perceptual views from county residents about the health of their community. The group responses were analyzed to identify general indicators and themes. The questions are listed below.

Health Behaviors

- What are you/your family's/your clients' biggest challenge to being healthy?
- Tell me some of the things you do to maintain health/prevent disease (including medical and dental checkups, screenings, immunizations, nutrition/exercise, etc).
- What are some of the barriers to being healthy?
- Tell me about how the changes in health insurance and local health care systems affect you/your family's/your clients' ability to be healthy.
- What are some of the supports you use to remove barriers?

Nutrition

Eating healthy foods is very important in the prevention and control of conditions such as high blood pressure, diabetes, heart disease.

- How do you/your family/your clients access "healthy" foods (five fruits/vegetables per day, etc)?
- What are some of the reasons you do not or cannot eat healthy foods?

Behavioral Health/Mental Health

Thinking about yourself, members of your family and your community:

- Describe any mental health problems you know about within your circle of family/friends/community.
- Describe any issues related to missed work, family, or other important activities.
- How/where do individuals get help?
- What makes it difficult for them to get help?
- How does stigma affect their willingness to seek/accept help?

Electronics

- How do electronics fit into your/your family's/your clients' health and well-being? (Electronics are defined here as cell phones and the Internet and devices you connect to them.)
- Explain how you use electronics to make appointments, check test results, and monitor conditions such as high blood pressure and blood sugar.
- Explain how you use electronics to learn more about prevention, your condition, and any treatments.
- Do you have any other uses?
- How do some of the applications (including social media) help or hurt you/your family's/your clients' overall health and well-being?

Opioids

- How do opioids impact your life and that of your family/friends/clients?
- If you are prescribed opioids for chronic pain management, what are your concerns
  i. about obtaining them legally?
  ii. about keeping them safely away from others?
  iii. other concerns?

Conclusion

- Is there anything else you would like to share?

Erie County consists of one large city (the City of Erie), one small city (the City of Corry), several large metropolitan suburbs, and many small rural communities. The county is defined by its urban/rural diversity as well as its disparate population groups. Focus groups were selected to reflect these differences. For the City of Erie and the City of Corry groups, invitations were sent to a diverse list of community organizations including nonprofit, religious, law enforcement, government, education, health care, social service, mental health, and advocate groups. For Erie County, twenty-four individuals representing twenty-two organizations participated and for Corry, nine individuals representing eight organizations participated. To encourage candid discussion, all group participants were assured confidentiality. Because of this, only the names of participating organizations are listed below.

<u>Erie County Leadership Focus Group Participants</u>

Bayfront East Taskforce (BEST)
Bradley H. Foulk Children's Advocacy Center of Erie County
City of Erie Police Department
Community Resources for Independence (CRI)

Crime Victim Center of Erie County
Erie County Assistance Office
Erie County WIC
Erie DAWN
Greater Erie Community Action Committee (GECAC)
Greater Erie Community Action Committee (GECAC), Area Agency on Aging
EmergyCare
Erie Housing Authority
Gannon University
Gaudenzia Crossroads – Erie
L'Arche Erie, Inc.
Mercyhurst Civic Institute
NAMI of Erie County
Primary Health Network
SafeNet Erie
Sarah A. Reed Children's Center
Shriners Hospitals for Children, Erie
Sight Center of Northwestern Pennsylvania

City of Corry & Union City Leadership Focus Group
Corry Area School District
Corry Counseling Services
Corry Manor
Corry Memorial Hospital
Erie County WIC, Corry Office
Safe Journey
Union City Family Support Center
YMCA of Corry

In addition to these community groups, four targeted population focus groups were conducted. They are: (1) leaders of the African American population [six participants], (2) leaders of organizations servicing refugees, migrants, and immigrants [six participants], (3) members of the LGBTQ population [nine participants], and (4) members of the Amish community [five participants]. This latter group is serviced by Corry Memorial Hospital which is located in the City of Corry.

The discussion themes in rank from highest to lowest are: (1) access to care, (2) low health literacy, (3) home situations, (4) risky behaviors, (5) cultural competency, (6) income/cost, (7) other barriers, and (8) stigma.

All groups commented on the lack of adequate financial resources either to enable more services or to utilize services. Both community leadership groups expressed a desire to share program information in order to better serve their clients as well as the community and to

more efficiently utilize scarce resources. Health and overall success were attributed to education and the ability to utilize education to earn a family sustaining wage.

Health Status Assessment: Quantitative Data

The ECDH epidemiology staff completed the Community Health Needs Assessment. Health indicators are reported as individual data points, are included in trend analyses, and are compared to available state, national, and Healthy People 2020 statistics. When possible, health indicators are also reported according to gender, race, ethnicity, age, education, and income.

Primary data includes local health statistics calculated and reported by ECDH epidemiologists and available on the ECDH website as well as health behavior statistics for Erie County adults originally reported in a 2016-2017 Erie County Health Survey - BRFSS that was conducted by the University of Pittsburgh, Graduate School of Public Health. New in this health survey are data for the African American population and for the residents of Erie City Area versus residents of the Rest of Erie County.

Secondary data includes state health statistics and health care reports from the Pennsylvania Department of Health (PA DOH), aggregate three year sum BRFSS data for select Erie County indicators as reported by PA DOH for the years of 2011-2014, national health statistics available on the Centers for Disease Control and Prevention (CDC) website, demographic data from the U.S. Census Bureau, hospital-related information from the Hospital and Healthsystem Association of Pennsylvania, and related data and information from various local, state, and national organizations. A list of relevant Healthy People 2010 and 2020 goals is also included. All data sources are listed at the end of each titled section, most are linked directly to the source, and all were current as of June 2018. The most recent data available at the time of collection is reported. For the BRFSS, a change in weighting methodology used by Pennsylvania to adjust for irregular distribution within the sample population began in 2011. This may shift estimates and trend lines for Pennsylvania. The 2016-2017 Erie County Health Survey – BRFSS was weighted using the raking method developed by the CDC.

Notable data deficiencies include limited youth health indicators, limited data related to the lesbian, gay, bisexual and transgender (LGBT) community, a lack of comprehensive community mental health statistics, and limited data for adult drug abuse including prescription drugs.

With the exception of ECDH, sources are not responsible for any of the analyses, interpretations, or conclusions that appear in this Assessment.

Forces of Change

Members of the Executive Committee were given a list of questions and responses from the 2012 and 2015 CHNA for consideration and then asked for their input. The questions and corresponding responses are listed below.

Community Health Impact

How do you envision the local public health system in the next three years?

- Leaner; doing more with less
- Increased collaboration among community members
- Focused community efforts on selected health indicators
- Continued consolidation of current health care delivery systems
- Targeted efforts on disease prevention
- Increased competition for scarce resources
- Increased financial accountability
- "Nothing about us without us" from focus group. Engage a population in the health dialogue.

External Forces and Issues

What is occurring or might occur that affects the health of our community or the local public health system?

- Aging population
- Influx of refugees
- High poverty rate
- Health Care Reform Act and its implications
- Economic uncertainty
- High incidence of substance abuse; opioid epidemic
- Shrinking budgets and reduced public health system workforce
- Continued increase of technology usage accompanied by a sedentary lifestyle, especially among children and adolescents
- Positive movement toward economic development in Erie City

Challenges and Opportunities

What specific challenges/threats/barriers or opportunities are generated by these occurrences?

Challenges

- Electronic health/medical records
- Possible elimination of health care mandate
- More providers may be needed
- Dental care for low income population
- Less reimbursement but more services
- Quality-based (performance) payment
- Health care supply and access limits associated with insurance restrictions
- Increased health care needs of older individuals
- Limits on the amount of time spent using technology, especially among children and adolescents
- Maintain services with reduced workforce
- Sufficient economic resources
- Perception and mindset of community residents especially with respect to violence

Opportunities

- School-based health centers in schools located in neighborhoods with high risk residents

- Medicaid expansion resulting in more people insured
- Women's preventive services per the Affordable Care Act
- Improved quality of care based on pay for performance
- Health records available to all health care providers ensures a more coordinated level of patient care
- Technology can be used to promote both an active lifestyle and healthy eating
- Collaboration among community partners to maintain services
- Active involvement of the faith-based community
- More community partners interested in public health
- Positive impact of the community schools model on child and family health

Local Public Health System Assessment: Assets and Resources

Many of the health-related resources available in Erie County are listed in the body of the assessment and can be found at Health Care Providers and Leisure and Recreation (Parks and Trails).

There are many organizations within Erie County that provide a wide range of services, programs, and opportunities for county residents. Many are listed in PA 211 Northwest and Erie Sprout. Services are listed by category and can be searched by agency. Included in the list of categories are advocacy, alcohol/drug & addictions, animals, camps, churches, community action, counseling, daycare & after school programs, education, emergency, employment/volunteerism & career, food/clothing/shelter, funeral homes, health care, home health care, hospice, hospitals-full or partial hospitalizations, housing, assisted living, independent living, transitional living, legal concerns/government, mental health/mental retardation, pregnancy & adoption, recreation, senior citizens, services/utilities, support groups, transportation, and veterans.

A broad cross-section of community organizations, including law enforcement and education, partnered to address tobacco issues within the county. They are: Millcreek Township Police Department, City of Erie Police Department, American Cancer Society, Harbor Creek School District, Millcreek Township School District, Erie City School District, Lake Erie College of Osteopathic Medicine School of Pharmacy, the Regional Cancer Center, UPMC Hamot, LifeWorks Erie, Pyramid Healthcare, Multicultural Community Resource Center (MCRC), GE Transportation, Erie County Drug and Alcohol Coalition, Erie Bayhawks, Erie Seawolves, Erie Otters, NWPA Pride Alliance, and the Erie County Department of Health which is also the regional program manager for the Northwest Pennsylvania Tobacco Control Program.

The Junior League of Erie offers a hands-on "Kids in the Kitchen" nutrition program. Nutrition and physical activity are addressed by the YMCA, LifeWorks Erie, the Wellsville Program, the Penn State Cooperative Extension, Early Connections (an early childhood focused organization), Kid's Cafes, individual hospital health and wellness initiatives, and individual health plans and insurance providers. A list of over one hundred nutrition and physical activity

programs can be found in the 2017 Erie County Community Wellness Directory. Physical activity is the focus of the Erie Walks initiative and the Click Start Your Heart initiative.

Currently, there are approximately twenty organizations and facilities within Erie County that address alcohol and drugs, approximately twenty organizations and facilities that provide emergency and crisis intervention, over twenty organizations that provide information and referral services, approximately six organizations that address language and communication problems, and approximately thirty organizations and facilities that provide mental health and mental retardation services.

As part of its community programming, the United Way of Erie County has implemented a community health initiative. The Erie Community Foundation, which offers competitive grants to community groups, maintains Erie Vital Signs, a website that includes health statistics, as a tool for grant seekers. A school-based health center (Wayne Primary Care) operates in an inner city school, another (Girard School, Community Health Net) operates in West County, and Gannon University, an urban school, focuses efforts on the inner city neighborhoods surrounding its campus.

See Appendix A for a list of these community resources.

Prioritization

Making decisions about health priorities can be influenced by many factors including differing opinions. Prioritization techniques provide a structured, relatively unbiased approach to analyze health problems and identify areas of concern within the community. A prioritization matrix was used for the Erie County prioritization process. It is a common tool used when health problems are evaluated against a number of criteria because it provides the ability to assign varying degrees of importance or weights to these criteria.

Epidemiologists reviewed both the qualitative and quantitative data in the CHNA and identified health indicators for evaluation in the prioritization process. These indicators were listed on work sheets and included county, state, national, and Healthy People 2020 statistics as well as cross references that identified the indicator as a disparity, as a targeted focus of other community organizations, as a CDC health indicator, and as a County Health Rankings indicator. A sample sheet can be found in Appendix B.

The prioritization matrix included the following six criteria: (1) magnitude of the problem, (2) seriousness of the problem, (3) variance against benchmarks, (4) feasibility and ease of implementation, (5) impact on other health outcomes, and (6) availability of community resources (Appendix C). Weights were assigned to each one of these criteria based on scoring results by members of the Steering Committee.

Using the health indicator data sheet, members of the Executive Committee rated each indicator using a Likert scale of 1 to 10. Scores for each indicator were tallied and ranked. These scored indicators were then divided into quartiles. Using this information as well as considering available

assets and resources, the Steering Committee identified strategic health issues, priority indicators, target populations, and overarching challenges for Erie County (Table 3).

Three strategic health issues were identified for Erie County. They are lifestyle behavior change, disease prevention, early detection, and control, and mental health/quality of life. Additionally, ten overarching challenges were targeted. These are issues that impact the health of Erie County residents and should be considered in any community-based health action plan. Finally, priority health indicators were listed for each strategic issue and target populations were identified.

Public Comment

Focus Groups

As a follow-up, fifty-two focus group participants were emailed a copy of the Focus Group Final Report as well as a draft of the 2018 Community Health Blueprint (Table 3). In addition, they were asked to complete a short, five question online survey and to provide comment as an option. There were five responses.

The questions and results follow.

1. In general, does the focus group report include the primary health concerns raised in your group? (Y/N)
   100% Yes
2. How would you rate the importance of Lifestyle Behavior Change as a priority area for health improvement in Erie County? (1-5)
   50% Somewhat Important ; 50% Very Important
3. How would you rate the importance of Disease Prevention, Early Detection, and Control as a priority area for health improvement in Erie County? (1-5)
   50% Somewhat Unimportant; 50% Somewhat Important
4. How would you rate the importance of Mental Health/Quality of Life as a priority area for health improvement in Erie County? (1-5)
   100% Somewhat Important
5. Do you agree that the Overarching Challenges have an impact on health outcomes in Erie County? (Y/N) *100% Yes*
6. Comments *None*

General Public

A copy of the assessment will be uploaded to the Erie County Department of Health website. A post placed on the ECDH Facebook page will announce the addition to the website and ask viewers to complete an online survey.

Key Findings

Demographics Erie County is located in northwestern Pennsylvania on the south shore of Lake Erie and has 276,207 residents. There are 2 cities in Erie County. The City of Erie, with 98,593 residents, is the county seat and is located in northern Erie County on the shore of Lake Erie. It is also the fourth largest municipality in Pennsylvania. The City of Corry, with 6,360 residents, is located in a more rural area in the southeastern part of the state and shares a border with Warren County, Pennsylvania. The population of Erie County is aging with a median age of 39.3 years. Of all residents, 88.0% are White, 7.7% are African American, 4.1% are Hispanic, and 4.5% are foreign-born. The latter represent a vibrant refugee population. Erie County has been one of the leading refugee resettlement counties in Pennsylvania. For the year October 1, 2016 to September 30, 2017, 455 refugees from 17 countries arrived and settled in Erie. The 2017 point-in-time count of homeless individuals in Erie County was 369. Based on results from a self-reporting behavioral risk health survey, the percentage of LGBTQA individuals in Erie County is 5%. Poverty is high with 16.7% of residents and 24.5% of children under 18 years of age living below the poverty level. The highest poverty rates within the county were observed in the City of Erie and the City of Corry. Overall, 8.9% of Erie County residents have less than a high school diploma. However, this value jumps to 19.8% for the African American population and 26.6% for the Hispanic population. Similarly, 27.0% of Erie County residents have a bachelor's degree or higher but this value drops to 13.8% for the African American population and 10.7% for the Hispanic population.

Social and Physical Environment Because of its location on Lake Erie, Erie County has a robust tourist industry. Presque Isle State Park, a peninsula that extends into Lake Erie, offers sandy beaches and recreational opportunities. Erie County also has many park trails, bicycle paths, and hiking trails. A large number of religious, civic, and social organizations in the county provide opportunities for social engagement. Housing is affordable but many properties are poorly maintained, especially within the City of Erie. In Erie County, 27% of housing units were built in 1939 or earlier; 66% of housing units are owner-occupied with a median value of $120,300; median rent is $701; and although the median household income is $47,094, 26% of all households had income below $25,000. Erie County offers several subsidized housing options including HUD apartments, Section 8 apartments, public housing apartments, and non-profit low income apartments. The City of Erie is beginning downtown transformation and neighborhood revitalization initiatives to address urban decline and blight. Erie County has a public transportation system with routes concentrated in the City of Erie and surrounding areas and limited service to other areas of the county. The primary mode of transportation is by motor vehicle. There are two public airports in Erie County and one hosts three national airlines. Group and gun violence had become areas of concern in Erie County. Unified Erie, a collaborative violence reduction initiative, was formed in 2010 to address this issue. Since 2014 there has been improvement in 5 indicators used to measure group violence.

Environmental Health Erie County Department of Health oversees food safety, water pollution, the water supply of public facilities, public bathing quality, beach water monitoring and notification, and camps and campgrounds. The department also oversees schools,

manufactured home parks, body art establishments, and vector control. Air quality is regulated by the state.

Maternal and Child Health Disparities are seen for most of the maternal and child health indicators. The percentage of low birth weight babies born to African American mothers was higher than the percentages for both White and Hispanic mothers. The percentage of live births to unmarried mothers was higher for the African American and Hispanic populations compared with the White population. The percentage of mothers receiving prenatal care in the first trimester was lower for the African American population compared with both the White and the Hispanic population. With respect to health coverage, 63.5% of African American females and 59.2% of Hispanic females were covered by Medicaid during their pregnancy compared with 26.7% for White females. The maternal child health indicator with minimal disparity was the percentage of mothers who smoked during pregnancy with 20.5% of White females, 19.0% of African American females, and 15.0% of Hispanic females smoking while pregnant.

Causes of Death In Erie County, heart disease and cancer accounted for 45.4% of all deaths. Death rates for all causes of death, heart disease, cancer, chronic lower respiratory disease, stroke, diabetes, and nephritis in Erie County were significantly higher and the suicide rate was higher compared with Pennsylvania. Erie County females had a statistically significant higher death rate for all causes of death, cancer, chronic lower respiratory disease, and diabetes compared with Pennsylvania. Erie County males had a statistically significant higher death rate for all causes of death, heart disease, cancer, accidents, diabetes, and suicide compared with Pennsylvania. Erie County African American residents had a statistically significant higher rate than White residents for all causes of death, cancer, and diabetes. Since 2000, death rates due to heart disease, cancer, and stroke have trended downward while rates for chronic lower respiratory disease and accidents have trended upward. Since 2009, death rates due to diabetes have seen an uptick.

Cancer Deaths The five leading sites for cancer deaths in Erie County are lung, colorectal, female breast, pancreas, and prostate. For males, the three leading sites are lung, prostate, and colorectal, and for females they are lung, breast, and colorectal. Overall, Erie County had a statistically significant higher death rate than Pennsylvania for all cancer sites combined, female breast, kidney and renal pelvis, and ovary. For females, Erie County had a statistically significant higher rate for all cancer sites combined, breast, lung, and ovary compared with Pennsylvania. For males, there were no statistically significant rates compared with Pennsylvania. Since 2005, death rates for all cancer sites, lung, and colorectal have trended downward while breast cancer death rates have trended upward. Since 1990, death rates due to prostate cancer have steadily trended downward.

Cancer Diagnoses The five leading sites for cancer diagnosis among Erie County residents are female breast, lung, prostate, colorectal, and urinary bladder. For females, the three leading sites for cancer diagnosis are breast, lung, and colorectal and for males they are prostate, lung, and urinary bladder. Since 2000, incidence rates for all cancer sites have decreased for males and the total population, but have increased for females. Female breast cancer saw an uptick in its incidence rate since 2005. Since 2000, lung cancer incidence has steadily decreased for both

the total population and males but remained the same for females. Since 2000, the incidence of prostate cancer for males and colorectal cancer for both males and females has steadily decreased.

Cancer Screening The percentage of women who have had an annual mammogram and an annual clinical breast exam has decreased, but still remains above the rate for Pennsylvania. Low income and White women are populations of concern. Cervical cancer screening among women in Erie County is higher than Pennsylvania but lower than the nation. Target populations are women who have low educational levels, low income, who are White, and who live in more rural areas. Fifty-two percent of Erie County males reported ever having a Prostate Specific Antigen (PSA) test compared with almost 70% for Pennsylvania. Similarly, only 50% of this cohort received a recommendation from their healthcare provider for PSA testing. The population of concern is men who reside in the Erie City Area. The percentage of adults who have had a proctoscopic screening procedure for colorectal cancer mirrors that for Pennsylvania and is higher than the nation. Populations of concern are females, those who are White, and those with lower educational levels.

Infectious Diseases Following several years of steady increase, the incidence rates for chlamydia and gonorrhea have trended downward. Syphilis cases increased dramatically from 2013 to 2015 before an abrupt decrease. Cases of confirmed chronic hepatitis C are increasing with the most recent incidence rate for Erie County higher than the rate for Pennsylvania. HIV incidence rate in Erie County is lower than both Pennsylvania and the nation. Lyme disease cases and incidence rates in Erie County have been climbing since 2013. Cases of active and latent tuberculosis infection cases in Erie County are high. The incidence rate for active cases of tuberculosis in Erie County is higher than Pennsylvania. The large refugee resettlement population in Erie County is a contributing factor.

Asthma Following years of relative stability, adult asthma cases in Erie County have seen a slight uptick.

Cardiovascular Disease The self-reported prevalence of both heart attack and stroke among Erie County residents have not improved and are higher than both Pennsylvania and the nation. Target populations are African American adults, males, and low income residents. Although the prevalence of high cholesterol and cholesterol testing are improving and are better than Pennsylvania, high cholesterol is a concern among males, rural residents, low income residents, and those with lower education levels. Hypertension incidence among Erie County adults is not improving. It is higher than Pennsylvania, the nation, and the Healthy People 2020 goal. Target populations are low income residents and those with lower educational levels.

Chronic Obstructive Pulmonary Disease (COPD) Also known as chronic lower respiratory disease (CLRD), COPD prevalence in Erie County has remained level and mirrors Pennsylvania. Populations of concern are those with low income, lower educational levels, and those who reside in the Erie City Area.

Diabetes and Prediabetes The percentage of Erie County adults who have diabetes and prediabetes is not improving and remains higher than both Pennsylvania and the nation. Target populations are African American adults, rural residents, and residents with lower educational levels.

Oral Health Approximately 7 out of 10 adults in Erie County visited a dentist in the past year. This is similar to Pennsylvania. However, this value drops to 4 out of 10 for those with less than a high school education and 5 out of 10 for those earning less than $25,000 annually. One concern voiced by focus group participants is the lack of dentists who accept Medicaid payment for service. In Erie County, 25% (38) of dentists accept Medicaid and 22% (33) accept Medicare.

Alcohol Use Binge drinking among adults in Erie County remains level at 21%, but is higher than both Pennsylvania and the nation. Target populations are young adults, males, White adults, and those with higher incomes. Seven out of 10 Erie County adults drink and drive compared with 4 out of 10 for Pennsylvania and the nation. Populations of concern are those with high incomes and males. Overall alcohol use among middle and high school students in Erie County has steadily decreased and is lower than Pennsylvania. In a targeted health needs assessment of the LGBTQA community, 19% identify alcohol use as a top health issue.

Drug Use As with other communities in Pennsylvania and the nation, Erie County is dealing with an increase in illegal opioid use and drug-related deaths. From 2011 to 2016, there has been over a 100% increase in accidental drug-related overdose deaths in Erie County. In 2017, 54% of all drug-related deaths (accidental and intentional) involved fentanyl, 32% involved cocaine, and 26% involved heroin. For all opioid hospitalizations in 2016, 43% were for heroin and 58% were for pain medication. For middle and high school students, current use of narcotic pain relievers was 2.2% in 2015 compared with 1.9% for Pennsylvania. In Erie County, 10% of adults reported currently using marijuana. Overall, 10% of middle and high school students currently use marijuana.

Nutrition In Erie County, only 12% of adults eat five or more fruits and vegetables per day. This remains lower than Pennsylvania. Only 6% of adults aged 65 and above reported eating five or more fruits and vegetables. The link between poverty and lack of health eating was a concern voiced by focus group participants. Of all adults, 16% reported drinking one or more soda or pop per day. This jumps to 27% for those with low income. The percentage of males who drank soda daily was twice the value for females. There are 12 food deserts in Erie County with most located in high poverty areas. Ten are in the City of Erie, 1 is in the City of Corry, and 1 is in Edinboro Borough.

Food Insecurity Ten percent of Erie County adults have been concerned about having enough food for themselves and their families. Food insecurity was one concern voiced by focus group participants.

Physical Activity The percentage of Erie County adults who exercise at least once a month increased to 77%. This mirrors Pennsylvania and the nation. Populations of concern are older adults, those with annual income below $15,000, and those with less than a high school

education. In a targeted health needs assessment of the LGBTQA community, 88% reported exercising at least once a month.

Overweight and Obese Since 2007, the percentage of adults in Erie County who are obese (BMI >=30) has steadily increased from 28% to 35%. This is higher than Pennsylvania and the nation. Two populations of concern are those aged 45 and above and African American adults. During that same time, the percentage of overweight (BMI = 25.0-29.9) adults decreased after remaining level for several years. Using the BMI-for-age percentiles for school children, students in grades K-6 and 7-12 saw a slight uptick in the percentile rank for obesity while overweight percentiles remained relatively level. In a targeted health needs assessment of the LGBTQA community, 39% of respondents were obese.

Tobacco Use Within the past four years, cigarette smoking among adults in Erie County dropped from 27% to 18% and is now the same as Pennsylvania. Populations of concern are those with less than a high school education, those with low annual income especially those earning less than $15,000, and females. In a targeted health needs assessment of the LGBTQA community, 41% reported smoking cigarettes. Fifty-two percent of adults tried to quit smoking cigarettes at least one day in the past year. Among middle and high school students, 7% currently smoke cigarettes compared with 6% for Pennsylvania. Five percent of Erie County adults currently use electronic vaping products compared with 16% for middle and high school students. In a targeted health needs assessment of the LGBTQA community, 13% currently use e-cigarettes.

Sleep Issues In the past two weeks, 55% of adults in Erie County had at least one day with a sleep issue. Populations of concern are young adults, females, and those with an annual income below $25,000.

Poor Mental Health Since 2011, the percentage of adults in Erie County who reported poor mental health has steadily increased from 33% to 42%. This is higher than Pennsylvania. Populations of concern are young adults, those with less than a high school education, females, those earning less than $25,000 annually, those residing in the Erie City Area, and African American adults. In a targeted health needs assessment of the LGBTQA community, 53% identified mental health as a top health issue, 37% identified bullying as a top issue, 37% identified loneliness as a top health issue, 56% now take or ever took medicine for a mental health condition, and 43% received psychological counseling in the past year.

Depression Since 2011, the percentage of adults who have been diagnosed with depression has steadily increased to 22% and is higher than both Pennsylvania and the nation. Depression diagnosis was significantly higher for females compared with males. Other target populations are those with lower educational levels, low annual incomes, and residents of the Erie City Area. From 2013 to 2015, the percentage of middle and high school students who felt sad or depressed most days increased by 9 percentage points from 35% to 44%. Increases of 4 percentage points or more were also seen for three other depression indicators including those who felt that sometimes life is not worth it. Additionally, 18% of middle and high school

students reported doing something to harm themselves in order to relieve feelings or communicate emotions.

Suicide The suicide rate in Erie County is higher than Pennsylvania and males had a statistically significant higher rate. In a targeted health needs assessment of the LGBTQA community, 47% identified suicide as a top health issue. Among middle and high school students, those who stopped doing usual activities due to sadness, considered suicide, or planned a suicide remained relatively level. However, the percentage of those who attempted suicide increased by 2 percentage points from 2013 to 2015.

Mental Health Attitudes Ninety percent of Erie County adults agree that mental health treatment can help people. This drops to 80% for those earning less than $25,000 annually. Seven percent of adults avoided seeking mental health services in the past year. This number increased to 14% for those earning less than $25,000 annually and 12% for young adults. Of all adults who avoided seeking mental health services, 15% did so due to concern for their reputation or self-image and 33% did not feel that they have support and encouragement in seeking treatment.

Poor Physical Health Since 2011, the percentage of Erie County adults who report poor physical health has steadily increased from 36% to 45% and is higher than Pennsylvania. Targeted populations are those with less than a high school education, those earning less than $25,000 annually, especially those earning less than $15,000, African American adults, and those residing in the Erie City Area.

Restricted Activity Since 2011, the percent of Erie County adults who could not do their usual daily activities on one or more days due to poor physical or mental health steadily increased from 21% to 37%. Populations of concern are those with less than a high school education, those earning less than $25,000 annually, especially those earning less than $15,000, African American adults, females, and those residing in the Erie City Area.

Health Care Access: Insurance The percentage of adults in Erie County with no health insurance dropped to 7% following years of level reporting at 13% and is now lower than both Pennsylvania and the nation. The populations of concern are those earning $15,000 - $24,999 annually and young adults. The percentage of individuals aged 21-64 who receive medical assistance jumped to 26.9% in 2016. For Pennsylvania this value is 21.2%. From 2009 to 2017, the number of Erie County residents who are eligible for Medicare increased 18.2% to 58,304 compared with a 21.1% increase for Pennsylvania. In 2016, 4.6% of Erie County children under 19 years of age were enrolled in the Children's Health Insurance Program (CHIP) compared with 5.7% for Pennsylvania.

Health Care Access: Personal Health The percentage of Erie County adults who do not have a personal healthcare provider remained relatively stable at 11% and is lower compared with Pennsylvania and the nation. Populations of concern are young adults, those earning less than $15,000 annually, males, and those residing in the Erie City Area. The percentage of adults who have had a routine checkup increased to 88% and is higher than both Pennsylvania and the

nation. Of concern are those with less than a high school education. The percentage of adults who could not see a doctor due to cost decreased to 10% and is lower than both Pennsylvania and the nation. Populations of concern are young adults, those with less than a high school education, females, African American adults, and those earning less than $15,000 per year. The percentage of adults who did not get prescribed medication due to cost dropped to 7% and is lower than both Pennsylvania and the nation. Populations of concern are those earning less than $15,000 annually and females. In a targeted health needs assessment of the LGBTQA community, 42% reported that their health provider reacted poorly when learning of their LGBTQA status, 29% are not out to their doctor/healthcare provider, and 17% often/always fear negative reaction by a healthcare provider.

Health Care Access: Health Literacy Four percent of Erie County adults find it difficult to get advice or information about health and medical topics, but this value jumps to 9% for those earning less than $15,000 annually. Statistics are not available for those with low educational levels. The percentage of adults who find it difficult to understand verbal health information from health care providers is 8%, but this value jumps to 30% for those with less than a high school education. The percentage of adults who find it difficult to understand written health information is 7%, but this value jumps to 22% for those with less than a high school education. Health literacy of the client was a key theme of the focus groups especially among the refugee population.

Health Care Access: Healthcare Providers There are three areas within Erie County that have been designated as Medically Underserved Area (MUA)/Medically Underserved Population (MUP) service areas. Two of these are in the City of Erie and one is in northeast Erie County. The Corry/ Union City service area, located in southern/southeastern Erie County, has been designated as both a Primary Care Health Professional Shortage Area (HPSA) lacking 11 full time equivalent (FTE) primary care physicians and a Primary Care Low Income HPSA lacking 3 FTE primary care physicians. The entire low income population of Erie County has been designated a Dental HPSA lacking 18 FTE dentists. Of all physicians providing direct patient care, 91% accept Medicaid and 92% accept Medicare. Of all dentists providing direct patient care, 25% accept Medicaid and 22% accept Medicare. There are 2 Federally Qualified Health Centers (FQHC) in Erie County, a health delivery system that services refugees and migrant workers, 2 rural health centers in the Corry/Union City area, over 35 mental health and drug and alcohol service providers, four acute care hospitals, a Veterans Administration hospital, a specialty hospital, and a rehabilitation hospital. Access to care was a top focus group theme, with approximately 64% of participants identifying mental health and 12% identifying dental care as needs.

Focus Group Key Themes The top five themes identified in the focus groups are (1) Access to care, especially mental health, (2) Health literacy, (3) Home situation, (4) Risky behavior, and (5) Cultural competency.

Table 3. Erie County Community Health Blueprint

Strategic Issues, Overarching Challenges, and Priority Indicators

Strategic Issues & Target Populations

	Adults	Youth	Aging Population	Low Income	African-American	LGBTQA	Geography Urban/Rural
LIFESTYLE BEHAVIOR CHANGE							
Nutrition	•		•	•	•	•	
Physical Inactivity	•			•		•	
Tobacco	•	•		•	•	•	•
Alcohol/Other Substance Use Disorder	•	•		•	•	•	•
DISEASE PREVENTION, EARLY DETECTION, CONTROL							
Obesity	•	•	•	•	•	•	•
Cardiovascular Disease	•		•	•	•		
Diabetes & Pre-Diabetes	•		•		•		•
COPD	•		•	•	•		•
Cancer: Lung, Breast, Prostate, Colorectal	•		•	•	•	•	
MENTAL HEALTH/QUALTITY OF LIFE							
Depression	•	•		•		•	•
Suicide	•	•				•	
Poor Mental Health	•	•		•	•	•	•
Poor Physical Health	•			•	•		•
Health Literacy	•			•	•		

Overarching Challenges

POVERTY

HEALTH INEQUITY

PRIMARY CARE PROVIDER SHORTAGE FOR UNDERSERVED

MEDICAL/MENTAL HEALTH PROVIDER SHORTAGE

EDUCATIONAL ATTAINMENT

MENTAL HEALTH STIGMA

OPIOID EPIDEMIC

CULTURAL COMPETENCY

HOUSEHOLD FACTORS

ELECTRONICS - NEGATIVE EFFECTS

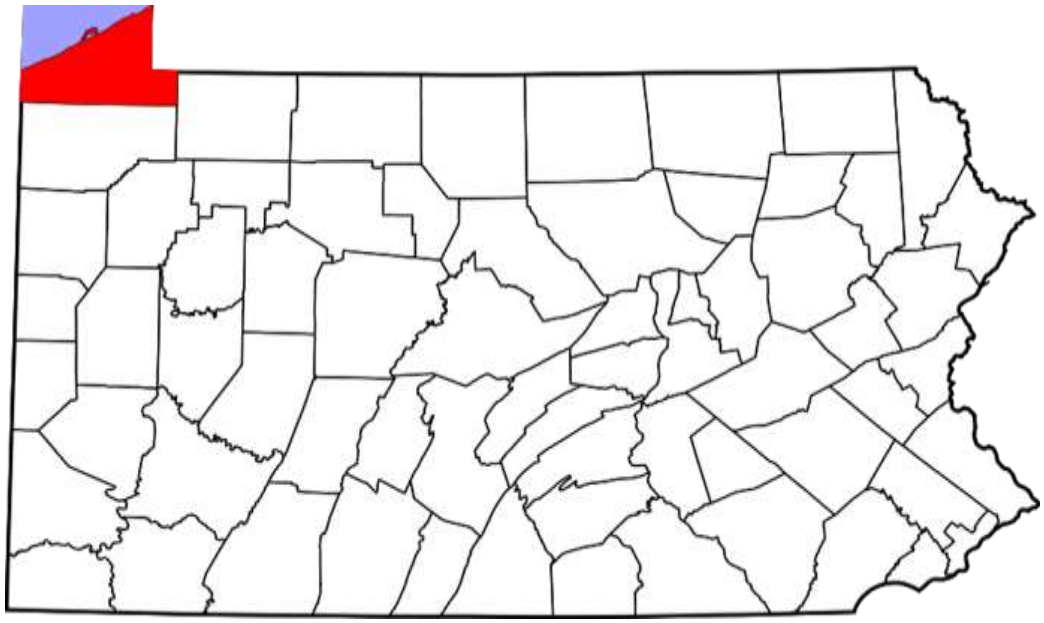
Demographics

Erie County and Its Municipalities

Erie County is located in northwestern Pennsylvania on the south shore of Lake Erie (Figure 1). Established in 1800, it is the Commonwealth's lone link to the Great Lakes. Erie County is bordered on the north by Lake Erie and the province of Ontario, Canada, on the south by Crawford County, Pennsylvania, on the west by Ashtabula County, Ohio, and on the east by Chautauqua County, New York and Warren County, Pennsylvania.

Including land and water areas, Erie is the largest of Pennsylvania's 67 counties, with a total area of 1,558.2 square miles. Overall, 799.2 square miles are land (1.8% of Pennsylvania's total land area), and 759.0 square miles are water (57.9% of Pennsylvania's total water area).

Figure 1. Erie County, Pennsylvania



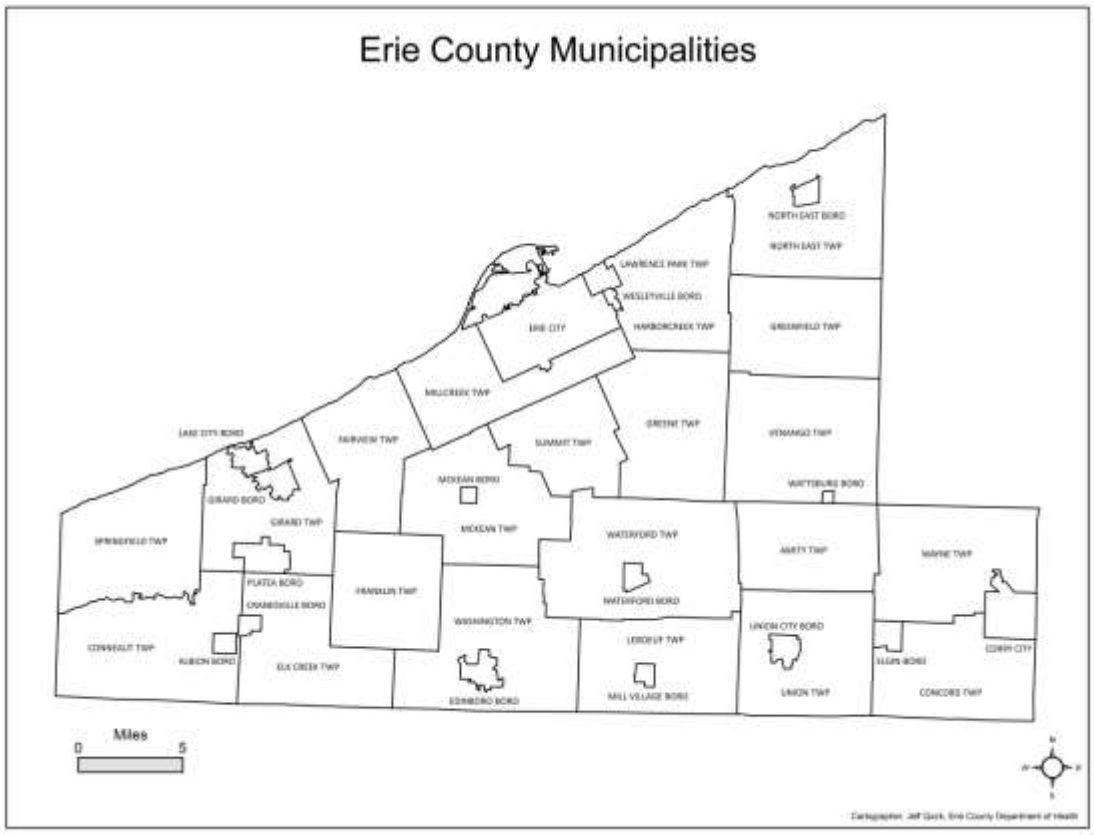
Erie County's population totaled 276,207 residents in 2016. This amounted to 2.2% of Pennsylvania's population of 12,702,379 and placed Erie as the 14th most populous county in the Commonwealth. The county population was 80.0% urban and 20.0% rural according to the 2010 Census.

The 38 municipalities of Erie County are comprised of 2 cities, 14 boroughs, and 22 townships (Figure 2). The county seat is located in the City of Erie, which is currently the fourth most populous municipality in the state, behind Philadelphia, Pittsburgh, and Allentown.

Erie County's 38 municipalities vary greatly in total population, size (land area), and population density (Table 1). In 2016, municipality populations ranged from a low of 213 residents in Elgin Borough to a high of 98,593 in the City of Erie, land areas ranged from a low of 0.3 square miles

in Wattsburg Borough to a high of 50.0 in Waterford Township, and population densities ranged from a low of 37.8 persons per square mile in Amity Township to a high of 6,026.4 in Wesleyville Borough. The overall population density of Erie County was 345.6 persons per square mile.

Figure 2. The 38 Municipalities of Erie County



The ten largest county municipalities in 2016 were the City of Erie (98,593), Millcreek Township (53,773), Harborcreek Township (17,517), Fairview Township (10,150), Summit Township (6,916), the City of Corry (6,360), North East Township (6,269), Edinboro Borough (6,236), Girard Township (4,941), and Greene Township (4,608). Taken together, these municipalities accounted for more than three-quarters (78.0%) of the total county population.

Since 1980, Erie County's population has remained relatively level at approximately 280,000 residents. However, during the period 1980 to 2016, the population in the City of Erie declined from 119,123 to 98,593, a loss of 20,530 residents. This population loss of 17.2% was largely due to resident out-migration to the nearby municipalities of Millcreek Township, Harborcreek Township, and Summit Township. From 1980 to 2016, Millcreek Township grew by 9,470 residents (from 44,303 to 53,773, +21.4%), Harborcreek Township grew by 2,873 residents (from 14,644 to 17,517, +19.6%), and Summit Township grew by 1,535 residents (from 5,381 to 6,916, +28.5%).

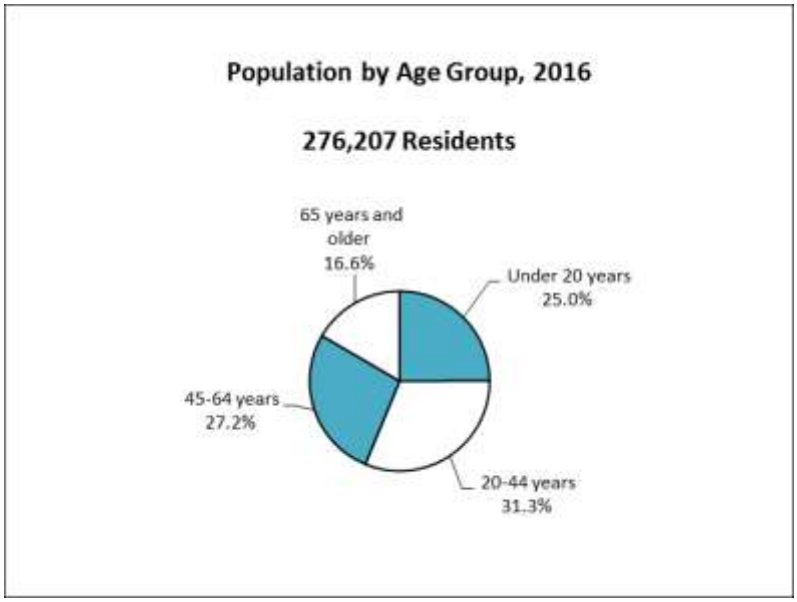
Table 1. Population, Land Area, and Population Density of Erie County Municipalities, 2016

Place	Population	Land Area (Square Miles)	Persons per Square Mile
Pennsylvania	12,702,379	44,742.70	283.9
Erie County	276,207	799.15	345.6
Albion Borough	1,465	1.08	1,356.5
Amity Township	1,060	28.02	37.8
Concord Township	1,297	33.11	39.2
Conneaut Township	4,350	43.07	101.0
City of Corry	6,360	5.99	1,061.8
Cranesville Borough	608	0.94	646.8
Edinboro Borough	6,236	2.29	2,723.1
Elgin Borough	213	1.47	144.9
Elk Creek Township	1,760	34.74	50.7
City of Erie	98,593	19.08	5,167.3
Fairview Township	10,150	28.97	350.4
Franklin Township	1,627	28.66	56.8
Girard Borough	2,996	2.34	1,280.3
Girard Township	4,941	31.50	156.9
Greene Township	4,608	37.39	123.2
Greenfield Township	1,917	33.77	56.8
Harborcreek Township	17,517	34.09	513.8
Lake City Borough	2,938	1.80	1,632.2
Lawrence Park Township	3,819	1.84	2,075.5
LeBoeuf Township	1,655	33.47	49.4
McKean Borough	381	0.57	668.4
McKean Township	4,378	36.80	119.0
Millcreek Township	53,773	32.07	1,676.7
Mill Village Borough	387	0.92	420.7
North East Borough	4,135	1.30	3,180.8
North East Township	6,269	42.15	148.7
Platea Borough	406	3.34	121.6
Springfield Township	3,324	37.38	88.9
Summit Township	6,916	24.05	287.6
Union Township	1,618	36.47	44.4
Union City Borough	3,188	1.83	1,742.1
Venango Township	2,293	43.42	52.8
Washington Township	4,484	45.16	99.3
Waterford Borough	1,523	1.23	1,238.2
Waterford Township	3,841	49.95	76.9
Wattsburg Borough	382	0.30	1,273.3
Wayne Township	1,605	38.07	42.2
Wesleyville Borough	3,194	0.53	6,026.4

Population by Age and Sex

Of the 276,207 people residing in Erie County in 2016, 139,704 (50.6%) were female and 136,503 (49.4%) were male. With respect to age, 68,936 (25.0%) were under 20 years, 86,325 (31.3%) were ages 20 to 44 years, 75,058 (27.2%) were ages 45 to 64 years, and 45,888 (16.6%) were 65 years and older (Figure 3, Table 2).

Figure 3. Erie County's Population by Age Group, 2016



Since the year 2000, Erie County's population has experienced an interesting transition. The number of residents under 45 years of age decreased from 177,932 to 155,261 (a drop of 12.7%), while the number of residents 45 years and older increased from 102,871 to 120,946 (an increase of 17.6%). The population of Erie County is aging. The median age in Erie County increased to a new high of 39.3 years in 2016, up from 36.2 years in 2000, and 32.9 years in 1990. The median ages for males and females were 37.7 and 40.9 years, respectively. The aging of the baby boom generation (people born between 1946 and 1964) into older age groups, declining birth rates, and improved mortality are some of the key contributors to the observed increase in median age.

Population by Race and Hispanic Origin

Of the 276,207 people residing in Erie County in 2016, 243,008 (88.0%) were White, 21,334 (7.7%) were Black or African American, 4,635 (1.7%) were Asian, 732 (0.3%) were American Indian or Alaska Native, 128 (0.05%) were Native Hawaiian or Other Pacific Islander, and 6,370 (2.3%) were classified as Two or More Races. A total of 11,340 (4.1%) residents were Hispanic, of any race (Table 3).

Table 2. Erie County's Population by Age and Sex, 2016

Age Group	Erie County	Erie County Males	Erie County Females
All ages	276,207	136,503	139,704
< 20	68,936	35,373	33,563
20 - 44	86,325	43,878	42,447
45 - 64	75,058	37,059	37,999
65 and older	45,888	20,193	25,695
< 5	15,676	7,976	7,700
5 - 9	16,559	8,458	8,101
10 - 14	16,852	8,752	8,100
15 - 19	19,849	10,187	9,662
20 - 24	19,007	9,769	9,238
25 - 29	19,735	10,119	9,616
30 - 34	16,936	8,641	8,295
35 - 39	15,688	7,913	7,775
40 - 44	14,959	7,436	7,523
45 - 49	17,249	8,575	8,674
50 - 54	18,516	9,175	9,341
55 - 59	20,249	10,016	10,233
60 - 64	19,044	9,293	9,751
65 - 69	15,543	7,465	8,078
70 - 74	10,383	4,836	5,547
75 - 79	7,558	3,367	4,191
80 - 84	5,457	2,239	3,218
85 and older	6,947	2,286	4,661

Table 3. Erie County's Population by Race and Hispanic Origin

Race or Hispanic Origin	July 1, 2000	July 1, 2016
All Races	280,803	276,207
White	257,904	243,008
Black or African American	17,625	21,334
Asian	1,979	4,635
American Indian or Alaska Native	476	734
Native Hawaiian or Other Pacific Islander	75	128
Two or More Races	2,744	6,370
Hispanic, of any race	6,170	11,340

Erie County's racial and Hispanic composition continues to grow more diverse. From July 1, 2000 to July 1, 2016, the number of Whites in Erie County decreased by 5.8%, the Black population increased by 21.0%, the number of Asians increased by 134.2%, the number of residents classified as Two or More Races increased by 132.1%, and the Hispanic population rose by 83.8% (Table 3).

Native and Foreign-Born Residents, 2012-2016

Of the 279,133 Erie County residents in 2012-2016, 266,508 (95.5%) were native residents of the United States and 12,625 (4.5%) were foreign-born. Overall, 218,834 (78.4%) county residents were born in Pennsylvania.

Of the 12,625 foreign-born residents, 5,683 (45.0%) were naturalized U.S. citizens. The world regions of birth for the foreign-born population were as follows: Asia (39.5%), Europe (33.5%), Latin America (11.7%), Africa (11.2%), North America (3.2%), and Oceania (0.8%).

Household Characteristics, 2012-2016

There were 110,047 households in Erie County in 2012-2016, with an average household size of 2.4 persons. Overall, there were 69,521 (63.2%) family households, with an average size of 3.0 persons, and 40,526 (36.8%) nonfamily households, with an average size of 1.3 persons. Selected household characteristics are shown in Table 4.

Table 4. Erie County Household Characteristics, 2012-2016

Household Type	Number	Percent of All Households
Total households	110,047	100.0
Family households	69,521	63.2
With own children under 18 years	28,822	26.2
Married couple family	50,033	45.5
With own children under 18 years	17,260	15.7
Female householder, no husband present	14,473	13.2
With own children under 18 years	8,840	8.0
Male householder, no wife present	5,015	4.6
With own children under 18 years	2,722	2.5
Nonfamily households	40,526	36.8
Householder living alone	33,055	30.0

Income, 2012-2016

In 2012-2016, Erie County household income distribution levels differed substantially for family and nonfamily households (Table 5). Overall, 26.0% of all households had income in the past 12 months below $25,000 and 16.6% had income above $100,000. Nearly half (46.4%) of nonfamily households had income below $25,000. The median household income was $47,094, the median family household income was $60,552, and the median nonfamily household income was $26,906. Median family and nonfamily household incomes were substantially higher for White versus Black and Hispanic householders.

Table 5. Erie County Income Levels in the Past 12 Months, 2012-2016

Topic	Households	Family Households	Nonfamily Households
Total number with income	110,049	69,521	40,526
Less than $25,000	26.0%	16.0%	46.4%
$25,000 to $49,999	26.4%	24.2%	30.4%
$50,000 to $74,999	18.9%	21.7%	13.4%
$75,000 to $99,999	12.0%	15.4%	5.2%
$100,000 to $149,999	10.8%	14.7%	3.3%
$150,000 or more	5.8%	8.2%	1.3%
Median income	$47,904	$60,552	$26,906
White householder	$49,598	$63,235	$28,349
Black householder	$24,073	$28,814	$16,585
Hispanic householder	$21,211	$24,704	$9,679

Poverty, 2012-2016

In 2012-2016, 16.7% of Erie County residents and 24.5% of children under 18 years lived below the poverty level in the past 12 months (Table 6). Poverty rates were markedly higher for minority groups compared to Whites. Among families with related children under 18 years of age, female single parent families (33.8%) had a much higher rate compared to married couple families (8.4%).

Overall, 2012-2016 poverty rates varied greatly among Erie County's 38 municipalities (Figure 4, Table 7). The highest poverty rates were observed in the City of Erie (26.4%), Edinboro Borough (26.3%), and the City of Corry (21.6%), while the lowest rates were observed in Elgin Borough (2.2%) and Summit Township (3.6%). The municipalities with the largest number of people living below the poverty level were the City of Erie (25,261 residents, 56.8% of the total) and Millcreek Township (5,225 residents, 11.7% of the total).

Table 6. Erie County Poverty Status in the Past 12 Months, 2012-2016

Topic	Population For Whom Status Determined	Number Below Poverty	Percent Below Poverty
Total population	266,271	44,452	16.7
Male	130,292	19,940	15.3
Female	136,429	24,512	18.0
Under 18 years	60,148	14,744	24.5
18 - 64 years	164,405	26,111	15.9
65 years and older	42,168	3,597	8.5
White	234,301	32,974	14.1
Black or African American	17,856	6,884	38.6
Asian	4,036	1,048	26.0
Two or more races	7,446	2,696	36.2
Hispanic, of any race	10,215	4,449	43.6
All families	68,521	8,134	11.7
With related children under 18 years	31,551	6,626	21.0
Married couple family	50,033	2,502	5.0
With related children under 18 years	18,559	1,559	8.4
Female single parent family	14,473	4,892	33.8
With related children under 18 years	9,934	4,490	45.2

Figure 4. Erie County Municipality Poverty Rates, 2012-2016

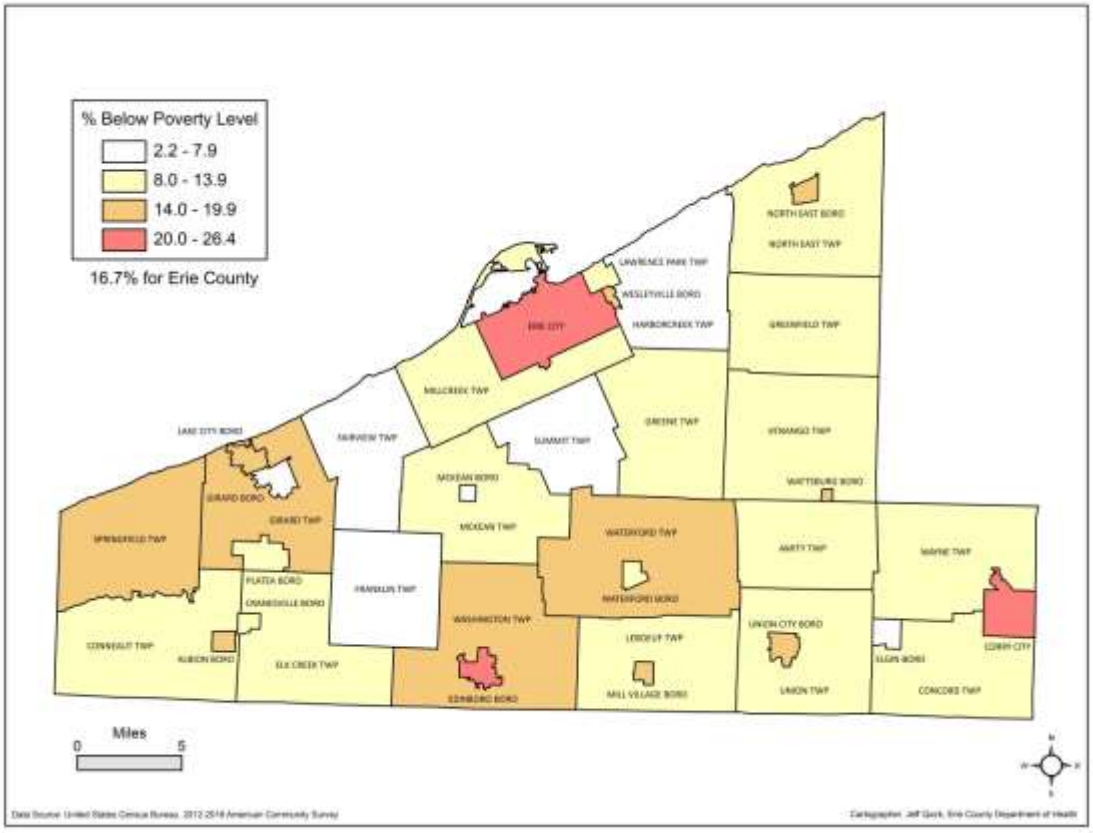


Table 7. Erie County Municipality Poverty Status, 2012-2016

Place	Population For Whom Status Determined	Number Below Poverty	Percent Below Poverty
Erie County	266,271	44,452	16.7
Albion Borough	1,523	256	16.8
Amity Township	967	97	10.0
Concord Township	1,177	99	8.4
Conneaut Township	1,978	272	13.8
City of Corry	6,365	1,375	21.6
Cranesville Borough	559	66	11.8
Edinboro Borough	4,840	1,271	26.3
Elgin Borough	185	4	2.2
Elk Creek Township	1,762	166	9.4
City of Erie	95,625	25,261	26.4
Fairview Township	9,744	522	5.4
Franklin Township	1,578	95	6.0
Girard Borough	3,001	217	7.2
Girard Township	4,989	846	17.0
Greene Township	4,654	429	9.2
Greenfield Township	2,007	164	8.2
Harborcreek Township	15,631	1,201	7.7
Lake City Borough	2,977	419	14.1
Lawrence Park Township	3,753	306	8.2
LeBoeuf Township	1,798	229	12.7
McKean Borough	438	29	6.6
McKean Township	4,378	397	9.1
Millcreek Township	53,324	5,225	9.8
Mill Village Borough	441	75	17.0
North East Borough	4,126	702	17.0
North East Township	6,083	560	9.2
Platea Borough	383	52	13.6
Springfield Township	3,374	564	16.7
Summit Township	6,740	242	3.6
Union Township	1,661	174	10.5
Union City Borough	3,229	638	19.8
Venango Township	2,196	175	8.0
Washington Township	4,398	635	14.4
Waterford Borough	1,418	137	9.7
Waterford Township	3,881	678	17.5
Wattsburg Borough	519	76	14.6
Wayne Township	1,777	161	9.1
Wesleyville Borough	3,242	637	19.6

Education, 2012-2016

The total estimated school enrollment for the Erie County population 3 years and over was 70,047 students in 2012-2016. Overall, 7,536 (10.8%) of students were in nursery school, preschool, or kindergarten, 27,507 (39.3%) were in elementary school grades 1 to 8, 14,105 (20.1%) were in high school grades 9 to 12, 17,269 (24.7%) were in college, and 3,630 (5.2%) were in graduate or professional school.

In 2012-2016, 91.1% of Erie County residents 25 years and over had at least graduated from high school, and 27.0% had a bachelor's degree or higher (graduate or professional degree). Striking differences were observed for high school and college educational attainment by race and Hispanic origin (Table 8).

Table 8. Erie County Educational Attainment, 2012-2016

Topic	Both Sexes	Males	Females
Less than high school diploma for population 25 years and over			
All races	8.9%	9.5%	8.4%
White	7.7%	8.3%	7.1%
Black or African American	19.8%	19.0%	20.7%
Hispanic, of any race	26.6%	29.6%	23.5%
Bachelor's degree or higher for population 25 years and over			
All races	27.0%	26.4%	27.5%
White	27.8%	27.3%	28.2%
Black or African American	13.8%	10.9%	17.0%
Hispanic, of any race	10.7%	9.3%	12.1%

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Maternal, Infant, and Child Health

Erie County Resident Live Births

There were 9,346 resident live births reported in Erie County during the period 2014 to 2016, for a corresponding crude live birth rate of 11.2 births per 1,000 total population. With respect to gender, males accounted for a slight majority of babies (4,775 births, 51.1%).

Overall, 6,955 (74.4%) of the 9,364 resident births were to White women, 1,082 (11.6%) were to Black women, 1,224 (13.1%) were to women classified as Other Race, and 85 (0.9%) were to women categorized as Unknown Race. A total of 601 (6.4%) births were to women of Hispanic origin, of any race. The crude live birth rates for the White, Black, and Hispanic populations were 9.5, 16.9, and 21.0 births per 1,000, respectively.

Erie County resident age-specific birth rates are presented in Table 1. The highest rate was observed for women in the 25-29 years age group (101.5 births per 1,000 females aged 25-29 years).

Table 1. Erie County Resident Live Births by Age of Mother, 2014-2016

Age Group	Births	Rate
All ages	9,346	11.2
Under 15	7	0.3
15 - 19	654	22.4
15 - 17	189	12.5
18 - 19	465	33.1
20 - 24	2,250	77.7
25 - 29	2,916	101.5
30 - 34	2,383	96.1
35 - 39	923	40.3
40 - 44	183	7.7
45 and older	12	0.5

Notes: For women of all ages, the rate is per 1,000 total population. All other rates are per 1,000 females for each specified age group. There were 18 births where the mother's age was unknown.

Erie County Municipality Births

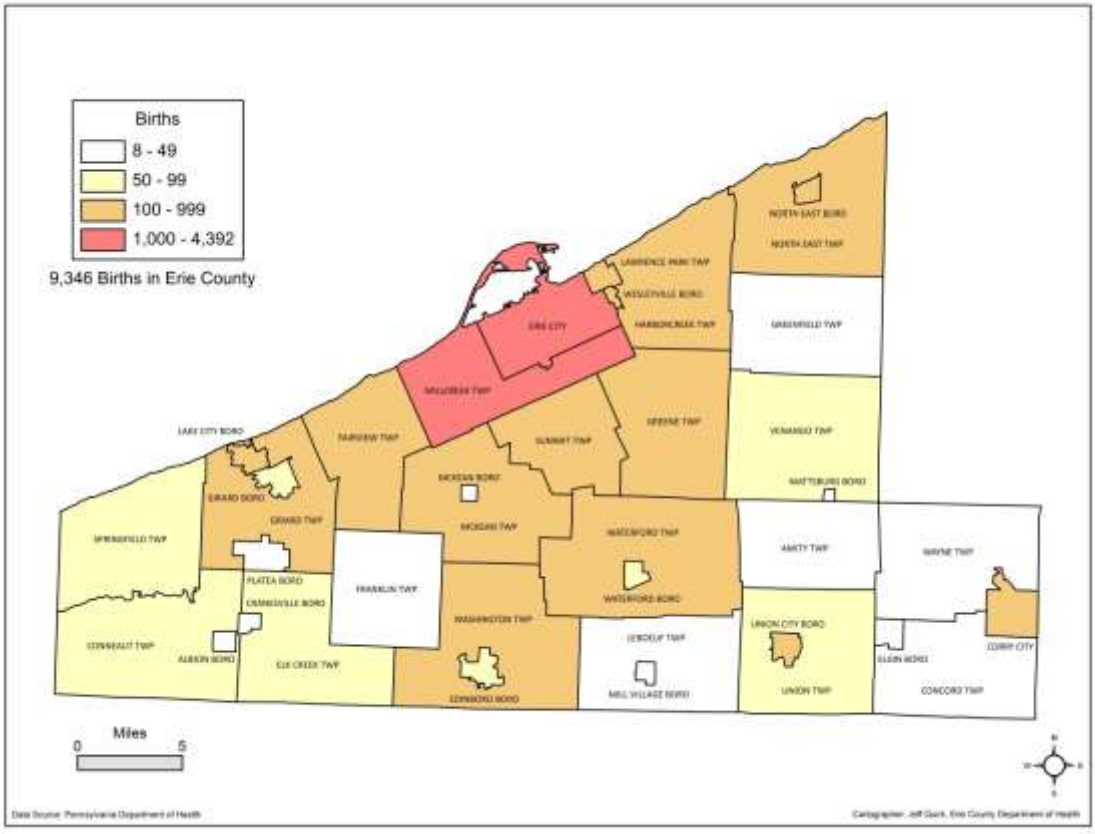
Among Erie County's 38 municipalities, the total number of live births during 2014-2016 ranged from a low of 8 babies in Elgin Borough to a high of 4,392 in the City of Erie (Table 2, Figure 1).

Erie County's three most populous municipalities - the City of Erie (4,392 births), Millcreek Township (1,526 births), and Harborcreek Township (473 births) - accounted for over two-thirds (68.4%) of all births. The City of Erie alone accounted for nearly half (47.0%) of all births.

Table 2. Erie County Municipality Births, 2014-2016

Municipality	Births	Municipality	Births
Albion Borough	49	LeBoeuf Township	38
Amity Township	23	McKean Borough	14
Concord Township	29	McKean Township	112
Conneaut Township	65	Millcreek Township	1,526
City of Corry	298	Mill Village Borough	11
Cranesville Borough	17	North East Borough	128
Edinboro Borough	81	North East Township	156
Elgin Borough	8	Platea Borough	11
Elk Creek Township	57	Springfield Township	96
City of Erie	4,392	Summit Township	175
Fairview Township	245	Union Township	56
Franklin Township	38	Union City Borough	109
Girard Borough	89	Venango Township	58
Girard Township	145	Washington Township	120
Greene Township	108	Waterford Borough	68
Greenfield Township	43	Waterford Township	115
Harborcreek Township	473	Wattsburg Borough	21
Lake City Borough	111	Wayne Township	40
Lawrence Park Township	113	Wesleyville Borough	108

Figure 1. Erie County Municipality Births, 2014-2016



Births to Teens

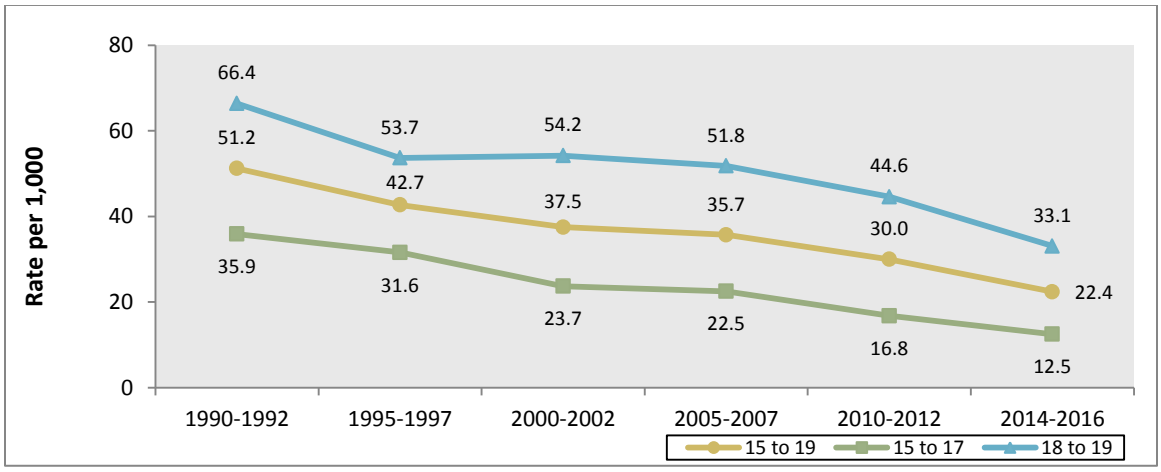
From 1990-1992 to 2014-2016, the Erie County birth rate for female residents 15-19 years of age declined 56.3% (Table 3, Figure 2). Overall, the rate for teens aged 15-17 years fell 65.2%, while the rate for teens aged 18-19 years dropped 50.2%. Historically, the lowest three-year total number of births to Erie County female residents 15-19, 15-17, and 18-19 years of age were recorded during the most recent period of 2014-2016. These totals were 654, 189, and 465 births, respectively, compared to 1,735, 606, and 1,129 births during 1990-1992.

Table 3. Erie County Teen Births and Birth Rates, 1990-1992 to 2014-2016

	Ages 15 to 19			Ages 15 to 17			Ages 18 to 19		
Years	Number	Rate	PA Rate	Number	Rate	PA Rate	Number	Rate	PA Rate
1990-1992 (12,440 births)	1,735	51.2	43.5	606	35.9	27.9	1,129	66.4	63.3
1995-1997 (10,834 births)	1,501	42.7	37.2	551	31.6	24.1	950	53.7	55.0
2000-2002 (10,212 births)	1,252	37.5	31.6	437	23.7	17.7	815	54.2	51.1
2005-2007 (10,193 births)	1,230	35.7	29.3	427	22.5	15.9	803	51.8	48.2
2010-2012 (9,603 births)	963	30.0	25.1	283	16.8	13.0	680	44.6	40.6
2014-2016 (9,346 births)	654	22.4	17.5	189	12.5	8.2	465	33.1	29.3

Note: Rates are per 1,000 females for each specified age group.

Figure 2. Erie County Teen Birth Rates, 1990-1992 to 2014-2016



Selected Summary Statistics

Selected summary statistics for Erie County resident live births for the period 2014-2016 are included in Table 4. Brief summaries for some of the major topics follow Table 4.

Table 4. Selected Summary Statistics for Erie County Resident Births, 2014-2016

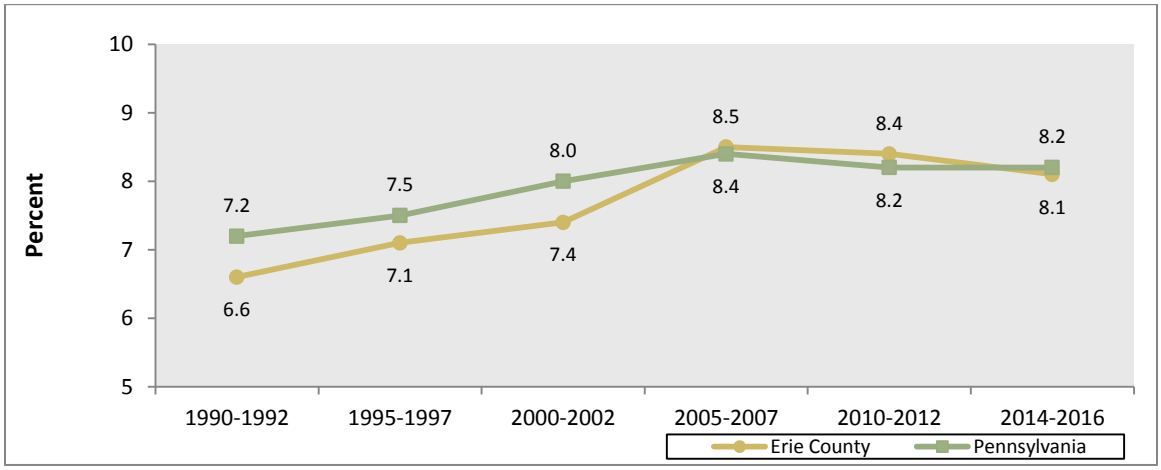
	All Races (9,346 Births)			White (6,955 Births)			Black (1,082 Births)			Hispanic (601 Births)		
Subject	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA
% Low Birth Weight Infants	755	8.1	8.2	486	7.0	7.0	138	12.8	13.5	54	9.0	9.0
(Unknown)	28			17			1			1		
% Received Prenatal Care in First Trimester	7,323	79.5	72.5	5,699	82.9	76.7	724	68.2	59.8	455	76.6	62.5
(Unknown)	131			80			21			7		
% Unmarried Mothers	4,486	48.0	41.1	2,944	42.3	32.3	907	83.8	77.6	403	67.2	65.3
(Unknown)	4			3			0			1		
% Preterm Births	808	8.7	9.4	571	8.2	8.6	129	11.9	13.0	55	9.2	9.8
(Unknown)	23			13			0			0		
% Cesarean Section Deliveries	3,538	37.9	30.0	2,622	37.7	29.9	454	42.0	30.5	225	37.4	30.1
(Unknown)	3			0			0			0		
% Non-Smoking Mothers During Pregnancy	7,515	80.5	87.4	5,527	79.5	85.8	873	81.0	89.8	509	85.0	92.6
(Unknown)	13			6			4			2		
% Received WIC Food During Pregnancy	4,062	45.1	36.2	2,497	36.8	26.6	748	72.3	63.8	404	70.9	70.0
(Unknown)	331			176			47			31		
% Medicaid as Source of Payment	3,106	33.6	33.0	1,838	26.7	23.7	591	55.2	63.5	353	59.2	59.4
(Unknown)	103			74			11			5		

Note: Unknowns excluded from calculations.

Low Birth Weight Infants

Overall, 8.1% of Erie County live births were classified as low birth weight (less than 2,500 grams or 5 pounds and 9 ounces) in 2014-2016. The percentage of low birth weight babies born to Black mothers (12.8) was higher than the percentages for White (7.0) and Hispanic (9.0) mothers. The percentage of low birth weight babies in Erie County increased from 6.6 in 1990-1992 to 8.1 in 2014-2016 (Figure 3). For Pennsylvania, the percentage rose from 7.2 to 8.2.

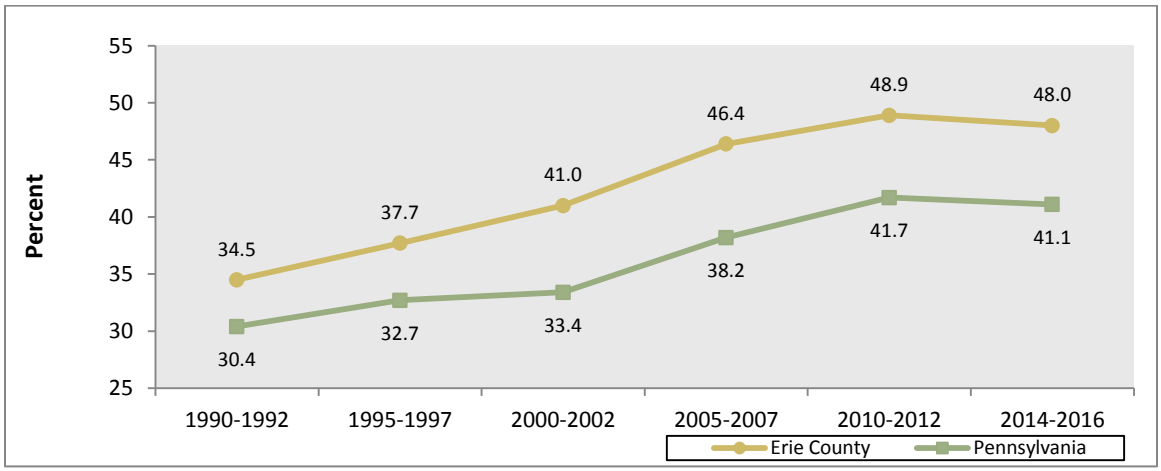
Figure 3. Percent of Low Birth Weight Babies, 1990-1992 to 2014-2016



Marital Status of Mother

From 2014-2016, nearly half (48.0%) of Erie County live births were to unmarried mothers. The percentages among White, Black, and Hispanic mothers were 42.3, 83.8, and 67.2, respectively. The percentage of unmarried mothers in Erie County rose from 34.5 in 1990-1992 to 48.0 in 2014-2016 (Figure 4). For Pennsylvania, the percentage rose from 30.4 to 41.1.

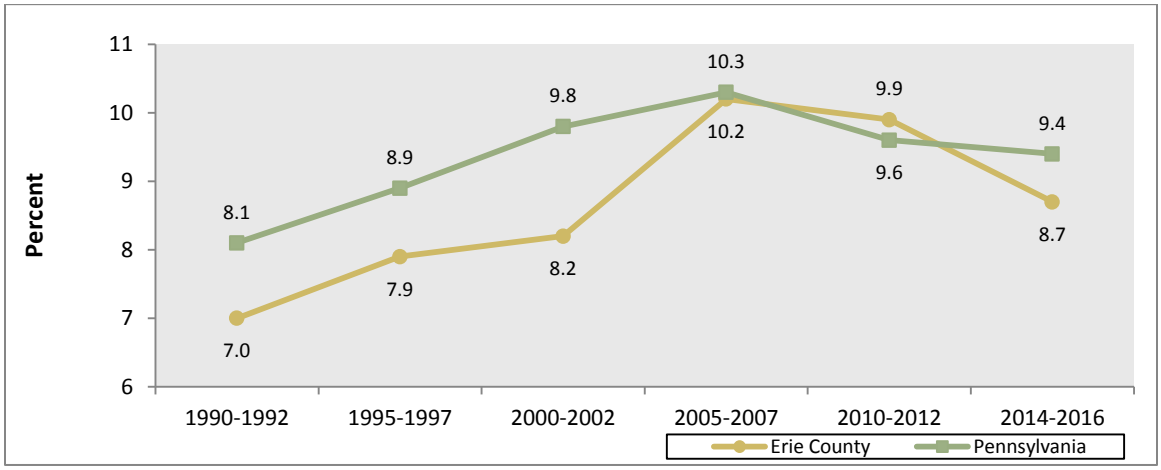
Figure 4. Percent of Live Births to Unmarried Mothers, 1990-1992 to 2014-2016



Preterm Births

During 2014-2016, 8.7% of Erie County live births were classified as preterm (less than 37 weeks gestation). The percentage of preterm births born to Black mothers (11.9) was higher than the percentages for White (8.2) and Hispanic (9.2) mothers. The percentage of preterm births in Erie County increased from 7.0 in 1990-1992 to 8.7 in 2014-2016 (Figure 5). For Pennsylvania, the percentage rose from 8.1 to 9.4.

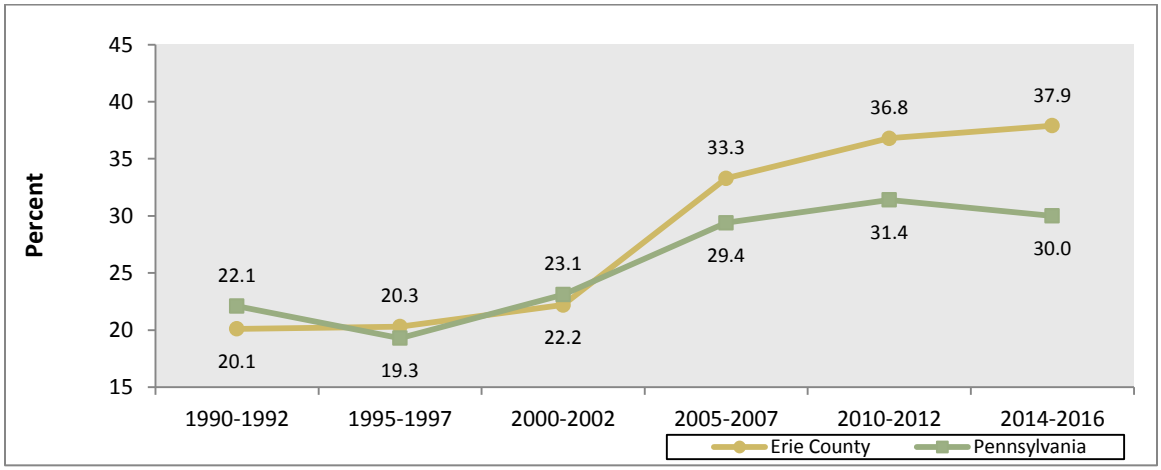
Figure 5. Percent of Preterm Live Births, 1990-1992 to 2014-2016



Cesarean Section Deliveries

During 2014-2016, over one-third (37.9%) of Erie County live births were cesarean section deliveries. The percentage of cesarean section deliveries in Erie County rose from 20.1 in 1990-1992 to 37.9 in 2014-2016 (Figure 6). For Pennsylvania, the percentage rose from 22.1 to 30.0.

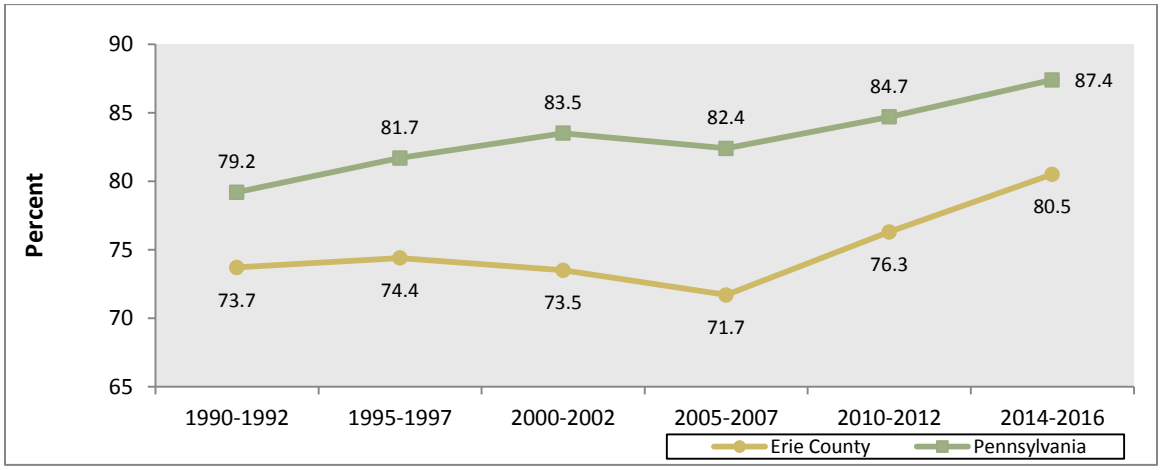
Figure 6. Percent of Live Births Delivered by Cesarean Section, 1990-1992 to 2014-2016



Smoking During Pregnancy

During 2014-2016, 80.5% of Erie County live births were to mothers who did not smoke during pregnancy. The percentage of non-smoking mothers in Erie County increased from 73.7 in 1990-1992 to 80.5 in 2014-2016 (Figure 7). For Pennsylvania, the percentage rose from 79.2 to 87.4.

Figure 7. Percent of Live Births to Non-Smoking Mothers, 1990-1992 to 2014-2016



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Mortality, Cancer, and Injury

Erie County Resident Deaths

A total of 8,513 Erie County residents died during the period 2012 to 2014, for a corresponding crude death rate of 10.1 deaths per 1,000 population (Table 1). Overall, 4,173 (49.0%) deaths were in males and 4,340 (51.0%) were in females. The crude rates for males and females were 10.1 and 10.2 deaths per 1,000, respectively. With respect to race and ethnicity, 7,971 (93.6%) deaths were in Whites, 401 (4.7%) were in Blacks, and 141 (1.7%) were in persons classified as Other or Unknown Race. A total of 72 (0.8%) deaths were in Hispanics or Latinos, of any race.

Although only 8.6% of all resident deaths occurred in persons under the age of 50 years, nearly half (48.6%) occurred in those 80 years and older. Of the 64 total infant deaths, 50 (78.1%) occurred during the neonatal period (first 27 days of life).

Table 1. Erie County Resident Deaths, 2012-2014

Age Group	Total Population	Males	Females
All Ages	8,513	4,173	4,340
0 - 9	79	49	30
10 - 19	29	27	2
20 - 29	132	97	35
30 - 39	140	81	59
40 - 49	348	218	130
50 - 59	805	483	322
60 - 69	1,209	770	439
70 - 79	1,637	834	803
80 and older	4,134	1,614	2,520
Infant deaths	64	41	33
< 28 days	50	33	17
28 - 364 days	14	8	6
Race or Ethnicity			
White	7,971	3,883	4,088
Black or African American	401	217	184
Hispanic or Latino (any race)	72	41	31

Erie County Municipality Deaths

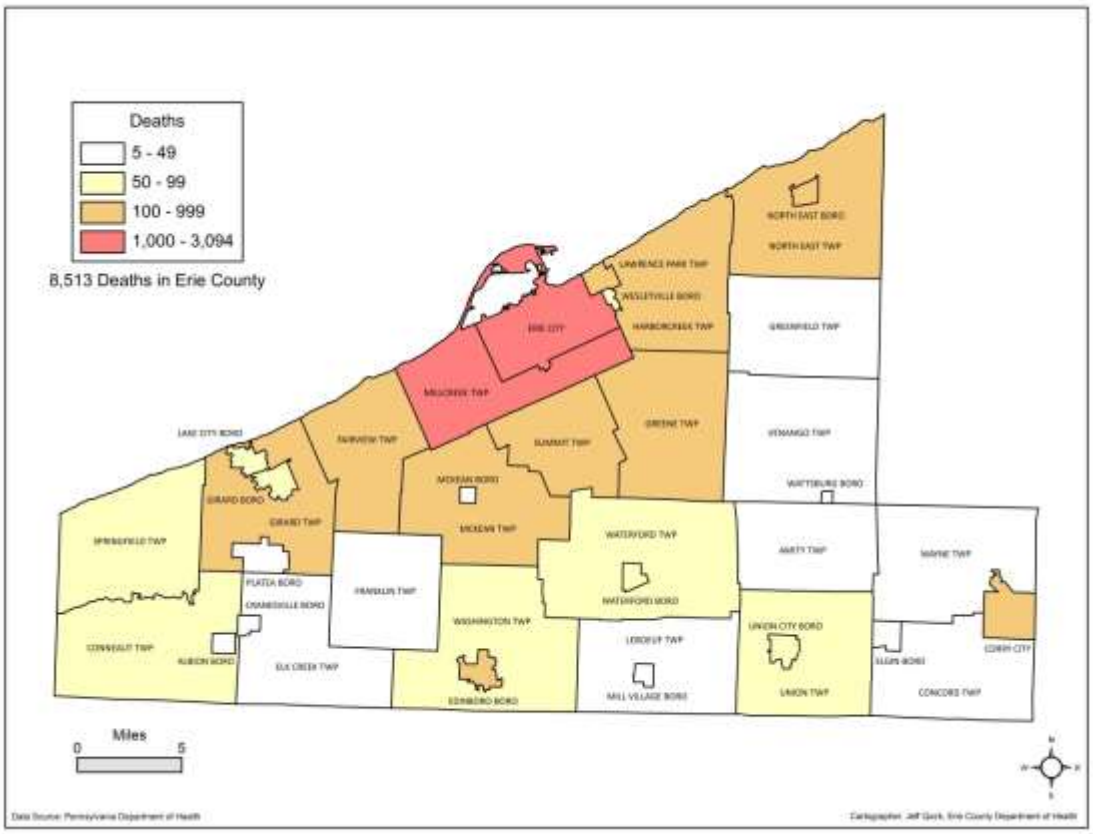
Among Erie County's 38 municipalities, resident deaths ranged from a low of 5 in Elgin Borough to a high of 3,094 in the City of Erie (Table 2, Figure 1). Erie County's three most populous municipalities - the City of Erie (3,094 deaths), Millcreek Township (1,784 deaths), and Harborcreek Township (570 deaths) - accounted for nearly two-thirds (64.0%) of all deaths.

Of the 64 infant deaths, 38 (59.7%) were classified as City of Erie residents. The municipality with the next highest number was Millcreek Township, with 5 deaths.

Table 2. Erie County Municipality Deaths, 2012-2014

Municipality	Deaths	Municipality	Deaths
Albion Borough	30	LeBoeuf Township	28
Amity Township	26	McKean Borough	13
Concord Township	26	McKean Township	104
Conneaut Township	82	Millcreek Township	1,784
City of Corry	287	Mill Village Borough	12
Cranesville Borough	9	North East Borough	136
Edinboro Borough	103	North East Township	183
Elgin Borough	5	Platea Borough	12
Elk Creek Township	43	Springfield Township	86
City of Erie	3,094	Summit Township	187
Fairview Township	366	Union Township	59
Franklin Township	39	Union City Borough	78
Girard Borough	96	Venango Township	43
Girard Township	284	Washington Township	98
Greene Township	101	Waterford Borough	60
Greenfield Township	32	Waterford Township	87
Harborcreek Township	570	Wattsburg Borough	11
Lake City Borough	68	Wayne Township	40
Lawrence Park Township	138	Wesleyville Borough	93

Figure 1. Erie County Municipality Deaths, 2012-2014



Leading Causes of Death

In 2012-2014, Erie County's age-adjusted death rate for all causes of death was 799.0 deaths per 100,000 population. The rates for males and females were 945.8 and 678.7, respectively. With respect to race, the rates for Whites and Blacks were 783.4 and 980.1, respectively (Tables 3 and 4).

The 10 leading causes of death collectively accounted for nearly three-fourths (73.1%) of all county deaths. Heart disease and cancer accounted for 45.4% of deaths.

Erie County, as a whole, had a statistically significant higher rate than Pennsylvania for seven causes: all causes, heart disease, cancer, chronic lower respiratory diseases, stroke, diabetes mellitus, and nephritis.

Erie County males had a statistically significant lower rate than Pennsylvania males for influenza and pneumonia, but a significantly higher rate for all causes, heart disease, chronic lower respiratory diseases, stroke, and nephritis.

Erie County females had a statistically significant higher rate than Pennsylvania females for all causes, cancer, chronic lower respiratory diseases, and diabetes mellitus.

Erie County males had a statistically significant higher rate than Erie County females for six causes: all causes, heart disease, cancer, accidents, diabetes mellitus, and suicide. Although females had a higher rate than males for Alzheimer's disease, the difference was not statistically significant.

Erie County Blacks had a statistically significant higher rate than Erie County Whites for all causes, cancer, and diabetes mellitus.

Table 3. Erie County Leading Causes of Death – Age-Adjusted Rates by Sex, 2012-2014

	Total Population			Males			Females		
Cause of Death	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA
All Causes of Death	8,513	799.0	751.4	4,173	945.8	896.1	4,340	678.7	636.1
Heart Disease	1,961	186.2	176.1	988	238.0	223.5	1,010	143.3	139.9
Cancer (Malignant Neoplasms)	1,906	182.3	170.9	967	211.9	205.3	939	161.5	146.8
Chronic Lower Respiratory Diseases	503	47.0	38.1	242	54.5	44.3	261	42.5	34.0
Stroke (Cerebrovascular Diseases)	458	41.6	36.8	175	40.3	36.9	283	42.0	36.0
Accidents (Unintentional Injuries)	367	42.1	44.7	231	56.4	61.3	136	28.6	29.6
Diabetes Mellitus	309	29.4	22.2	178	39.2	26.7	131	22.2	18.6
Alzheimer's Disease	233	19.4	18.1	64	15.5	14.6	169	21.3	20.0
Nephritis, Nephrotic Syndrome & Nephrosis	219	19.6	15.7	94	21.0	19.5	125	18.9	13.3
Influenza & Pneumonia	146	12.9	14.4	61	14.2	17.7	85	12.1	12.3
Suicide (Intentional Self-Harm)	123	14.8	12.9	100	24.5	21.0	23	5.4	5.3

Note: Age-adjusted rates are per 100,000 population.

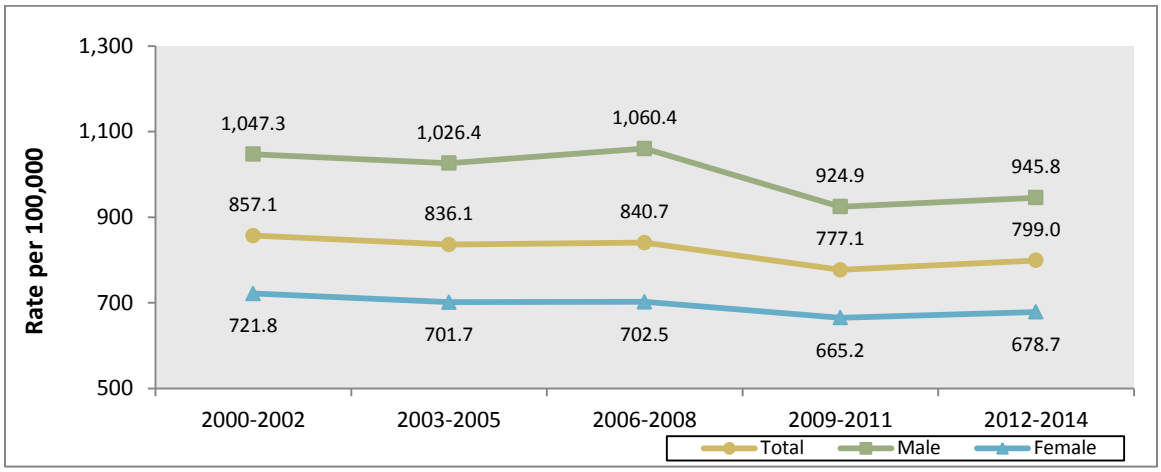
Table 4. Erie County Leading Causes of Death – Age-Adjusted Rates by Race, 2012-2014

	Total Population			Whites			Blacks		
Cause of Death	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA
All Causes of Death	8,513	799.0	751.4	7,471	783.4	729.8	401	980.1	908.2
Heart Disease	1,961	186.2	176.1	1,944	183.0	172.0	80	227.5	210.7
Cancer (Malignant Neoplasms)	1,906	182.3	170.9	1,766	177.6	166.8	109	269.9	212.1
Chronic Lower Respiratory Diseases	503	47.0	38.1	493	48.1	38.5	8	NA	33.3
Stroke (Cerebrovascular Diseases)	458	41.6	36.8	378	40.3	35.1	18	NA	49.9
Accidents (Unintentional Injuries)	367	42.1	44.7	339	43.1	45.4	17	NA	39.0
Diabetes Mellitus	309	29.4	22.2	278	27.5	20.9	25	56.7	34.2
Alzheimer's Disease	233	19.4	18.1	229	19.7	18.5	3	NA	12.7
Nephritis, Nephrotic Syndrome & Nephrosis	219	19.6	15.7	207	19.2	14.6	11	NA	27.0
Influenza & Pneumonia	146	12.9	14.4	142	13.1	14.3	3	NA	14.1
Suicide (Intentional Self-Harm)	123	14.8	12.9	110	14.7	13.7	10	NA	5.9

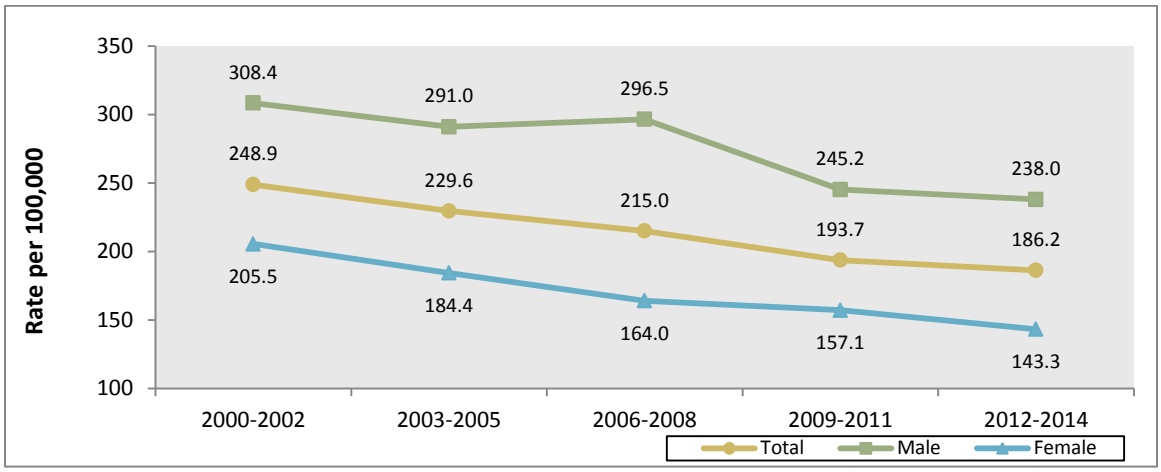
Notes: Age-adjusted rates are per 100,000 population; NA = Not available.

Trends in Erie County Age-Adjusted Death Rates for Selected Leading Causes

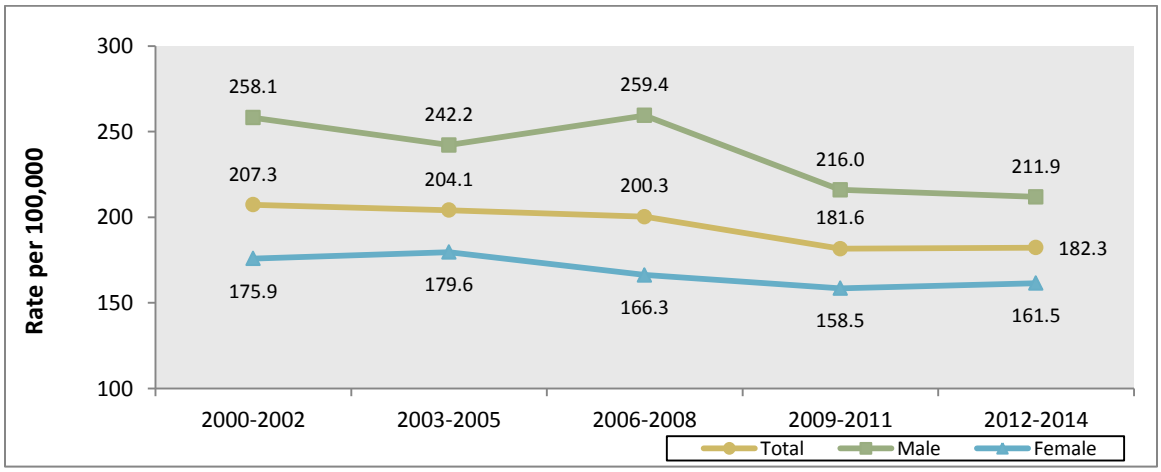
All Causes of Death



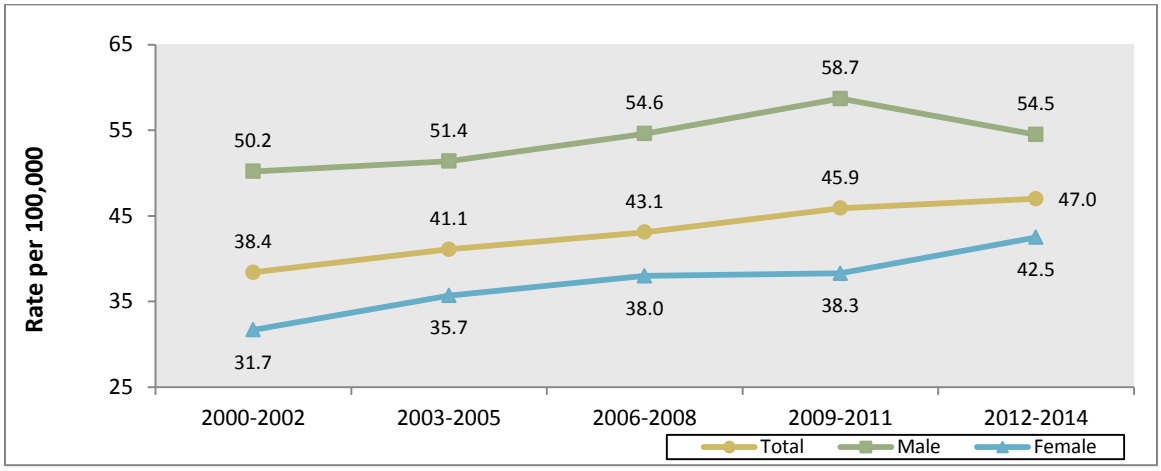
Heart Disease



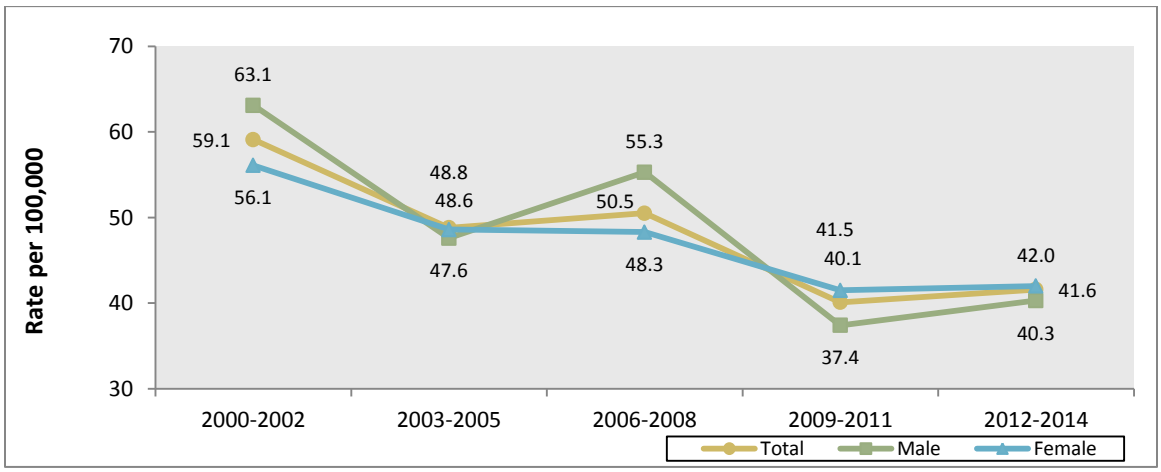
Cancer (Malignant Neoplasms)



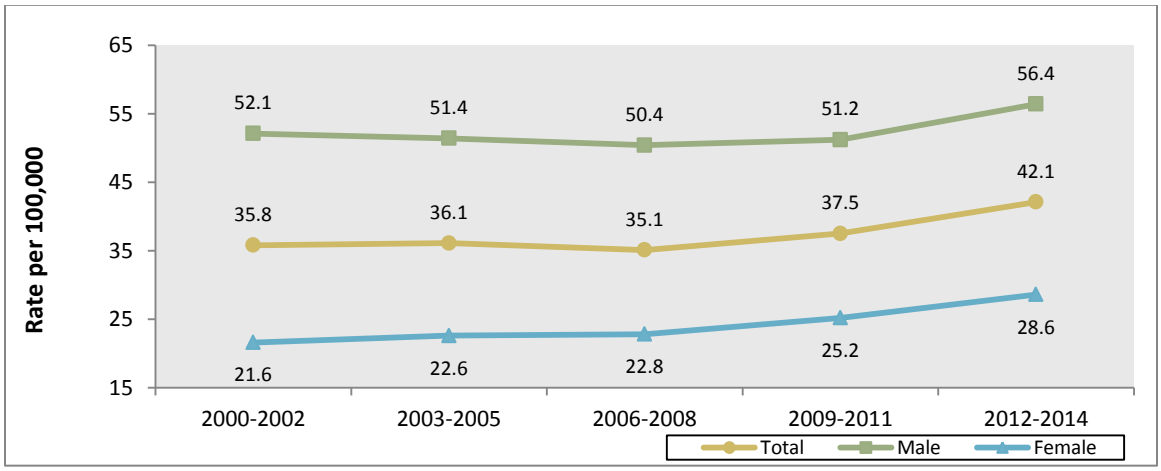
Chronic Lower Respiratory Diseases



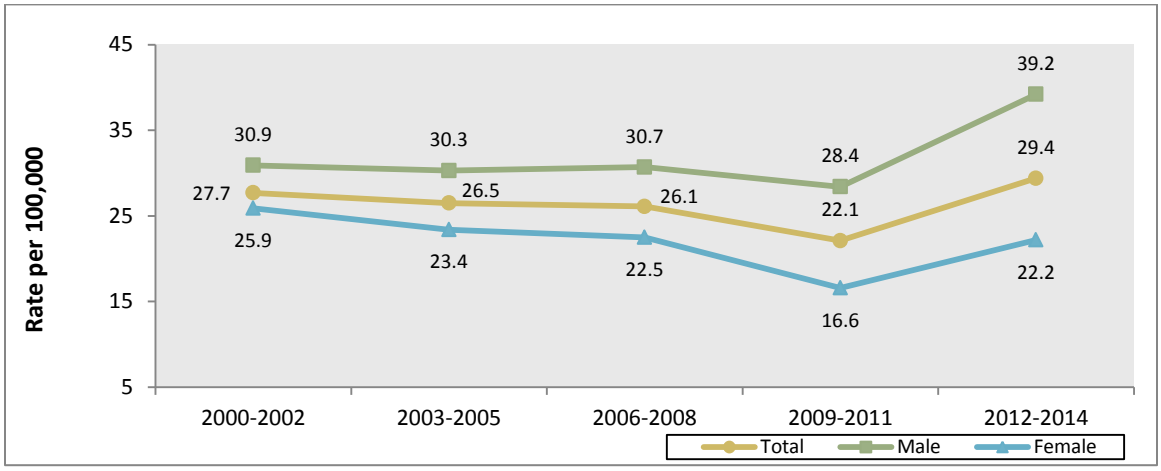
Stroke (Cerebrovascular Diseases)



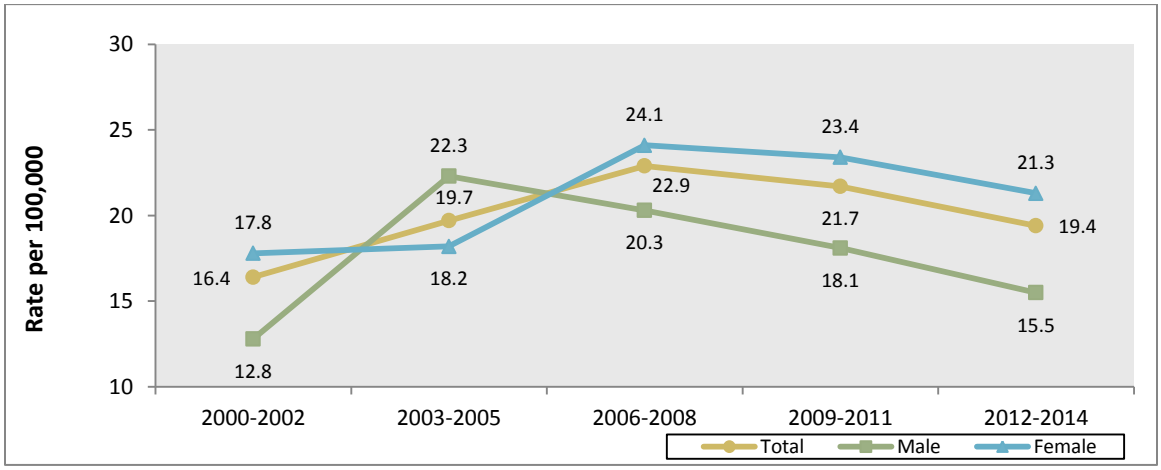
Accidents (Unintentional Injuries)



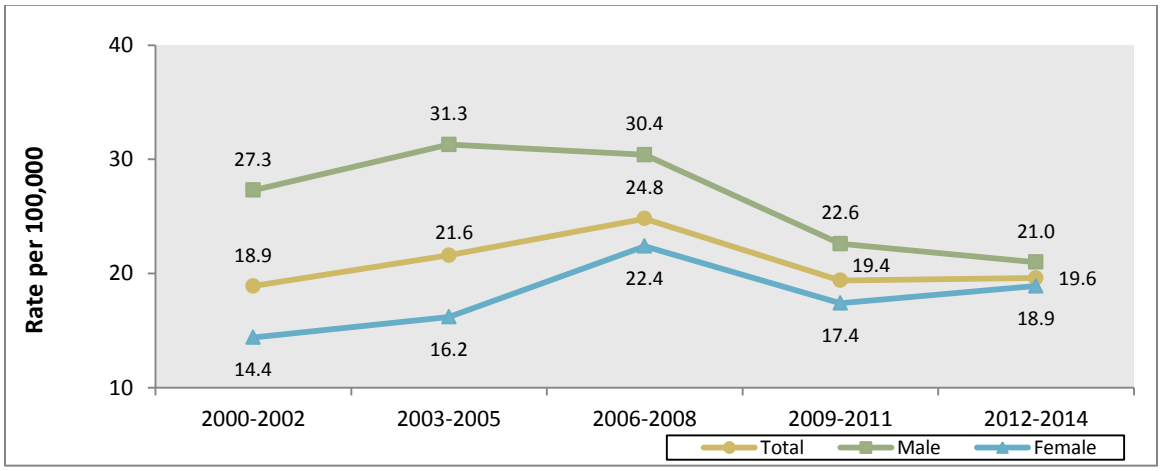
Diabetes Mellitus



Alzheimer's Disease



Nephritis, Nephrotic Syndrome, and Nephrosis



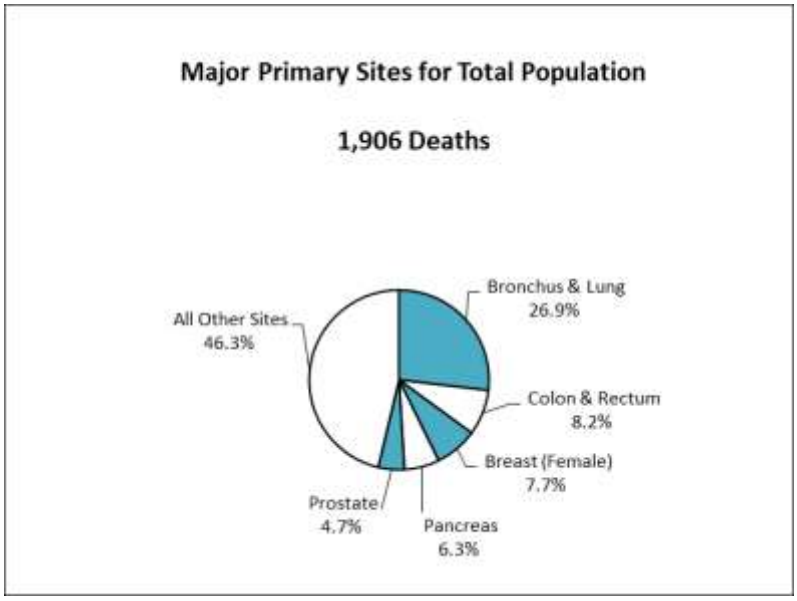
Cancer Mortality

From 2012 to 2014, there were 1,906 cancer deaths (primary malignant neoplasms) among Erie County residents, for a corresponding age-adjusted death rate of 182.3 deaths per 100,000 population. Mortality data for all sites combined and the 23 major sites are presented in Table 5.

Overall, 967 deaths (50.7%) were in males and 939 (49.3%) were in females. The death rates for males and females were 211.9 and 161.5 deaths per 100,000, respectively. For Pennsylvania, the death rates were 170.9 for the total population, 205.3 for males, and 146.8 for females. With respect to race and ethnicity, cancer deaths occurred in 1,766 Whites (92.7%), 109 Blacks (5.7%), 31 persons of Other/Unknown Race (2.4%), and 14 Hispanics/Latinos of any race (0.7%).

Erie County's five leading cancer mortality sites were: (1) lung and bronchus (512 deaths), (2) colon and rectum (156 deaths), (3) female breast (147 deaths), (4) pancreas (120 deaths), and (5) prostate (89 deaths). These sites accounted for 53.7% of all cancer deaths (Figure 2, Table 5).

Figure 2. Erie County Cancer Deaths, 2012-2014



Among Erie County males, the five leading sites were: (1) lung and bronchus (269 deaths, 27.8%), (2) prostate (89 deaths, 9.2%), (3) colon and rectum (79 deaths, 8.2%), (4) pancreas (62 deaths, 6.4%), and (5) esophagus (51 deaths, 5.3%). These sites accounted for 56.9% of all male deaths.

Among Erie County females, the five leading sites were: (1) lung and bronchus (243 deaths, 25.9%), (2) breast (147 deaths, 15.7%), (3) colon and rectum (77 deaths, 8.2%), (4) ovary (60 deaths, 6.4%), and (5) pancreas (58 deaths, 6.2%). These sites accounted for 62.3% of all female deaths.

Table 5. Erie County Cancer Deaths and Age-Adjusted Rates by Site/Type, 2012-2014

	Total Population			Males			Females		
Cancer Site/Type	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA	Deaths	Erie Co.	PA
All Cancer Sites	1,906	182.3	170.9	967	211.9	205.3	939	161.5	146.8
Brain & Other Nervous System	34	3.5	4.3	16	**	5.1	18	**	3.6
Breast (Female)	147	25.9	21.6				147	25.9	21.6
Cervix Uteri	8	**	2.1				8	**	2.1
Colon & Rectum	156	15.0	15.5	79	17.9	18.3	77	12.4	13.3
Esophagus	60	5.8	4.8	51	11.1	8.6	9	**	1.6
Hodgkin Lymphoma	4	**	0.3	2	**	0.4	2	**	0.3
Kidney & Renal Pelvis	57	5.5	3.8	38	7.9	5.4	19	**	2.5
Larynx	9	**	1.1	9	**	2.0	0	**	0.4
Leukemia	69	7.0	6.9	37	8.7	9.2	32	6.0	5.4
Liver & Intrahepatic Bile Duct	62	5.7	6.2	40	8.3	9.2	22	3.7	3.7
Lung & Bronchus	512	49.1	45.0	269	58.1	57.1	243	42.2	36.1
Melanoma of the Skin	24	2.3	2.7	13	**	3.9	11	**	1.9
Myeloma	38	3.8	3.2	23	5.3	4.1	15	**	2.6
Non-Hodgkin Lymphoma	64	5.9	6.1	31	6.8	7.9	33	5.3	4.7
Oral Cavity & Pharynx	22	1.9	2.2	15	**	3.4	7	**	1.2
Ovary	60	10.7	7.8				60	10.7	7.8
Pancreas	120	11.6	11.5	62	13.5	13.5	58	9.8	9.9
Prostate	89	20.7	18.9	89	20.7	18.9			
Stomach	27	2.5	2.8	13	**	4.0	14	**	1.9
Testis	0	**	0.2	0	**	0.2			
Thyroid	3	**	0.5	1	**	0.5	2	**	0.5
Urinary Bladder	55	5.1	4.8	43	9.4	8.3	12	**	2.3
Uterus	27	4.5	5.4				27	4.5	5.4
All Other Sites	259	NA	NA	136	NA	NA	123	NA	NA

Notes: Age-adjusted rates are per 100,000 population; ** = Low count, statistically unreliable; NA = Not available.

Valid age-adjusted rate comparisons for Erie County males and females were possible for a total of seven cancer sites. Males had a statistically significant higher rate than females for three sites: all sites combined, lung and bronchus, and liver and intrahepatic bile duct. Females did not have a significantly higher rate than males for any site.

With respect to Erie County and Pennsylvania total population rate comparisons, Erie County had a statistically significant higher rate than Pennsylvania for four sites: all sites combined, female breast, kidney and renal pelvis, and ovary. With respect to males, Erie County did not

have a statistically significant higher or lower rate than Pennsylvania for any site. With respect to females, Erie County had a statistically significant higher rate than Pennsylvania for four sites: all sites combined, female breast, lung and bronchus, and ovary.

During 2012-2014, cancer deaths ranged in age from 1 to 101 years. Only 95 deaths (5.0%) were in persons under the age of 50. However, 1,522 deaths (81.0%) occurred in persons 60 and older. The highest number of deaths occurred in the 85 and older age group (352 deaths, 18.5%). Age group data for all sites combined and the 23 major sites are presented in Table 6.

Table 6. Erie County Cancer Deaths by Age Group and Site, 2012-2014

		Age Group																	
Cancer Site/Type	All Ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
All Cancer Sites	1,906	1	2	1	1	4	1	3	10	24	48	91	176	208	229	251	252	252	352
Brain & Other Nervous System	34	0	1	1	0	1	0	0	1	1	2	2	6	3	3	6	4	1	2
Breast (Female)	147	0	0	0	0	0	0	0	3	2	8	10	18	17	16	15	15	17	26
Cervix Uteri	8	0	0	0	0	1	0	0	0	1	1	1	1	0	2	1	0	0	0
Colon & Rectum	156	0	0	0	0	0	0	0	1	5	5	8	6	13	11	22	17	22	46
Esophagus	60	0	0	0	0	0	0	0	1	1	1	4	6	6	11	8	7	7	8
Hodgkin Lymphoma	4	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0
Kidney & Renal Pelvis	57	0	0	0	0	0	0	1	0	0	2	3	5	9	9	5	10	7	6
Larynx	9	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	2	0	2
Leukemia	69	1	1	0	1	0	1	1	1	2	3	2	2	3	4	6	11	12	18
Liver & Intrahepatic Bile Duct	62	0	0	0	0	0	0	1	0	0	0	3	8	15	9	7	7	7	5
Lung & Bronchus	512	0	0	0	0	0	0	0	2	3	18	22	55	58	81	73	71	65	64
Melanoma of the Skin	24	0	0	0	0	0	0	0	0	0	1	2	2	3	1	5	2	4	4
Myeloma	38	0	0	0	0	0	0	0	0	1	0	1	1	5	2	5	8	10	5
Non-Hodgkin Lymphoma	64	0	0	0	0	0	0	0	0	0	0	4	2	8	6	9	13	4	18
Oral Cavity & Pharynx	22	0	0	0	0	0	0	0	0	0	0	0	5	4	2	1	2	2	6
Ovary	60	0	0	0	0	0	0	0	0	1	1	1	6	5	9	12	14	5	6
Pancreas	120	0	0	0	0	0	0	0	0	2	2	2	8	18	13	21	22	16	16
Prostate	89	0	0	0	0	0	0	0	0	0	0	0	2	3	7	10	9	18	40
Stomach	27	0	0	0	0	0	0	0	0	1	1	0	4	1	3	4	2	4	7
Testis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thyroid	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1
Urinary Bladder	55	0	0	0	0	0	0	0	0	0	0	2	5	8	3	8	6	10	13
Uterus	27	0	0	0	0	0	0	0	0	0	1	1	4	3	2	2	5	3	6

During 2012-2014, 6 of Erie County's 38 municipalities had over 50 cancer deaths (Figure 3, Table 7). These municipalities accounted for 71.4% of all deaths and included the City of Erie (651 deaths, 34.2% of all deaths), Millcreek Township (407 deaths, 21.4%), Harborcreek Township (125 deaths, 6.6%), Fairview Township (68 deaths, 3.6%), the City of Corry (58 deaths, 3.0%), and Girard Township (53 deaths, 2.8%).

A total of 20 municipalities had 20 or fewer cancer deaths, ranging from 20 deaths in Edinboro and Waterford Boroughs to 1 death in Cranesville, Elgin, and McKean Boroughs.

Figure 3. Cancer Deaths in Erie County Municipalities, 2012-2014

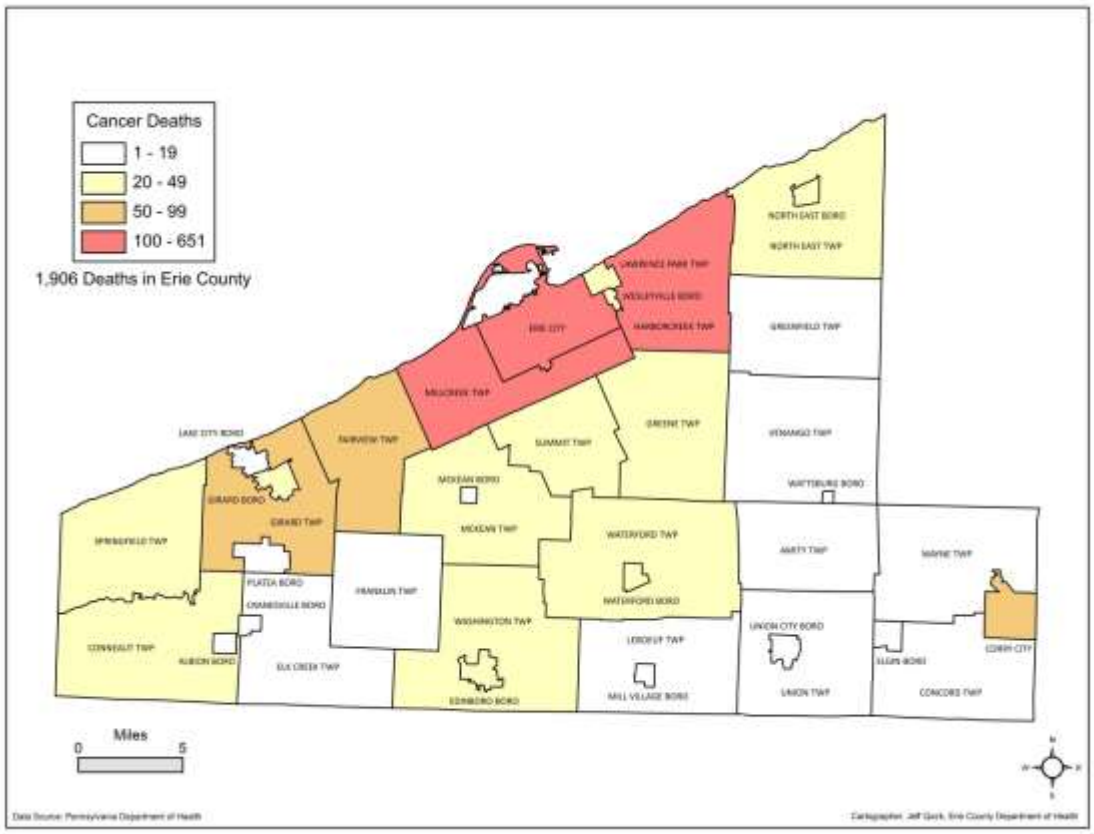
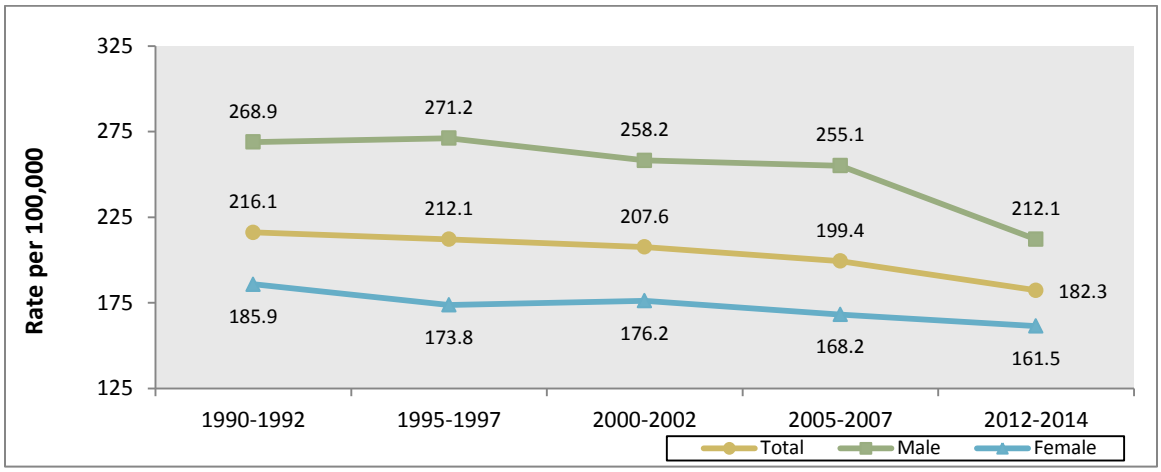


Table 7. Cancer Deaths in Erie County Municipalities for Selected Leading Sites, 2012-2014

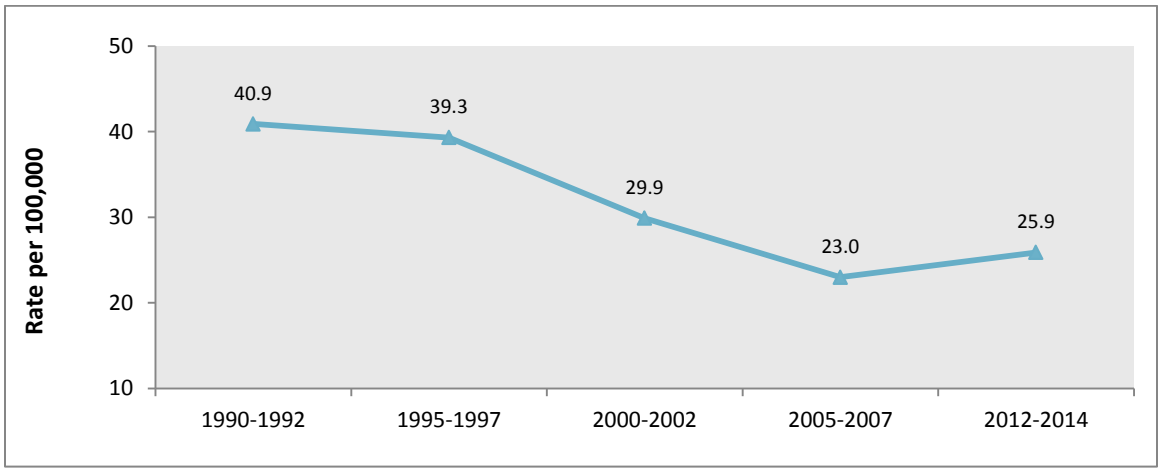
Municipality	All Cancer Sites	Breast (Female)	Lung & Bronchus	Prostate	Colon & Rectum
Albion Borough	10	1	4	1	1
Amity Township	7	2	2	0	1
Concord Township	6	0	1	1	1
Conneaut Township	22	1	6	1	1
City of Corry	58	4	18	3	5
Cranesville Borough	1	0	1	0	0
Edinboro Borough	20	2	4	0	5
Elgin Borough	1	0	0	0	0
Elk Creek Township	12	1	5	0	0
City of Erie	651	55	190	28	48
Fairview Township	68	7	13	4	1
Franklin Township	10	0	3	1	0
Girard Borough	30	0	6	1	2
Girard Township	53	2	17	1	2
Greene Township	29	4	7	1	1
Greenfield Township	7	1	3	0	0
Harborcreek Township	125	8	32	4	11
Lake City Borough	15	1	5	0	0
Lawrence Park Township	25	2	6	0	2
LeBoeuf Township	8	0	0	0	0
McKean Borough	1	0	1	0	0
McKean Township	36	1	10	1	1
Millcreek Township	407	33	105	20	39
Mill Village Borough	5	0	1	0	0
North East Borough	29	4	8	3	5
North East Township	49	1	10	3	9
Platea Borough	2	0	1	0	0
Springfield Township	27	0	7	1	4
Summit Township	34	4	6	3	3
Union Township	19	1	3	2	4
Union City Borough	17	0	6	1	3
Venango Township	9	0	3	0	0
Washington Township	31	3	8	3	2
Waterford Borough	20	3	4	1	0
Waterford Township	23	3	7	2	1
Wattsburg Borough	3	0	1	0	1
Wayne Township	11	2	1	2	0
Wesleyville Borough	25	1	7	1	3
Erie County	1,906	147	512	89	156

Trends in Erie County Age-Adjusted Death Rates for Selected Cancer Sites

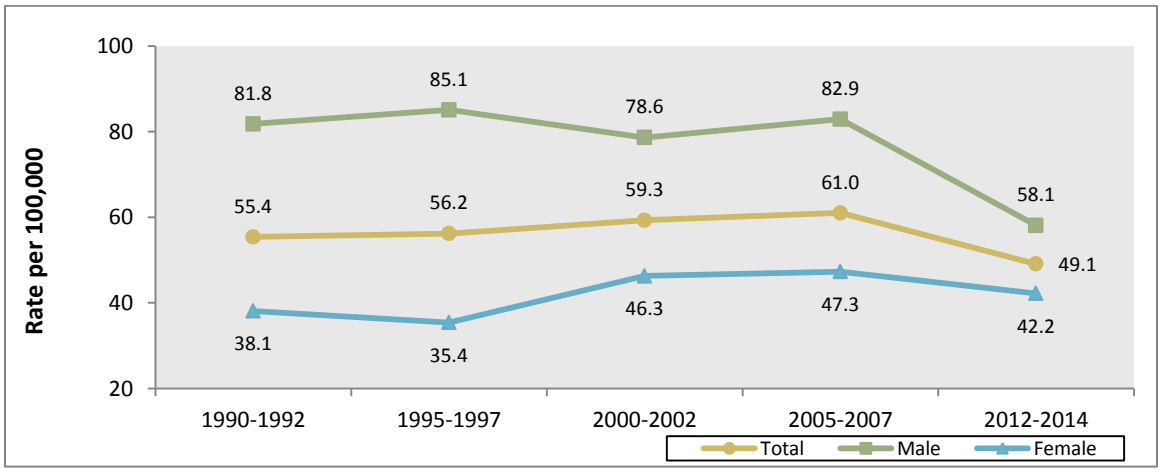
All Cancer Sites



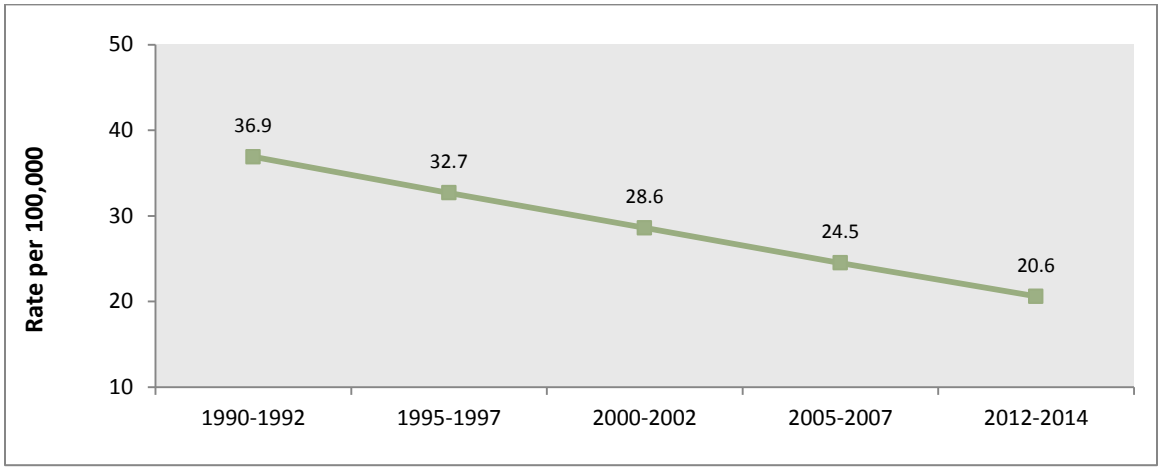
Female Breast



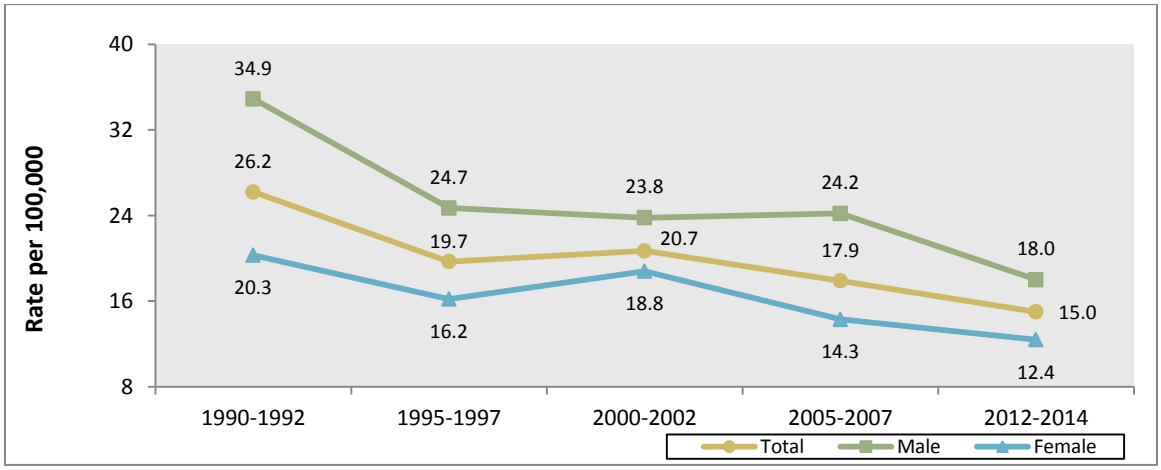
Lung and Bronchus



Prostate



Colon & Rectum



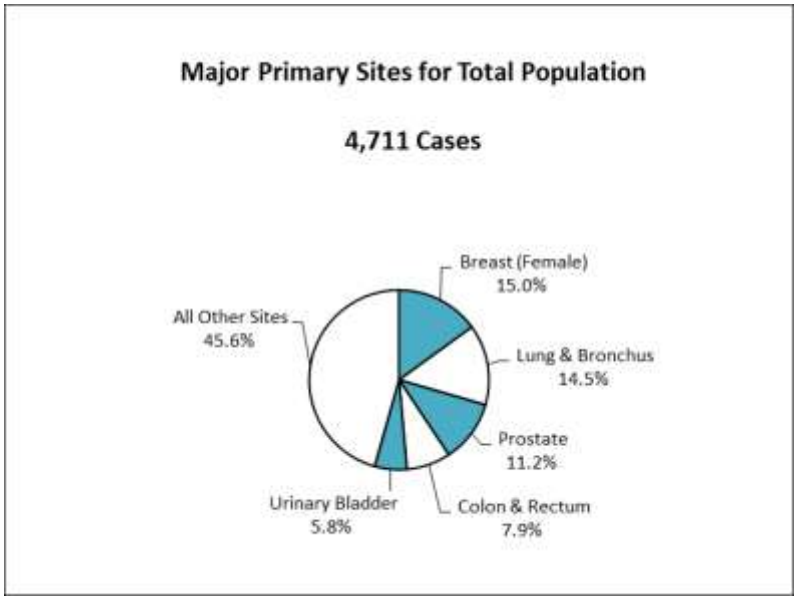
Cancer Incidence

From 2012 to 2014, there were 4,711 new cancer cases (primary invasive cancers and in situ urinary bladder cancers) diagnosed among Erie County residents, for a corresponding age-adjusted incidence rate of 462.2 cases per 100,000 population. Incidence data for all sites combined and the 23 major sites are presented in Table 8.

Overall, cancers were diagnosed in 2,323 males (49.3%) and 2,388 females (50.7%). The incidence rates for males and females were 492.2 and 445.9 cases per 100,000, respectively. For Pennsylvania, the incidence rates were 478.8 for the total population, 515.5 for males, and 457.3 for females. Cancers were diagnosed in 4,363 Whites (92.6%), 237 Blacks (5.0%), 111 persons of Other/Unknown Race (2.4%), and 46 Hispanics/Latinos of any race (1.0%).

Erie County's five leading cancer incidence sites were: (1) female breast (706 cases), (2) lung and bronchus (682 cases), (3) prostate (527 cases), (4) colon and rectum (370 cases), and (5) urinary bladder (275 cases). These sites accounted for 54.4% of all resident diagnoses (Figure 4, Table 8).

Figure 4. Erie County Erie County New Cancer Cases, 2012-2014



Among Erie County males, the five leading sites were: (1) prostate (527 cases, 22.7%), (2) lung and bronchus (343 cases, 14.8%), (3) urinary bladder (216 cases, 9.3%), (4) colon and rectum (196 cases, 8.4%), and (5) kidney and renal pelvis (100 cases, 4.3%). These sites accounted for 59.5% of all male diagnoses.

Among Erie County females, the five leading sites were: (1) breast (706 cases, 29.6%), (2) lung and bronchus (339 cases, 14.2%), (3) colon and rectum (174 cases, 7.3%), (4) uterus (152 cases, 6.4%), and (5) thyroid (133 cases, 5.6%). These sites accounted for 63.0% of all female diagnoses.

Table 8. Erie County New Cancer Cases and Age-Adjusted Rates by Site/Type, 2012-2014

	Total Population			Males			Females		
Cancer Site/Type	Cases	Erie Co.	PA	Cases	Erie Co.	PA	Cases	Erie Co.	PA
All Cancer Sites	4,711	462.2	478.8	2,323	492.2	515.3	2,388	445.9	457.3
Brain & Other Nervous System	69	7.8	7.1	37	9.2	8.4	32	6.4	6.0
Breast (Female)	706	132.3	130.3				706	132.3	130.3
Cervix Uteri	27	6.4	7.2				27	6.4	7.2
Colon & Rectum	370	36.8	41.8	196	43.8	48.2	174	31.1	36.5
Esophagus	53	5.1	5.1	41	8.6	9.0	12	**	2.0
Hodgkin Lymphoma	21	2.5	3.3	13	**	3.7	8	**	2.9
Kidney & Renal Pelvis	170	16.7	17.0	100	20.9	22.8	70	13.0	12.0
Larynx	49	4.8	3.7	40	8.9	6.3	9	**	1.5
Leukemia	140	13.8	14.0	85	18.5	18.0	55	10.0	10.9
Liver & Intrahepatic Bile Duct	63	5.8	7.9	46	9.3	12.4	17	**	4.0
Lung & Bronchus	682	65.0	63.8	343	72.0	75.5	339	60.1	55.4
Melanoma of the Skin	153	15.5	23.8	82	17.7	29.7	71	14.6	19.7
Myeloma	52	5.3	6.5	27	5.9	8.2	25	5.0	5.2
Non-Hodgkin Lymphoma	193	19.1	21.2	95	20.7	25.3	98	18.2	17.8
Oral Cavity & Pharynx	114	10.8	11.8	81	16.1	17.5	33	6.0	6.9
Ovary	69	13.6	11.9				69	13.6	11.9
Pancreas	133	12.7	13.5	63	13.3	15.7	70	12.4	11.6
Prostate	527	102.6	98.3	527	102.6	98.3			
Stomach	57	5.4	6.3	40	8.6	9.2	17	**	4.0
Testis	30	7.6	6.4	30	7.6	6.4			
Thyroid	163	18.9	20.3	30	6.7	10.1	133	30.5	30.2
Urinary Bladder	275	26.3	24.5	216	47.0	42.8	59	10	10.8
Uterus	152	27.1	31.9				152	27.1	31.9
All Other Sites	443	NA	NA	231	NA	NA	283	NA	NA

Notes: Age-adjusted rates are per 100,000 population; ** = Low count, statistically unreliable; NA = Not available.

Valid age-adjusted rate comparisons for Erie County males and females were possible for a total of 13 cancer sites. Males had a statistically significant higher rate than females for six sites: all sites combined, colon and rectum, kidney and renal pelvis, leukemia, oral cavity and pharynx, and urinary bladder. Females had a significantly higher rate than males for just one site, the thyroid, where the rate was over four times higher (30.5 versus 6.7 cases per 100,000).

With respect to Erie County and Pennsylvania total population rate comparisons, Erie County had a statistically significant lower rate than Pennsylvania for five sites: all sites combined,

colon and rectum, uterus, liver and intrahepatic bile duct, and melanoma of the skin. With respect to males, Erie County had a statistically significant lower rate than Pennsylvania for three sites: all sites combined, melanoma, and thyroid. With respect to females, Erie County had a statistically significant lower rate than Pennsylvania for three sites: colon and rectum, uterus, and melanoma.

During 2012-2014, the ages at diagnosis ranged from 1 to 101 years. Only 24 cases (0.5%) were diagnosed in persons under the age of 20. However, 3,274 cases (69.5%) occurred in persons 60 and older (Figure 2). The highest number of cases occurred in the 65-69 (703 cases, 14.9%) and 60-64 (651 cases, 13.8%) age groups. Age group data for all sites combined and the 23 major sites are presented in Table 9.

Table 9. Erie County New Cancer Cases by Age Group and Site, 2012-2014

		Age Group																	
Cancer Site/Type	All Ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
All Cancer Sites	4,711	10	6	2	6	26	36	49	63	126	207	353	553	651	703	565	497	424	434
Brain & Other Nervous System	69	1	3	0	1	1	3	2	6	4	6	3	9	1	6	7	3	5	8
Breast (Female)	706	0	0	0	0	0	2	5	11	30	60	71	96	120	96	68	55	42	50
Cervix Uteri	27	0	0	0	0	0	2	1	3	5	1	4	1	4	3	2	1	0	0
Colon & Rectum	370	0	0	0	0	0	1	0	5	10	19	37	31	26	50	43	44	51	53
Esophagus	53	0	0	0	0	0	0	0	0	5	0	3	7	11	10	4	3	9	1
Hodgkin Lymphoma	21	0	0	0	0	5	5	2	2	1	0	2	0	1	1	1	0	1	0
Kidney & Renal Pelvis	170	1	1	0	0	0	0	2	4	2	7	19	17	33	27	21	16	14	6
Larynx	49	0	0	0	0	0	0	0	0	1	3	3	5	6	6	6	10	2	7
Leukemia	140	2	1	0	0	1	1	3	0	3	3	8	11	19	15	19	18	20	16
Liver & Intrahepatic Bile Duct	63	0	0	0	0	0	0	1	0	1	1	1	10	13	12	10	4	6	4
Lung & Bronchus	682	0	0	0	0	0	0	0	2	3	21	44	85	88	114	98	88	74	65
Melanoma of the Skin	153	0	0	0	0	4	4	4	6	7	9	12	14	23	19	10	10	15	16
Myeloma	52	0	0	0	0	0	0	0	0	1	3	1	3	4	6	10	11	7	6
Non-Hodgkin Lymphoma	193	0	0	1	0	0	0	5	2	5	11	13	18	27	27	20	21	23	20
Oral Cavity & Pharynx	114	0	0	0	0	1	0	2	0	2	3	12	18	15	16	13	11	10	11
Ovary	69	0	0	0	0	0	2	0	2	2	8	6	10	6	7	11	6	5	4
Pancreas	133	0	0	0	0	0	0	0	0	2	1	7	16	18	17	22	21	14	15
Prostate	527	0	0	0	0	0	0	0	0	2	4	32	73	125	118	82	41	23	27
Stomach	57	0	0	0	0	0	0	2	1	0	0	1	12	1	13	6	5	9	7
Testis	30	0	0	0	0	5	5	4	1	7	3	1	3	0	0	1	0	0	0
Thyroid	163	0	0	0	3	8	3	11	13	17	18	21	18	12	15	10	7	4	3
Urinary Bladder	275	0	0	0	0	0	2	0	1	1	5	14	24	28	47	39	41	33	40
Uterus	152	0	0	0	0	0	0	0	2	2	5	16	28	26	21	16	16	11	9

During 2012-2014, 8 of Erie County's 38 municipalities had over 100 newly diagnosed cancer cases (Figure 5, Table 10). These municipalities accounted for 75.7% of all diagnoses and included the City of Erie (1,559 cases, 33.1% of all diagnoses), Millcreek Township (1,020 cases, 21.7%), Harborcreek Township (282 cases, 6.0%), Fairview Township (193 cases, 4.1%), Girard Township (134 cases, 2.8%), North East Township (133 cases, 2.8%), Summit Township (132 cases, 2.8%), and the City of Corry (115 cases, 2.4%).

A total of 8 municipalities had 20 or fewer cancer cases, including Leboeuf Township (20 cases), Amity Township (17 cases), Platea Borough (11 cases), Mill Village Borough (9 cases), Cranesville and McKean Boroughs (7 cases each), Wattsburg Borough (6 cases), and Elgin Borough (2 cases).

Figure 5. New Cancer Cases in Erie County Municipalities, 2012-2014

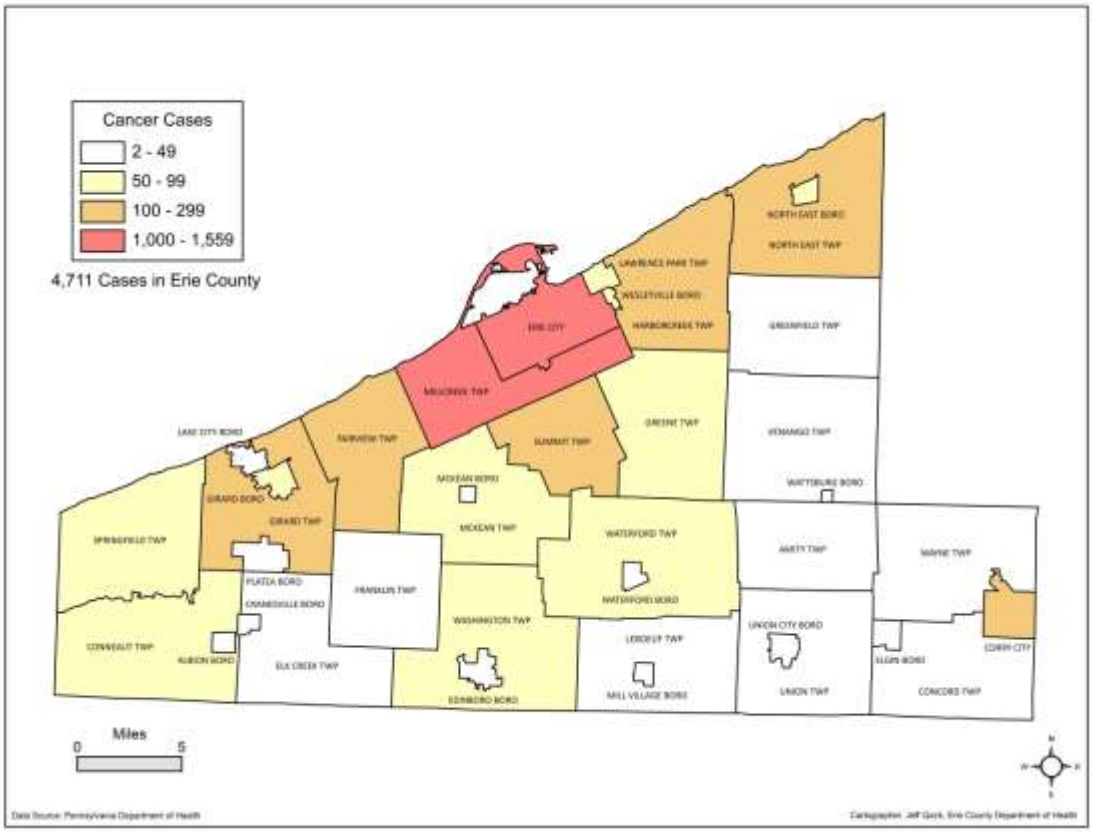
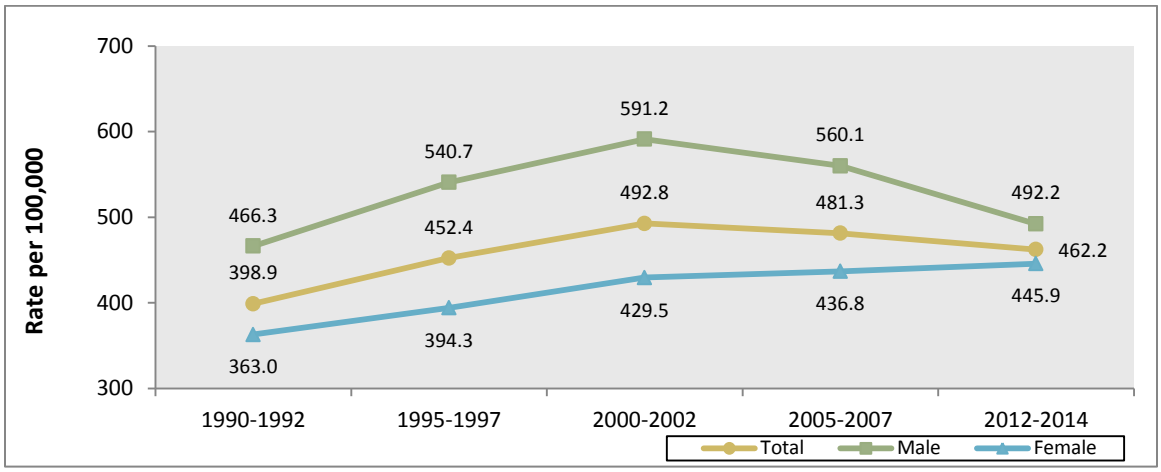


Table 10. New Cancer Cases in Erie County Municipalities for Selected Leading Sites, 2012-2014

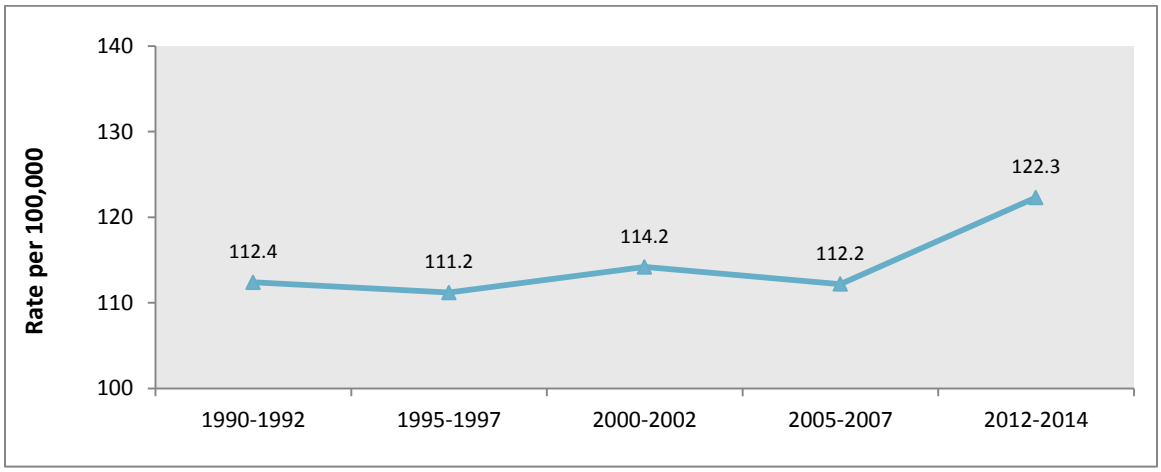
Municipality	All Cancer Sites	Breast (Female)	Lung & Bronchus	Prostate	Colon & Rectum
Albion Borough	26	4	4	3	2
Amity Township	17	3	2	2	2
Concord Township	25	2	1	2	4
Conneaut Township	55	2	6	11	3
City of Corry	115	12	14	8	11
Cranesville Borough	7	1	3	0	0
Edinboro Borough	37	6	4	1	5
Elgin Borough	2	0	0	0	0
Elk Creek Township	37	9	7	4	6
City of Erie	1,559	213	256	168	137
Fairview Township	193	36	22	24	7
Franklin Township	22	3	5	1	1
Girard Borough	58	8	7	5	6
Girard Township	134	14	18	13	11
Greene Township	67	8	10	13	2
Greenfield Township	27	3	2	9	3
Harborcreek Township	282	42	47	36	21
Lake City Borough	37	4	7	6	4
Lawrence Park Township	66	15	6	5	5
LeBoeuf Township	20	2	1	2	4
McKean Borough	7	1	1	1	0
McKean Township	69	14	12	6	6
Millcreek Township	1,020	178	133	99	69
Mill Village Borough	9	0	3	1	1
North East Borough	70	14	6	8	5
North East Township	133	18	15	21	13
Platea Borough	11	1	2	0	4
Springfield Township	77	12	12	9	6
Summit Township	132	20	14	20	11
Union Township	38	5	7	6	1
Union City Borough	49	3	10	5	7
Venango Township	42	6	5	7	1
Washington Township	83	12	15	13	3
Waterford Borough	27	5	7	3	1
Waterford Township	67	17	6	7	7
Wattsburg Borough	6	1	1	1	0
Wayne Township	28	7	1	3	1
Wesleyville Borough	57	5	10	4	0
Erie County	4,711	706	682	527	370

Trends in Erie County Age-Adjusted Incidence Rates for Selected Cancer Sites

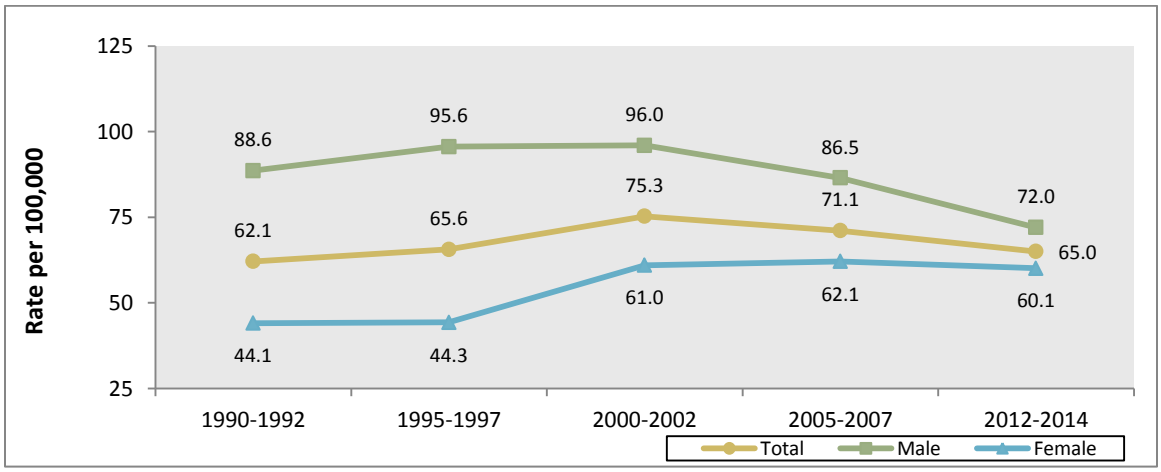
All Cancer Sites



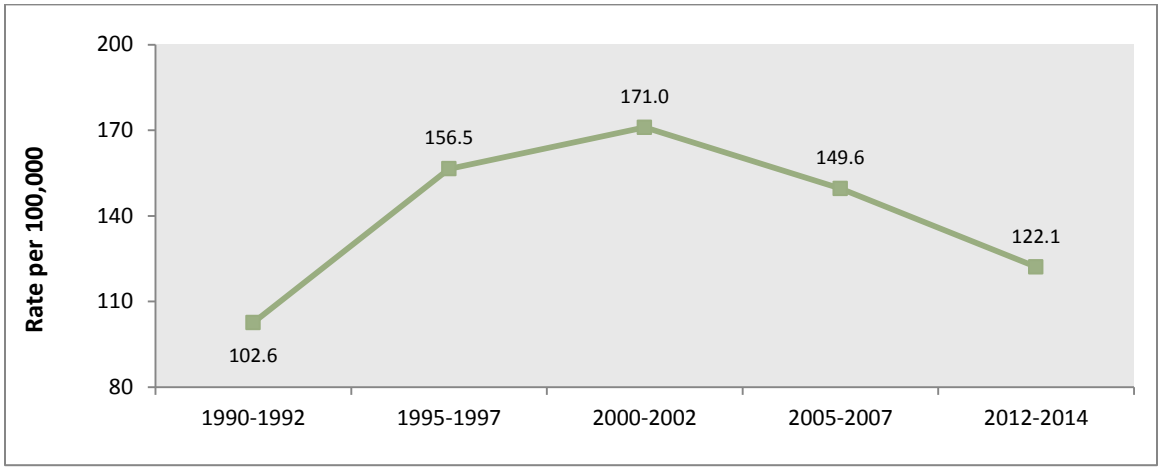
Female Breast



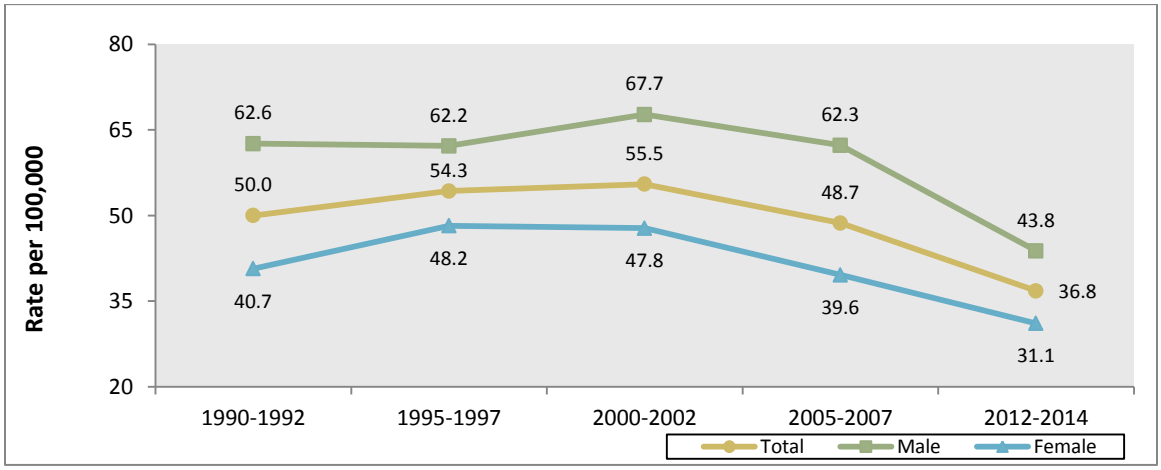
Lung and Bronchus



Prostate



Colon & Rectum



Injury Deaths and Hospitalizations

Injury includes both unintentional injuries (accidents) and self-inflicted or assault injuries (violence). From 2010 to 2014, there were a total of 871 deaths due to injury among Erie County residents (Table 11).

Most of these injury deaths were accidents. Overall, 593 (68.1%) deaths were unintentional, 201 (23.1%) were suicides, 53 (6.1%) were homicides, and 24 (2.8%) were undetermined. Males accounted for two-thirds (66.2%) of all injury deaths.

From 2010 to 2014, the leading causes of injury death among Erie County residents were poisonings, motor vehicle traffic accidents, firearm-related events, and unintentional falls. These four causes accounted for three-fourths (75.5%) of injury deaths.

Overall, 191 (73.1%) of the 261 poisoning deaths were accidental drug poisonings, and 94 (69.6%) of the 135 firearm-related events were suicides.

Table 11. Erie County Injury Deaths and Death Rates, 2010-2014

	Total Population			Males			Females		
	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA
All Injuries	871	60.2	62.5	577	83.6	93.0	294	41.3	43.7
Unintentional injuries (accidents	593	40.4	43.3	372	53.9	61.3	221	31.1	35.5
Suicides	201	14.2	12.6	158	22.9	21.6	43	6.0	5.3
Homicides	53	4.0	5.4	36	5.2	8.6	17	**	1.9
Leading Causes									
Poisonings	261	19.7	19.8	156	22.6	25.8	105	14.8	13.6
Motor vehicle traffic accidents	150	10.2	9.6	110	15.9	14.5	40	5.6	15.9
Firearm-related events	135	9.7	10.7	111	16.1	19.7	24	3.4	2.6
Unintentional falls	112	6.2	8.5	53	7.7	11.7	59	8.3	11.0

Notes: Age-adjusted rates are per 100,000 population; ** = Low count, statistically unreliable.

In 2014, there were a total of 2,809 hospitalizations due to injury in Erie County. Most of these hospitalizations were the result of unintentional injuries (accidents). Overall, 2,210 (78.7%) were due to accidents, 286 (10.2%) were self-inflicted injuries, 107 (3.8%) were assault injuries, and 206 (7.3%) were classified as undetermined/other injuries.

Females accounted for a slight majority of hospitalizations (1,432, 51.0%) . Children under five years and residents 75 years and older accounted for 1.0% and 32.0% of hospitalizations, respectively.

A total of 70 (2.5%) injury hospitalizations were fatal, with 32 (45.7%) occurring in persons 75 years and older.

The three leading mechanisms of injury hospitalization in Erie County were falls (1,221, 43.5%), poisonings (348, 12.4%), and motor vehicle traffic occupant injuries (124, 4.4%). These mechanisms accounted for 60.3% of hospitalizations. Of the 1,221 hospitalizations due to falls, 656 (53.7%) of these occurred in those 75 years and older.

Sources

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Erie County Department of Health, Cancer Statistics. Retrieved from https://www.eriecountypa.gov/county-services/health-department/statistics/cancer.aspx

Erie County Department of Health, Community Health Profiles. Retrieved from https://www.eriecountypa.gov/county-services/health-department/statistics/health-assessments/community-health-assessment.aspx

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Infectious Diseases

Chlamydia

Chlamydia is a common sexually transmitted infection (STI) caused by the bacteria *Chlamydia trachomatis*. Symptoms can be mild or absent and a majority of infections are not diagnosed. The CDC estimates that only about 10% of men and 5-30% of women with laboratory-confirmed chlamydial infection develop symptoms.

- The number of reported chlamydia cases has decreased from 1,245 in 2015 to 1,033 in 2016 (Table 1).
- The annual crude incidence rate of chlamydia in Erie County decreased significantly from 447.8 per 100,000 in 2015 to 374.0 in 2016 (445.4 for PA; 497.3 for U.S.) (Figure 1, Table 1).

Figure 1. Chlamydia Incidence, 2007-2016

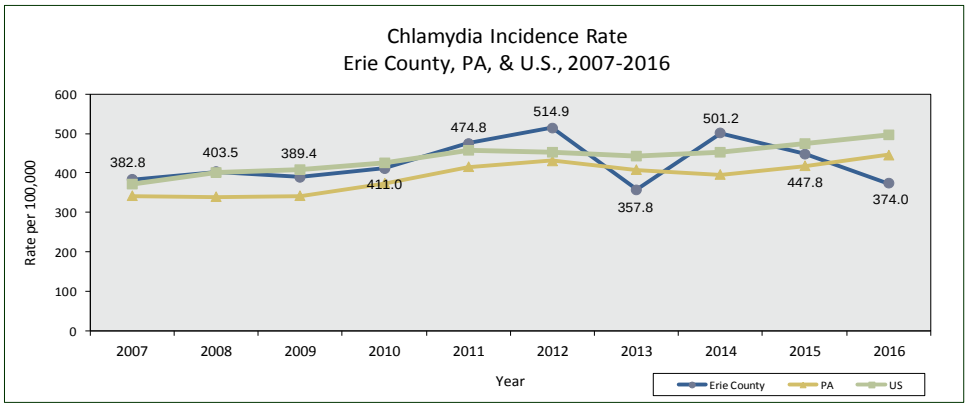
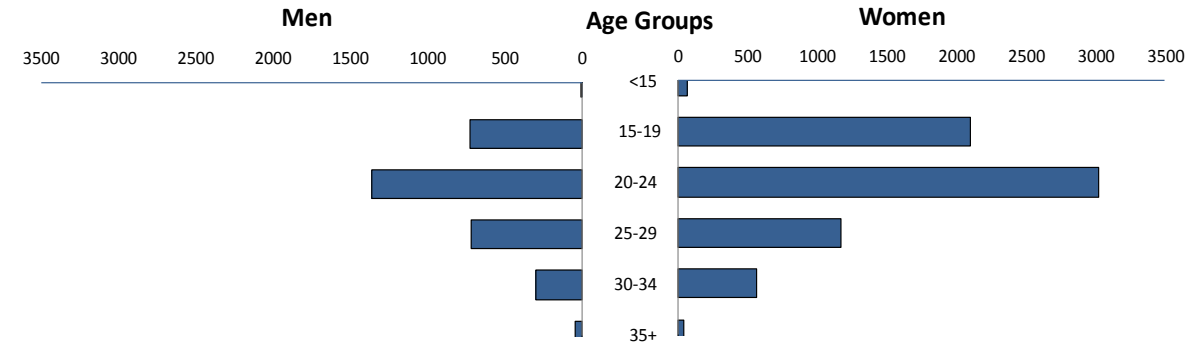


Figure 2. Chlamydia Demographics, 2016



Rate per 100,000 population

- From 2015-2016, chlamydia incidence rates increased for those below age 15 and significantly increased for those aged 15-19. Rates decreased for all other age groups.

- From 2015 to 2016, incidence rates decreased significantly for males, females, non-Hispanic Whites, non-Hispanic Blacks, and age groups 20-24 and 25-29. Rate decreases were also reported for age 30-34 and Hispanic.
- In 2016, the rate of chlamydia was 50% higher for women (497.5) compared to men (247.6) (Figure 2).
- Two-thirds (67%) of chlamydia cases in 2016 occurred among those age 15-24.
- The highest incidence of chlamydia occurs among women age 15-24.

Table 1. Chlamydia Incidence, 2015 & 2016

Chlamydia Case Count, Percent of Total, and Incidence Rate
Erie County, PA, & U.S., 2015 & 2016

	2015		2016		2015	2016	
	# Cases	% of Total	# Cases	% of Total	Rate	Rate	% Rate Change
Erie County							
Total	1,245		1,033		447.8	374.0	-16.5
Male	395	31.7	338	32.7	287.9	247.6	-14.0
Female	850	68.3	695	67.3	603.6	497.5	-17.6
White, non-Hispanic	530	42.6	436	42.2	224.3	175.1	-21.9
Black, non-Hispanic	415	33.3	362	35.0	2,064.2	1,399.7	-32.2
Hispanic	51	4.1	45	4.4	458.8	425.7	-7.2
<15 years *	13	1.0	18	1.7	26.1	36.7	40.4
15-19 years	304	24.4	378	36.6	1,531.7	1,904.4	24.3
20-24 years	529	42.5	311	30.1	2,691.7	1,636.2	-39.2
25-29 years	241	19.4	186	18.0	1,217.9	942.5	-22.6
30-34 years	91	7.3	73	7.1	539.7	431.0	-20.1
35+ years	67	5.4	67	6.5	44.0	44.2	0.3
Pennsylvania							
Total	53,460		56,939		417.6	445.4	
United States							
Total	1,526,658		1,598,354		475.0	497.3	

Note: Red indicates significant difference from previous year; *Numbers less than 20 provide statistically unreliable rates;
Crude rate equals number of cases per 100,000 population; 95% Confidence Interval used;
U.S Census Bureau, Intercensal Population Estimates for current year used for rate calculations

Gonorrhea

Gonorrhea is a common STI caused by the bacteria *Neisseria gonorrhoeae.* Untreated, gonorrhea can cause pelvic inflammatory disease (PID) in women and may lead to infertility in men.

- The number of reported gonorrhea cases has decreased from 458 in 2015 to 298 in 2016 (Table 2).
- The annual crude incidence rate of gonorrhea in Erie County decreased significantly from 164.7 per 100,000 in 2015 to 107.9 in 2016 (114.3 for PA; 145.8 for U.S.) (Figure 3, Table 2).

Figure 3. Gonorrhea Incidence, 2007-2016

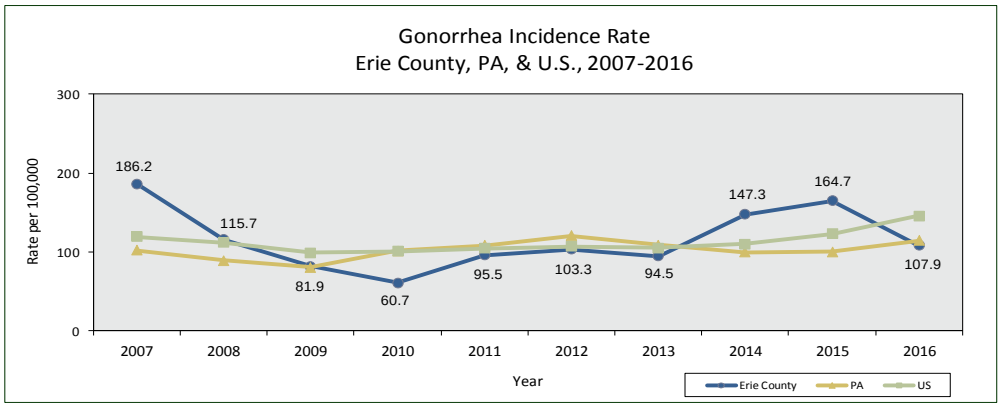
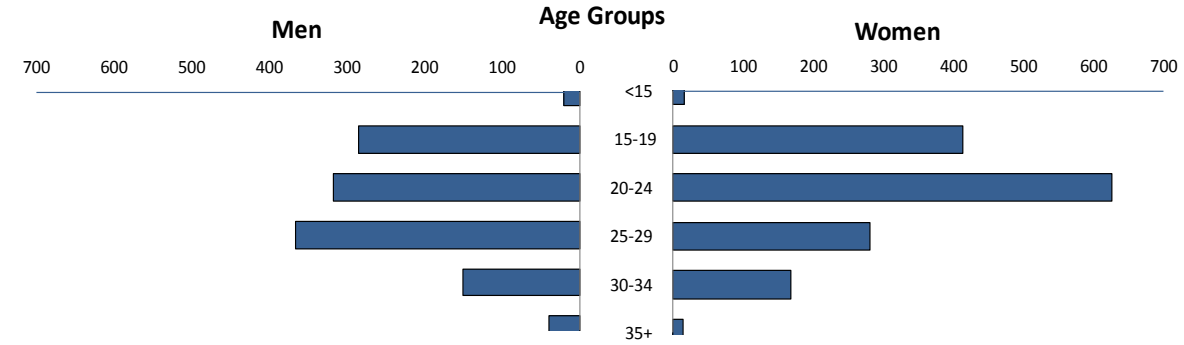


Figure 4. Gonorrhea Demographics, 2016



- From 2015-2016, gonorrhea incidence rates increased 82.5% for those aged 15 and below. Rates decreased for all other age groups.
- From 2015 to 2016, incidence rates decreased significantly for males, females, non-Hispanic Whites, non-Hispanic Blacks, and age groups 20-24 and 25-29. Rate decreases were also reported for ages 30 and above as well as Hispanics (Table 2).
- In 2016, the highest rates of gonorrhea occurred among ages 15-29 and non-Hispanic Blacks.
- Three-fourths (75%) of gonorrhea cases in 2016 occurred among those aged 15-29.
- The highest incidence of gonorrhea occurs among women age 20-24 (Figure 4).

Table 2. Gonorrhea Incidence, 2015 & 2016

Gonorrhea Case Count, Percent of Total, and Incidence Rate Erie County, PA, & U.S., 2015 & 2016							
	2015		2016		2015	2016	
	# Cases	% of Total	# Cases	% of Total	Rate	Rate	% Rate Change
Erie County							
Total	458		298		164.7	107.9	-34.5
Male	190	41.5	144	48.3	138.5	105.5	-23.8
Female	268	58.5	154	51.7	190.3	110.2	-42.1
White, non-Hispanic	167	36.5	105	35.2	70.7	42.2	-40.3
Black, non-Hispanic	135	29.5	156	52.3	671.5	603.2	-10.2
Hispanic	12	2.6	10	3.4	107.9	94.6	-12.4
<15 years *	5	1.1	9	3.0	10.0	18.3	82.5
15-19 years	93	20.3	84	28.2	468.6	423.2	-9.7
20-24 years	171	37.3	74	24.8	870.1	389.3	-55.3
25-29 years	97	21.2	64	21.5	490.2	324.3	-33.8
30-34 years	35	7.6	27	9.1	207.6	159.4	-23.2
35+ years	57	12.4	40	13.4	37.5	26.4	-29.6
Pennsylvania							
Total	12,791		14,608		99.9	114.3	14.4
United States							
Total	395,216		468,514		123.0	145.8	18.6

Note: Red indicates significant difference from previous year; *Numbers less than 20 provide statistically unreliable rates;
Crude rate equals number of cases per 100,000 population; 95% Confidence Interval used;
U.S Census Bureau, Intercensal Population Estimates for current year used for rate calculations

Syphilis

Syphilis is an STI caused by the bacterium *Treponema pallidum* and is usually passed from person to person through direct contact with a syphilis sore. Without treatment symptoms disappear, but the infection remains in the body as latent syphilis.

- The number of reported syphilis cases has been trending upward in recent years.
- Before 2007, the number of syphilis cases reported annually in Erie County was less than 5. From 2008 through 2012, this number was less than 10.
- From 2009 through 2015, reported cases of syphilis in Erie County steadily increased and reached a high of 57 cases in 2015. In 2016, the number of cases dropped to 31.
- From 2014 to 2015, the crude incidence rate of syphilis in Erie County increased significantly

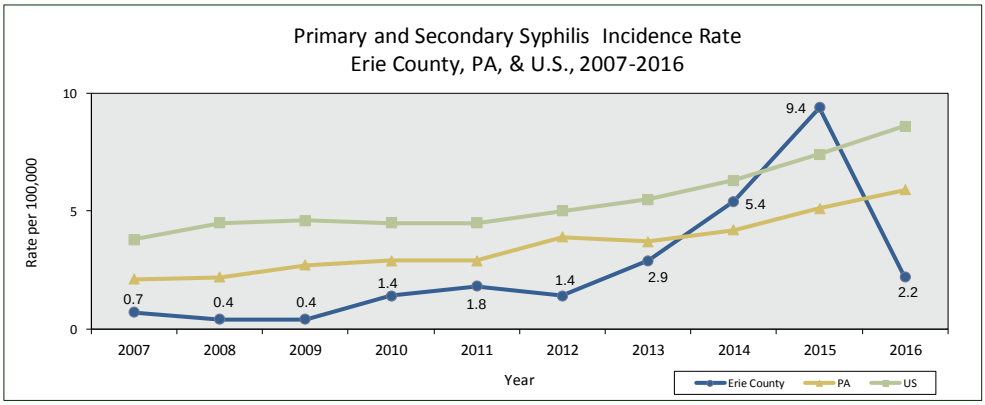
- From 2014 to 2015, the crude incidence rate of syphilis in Erie County increased significantly from 13.6 per 100,000 population (12.0 for PA; 19.9 for U.S.) to 20.5 (14.0 for PA; 23.2 for U.S.). In 2016, this number decreased significantly to 11.2 (15.9 for PA; 27.2 for U.S.).

The most infectious stages of the disease are primary and secondary syphilis.

Primary and Secondary Syphilis

- From 2009 through 2015, reported cases of primary and secondary syphilis in Erie County steadily increased and reached a high of 26 cases in 2015. In 2016, 6 cases were reported.
- The crude incidence rate for primary and secondary syphilis in Erie County increased from 2.9 in 2013 to 5.4 in 2014 (4.2 for PA; 6.3 for U.S.) and 9.4 in 2015 (5.1 for PA; 7.4 for U.S.) (Figure 5).
- In 2016, the rate dropped to 2.2 for Erie County (5.9 for PA; 8.6 for U.S.).
- The Healthy People 2020 Goals are 1.4 cases per 100,000 females and 6.8 cases per 100,000 males.

Figure 5. Primary and Secondary Syphilis Cases, 2007-2016



Early Latent Syphilis

- In Erie County, 11 cases of early latent syphilis were reported in 2014, 17 cases in 2015, and 13 cases in 2016.
- The crude incidence rate for early latent syphilis in Erie County was 3.9 in 2014, 6.1 in 2015, and 4.7 in 2016 (7.7 for PA; 8.9 for U.S.).

Late and Late Latent Syphilis

- In Erie County, 11 cases of late latent syphilis were reported in 2014, 14 cases in 2015, and 12 cases in 2016.
- The crude incidence rate for late latent syphilis in Erie County was 3.9 in 2014, 5.0 in 2015, and 4.3 in 2016 (2.2 for PA; 9.5 for U.S.).

Congenital Syphilis

Congenital syphilis occurs when a pregnant woman who has syphilis passes the disease to her baby in utero.

- There have been no reported cases of congenital syphilis in Erie County since 2010.
- The Healthy People 2020 Goal is 9.1 cases per 100,000 live births.

Hepatitis A

Hepatitis A is an acute, vaccine-preventable liver disease caused by the hepatitis A virus (HAV) that is transmitted by the fecal-oral route via person-to-person contact or by contaminated food or water. HAV infection does not result in chronic infection or chronic liver disease.

- In 2016, there were 2 confirmed cases of hepatitis A in Erie County with a crude incidence rate of 0.7 cases per 100,000 (0.5 for PA; 0.4 for U.S. [2015]).
- The Healthy People 2020 Goal is 0.3 cases per 100,000 population.

Hepatitis B

Hepatitis B is a vaccine-preventable liver disease caused by hepatitis B virus (HBV) and is transmitted by contact with the blood or other body fluids of infected individuals. HBV infection can lead to chronic or lifelong infection and liver disease.

Acute Hepatitis B

- In 2016, there were 2 confirmed cases of acute hepatitis B in Erie County with a crude incidence rate of 0.7 cases per 100,000 (0.3 for PA; 1.1 for U.S. [2015]).
- The Healthy People 2020 Goal is 1.9 cases per 100,000 population aged 19 and above.

Chronic Hepatitis B

- In 2016, there were 18 confirmed cases of chronic hepatitis B in Erie County with a crude incidence rate of 6.5 cases per 100,000 (9.1 for PA) compared to 14 cases in 2015 with a rate of 5.0.

Hepatitis C

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV) and is spread by contact with the blood of an infected person. Most individuals with HCV infection develop a chronic infection that is asymptomatic with chronic liver disease developing decades later.

Acute Hepatitis C

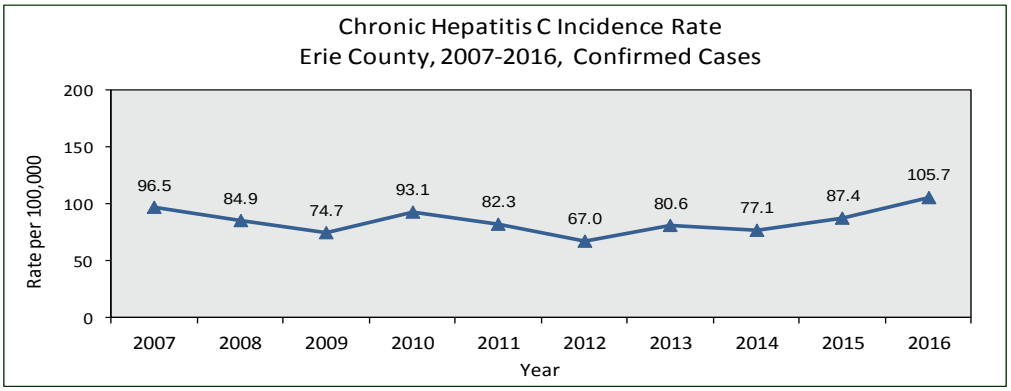
- In 2016, there were 5 reported cases of acute hepatitis C in Erie County with a crude incidence rate of 1.8 cases per 100,000 (1.0 for PA [2015]; 0.8 for U.S. [2015]) compared to 4 cases in 2015 with a rate of 1.4.
- The Healthy People 2020 Goal is 0.2 new cases per 100,000 population.

Chronic Hepatitis C

For chronic hepatitis C, both confirmed and probable cases are counted. However, confirmed cases are generally used to report overall rates for comparison.

- In 2016, there were 292 confirmed cases of chronic hepatitis C in Erie County with a crude incidence rate of 105.7 per 100,000 population (93.6 for PA [2015]) compared to 243 cases in 2015 with a rate of 87.4 (Figure 6).
- Among the 292 confirmed cases of chronic hepatitis C reported in 2016:
    - 71.6% were among males
    - 87.3% (255 cases) were among persons aged 25-64
    - 27.7% (81 cases) were among persons aged 25-34
    - 27.0% (79 cases) were among persons aged 55-64

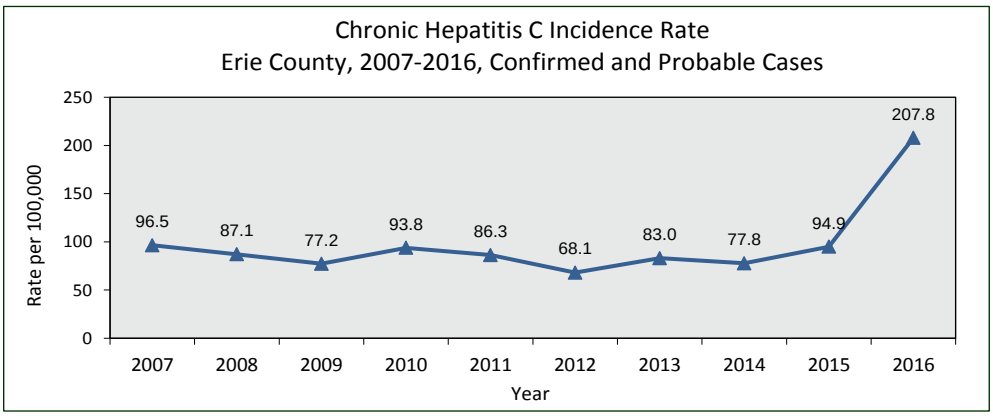
Figure 6. Chronic Hepatitis C Incidence, Confirmed, 2007-2016



Note: In 2016 the case definition for chronic Hepatitis C was revised
Source: Pennsylvania National Electronic Data Surveillance System (PA NEDSS); Erie County Department of Health

- In 2016, there were 574 cases of confirmed and probable cases of chronic hepatitis C in Erie County with a crude incidence rate of 207.8 (Figure 7).

Figure 7. Chronic Hepatitis C Incidence, Confirmed & Probable, 2007-2016



HIV Surveillance

HIV infection and AIDS have been combined into a single case definition for HIV infection. This definition categorizes the disease into three stages plus an unknown stage, with stage 3 classified as AIDS. Pennsylvania (including Erie County) no longer reports AIDS cases separately. Only HIV disease is reported regardless of the stage of the disease (stage 1, 2, 3 [AIDS] or unknown). The terms HIV disease, used by Pennsylvania in its surveillance reporting, and HIV infection, used by the United States in its surveillance reporting, are interchangeable.

The rates reported below are crude rates per 100,000 population. All case counts are reported as of December 31, 2016 with the exception of the number of individuals currently living with HIV infection in the United States. These counts represent cases reported as of December 31, 2015.

Figure 8. HIV Disease Incidence, 2013-2016

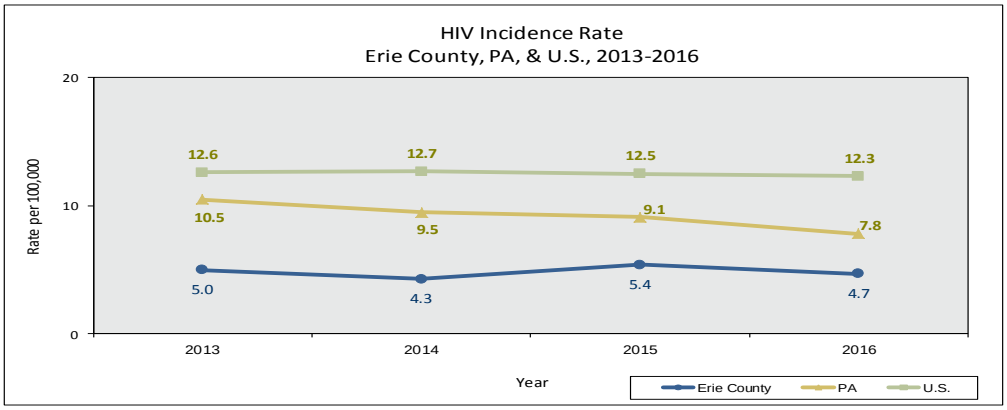


Table 3. HIV Disease Incidence, 2013-2016

		2013	2014	2015	2016	TOTAL TO 12/31/16	CURRENTLY LIVING^^
Erie County	HIV Disease Cases*	14	12	15	13	550	343
	Rate^	5.0	4.3	5.4	4.7	--	--
Pennsylvania	HIV Disease Cases*	1,335	1,214	1,165	991	60,607	35,483
	Rate^	10.5	9.5	9.1	7.8	--	--
United States	HIV Infection Cases*	40,324	40,927	40,442	40,324	NA	991,289
	Rate^	12.6	12.7	12.5	12.3	--	305.2

Note: HIV disease or HIV infection refers to a diagnosis of HIV infection regardless of the stage of disease (stage 1, 2, 3 [AIDS], or unknown) and refers to all persons with a diagnosis of HIV infection

NA = Not available; -- denotes that the rate is not calculated

^Crude rate per 100,000 population; Current year populations used for rate calculations

- As of December 31, 2016, a total of 550 HIV disease cases had been reported in Erie County with 343 currently living.
- In 2016, 13 (15 in 2015) newly diagnosed HIV disease cases were reported for a crude incidence rate of 4.7 cases per 100,000 compared to 7.8 for PA, and 12.3 for U.S. (Figure 8, Table 3).

HIV Testing

- Based on the Behavioral Risk Factor Surveillance System (BRFSS) survey, the self-reported percentage of Erie County adults aged 18-64 who were ever tested for HIV (excluding blood donations) increased to 39% in 2016-2017 compared to 32% in 2011-2013 (Figure 9). This was lower than PA at 40% (2016), but higher than the U.S. at 36% (2016).
- For Erie County adults aged 18-64, higher rates of testing were seen for non-Hispanic Blacks (63%), those with income of $15,000-$24,999 (57%), and those aged 30-44 (53%) (Table 4).
- Lower rates of testing were seen among those aged 45-64 (31%) and those with income of $50,000-$74,999 (33%).
- Testing was higher among those living in the Erie City Area (44%) compared to the rest of Erie County (38%).

Figure 9. Lifetime HIV Testing 2011 to 2016-2017

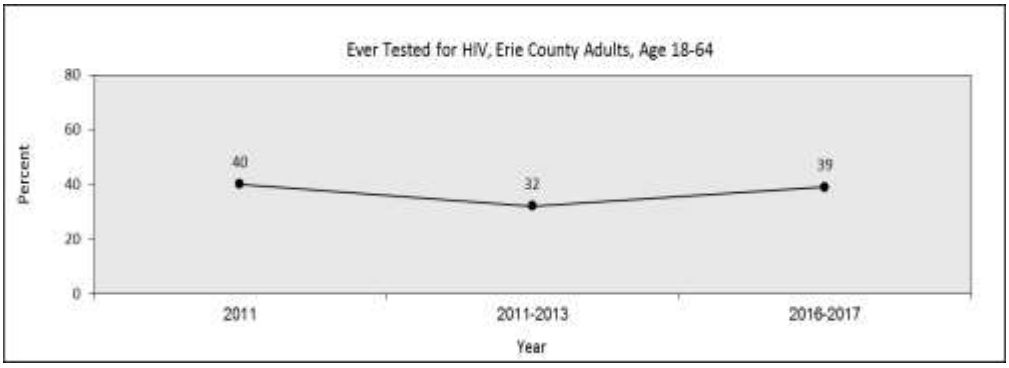
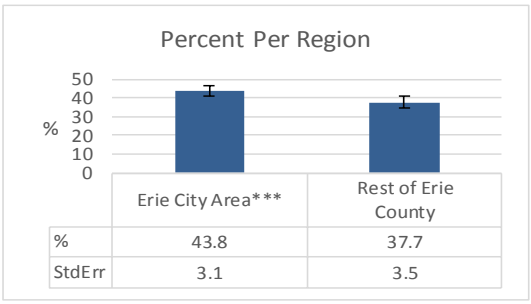
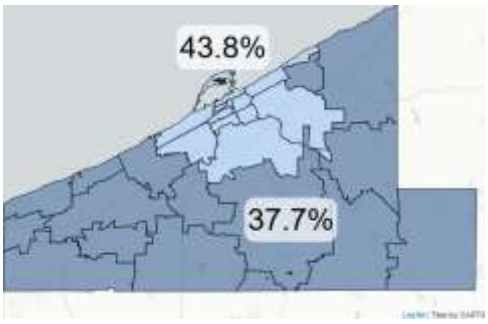


Table 4. Lifetime HIV Testing, 2016-2017

	Were Tested for HIV, Age 18-64			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	39	34	44	40
Age				
18-29	38	28	48	32
30-44	53	43	63	57
45-64	31	26	37	33
65+				
Education				
< High School	44	23	66	45
High School	35	27	42	36
Some College	44	35	53	42
College Degree	40	31	49	41
Gender				
Female	42	36	49	43
Male	36	29	43	37
Income				
< $15,000	49	35	64	53
$15,000-$24,999	57	43	72	51
$25,000-$49,999	36	27	46	41
$50,000-$74,999	33	23	44	34
$75,000+	36	27	46	37
Race				
Non-Hispanic Black	63	47	79	69
Non-Hispanic White	38	32	43	33
Other	33	14	52	NA





*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

HIV Risky Behavior

- Based on the Behavioral Risk Factor Surveillance System (BRFSS) survey, the self-reported percentage of Erie County adults aged 18-64 who practiced risky behavior within the past year that could result in HIV infection increased to 8% in 2016-2017 compared to 2% in 2011. This was higher than PA at 7% (2016).
- For Erie County adults aged 18-64, higher rates of risky behavior were seen for age group 18-29 (22%), non-Hispanic Blacks (20%), those with income less than $15,000 (17%), and those with some college (11%).
- Lower rates of risky behavior were seen among those with a college degree (3%).
- Risky behavior was higher among males at 9% compared with females at 6%.
- Risky behavior was higher among those living in the Erie City Area (10%) compared to the rest of Erie County (6%).
- For all groups, the highest percentage was 22% for age group 18-29.

Influenza

Influenza (also known as the flu) is a vaccine-preventable respiratory illness caused by influenza viruses. The virus is usually spread from person to person during coughing and sneezing.

To standardize disease case counting, the CDC assigns a number to every week (Sunday through Saturday) in the calendar year with Week 1 at the beginning of the year. The flu season officially begins with CDC Week 40 of one year and ends with CDC Week 39 of the following year. Case counts for the flu season correspond to the cases reported during these weeks.

- For the 2016-2017 Erie County flu season, a total of 2,111 cases were reported (1,726 seasonal Type A, 382 Type B, and 3 unknown type (Figures 10, 11).
- Among age groups, 12% of all cases were 0 to 4 years old, 33% were aged 5 to 18, 12% were aged 18 to 25, 25% were aged 19 to 49, 13% were aged 50-64, and 16% were aged 65 and above. Seven deaths and 220 hospitalizations were reported.
- The number of flu cases reported in 2016-2017 was the highest recorded since reporting began in 2003-2004 (Figures 11, 12).

Figure 10. Influenza Cases by Flu Season, 2007-2008 to 2016-2017

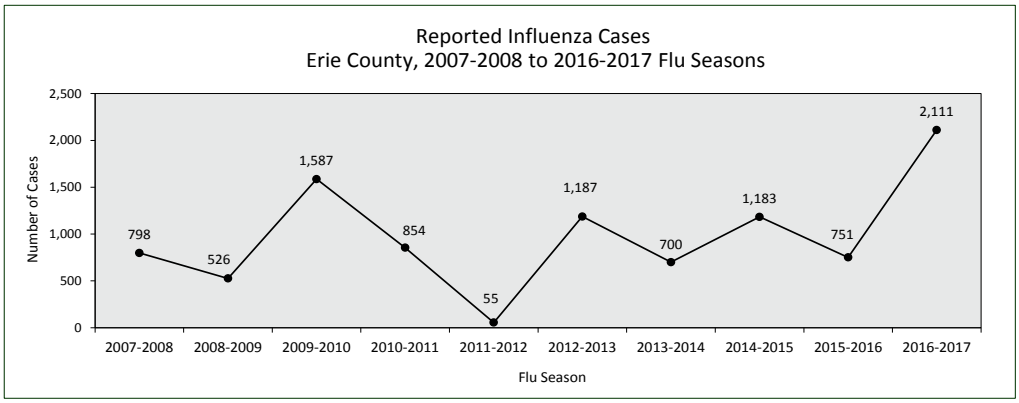


Figure 11. Influenza Cases by Flu Type, 2016-2017

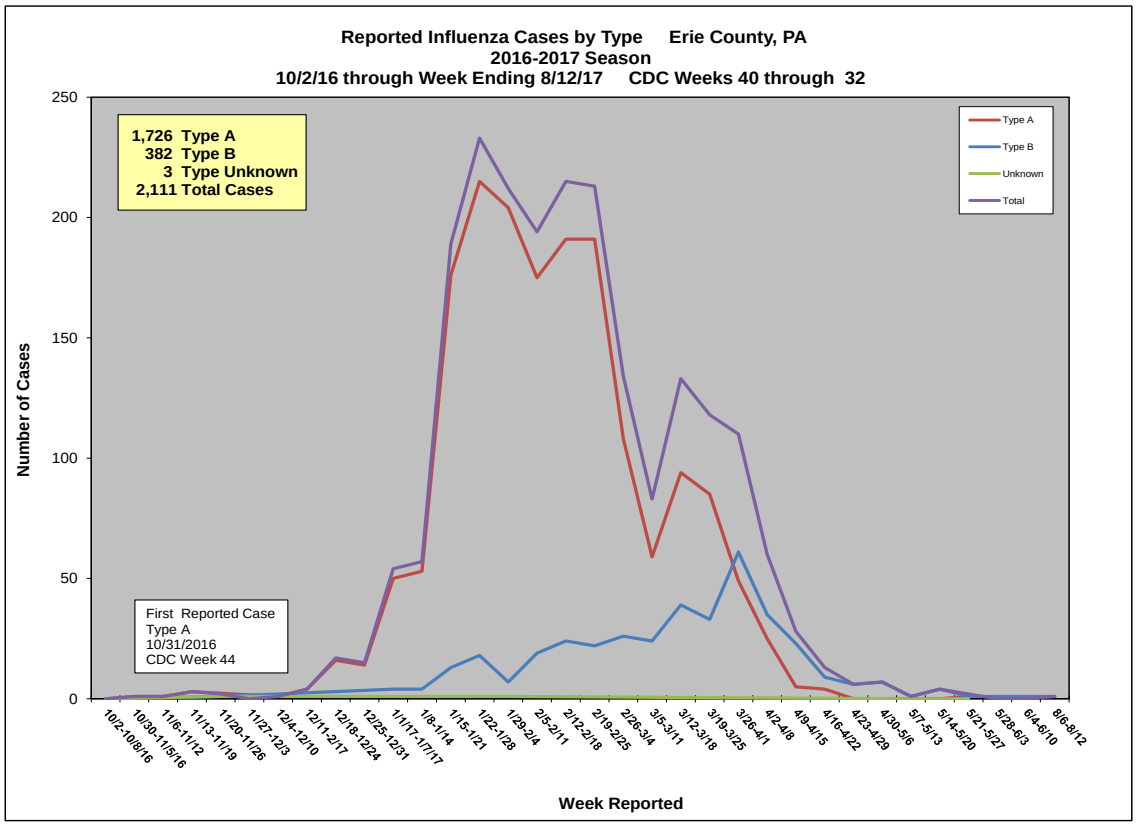
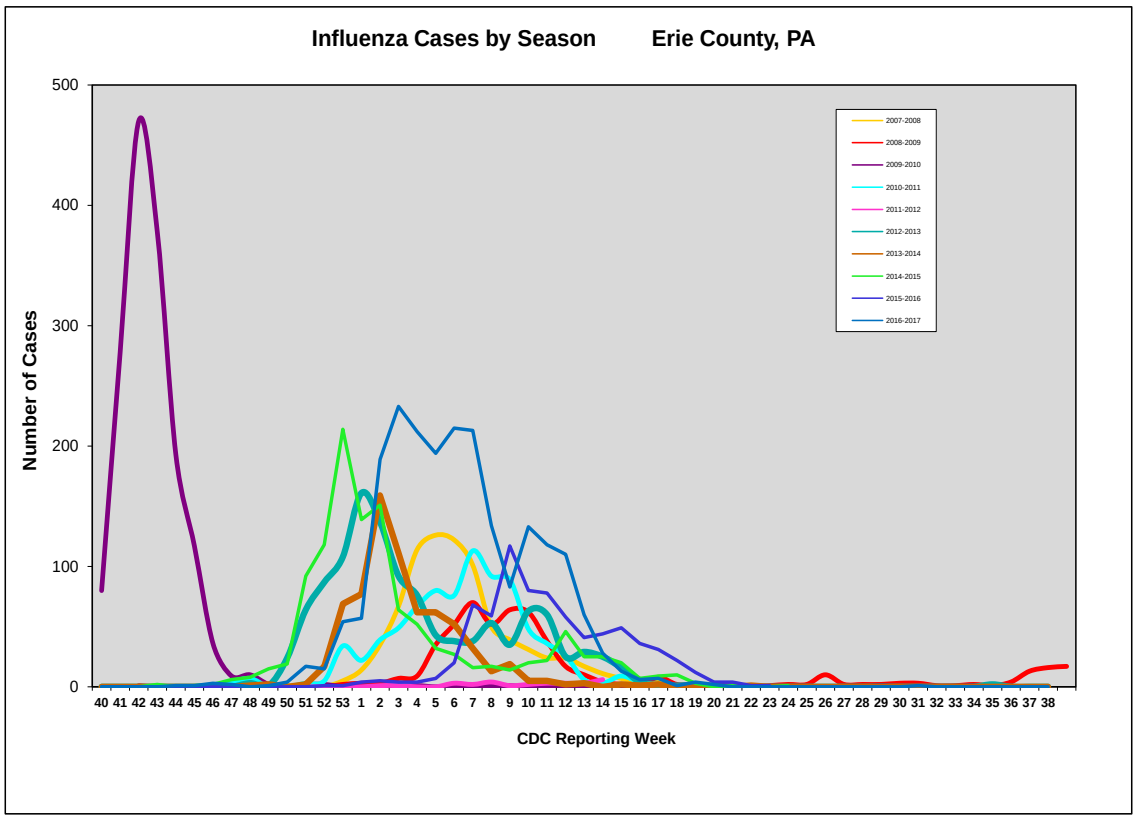


Figure 12. Influenza Cases by Flu Season, 2007-2008 to 2016-2017

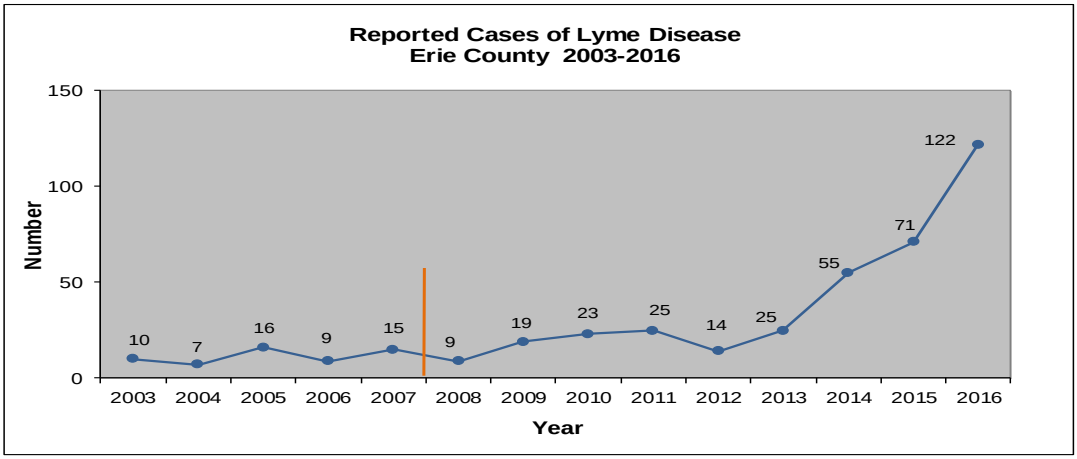


Lyme Disease

Lyme disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted to humans by the bite of infected blacklegged ticks. Pennsylvania is considered a high incidence state for Lyme disease within the United States with the majority of cases occurring in the eastern portion of the state. However, in recent years, Erie County has seen a steep rise in the number of cases as well as the incidence rate for Lyme disease.

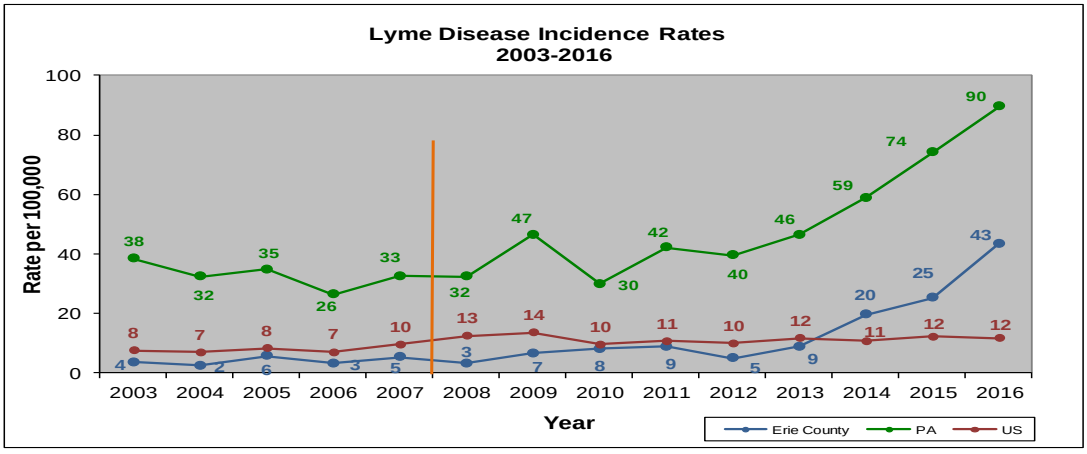
- From 2013 to 2016, the number of cases of Lyme disease increased by almost 400% from 25 to 122 (Figure 13).
- The incidence rate per 100,000 population for Lyme disease in Erie County increased from 8.9 in 2013 to 43.5 in 2016 (89.5 for PA; 11.8 for U.S.) (Figure 14).
- The Erie County Department of Health has introduced an aggressive awareness campaign in response to this increase.

Figure 13. Lyme Disease Cases, 2003-2016



Note: Prior to 2008, only confirmed cases counted; For 2008 and after, both confirmed and probable cases counted
Erie County Department of Health

Figure 14. Lyme Disease Incidence, 2003-2016



^Rate per 100,000 population
Erie County Department of Health
Note: Prior to 2008, only confirmed cases counted; For 2008 and after, both confirmed and probable cases counted

Measles

Measles is a vaccine-preventable disease spread through coughing or sneezing and is characterized by rash, high fever, coughing, and runny nose. Complications can occur.

- There were no reported cases of measles in Erie County in 2016. The last reported case occurred in 1991.

Mumps

Mumps is a vaccine-preventable disease caused by the mumps virus.

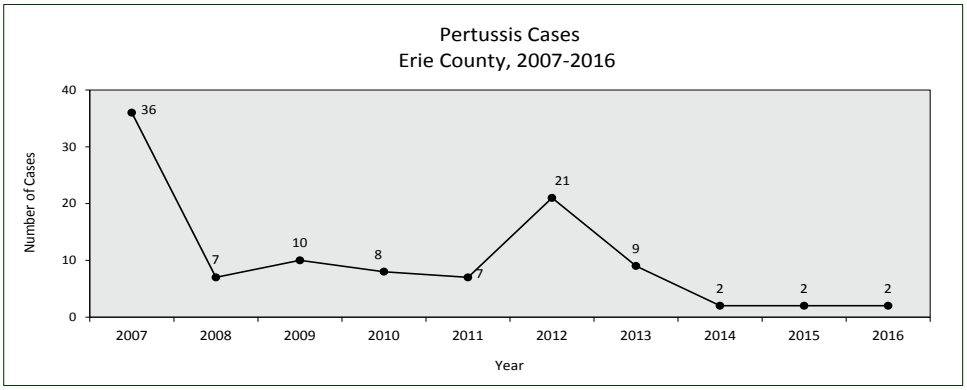
- From 2003 to 2016, only one case of mumps occurred in Erie County. It was reported in 2006.

Pertussis (Whooping Cough)

Pertussis, a vaccine-preventable respiratory disease caused by the bacteria *Bordetella pertussis,* is found mainly in children.

- In 2016, there were 2 cases of pertussis reported in Erie County for a crude incidence rate of 0.7 cases per 100,000 (12.4 for PA; 4.7 for U.S.) compared with 2 cases in 2015 with a rate of 0.7 (Figure 15).
- From 2014-2016, there were 6 reported cases of pertussis with an incidence rate of 0.7 compared with 37 cases from 2011-2013 with a rate of 4.4.

Figure 15. Pertussis Cases, 2007-2016



Respiratory Syncytial Virus

Respiratory syncytial virus (RSV) is the most common cause of bronchiolitis and pneumonia in children under 1 year of age in the United States.

- In 2016, there were 266 reported cases of RSV in Erie County compared to 152 cases in 2015. Of the 266 cases, 73% were in infants aged 0 to 1 year.

Tuberculosis

Tuberculosis (TB) is a mycobacterial disease that is spread from person to person through the air and usually affects the lungs.

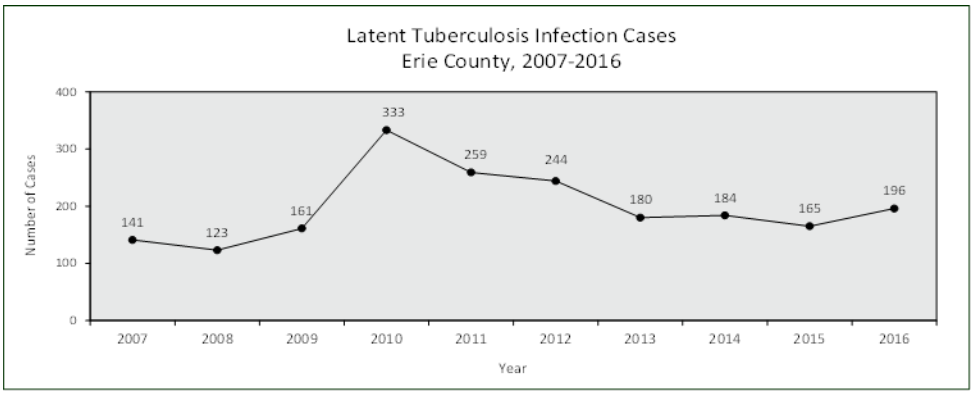
Active Tuberculosis

- In 2016, there were 3 cases of tuberculosis disease reported in Erie County for a crude incidence rate of 1.1 cases per 100,000 (1.4 for PA; 2.9 for U.S.) compared to 7 cases in 2015 with a rate of 2.5.
- From 2014-2016, there were 15 reported cases of tuberculosis with an average annual incidence rate of 1.8 (1.5 for PA).
- The Healthy People 2020 Goal for active tuberculosis is 1.0 new case per 100,000 population.

Latent Tuberculosis Infection (LTBI)

- In 2016, there were 196 cases of LTBI reported in Erie County compared to 165 cases in 2015, and 184 in 2014 (Figure 16).
- Erie County has a large refugee resettlement population which may account for elevated case counts.

Figure 16. Latent Tuberculosis Infection Cases, 2007-2016



Varicella zoster (Chickenpox)

Chickenpox is a vaccine-preventable disease caused by infection with the *Varicella zoster* virus.

- In 2016, there were 9 cases of chickenpox reported in Erie County for a crude incidence rate of 3.3 cases per 100,000 (5.1 for PA) compared to 21 cases in 2015 with a rate of 7.6.
- From 2014-2015, there were 55 cases for an average annual rate of 6.6.

West Nile Virus

West Nile virus is transmitted to humans by mosquitoes. About 20% of infected individuals develop mild symptoms (West Nile fever) and less than 1% develop a neurological infection (West Nile encephalitis).

- In 2016, there were no reported cases of West Nile fever.

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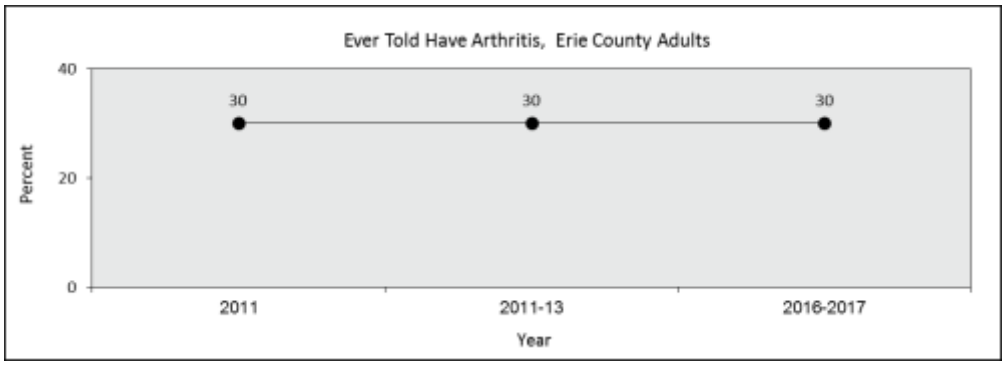
Chronic Diseases and Conditions

Arthritis

Arthritis is one of the most common health conditions among adults and a primary cause of disability. The Centers for Disease Control and Prevention (CDC) estimates that approximately 53 million American adults have self-reported doctor-diagnosed arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia and 23 million have activity limitations.

Arthritis Diagnosis Based on the Behavioral Risk Factor Surveillance System (BRFSS) survey, the self-reported percentage of Erie County adults aged 18 and above who have ever been diagnosed with arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia remained constant at 30% for 2016-2017 compared to 2011-2013 (Figure 1). This was the same for PA at 30% (2016), but higher than the U.S. at 26% (2016).

Figure 1. Lifetime Arthritis Prevalence, 2011 to 2016-2017



- Among age groups, the highest prevalence was seen for age group 65 and above at 57%. This was higher than the 2011-2013 value of 52%.
- As education levels decreased, arthritis prevalence increased. The highest percentage was seen for those with less than a high school education at 39%. The lowest percentage was among those with a college degree at 28%.
- Arthritis percentage was significantly higher among females at 37% (34% in 2011-2013) compared to males at 24% (26% in 2011-2013).
- As income levels decreased, arthritis prevalence increased. The highest percentage was 47% for those earning less than $15,000. The lowest percentage was 17% for those earning $75,000 and above.
- Arthritis prevalence was higher among non-Hispanic Blacks at 39% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 31% (30% in 2011-2013).
- Arthritis prevalence was 30% in the Erie City Area geographic area and 31% for the Rest of Erie County geographic area.

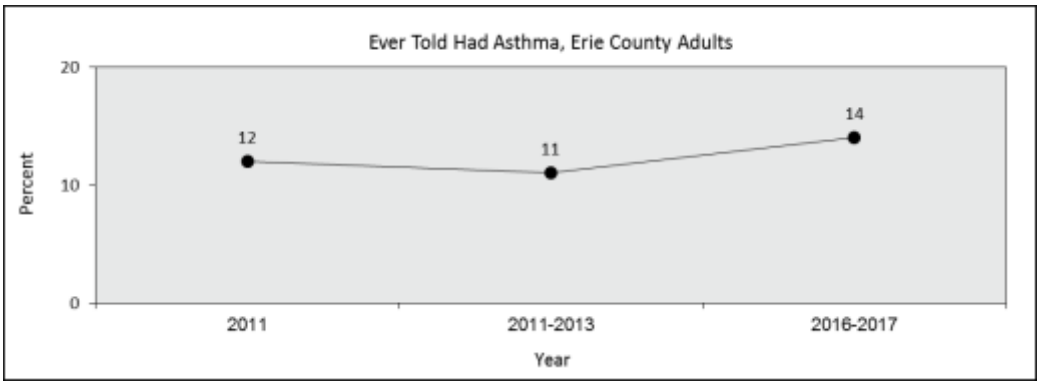
Children and Youth During the 2012-2013 school year, 0.15% (0.18% for PA) of Erie County students (grades K-12) had a medical diagnosis of arthritis or rheumatic disease compared to 0.14% in 2011-2012 (0.20% for PA).

Asthma

Asthma is a chronic disease in which the airways of the lung are inflamed. During an attack, these airways become swollen and the muscles surrounding them tighten. Breathing becomes difficult. Symptoms such as coughing, wheezing, shortness of breath, and/or chest tightness may appear. As reported by the Centers for Disease Control and Prevention (CDC), 67.4% of adults in Pennsylvania with asthma have persistent asthma and 32.6% have intermittent asthma.

Lifetime Prevalence Based on the BRFSS, the self-reported asthma lifetime prevalence (ever diagnosed with asthma) for Erie County adults aged 18 and above was 14% in 2016-2017 compared to 11% in 2011-2013 (Figure 2). This was lower than PA at 15% (2016) and the same as the U.S. at 14% (2016).

Figure 2. Lifetime Asthma Prevalence, 2011 to 2016-2017

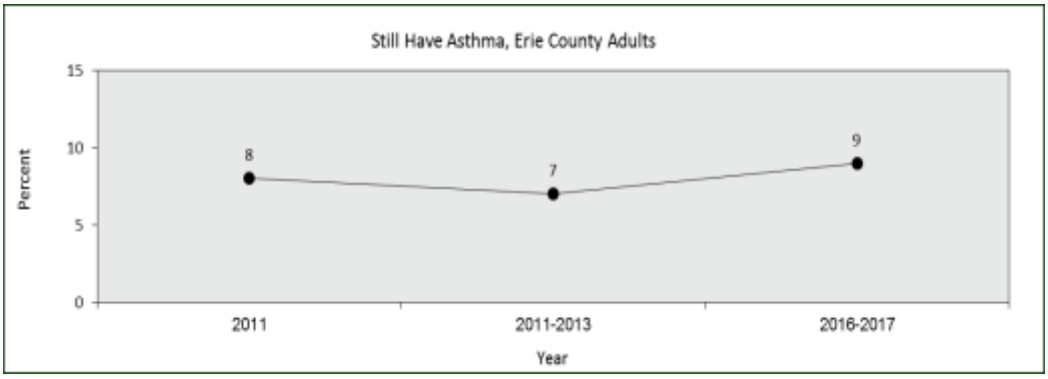


- From 2011-13 to 2016-2017, for groups with reported prevalence, increases in asthma diagnosis were seen among males (10% to 14%), females (11% to 14%), college graduates (8% to 17%), and non-Hispanic Whites (9% to 14%).
- Among age groups, the highest percentage was 22% for age group 30-44 followed by age group 18-29 at 17%.
- Among education levels, the highest percentage was 17% for both those with less than a high school education (values not available for 2011-2013) and those with a college degree (8% in 2011-2013). Lifetime asthma prevalence was lowest for those with some college at 10% (14% in 2011-2013).
- Lifetime asthma prevalence was 14% for both females (11% in 2011-2013) and males (10% in 2011-2013).
- Among income levels, the highest lifetime asthma percentage was 18% for those earning less than $15,000 followed by 17% for those earning $75,000 and above. The lowest percentage was 10% for those earning $25,000-$49,999.

- Lifetime asthma percentage was 14% among non-Hispanic Whites (9% in 2011-2013) compared with non-Hispanic Blacks at 8% (values for 2011-2013 are not available).
- Lifetime asthma prevalence was 16% in the Erie City Area geographic area and 14% for the Rest of Erie County geographic area.

Current Asthma Prevalence Based on the BRFSS, the current asthma prevalence (still have asthma) among Erie County adults aged 18 and above increased to 9% in 2016-2017 compared to 7% in 2011-2013 (Figure 3). This was lower than PA at 11% (2016) and same as the U.S. at 9% (2016).

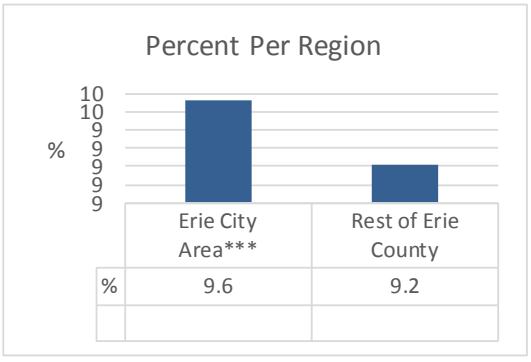
Figure 3. Current Asthma Prevalence, 2011 to 2016-2017

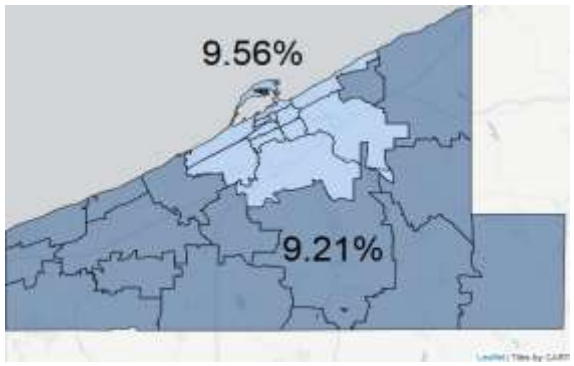


- From 2011-13 to 2016-2017, for groups with reported prevalence, increases in current asthma prevalence were seen among males (6% to 7%), females (8% to 11%), college graduates (5% to 11%), and non-Hispanic Whites (6% to 9%). A decrease in prevalence was seen for those with some college (10% to 6%).
- Among age groups, the highest percentage for those who currently have asthma was 13% for age group 30-44 followed by age groups 18-29 and 45-64 at 9% (Table 1).
- Among education levels, the highest percentage was 17% for those with less than a high school education (values not available for 2011-2013). Lifetime asthma prevalence was lowest for those with some college at 6% (10% in 2011-2013).
- The percentage of adults who currently have asthma was 11% for females (8% in 2011-2013) and 7% for males (6% in 2011-2013).
- Among income levels, the highest percentage for those who currently have asthma was 11% among adults earning less than $15,000 followed by 10% for both those earning $15,000-$24,999 and those earning $75,000 and above. The lowest prevalence was for those earning $25,000-$49,999 at 6%.
- Current asthma prevalence was 9% among non-Hispanic Whites (6% in 2011-2013) compared with non-Hispanic Blacks at 5% (values for 2011-2013 are not available).
- Current asthma prevalence was 10% in the Erie City Area geographic area and 9% for the Rest of Erie County geographic area.

Table 1. Current Asthma Prevalence, 2016-2017

	Still Has Asthma			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	9	7	12	11
Age				
18-29	9*	3*	15*	12
30-44	13	6	19	10
45-64	9	5	13	12
65+	6*	2*	9*	8
Education				
< High School	17*	3*	31*	14
High School	10	6	14	9
Some College	6*	2*	9*	12
College Degree	11	5	16	10
Gender				
Female	11	7	14	14
Male	7	4	11	7
Income				
< $15,000	11*	4*	18*	18
$15,000-$24,999	10*	2*	19*	14
$25,000-$49,999	6*	2*	10*	10
$50,000-$74,999	8	4	13	8
$75,000+	10	4	16	8
Race				
Non-Hispanic Black	5*	0*	10*	9
Non-Hispanic White	9	6	12	17
Other	**	**	**	**





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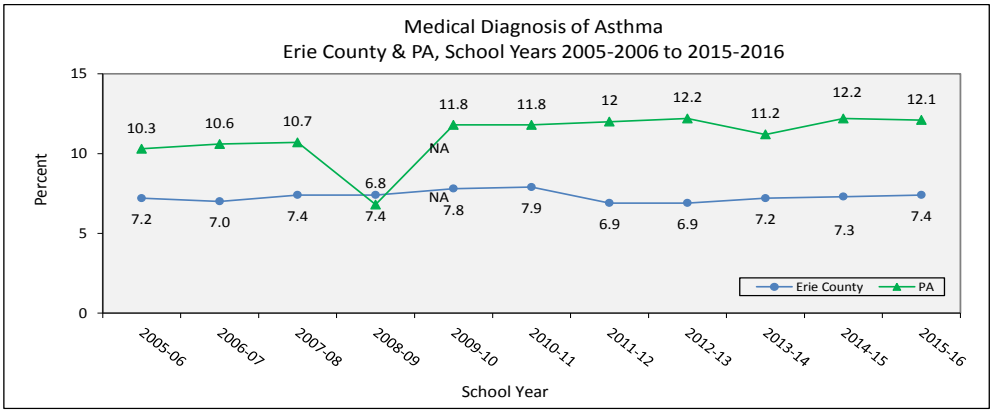
Children and Youth During the 2015-2016 school year current asthma prevalence reported for Erie County students (grades K-12) was 7.4% (12.1% for PA) compared to 7.3% in 2014-2015 and 7.2% in 2013-2014 (Figure 4).

Figure 4. Student Asthma Prevalence, School Years 2005-2006 to 2015-2016



Cancer Prevalence

Earlier in this document cancer incidence for Erie County was reported. This statistic provides a snapshot of annual cancer diagnoses within Erie County, but does not provide information about cancer survivors. Advances in early detection and treatment have increased the survival rate for individuals diagnosed with cancer. According to the American Cancer Society, there were more than 15.5 million children and adults with a diagnosis of cancer in the United States who were alive in 2016. Of these, 67% were diagnosed 5 or more years ago and 17% were diagnosed 20 or more years ago. The number of survivors is expected to increase to 20.3 million in 2026.

Skin Cancer Based on the BRFSS, the self-reported lifetime prevalence of Erie County adults aged 18 and above who were ever told they had skin cancer (melanoma, basal cell carcinoma, or squamous cell carcinoma) was 5% in 2016-2017 (6% for PA) compared to 6% in 2011-2013.

- The percentage of adults ever diagnosed with skin cancer was highest for ages 65 and above at 12%. The percentage for other subgroups ranged from 4% to 7%.
- The prevalence of skin cancer was 3% for the Erie City Area geographic area and 7% for the Rest of Erie County geographic area.

Cancer Other Than Skin Cancer Based on the BRFSS, the self-reported lifetime prevalence of Erie County adults aged 18 and above who were ever told they had cancer other than skin cancer was 8% in 2016-2017 (7% for PA) compared to 6% in 2011-2013.

- Within demographic groups, percentages were comparatively higher for females (11%), those age 65 and above (17%), those with less than a high school education (20%), those with income below $15,000 (11%), and non-Hispanic Whites (8%).

- The prevalence of cancers other than skin cancer was 8% for both the Erie City Area and Rest of Erie County geographic areas.

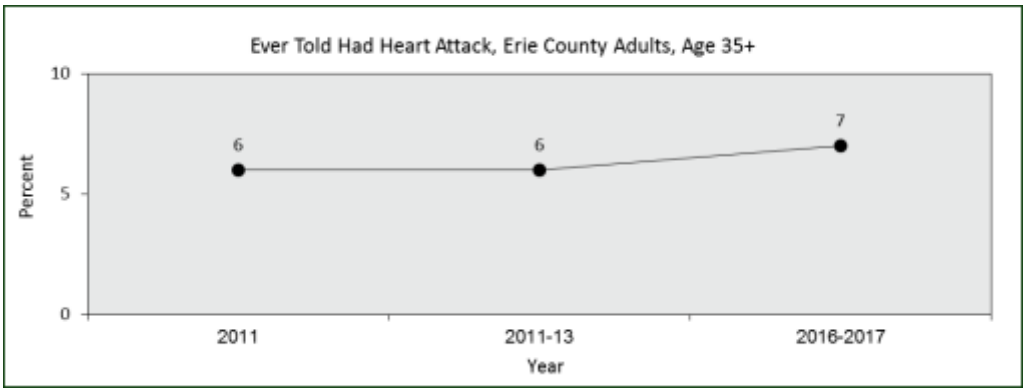
Cardiovascular Disease

In Erie County, diseases of the heart, including heart attack and chronic heart disease, was the leading cause of death for years 2012-2014 while cerebrovascular disease (stroke) was fourth. Inactivity, obesity, high blood pressure, cigarette smoking, high cholesterol, and diabetes are risk factors associated with heart attack, heart disease, and stroke.

Heart Attack Based on the BRFSS, the self-reported prevalence of Erie County adults aged 35 and above who were ever told they had a heart attack (myocardial infarction) was 7% in 2016-2017 compared to 6% in 2011-2013 (Figure 5). This was higher than PA at 6% (2016) and the U.S. at 4% (2016).

- Among age groups, the highest percentage was 9% for age group 65 and above. This was lower than the 2011-2013 value of 14%.
- Percentages for only two education levels were reported. As education levels decreased, heart attack prevalence increased. The highest percentage was 9% for those with a high school education. The lowest percentage was among those with some college at 5%.
- Heart attack prevalence was higher among males at 10% (8% in 2011-2013) compared to females at 4% (5% in 2011-2013).
- As income levels decreased, heart attack prevalence increased. The highest percentage was 12% for those earning less than $15,000. The lowest percentage was among those earning $75,000 and above at 3%.
- The percentage of heart attack was higher among non-Hispanic Blacks at 11% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 7% (6% in 2011-2013).
- Heart attack prevalence was 9% in the Erie City Area geographic area and 5% for the Rest of Erie County geographic area.

Figure 5. Heart Attack Prevalence, 2011 to 2016-2017

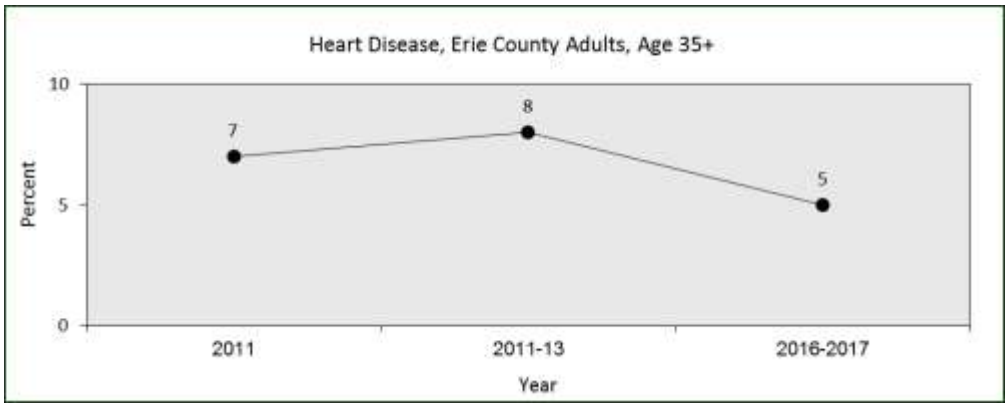


Overall, the percentage of individuals who reported a heart attack diagnosis increased with increasing age, decreasing education, and decreasing income.

Heart Disease Based on the BRFSS, the prevalence of Erie County adults aged 35 and above who were ever told they had heart disease (including angina and coronary heart disease) was 5% in 2016-2017 compared to 8% in 2011-2013 (Figure 6). This was lower than PA at 6% (2016) but higher than the U.S. at 4% (2016).

- Among age groups, the highest percentage was 10% for age group 65 and above (14% for 2011-2013). The percentage for ages 45-64 was 4%.
- Percentages for three education levels were reported. Prevalence was 5% for those with some college (6% in 2011-2013) and 6% for both those with a college degree (6% in 2011-2013) and those with a high school education (values for 2011-2013 are not available).
- Heart disease percentage was higher among males at 7% (10% in 2011-2013) compared to females at 4% (5% in 2011-2013).
- Among income groups, the highest percentage of heart disease was 8% for both those earning $25,000-$49,999 and $50,000-$74,999. The lowest prevalence was among those earning $15,000-$24,999 at 4%.
- The percentage of heart disease among non-Hispanic Whites was 6% (8% in 2011-2013). The percentage among non-Hispanic Blacks was not reported.
- Heart disease prevalence was 6% in the Erie City Area geographic area and 5% for the Rest of Erie County geographic area.

Figure 6. Heart Disease Prevalence, 2011 to 2016-2017



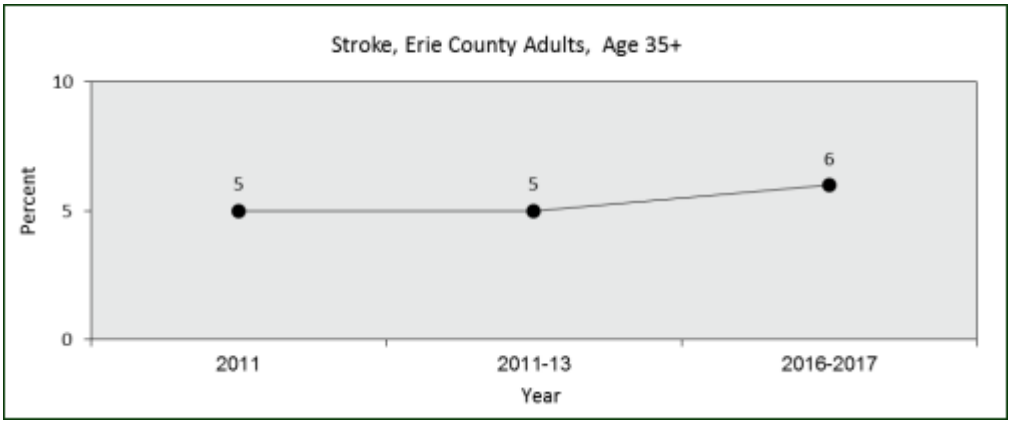
Stroke Based on the BRFSS, the prevalence of Erie County adults aged 35 and above who were ever told they had a stroke was 6% in 2016-2017 compared with 5% in 2011-2013 (Figure 7). This was higher than PA at 4% (2016) and the U.S. at 3% (2016). In Erie County, stroke was the fourth leading cause of death for years 2012-2014.

- Among age groups, the highest percentage was 10% for age group 65 and above. This was higher than the 2011-2013 value of 9%.

- For the education levels reported, the highest percentage was 8% for those with a high school education. The lowest percentage was 4% for both those with less than a high school education and those with some college.
- Stroke prevalence was higher among females at 6% (4% in 2011-2013) compared to males at 5% (5% in 2011-2013).
- For the income levels reported, the highest percentage was 16% for those earning less than $15,000. The lowest percentage was 6% for those earning $25,000-$49,999.
- Stroke prevalence was higher among non-Hispanic Blacks at 16% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 5% (5% in 2011-2013).
- Stroke prevalence was 7% in the Erie City Area geographic area and 5% for the Rest of Erie County geographic area.

Stroke prevalence increased with increasing age and decreasing income.

Figure 7. Stroke Prevalence, 2011 to 2016-2017

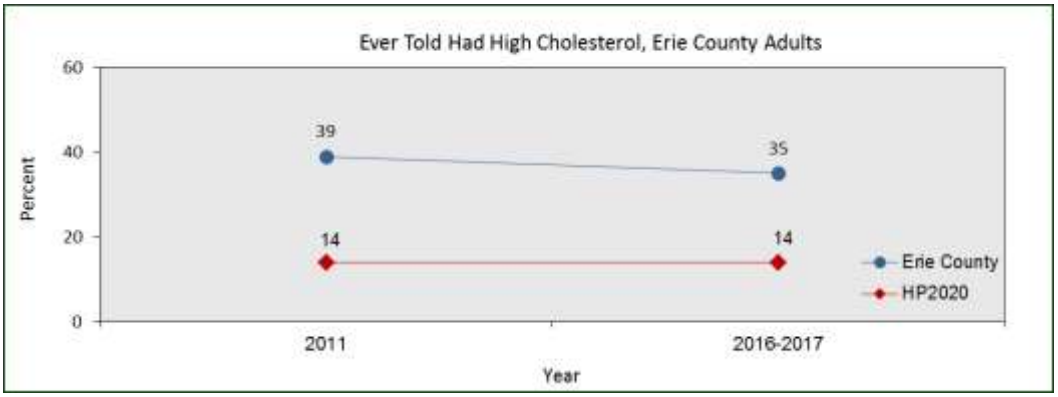


Cholesterol Blood Level and Awareness

High cholesterol is a major risk factor for coronary heart disease and heart attack. Current guidelines recommend that adults be screened for blood cholesterol levels and, if needed, to follow appropriate treatment plans and lifestyle changes to control these levels.

High Cholesterol Based on the BRFSS, the self-reported prevalence of Erie County adults aged 18 and above who were ever told they had high blood cholesterol was 35% in 2016-2017 compared to 39% in 2011 (Figure 8). This was lower than PA at 36% (2015) and the U.S. at 36% (2015). The Healthy People 2020 Goal for high cholesterol diagnosis is 13.5% for adults aged 20 and above.

Figure 8. Elevated Blood Cholesterol Prevalence, 2011 & 2016-2017

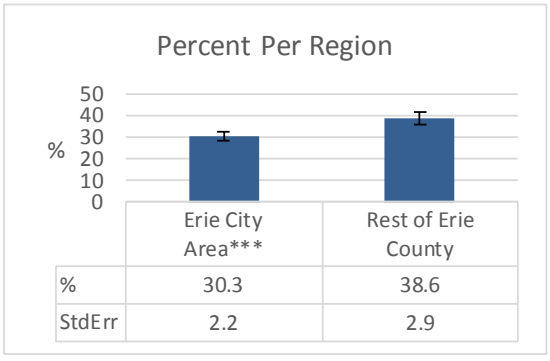


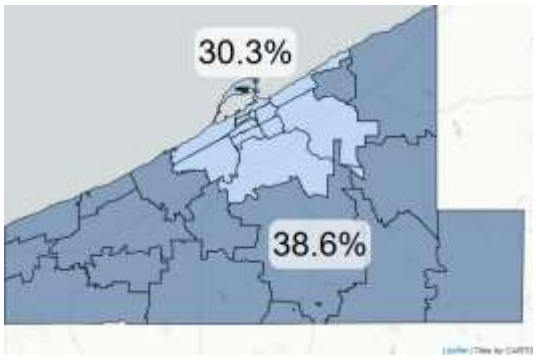
- Among age groups, the highest percentage was for age group 45-64 at 52% followed by 50% for ages 65 and above (Table 2).
- For education levels, the highest percentage for high cholesterol was 53% for those with less than a high school education. The lowest percentage was 30% for those with a college degree.
- High cholesterol percentage was higher among males at 38% compared to females at 33%.
- For income levels, the highest percentage was 47% for those earning $50,000-$74,999 followed by 39% for those earning less than $15,000.
- High cholesterol percentage was higher among non-Hispanic Whites at 36% compared to non-Hispanic Blacks at 30%.
- Prevalence of high cholesterol was 30% in the Erie City Area geographic area and 39% for the Rest of Erie County geographic area.

The prevalence of high cholesterol increased with increasing age and decreasing education.

Table 2. Elevated Blood Cholesterol Prevalence, 2016-2017

	Had High Blood Cholesterol			
All Adults	**%**	Lower CL	Upper CL	**% PA 2015**
	35	31	39	36
Age				
18-29	6*	1*	12*	6
30-44	24	15	32	20
45-64	52	46	58	42
65+	50	43	58	53
Education				
< High School	53	35	71	47
High School	37	31	43	38
Some College	32	25	40	35
College Degree	30	23	37	31
Gender				
Female	33	28	38	34
Male	38	32	43	39
Income				
< $15,000	39	28	51	44
$15,000-$24,999	27	17	36	43
$25,000-$49,999	31	24	38	38
$50,000-$74,999	47	37	56	35
$75,000+	34	26	42	31
Race				
Non-Hispanic Black	30	18	41	32
Non-Hispanic White	36	32	40	38
Other	24*	7*	41*	





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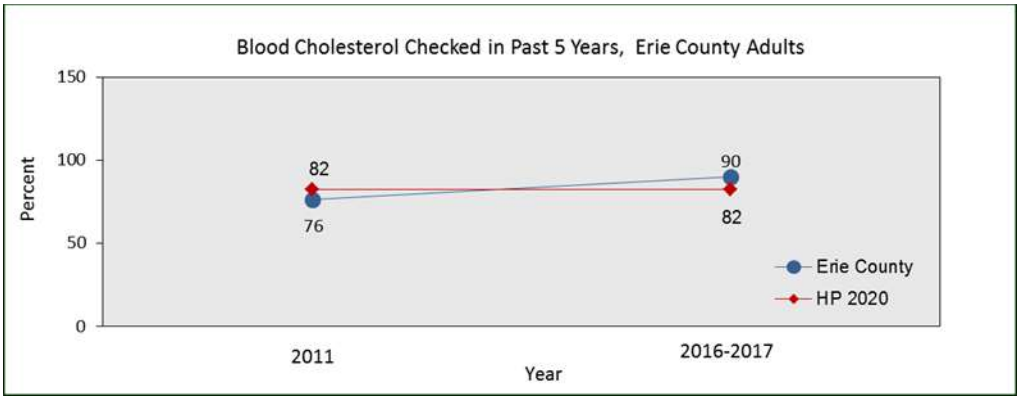
Cholesterol Checked in Past Five Years Based on the BRFSS, the prevalence of Erie County adults aged 18 and above who had their blood cholesterol checked in the past five years was 90% in 2016-2017 compared with 76% in 2011 (Figure 9). This was higher than PA at 79% (2015), the U.S. at 78% (2015), and the Healthy People 2020 goal of 82.1%.

Figure 9. Five Year Blood Cholesterol Screening, 2011 & 2016-2017



- Among age groups, the highest percentage was 99% for age group 65 and above. The lowest was for age group 18-29 at 75%.
- The percentage of those having their cholesterol checked every five years was similar for all education levels. The highest was 92% for those with a college degree and the lowest was 88% for those with less than a high school education and for those with some college.
- Cholesterol screening prevalence was 91% for males and 89% for females.
- For income levels, the highest percentage was 95% for those earning $75,000 and above. The lowest was 85% for those earning less than $15,000 and those with income of $15,000-$24,999.
- Five year cholesterol screening was higher among non-Hispanic Blacks at 92% compared to non-Hispanic Whites at 90%.
- Five year cholesterol screening was 91% in the Erie City Area geographic area and 89% for the Rest of Erie County geographic area.

The percentage of those having their cholesterol checked every five years increased with increasing age and increasing income.

Chronic Obstructive Pulmonary Disease (COPD)

COPD is a term used to identify a group of lung diseases including emphysema and chronic bronchitis. It is also known as Chronic Lower Respiratory Disease (CLRD). Smoking is the primary risk factor for COPD. Asthma, occupational exposure to dust and chemicals, other air pollutants in the home and workplace, genetic factors, and recurrent respiratory infections are also linked to this disease. In Erie County, CLRD was the third leading cause of death for years 2012-2014.

Based on the BRFSS, the self-reported prevalence of Erie County adults aged 18 and above who were ever told they had COPD, emphysema, or chronic bronchitis remained at 7% in 2016-2017

compared to 7% in 2011-2013. This mirrored PA at 7% (2016) but was higher than the U.S. at 6% (2016).

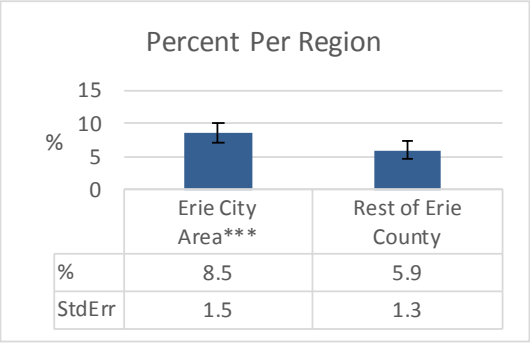
- Among age groups, the highest percentage was seen for age group 65 and above at 11% (Table 3). This was lower than the 2011-2013 value of 15% for this age group. COPD percentage for age group 45-54 remained the same at 9%.
- As education levels decreased, COPD burden increased. The highest percentage was 18% for adults with less than a high school education followed by those with a high school education at 10%. Both of these were significantly higher than the percentage for adults with some college at 3% and those with a college degree at 2%.
- COPD prevalence was higher among females at 8% (8% in 2011-2013) compared to males at 6% (7% in 2011-2013).
- As income levels decreased, COPD prevalence increased. The highest percentage was 16% for adults earning less than $15,000 followed by those earning $15,000-$24,999 at 11%. The lowest percentage was 5% for those earning $25,000-$49,999.
- COPD prevalence was higher among non-Hispanic Blacks at 9% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 6% (7% in 2011-2013).
- COPD prevalence was 9% in the Erie City Area geographic area and 6% for the Rest of Erie County geographic area.
- COPD prevalence was highest for adults with less than a high school education and for those earning less than $15,000.

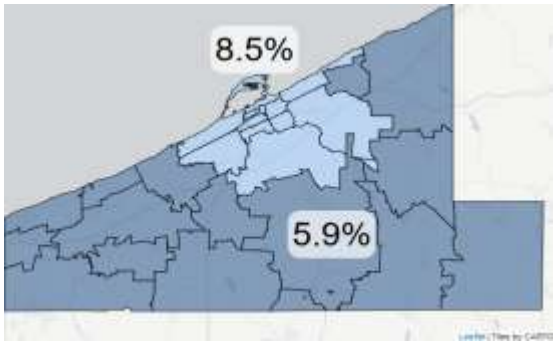
Overall, COPD prevalence increased with increasing age, decreasing education, and decreasing income.

Table 3. COPD, Emphysema, and Chronic Bronchitis Prevalence, 2016-2017

Has COPD, Emphysema or Chronic Bronchitis

All Adults	%	Lower CL	Upper CL	% PA 2016
	7	5	9	7
Age				
18-29	**	**	**	2
30-44	6*	1*	10*	5
45-64	9	5	13	9
65+	11	7	16	12
Education				
< High School	18*	6*	31*	13
High School	10	7	14	10
Some College	3*	1*	5*	7
College Degree	2*	1*	4*	2
Gender				
Female	8	5	11	8
Male	6	3	9	6
Income				
< $15,000	16	9	24	17
$15,000-$24,999	11*	3*	18*	13
$25,000-$49,999	5*	2*	9*	8
$50,000-$74,999	7*	2*	12*	6
$75,000+	**	**	**	3
Race				
Non-Hispanic Black	9*	1*	16*	8
Non-Hispanic White	6	4	8	8
Other	**	**	**	**





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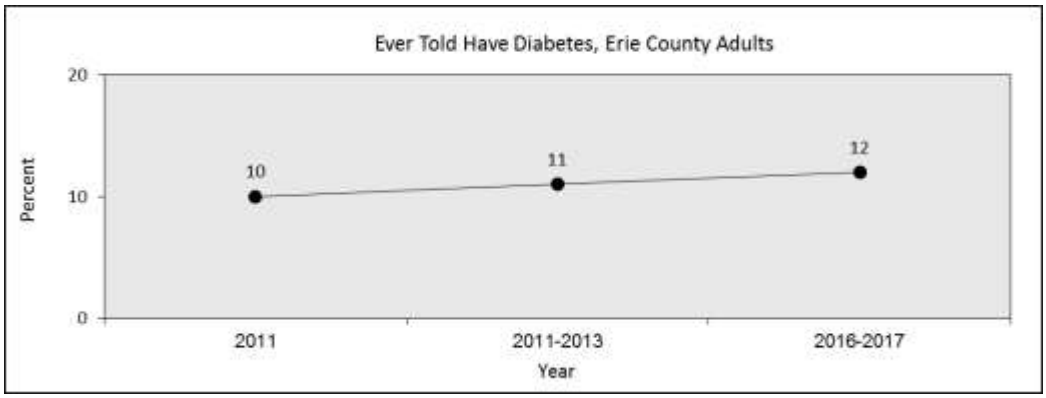
Diabetes

Diabetes is the leading cause of kidney failure, lower limb amputations, and blindness and a major cause of heart disease and stroke. Approximately 90 to 95 percent of diagnosed diabetes cases are type 2. Risk factors for type 2 diabetes are age, overweight, inactivity, hypertension, family history, race, and gestational diabetes during pregnancy. Approximately 24% of people with diabetes are undiagnosed. In Erie County, diabetes was the seventh leading cause of death for the years 2012-2014.

Diabetes Diagnosis Based on the BRFSS, the self-reported prevalence of Erie County adults aged 18 and above who were ever told they had diabetes increased to 12% in 2016-2017 compared to 11% in 2011-2013 (Figure 10). This is higher than both PA at 11% (2016) and the U.S. at 11% (2016).

Figure 10. Diabetes Prevalence, 2011 to 2016-2017

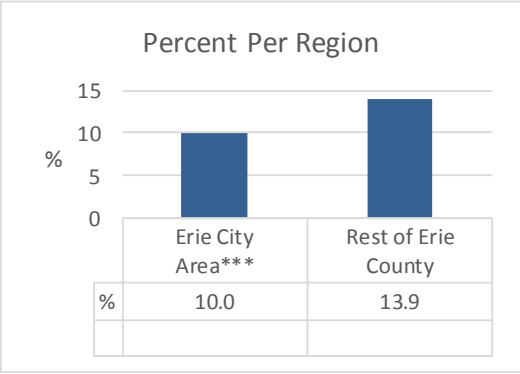


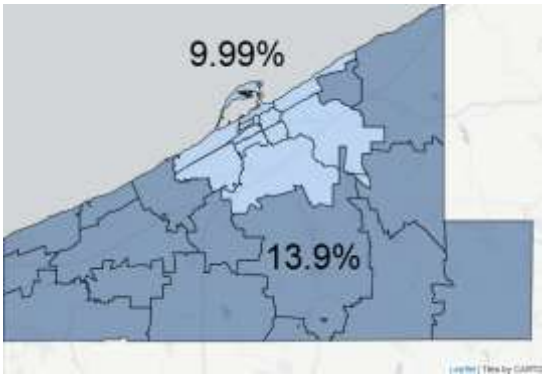
- Among age groups, the highest percentage was 28% for age group 65 and above (Table 4). This was higher than the 2011-2013 value of 19%.
- As education levels decreased, diabetes burden increased. The highest percentage was 17% for adults with less than a high school education followed by those with a high school education at 16%.
- Diabetes prevalence was slightly higher among males at 13% (13% in 2011-2013) compared to females at 12% (10% in 2011-2013).
- For income levels, the highest percentage of diabetes was 17% for adults earning $25,000-$49,999 followed by those earning $15,000-$24,999 at 15%. The lowest percentage was 5% for those earning $75,000 and above.
- Diabetes prevalence was higher among non-Hispanic Blacks at 18% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 12% (12% in 2011-2013).
- The percentage of diabetes among adults was 10% in the Erie City Area geographic area and 14% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of diabetes among adults was 28% for those aged 65 and above.

Overall, diabetes prevalence increased with increasing age and decreasing education.

Table 4. Diabetes Prevalence, 2016-2017

	Diabetes			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	12	10	15	11
Age				
18-29				1
30-44	**	**	**	4
45-64	18	13	23	13
65+	28	20	35	24
Education				
< High School	17*	4*	30*	21
High School	16	11	21	13
Some College	8	5	12	10
College Degree	9	6	13	7
Gender				
Female	12	9	15	11
Male	13	9	17	12
Income				
< $15,000	12	6	18	15
$15,000-$24,999	15	7	24	18
$25,000-$49,999	17	11	23	13
$50,000-$74,999	14	7	20	11
$75,000+	5*	2*	9*	6
Race				
Non-Hispanic Black	18*	7*	30*	15
Non-Hispanic White	12	9	15	11
Other	**	**	**	**





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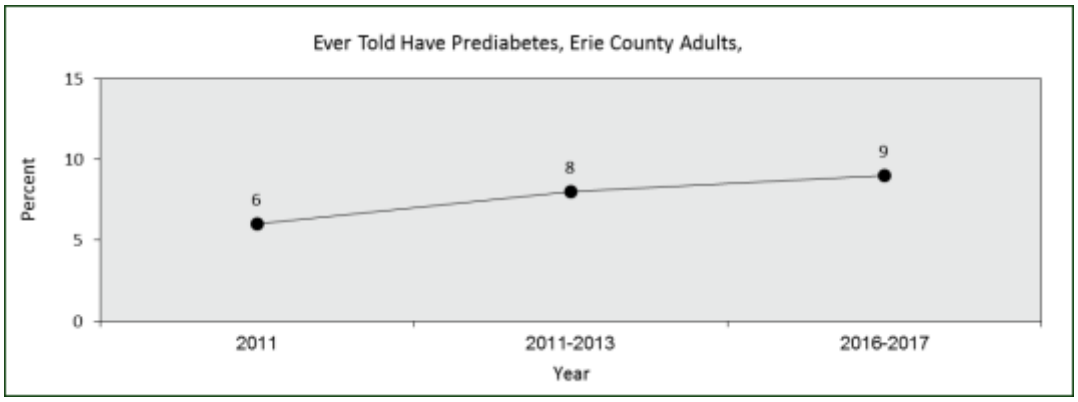
Prediabetes Prediabetes is diagnosed as a higher than normal blood sugar level. Individuals with this condition have a greater risk of developing type 2 diabetes. Prediabetes among adults in Erie County has steadily increased. In 2016-2017, 9% of Erie County adults aged 18 and above had ever been told they had prediabetes (8% for PA in 2014) compared to 8% in 2011-2013 and 6% in 2011 (Figure 11; Table 5).

Figure 11. Prediabetes Prevalence, 2011 to 2016-2017

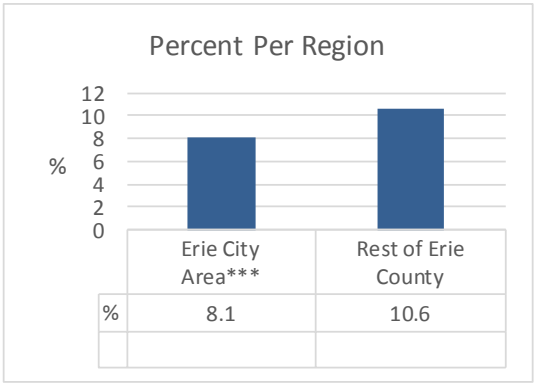


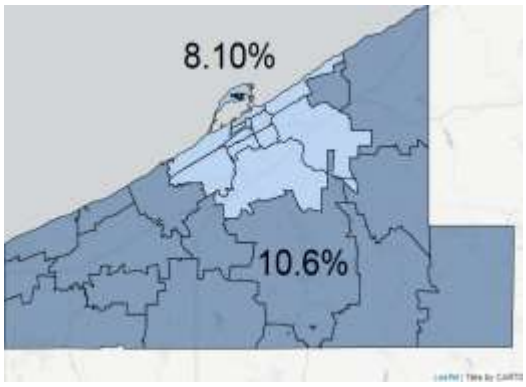
- Among age groups, the highest percentage was 16% for age group 45-64 (Table 5). This was higher than the 2011-2013 value of 10%.
- As education levels decreased, prediabetes burden increased. The highest percentage was 19% for adults with less than a high school education followed by those with a high school education at 11%. Prevalence was 7% for adults with some college and those with a college degree.
- Percentage of prediabetes was slightly higher among males at 10% (7% in 2011-2013) compared with females at 9% (9% in 2011-2013).
- Among income groups, the highest percentage of prediabetes was 14% for adults earning $15,000-$24,999 followed by those earning $50,000-$74,999 at 13%. The lowest percentage was 7% for those earning $75,000 and above.
- Prediabetes prevalence was higher among non-Hispanic Blacks at 15% (values for 2011-2013 are not available) compared to non-Hispanic Whites at 9% (8% in 2011-2013).
- Percentage of prediabetes was 8% in the Erie City Area geographic area and 11% for the Rest of Erie County geographic area.
- Prediabetes prevalence was highest for adults with less than a high school education at 19% and those aged 45-64 at 16%.

Overall, prediabetes burden increased with decreasing education.

Table 5. Prediabetes Prevalence, 2016-2017

	Prediabetic or Borderline Diabetic			
All Adults	**%**	Lower CL	Upper CL	**% PA 2014**
	9	7	12	8
Age				
18-29	**	**	**	3
30-44	6*	2*	11*	3
45-64	16	11	22	11
65+	11	5	16	12
Education				
< High School	19*	2*	36*	7
High School	11	7	16	9
Some College	7	3	11	8
College Degree	7	3	11	6
Gender				
Female	9	5	12	7
Male	10	6	14	8
Income				
< $15,000	10*	3*	17*	9
$15,000-$24,999	14*	4*	23*	10
$25,000-$49,999	10	5	15	8
$50,000-$74,999	13	5	20	7
$75,000+	8*	3*	12*	6
Race				
Non-Hispanic Black	15*	3*	27*	10
Non-Hispanic White	9	7	12	7
Other	**	**	**	**





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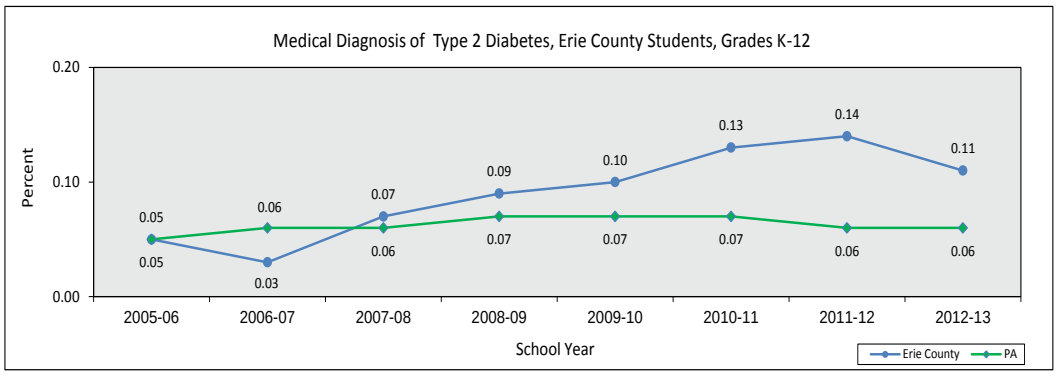
Children and Youth Results from the SEARCH for Diabetes in Youth long term study among youth age 19 and below indicate a 21% increase in type 1 diabetes for youth aged 0 through 19 years and a 30% increase in type 2 diabetes for youth aged 10 through 19 years from 2001 to 2009. From 2002 to 2012, the rate of new diagnosed cases of type 1 diabetes in youth increased by about 1.8 percent each year. During the same period, the rate of new diagnosed cases of type 2 diabetes increased by 4.8 percent each year.

- During the 2012-2013 school year, 0.36% (0.33% for PA) of Erie County students (grades K-12) had a medical diagnosis of type 1 diabetes. This prevalence remained relatively constant since 2005-2006.
- During the 2012-2013 school year, 0.11% (0.06% for PA) of Erie County students (grades K-12) had a medical diagnosis of type 2 diabetes compared with 0.14% in 2011-2012 (0.06% for PA), and 0.13% in 2010-2011 (0.07% for PA) (Figure 12).

Figure 12. Diabetes Prevalence among Students, Erie & PA, 2005-2006 to 2012-2013

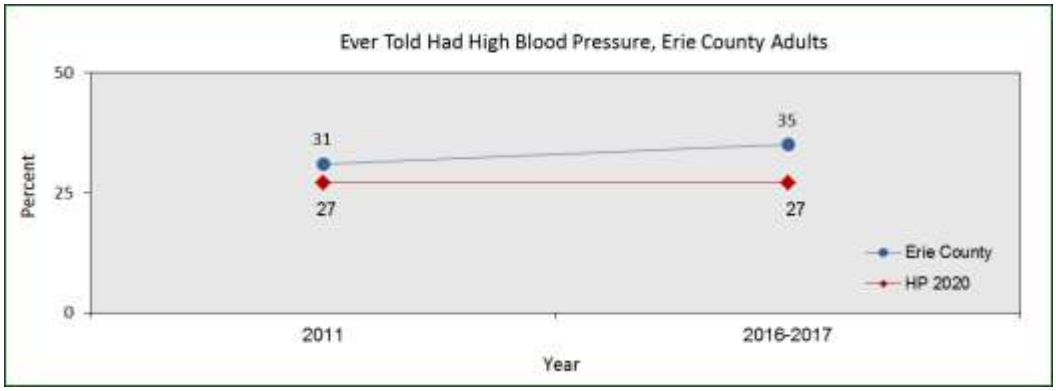


Hypertension

Hypertension (high blood pressure) is associated with heart disease, stroke, and kidney failure. The CDC estimates that 1 of 3 U.S. adults has high blood pressure, but only 54% have their condition under control. Risk factors include family history, age, gender, race, lifestyle health behaviors, and diabetes.

Hypertension Diagnosis Based on the BRFSS, the self-reported prevalence of Erie County adults aged 18 and above who were ever told they had high blood pressure increased to 35% in 2016-2017 compared with 31% in 2011 (Figure 13). This was higher than PA at 33% (2015), the U.S. at 31% (2015), and the Healthy People 2020 goal of 26.9%.

Figure 13. Hypertension Prevalence, Erie County, 2011 to 2016-2017

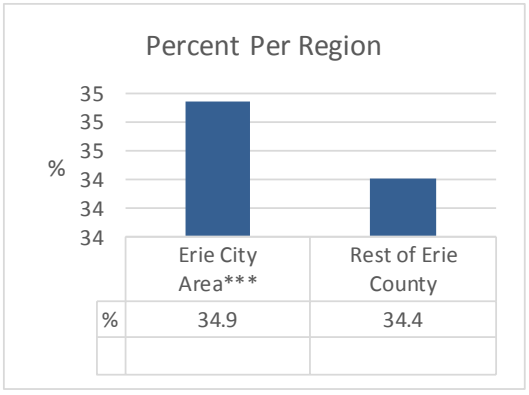


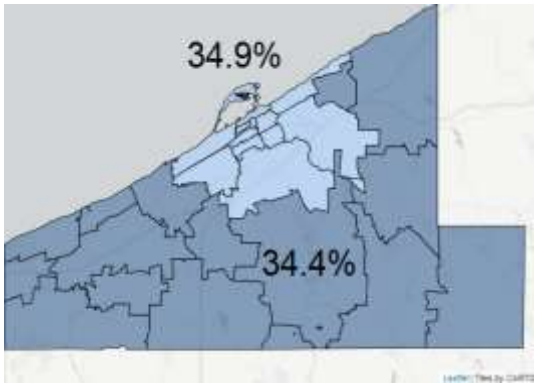
- Among age groups, the highest percentage was 57% for age group 65 and above followed by age group 45-64 at 44% (Table 6).
- In Erie County, the hypertension burden for age group 18-29 was 17% compared with PA at 6% (2015).
- As education levels decreased, hypertension burden increased. The highest percentage was 53% for adults with less than a high school education (39% for PA). The lowest was 28% for adults with a college degree.
- Percentage of hypertension was higher among males at 38% compared with females at 32%.
- For income groups, the highest percentage of hypertension was 41% for adults earning less than $15,000 followed by those earning $50,000-$74,999 at 36%. The lowest percentage was 24% for those earning $15,000-$24,999.
- Hypertension burden was the same for non-Hispanic Blacks and non-Hispanic Whites at 35%.
- Percentage of hypertension was 35% in the Erie City Area geographic area and 34% for the Rest of Erie County geographic area.
- Hypertension prevalence was highest for adults aged 65 and above at 57% followed by those with less than a high school education at 53% and those earning less than $15,000 at 41%.

Overall, hypertension burden increased with increasing age and decreasing education.

Table 6. Hypertension Prevalence, 2016-2017

Ever Told Have High Blood Pressure				
All Adults	**%**	Lower CL	Upper CL	**% PA 2015**
	35	31	38	33
Age				
18-29	17	9	25	6
30-44	16	9	23	19
45-64	44	38	51	39
65+	57	50	65	59
Education				
< High School	53	34	72	39
High School	37	30	43	38
Some College	33	25	40	31
College Degree	28	21	35	23
Gender				
Female	32	27	37	30
Male	38	32	44	35
Income				
< $15,000	41	29	53	43
$15,000-$24,999	24	16	32	45
$25,000-$49,999	35	27	42	34
$50,000-$74,999	36	27	46	32
$75,000+	32	24	40	24
Race				
Non-Hispanic Black	35	22	47	39
Non-Hispanic White	35	31	39	33
Other	**	**	**	**





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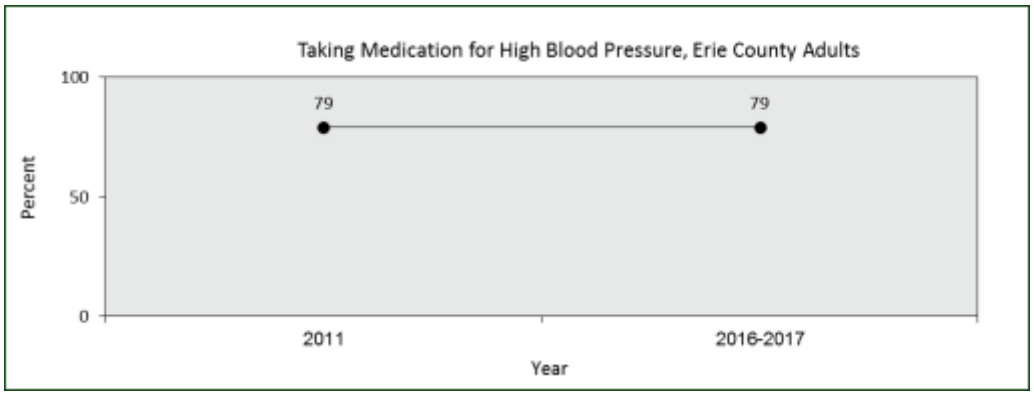
Medication Use Based on the BRFSS, the prevalence of Erie County adults aged 18 and above who currently take medication for their high blood pressure remained at 79% in 2016-2017 compared with 79% in 2011 (Figure 14). This was lower than PA at 81% (2015).

Figure 14. Hypertension Medication Use Prevalence, 2011 to 2016-2017



- Among age groups, 96% of adults aged 65 and above who have hypertension take medication. This value was 84% for age group 45-64.
- Among education groups, the highest percentage of medication use was 82% for those with a high school education. The lowest was 70% for those with less than a high school education.
- Medication use was higher among females at 85% compared with males at 74%.
- Among income groups, 91% of adults with hypertension who earn $25,000-$49,999 take medication followed by those earning $15,000-$24,999 at 84%. The lowest percentage was 64% for those earning $75,000 and above.
- The percentage of non-Hispanic Blacks taking hypertension medication was 89% compared with non-Hispanic Whites at 79%.
- Percentage of adults taking medication was 73% in the Erie City Area geographic area and 83% for the Rest of Erie County geographic area.
- Of all groups, the lowest percentages for medication use were 61% for age group 30-44 and 64% for those earning $75,000 and above.

Overall, hypertension medication use increased with increasing age.

Kidney Disease

Chronic kidney disease (CKD) is a condition in which the kidneys gradually lose function over time. Treatment focuses on slowing the progress toward kidney failure by targeting the underlying cause. Diabetes and hypertension are primary causes of CKD and final kidney failure representing 3 out of 4 cases. Other risk factors are heart disease, obesity, and genetics.

Based on the BRFSS, the self-reported prevalence of Erie County adults age 18 and above who were ever told they had chronic kidney disease decreased to 2% in 2016-2017 (2% for PA in 2016) compared with 3% in 2011-2013. Among all groups, the percentage of kidney disease ranged from 2% to 3% with the exception of 5% for those who earn $25,000-$49,999.

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Preventive Health Services

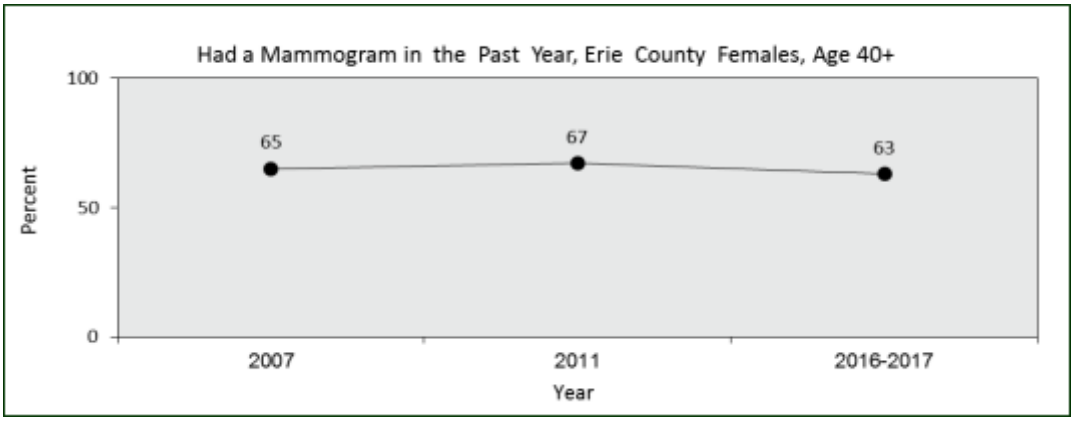
Breast Cancer Screening

Breast cancer is the most frequently diagnosed cancer in women. The American Cancer Society recommends that women receive an annual mammogram beginning at age 45 and considers mammography to be the single most effective screening tool for early stage breast cancer.

Annual Mammogram Based on the Behavioral Risk Factor Surveillance Survey (BRFSS), the self-reported percentage of Erie County females aged 40 and above who had a mammogram in the past year decreased to 63% in 2016-2017 compared with 67% in 2011(Figure 1). This was higher than PA at 56% (2016).

- Among age groups, the highest percentage for an annual mammogram was 70% for age group 50-64 (Table 1).
- For education levels, the highest percentage for an annual mammogram was 73% for women age 40 and above with some college, while the lowest was 56% for those with a high school education. Percentage for those with less than a high school education was not reported.
- For income levels, the highest percentage for an annual mammogram was 72% for women with income of $75,000 and above. The lowest percentage was 50% for women with annual income of $15,000-$24,999.
- The percentage was higher among non-Hispanic Black women at 70% (values for 2011-2013 are not available) compared to non-Hispanic White women at 61% (67% in 2011-2013).
- In the Erie City Area geographic area, 61% of women age 40 and above had a mammogram in the past year compared with 64% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of an annual mammogram among women age 40 and above was 73% for those with some college and 72% for those with income of $75,000 and above.

Figure 1. Annual Mammogram Prevalence, 2007 to 2016-2017



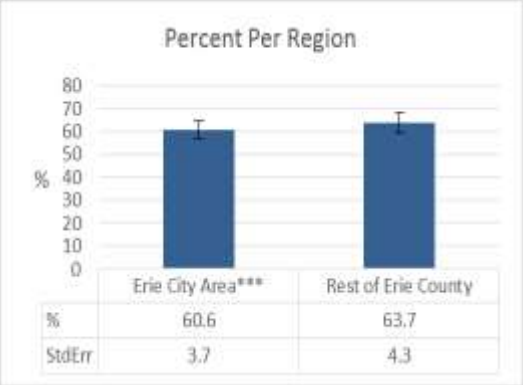
Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

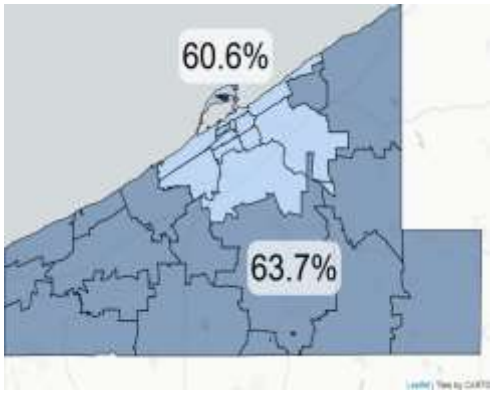
- In 2016, 3% of women age 40 and above reported never having a mammogram.
- For all groups, the highest percentage of women age 40 and above who had a mammogram in the past year was 73% for women with some college.

Table 1. Annual Mammogram Prevalence, 2016-2017

Had a Mammogram in the past Year, Women Age 40+

All Adults	%	Lower CL	Upper CL		% PA
	63	57	68		56
Age					
40-49	54	41	67		48
50-64	71	63	78		58
55-74	66	54	78		66
75+	45	27	63		49
Education					
< High School	**	**	**		44
High School	56	46	65		54
Some College	73	63	84		56
College Degree	62	50	73		64
Gender					
Female	63	57	68		56
Income					
<$15,000	57	41	73		43
$15,000-$24,999	50	34	67		49
$25,000-$49,999	64	52	75		57
$50,000-$74,999	65	50	80		54
$75,000+	72	60	85		*64*
Race					
Non-Hispanic Black	70	51	89		65
Non-Hispanic White	61	54	67		55
Other	**	**	**		





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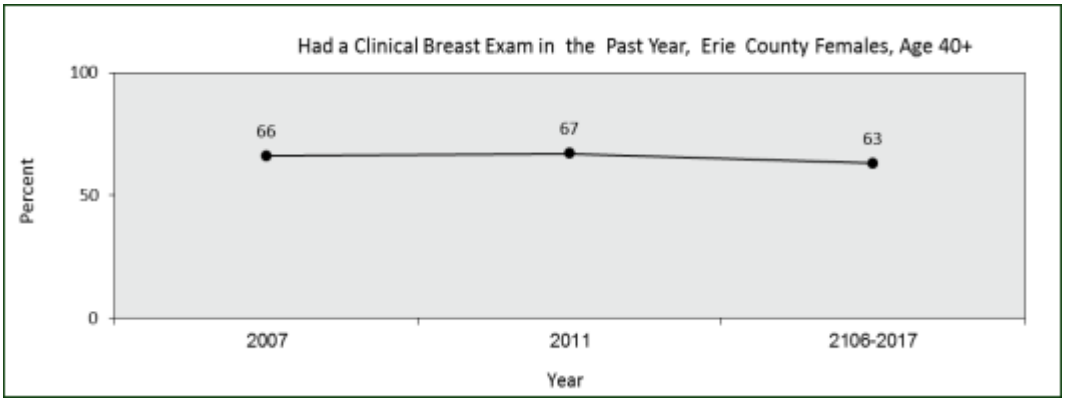
Clinical Breast Exam Based on BRFSS reports, the self-reported annual clinical breast exam prevalence for Erie County females aged 40 and above decreased to 63% in 2016-2017 compared with 67% in 2011 (Figure 2). This was higher than PA at 56% (2014).

- Among age groups, the highest percentage of an annual clinical breast exam among women age 40 and above was 68% for age group 50-64, while the lowest percentage was among women age 75 and above at 46%.
- For education levels, the highest percentage for an annual clinical breast exam was 74% for women aged 40 and above with a college degree, while the lowest was 53% for those with a high school education. Percentage for those with less than a high school education was not reported.
- For income levels, the highest percentage for an annual clinical breast exam was 75% for women aged 40 and above with income of $75,000 and above. The lowest percentage was 40% for women with annual income of $15,000-$24,999.
- The percentage of annual clinical breast exam was higher among non-Hispanic Black women aged 40 and above at 66% compared to non-Hispanic White women at 61%.
- In the Erie City Area geographic area, 64% of women age 40 and above had a clinical breast exam in the past year compared with 63% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of an annual clinical breast exam among women age 40 and above was 75% for those with income of $75,000 and above and 74% for those with some college.
- In 2016, 4% of women age 40 and above reported never having a clinical breast exam.

Figure 2. Annual Clinical Breast Examination Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Cervical Cancer Screening

The most common early cancer screening method for cervical cancer is the Pap test which can detect both precancerous and early stage cancer cells.

Based on BRFSS reports, the self-reported annual Pap test prevalence for Erie County females aged 18 and above decreased to 51% in 2016-2017 compared with 60% in 2011. However, the CDC guideline for Pap test schedule have changed since 2011, and CDC now recommends women age 18 and older receive a Pap test every three years.

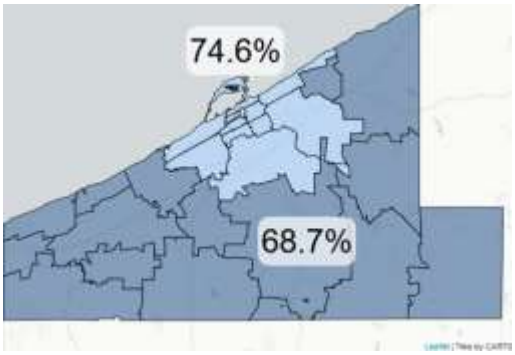
Based on BRFSS reports, 71% of woman age 18 and above in Erie County reported having received a Pap test in the past three years. This is higher than PA at 66% (2016) but lower than the national average of 80% (2016).

- Among age groups, the highest percentage of women receiving a Pap test in the past three years was 94% for age group 30-44 (Table 2).
- For education levels, the highest percentage for past three-year Pap test was 81% for women with a college degree while the lowest was 64% for those with a high school education. Values were not reported for those with less than a high school education.
- For income levels, the highest percentage for past three-year Pap test was 80% for women with income from $50,000-$74,999 and for women with income greater than $75,000. The lowest percentage was 64% for women with annual income less than $15,000.
- The percentage of past three-year Pap test was higher among non-Hispanic Black women aged 18 and above at 81% compared with non-Hispanic White women at 69%.
- In the Erie City Area geographic area, 75% of women age 18 and above had a Pap test in the past three years compared with 69% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of past three-year Pap test among women age 18 and above was 81% for those with a college degree and 80% for those with income of $50,000 and above.

Table 2. Pap Test in Past 3 Years Prevalence, 2016-2017

Had a Pap Test in the Past 3 Years, Women Age 18+

All Adults	%	N	Lower CL	Upper CL	% PA 2016
	71	456	66	76	66
Age					
18-29	62	39	45	79	55
30-44	94	103	90	99	84
45-64	71	214	64	78	71
65+	44	100	34	54	48
Education					
< High School	**	**	**	**	50
High School	64	149	56	72	58
Some College	75	127	66	83	67
College Degree	81	173	74	89	79
Gender					
Female	71	456	66	76	66
Male					
Income					
< $15,000	64	41	50	78	53
$15,000-$24,999	74	70	61	86	53
$25,000-$49,999	67	123	57	77	62
$50,000-$74,999	80	78	70	91	73
$75,000+	80	110	72	89	80
Race					
Non-Hispanic Black	81	34	63	100	71
Non-Hispanic White	69	402	64	75	65
Other	**	**	**	**	



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Colorectal Cancer Screening

Colorectal cancer is a commonly diagnosed cancer among all adults. It is preventable by removal of premalignant polyps and is curable when diagnosed early. Fecal occult blood testing (FOBT), sigmoidoscopy, and colonoscopy are the most commonly used screening methods.

Sigmoidoscopy and Colonoscopy Based on the BRFSS, the self-reported prevalence of adults aged 50 and above who had a sigmoidoscopy or colonoscopy (proctoscopy) within the past 10 years was 72%. This is higher than PA at 71% (2016). In the U.S., 66% of adults aged 50 and above reported having a proctoscopic procedure in the past 10 years, 64% reported receiving a colonoscopy, and 2% reported receiving a sigmoidoscopy.

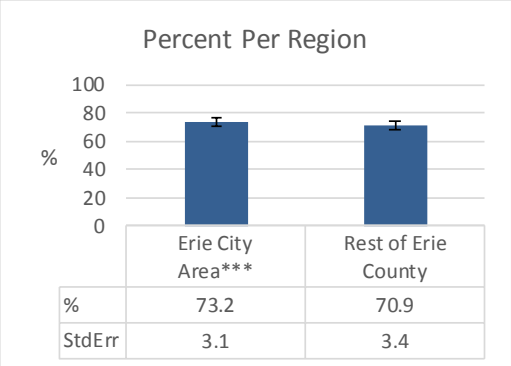
Previous estimates for Erie County were based on guidelines that adults aged 50 and above receive sigmoidoscopy or colonoscopy every five years. However, CDC guidelines now recommend adults aged 50 and above receive a sigmoidoscopy and colonoscopy every ten years, while individuals at higher risk of colorectal cancer are recommended to receive a sigmoidoscopy or colonoscopy every five years.

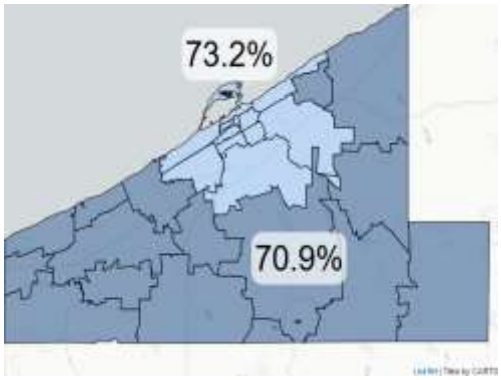
- Among age groups, the highest percentage of adults who had a proctoscopic procedure was 85% for age group 65-74 (Table 3).
- For education levels, the highest percentage for past 10-year sigmoidoscopy or colonoscopy for adults aged 50 and above was 77% for those with a college degree while the lowest was 62% for those with less than a high school education.
- For income levels, the highest percentage for past 10-year sigmoidoscopy or colonoscopy was 78% for adults aged 50 and above with income from $50,000-$74,999. The lowest percentage was 66% for adults with income from $15,000-$24,999.
- The percentage of past 10-year sigmoidoscopy or colonoscopy was higher among non-Hispanic Black adults at 88% compared with non-Hispanic White adults at 71%.
- Males 50 years and older reported higher prevalence of past 10-year sigmoidoscopy or colonoscopy at 76% compared with females age 50 years and older at 68%.
- In the Erie City Area geographic area, 73% of adults age 50 and above had a sigmoidoscopy or colonoscopy in the past ten years compared with 71% for the Rest of Erie County geographic area.

Table 3. Sigmoidoscopy or Colonoscopy Prevalence, 2016-2017

Had a Sigmoidoscopy or Colonoscopy in the Past 10 Years, Age 50+

All Adults	%	Lower CL	Upper CL	% PA
	72	67	77	67
Age				
50-64	66	59	73	62
65-74	85	79	91	74
75+	70	56	84	71
Education				
< High School	62	38	86	55
High School	69	62	77	65
Some College	74	65	83	69
College Degree	77	68	85	74
Gender				
Female	68	61	74	66
Male	76	69	84	68
Income				
< $15,000	72	59	85	52
$15,000-$24,999	66	51	80	58
$25,000-$49,999	67	57	77	67
$50,000-$74,999	78	68	89	70
$75,000+	77	67	86	74
Race				
Non-Hispanic Black	88	78	98	67
Non-Hispanic White	71	65	76	67
Other	**	**	**	





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Fecal Occult Blood Test (FOBT) Based on the BRFSS, the self-reported prevalence of adults aged 50 and above who had a blood stool test within the past-year was 7% compared with 18% in 2011. This is lower than both PA and the U.S. at 8% (2016).

- Among age groups, the highest percentage of FOBT was 10% for age group 75 and above. This was lower than the 2011 value of 21% for this age group.
- For education levels, the highest percentage for past-year FOBT was 9% for adults age 50 and above with a high school education, and lowest among adults with some college education (6%). Percentages for those with less than a high school education and those with a college degree were not reported.
- For income levels, the highest percentage for past-year FOBT was 20% for adults age 50 and above with income less than $15,000. The lowest percentage was 4% for adults with income from $25,000-$49,999. Percentages for adults with income from $50,000-$74,999 and incomes of $75,000 or greater were not reported.
- The percentage of past-year FOBT for non-Hispanic White adults age 50 and above was 8%. Percentage was not reported for non-Hispanic Black adults.
- Females aged 50 and above reported a higher prevalence of past year FOBT at 7% compared with males aged 50 and above at 6%.
- In the Erie City Area geographic area, 6% of adults age 50 and above had a FOBT in the past year compared with 7% for the Rest of Erie County geographic area.

Prostate Cancer Screening

Prostate cancer is the most frequently diagnosed cancer in men (excluding skin cancer) and is the second leading cause of cancer death in males. National incidence rates are higher in African-American men than in Whites.

Both the CDC and the American Cancer Society (ACS) recommend that men talk with their health care provider about whether to be screened for prostate cancer and then make an informed decision. Current methods of screening are the prostate-specific antigen (PSA) blood test and the digital rectal exam.

Due to changes in CDC guidelines, previous estimates for Erie County were based on guidelines that men age 40 and above receive a PSA blood test every year. However, because the PSA blood test may have false positive or false negative results, the CDC now recommends men age 40 and above discuss receiving a PSA blood test with their doctor, nurse, or other health professional in order to make an informed decision about the risks and benefits associated with this screening method.

Ever had a PSA Blood Test Based on the BRFSS, the self-reported prevalence of men aged 40 and above who had ever received a PSA blood test was 52% compared with 67% for PA (2016).

- Among age groups, the highest percentage of men aged 40 and above who ever had a PSA test was 77% for age group 65 and above.
- For education levels, the highest percentage of men aged 40 and above who had ever received a PSA blood test was 59% for those with some college education, and the lowest

was 50% among those with a high school education. Percentage for those with less than a high school education was not reported.

- For income levels, the highest percentage of men aged 40 and above who had ever received a PSA blood test was 59% among those with income from $15,000-$24,999. The lowest percentage was 48% among men with an income from $50,000-$74,999. Percentage was not reported for men aged 40 and above with income less than $15,000.
- Non-Hispanic White men aged 40 and above reported a prevalence of having ever received a PSA blood test of 52%. Percentage was not reported for non-Hispanic Black men.
- The percentage of men who ever had a PSA test was 51% in the Erie City Area geographic area and 53% for the Rest of the Erie county geographic area.
- For all groups, the highest percentage of men aged 40 and above who ever had a PSA test was 77% for those aged 65 and above.

Recommended to have a PSA Blood Test Based on the BRFSS, the self-reported prevalence of men aged 40 and above whose doctor, nurse, or other health professional ever recommended a PSA blood test was 50% compared with 64% for PA (2016).

- Among age groups, the highest percentage of men aged 40 and above who received a recommendation for a PSA test was 71% for age group 65 and above.
- For education levels, the highest percentage of men aged 40 and above who had ever received a PSA blood test recommendation was 58% for those with some college education, and lowest was 48% among those with a college degree. Percentage for those with less than a high school education was not reported.
- For income levels, the highest percentage of men aged 40 and above who had ever received a PSA blood test recommendation was 58% among those with income from $25,000-$49,999. The lowest percentage was 47% among men with an income from $50,000-$74,999 and men earning $15,000-$24,999. Percentage was not reported for men aged 40 and above with income less than $15,000.
- Non-Hispanic White men aged 40 and above reported a prevalence of having ever received a PSA blood test recommendation of 49%. Percentage was not reported for non-Hispanic Black men.
- In the Erie City Area geographic area, 45% of adult men age 40 and above received a recommendation from a health professional to have a PSA test. For the Rest of the Erie county geographic area, the percentage was 52%.
- For all groups, the highest percentage for recommendation by health professional for PSA testing was 71% for those aged 65 and above.

Influenza Immunization

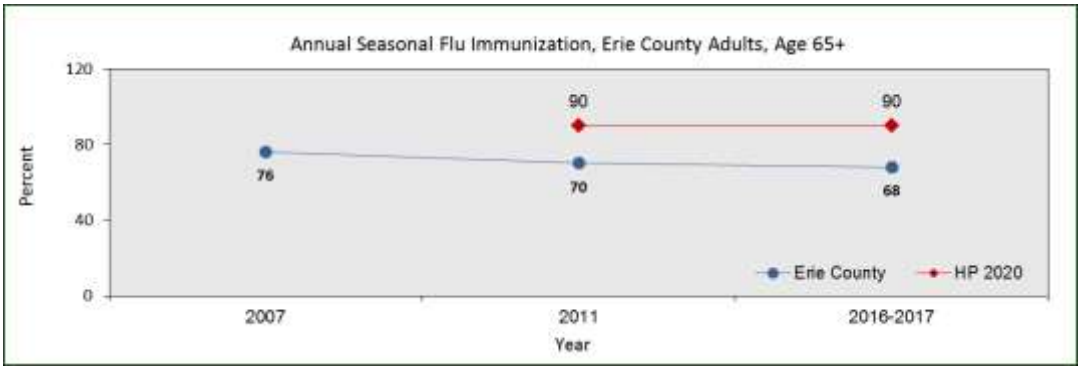
Influenza is a contagious respiratory illness caused by influenza viruses. It causes mild to severe illness, and at times can lead to death. Complications of flu can include bacterial pneumonia, ear infections, sinus infections, dehydration, and worsening of chronic medical conditions.

Influenza and pneumonia was the tenth leading cause of death in Erie County for years 2012-2014.

Age 65+ Based on the BRFSS, the self-reported percentage of Erie County adults aged 65 and above who had a flu shot or a flu vaccine that was sprayed in their nose within the past year dropped to 68% in 2016-2017 compared with 70% in 2011 (Figure 3). This was higher than PA at 66% (2016), higher than the U.S. at 59% (2016), and lower than the Healthy People 2020 Goal of 90%.

- For education, the highest percentage of adults aged 65 and above who had received a flu shot or nasal flu vaccine in the past year was 74% for those with some college education. The lowest percentage was 65% for those with a high school education. A percentage for those with less than a high school education was not reported.
- For income levels, adults aged 65 and above whose income was less than $15,000 reported highest percentage of past-year flu shot or nasal flu vaccine with 80%. Those with income from $15,000-$24,999 and income from $50,000-$74,999 reported lowest percentage of past year flu shot or nasal flu vaccine at 60%.
- Sixty-seven percent of non-Hispanic White adults aged 65 and older reported having received a flu shot or nasal flu vaccine in the past year. Percentage was not reported for non-Hispanic Black adults.
- Females aged 65 and above reported a higher prevalence of past-year flu shot or nasal flu vaccine at 69% compared with males at 67%.
- In the Erie City Area geographic area, 69% of adults aged 65 and above reported receiving a flu shot or nasal flu vaccine in the past year compared with 67% of adults in the Rest of the Erie county geographic area.

Figure 3. Seasonal Flu Immunization Prevalence, Age 65+, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Age 50+ Based on the BRFSS, the self-reported percentage of Erie County adults aged 50 and above who had a flu shot or nasal flu vaccine within the past year decreased to 59% in 2016-2017, compared with 60% in 2011. This is higher than PA at 54% (2016).

- For education, the highest percentage of adults aged 50 and above who had received a flu shot or nasal flu vaccine in the past year was 68% for those with some college education. The lowest percentage was 39% for those with less than a high school education.
- For income levels, adults aged 50 and above whose income was $75,000 or greater reported highest percentage of past-year flu shot or nasal flu vaccine at 71%. Adults with income from $15,000-$24,999 reported lowest percentage of past-year flu shot or nasal flu vaccine at 43%.
- Non-Hispanic White adults aged 50 and above reported higher prevalence of past-year flu shot or nasal flu vaccine at 60% compared with 56% percent of non-Hispanic Black adults.
- Sixty-two percent of males aged 50 and above reported receiving a flu shot or nasal flu vaccine in the past year compared with 56% of females.
- In the Erie City Area geographic area, 62% of adults aged 50 and above reported receiving a flu shot or nasal flu vaccine in the past year compared with 57% of adults in the Rest of the Erie county geographic area.

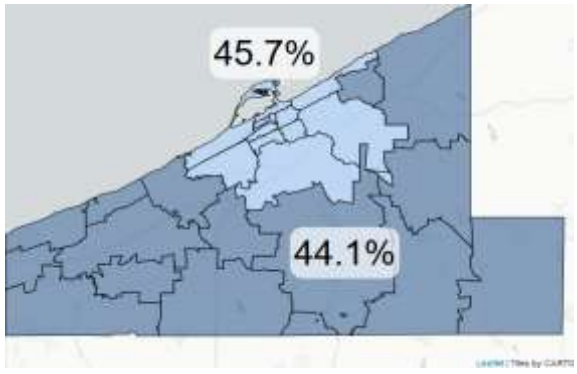
Age 18+ Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who had a flu shot or nasal flu vaccine within the past year was 44% in 2016-2017 (Table 4). This is higher than PA at 43% (2016).

- Among age groups, the highest percentage of adults who received the flu vaccine was 68% for age group 65 and above
- For education, the highest percentage of adults aged 18 and above who had received a flu shot or nasal flu vaccine in the past year was 51% for those with a college education. The lowest percentage was 36% for those with less than a high school education.
- For income levels, adults aged 18 and above whose income was $75,000 or greater reported highest percentage of past-year flu shot or nasal vaccine with 53%. Adults aged 18 and above with income from $15,000-$24,999 reported lowest percentage of past-year flu shot or nasal flu vaccine at 32%.
- Forty-five percent of non-Hispanic White adults aged 18 and above reported receiving a past-year flu shot or nasal flu vaccine compared with 42% of non-Hispanic Black adults.
- Forty-seven percent of females aged 18 and above reported receiving a past-year flu shot or nasal flu vaccine compared with 42% of males.
- In the Erie City Area geographic area, 46% of adults aged 18 and above reported having received a flu shot or nasal flu vaccine in the past year compared with 44% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of adults who received the flu vaccine was 68% for those aged 65 and above.

Table 4. Seasonal Flu Immunization Prevalence, Age 18+, 2016-2017

Had Flu Shot or Flu Vaccine in Past 12 Months, All Ages

All Adults	%	Lower CL	Upper CL	% PA
	44	40	49	NA
Age				
18-29	24	15	33	NA
30-44	37	28	47	NA
45-64	49	42	55	NA
65+	68	61	75	NA
Education				
< High School	36	19	54	NA
High School	40	33	46	NA
Some College	47	39	55	NA
College Degree	51	44	59	NA
Gender				
Female	47	41	52	NA
Male	42	36	48	NA
Income				
< $15,000	42	31	54	NA
$15,000-$24,999	32	22	42	NA
$25,000-$49,999	43	35	51	NA
$50,000-$74,999	39	30	49	NA
$75,000+	53	44	62	NA
Race				
Non-Hispanic Black	42	28	57	NA
Non-Hispanic White	45	40	49	NA
Other	39	21	57	NA



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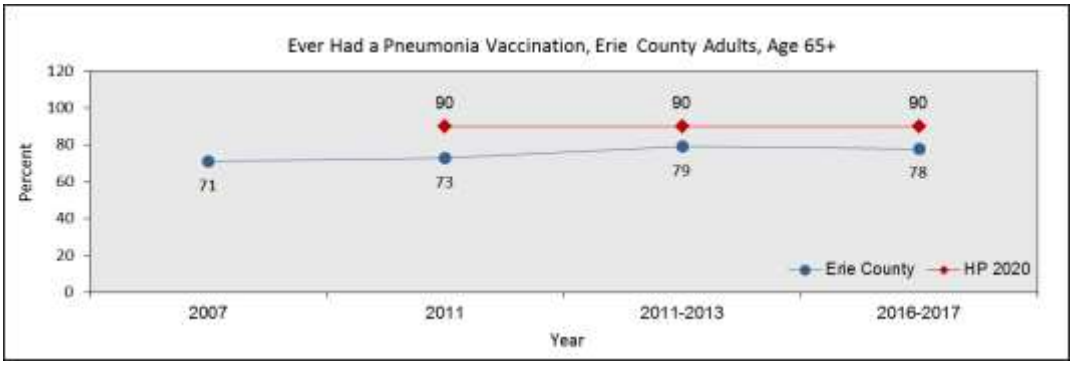
Pneumonia Immunization

Based on the BRFSS, the self-reported percentage of Erie County adults aged 65 and above who ever received a pneumonia vaccination decreased to 78% in 2016-2017 compared with 79% in 2011-2013. (Figure 4). This was higher than PA at 75% (2016) and higher than the U.S. at 73% (2016) but lower than the Healthy People Goal of 90%.

- For education, the highest percentage of adults aged 65 and above who had ever received a pneumonia vaccination was 87% for those with some college education. The lowest percentage was 75% for those with a high school education. A percentage was not reported for those with less than a high school education.
- For income levels, adults aged 65 and above whose income was $25,000-$49,999 reported highest percentage of lifetime pneumonia vaccination with 83%. Adults aged 65 and above with income from $50,000-$74,999 reported lowest percentage of lifetime pneumonia vaccination at 69%.
- Eighty-one percent of non-Hispanic White adults aged 65 and above reported having ever received a pneumonia vaccine. Prevalence was not reported for non-Hispanic Black adults.
- Females aged 65 and above reported higher prevalence of lifetime pneumonia vaccination at 82% compared with males at 74%.
- In the Erie City Area geographic area, 74% of adults aged 65 and older reported having ever received a pneumonia vaccination compared with 80% of adults in the Rest of the Erie county geographic area.

Figure 4. Pneumonia Vaccination Prevalence, 2007 to 2016-2017



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Oral Health

Dental Visits Regular dental visits provide early detection and treatment of cavities, professional removal of tartar and plaque, and early diagnosis of oral cancer. Left untreated, tooth decay can result in infection and tooth loss, while plaque, and the bacteria it harbors, can lead to periodontal gum disease. Oral infections and gum disease have been linked to diabetes, heart disease, stroke, and premature, low-weight births.

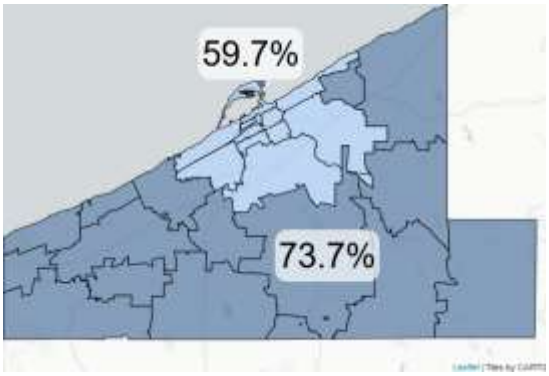
Based on the 2016-2017 BRFSS, 69% of adults aged 18 and above visited the dentist in the past year for any reason (Table 5). This is slightly lower than the 70% of Erie County adults aged 18 and above who reported having visited the dentist in the past year for any reason in 2011. However, it is higher than both PA and the U.S. at 66% (2016).

- Among age groups, the highest percentage of dental visits in the past year was 77% for age group 45-64 (Table 5). This was higher than the 2011 value of 72% for this age group.
- For education, the highest percentage of adults aged 18 and above who had visited the dentist in the past year was 84% for those with a college degree. The lowest percentage was 42% for those with less than a high school education.
- For income levels, adults aged 18 and above whose income was $75,000 or more reported highest prevalence of having visited a dentist in the past year with 90%. Adults aged 18 and older with income from $15,000-$24,999 reported lowest percentage of having visited the dentist in the past year with 50%.
- Seventy percent of non-Hispanic White adults aged 18 and above reported having visited a dentist in the past year compared with 63% of non-Hispanic Black adults.
- Seventy-two percent of females aged 18 and older reported having visited a dentist in the past year compared with 66% of males.
- In the Erie City Area geographic area, 60% of adults aged 18 and older reported having visited a dentist in the past year compared with 74% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of an annual dental visit among adults was 90% for those earning $75,000 and above.

Overall, the percentage of an annual dental visit increased as age, education, and income increased.

Table 5. Annual Dental Visit Prevalence, 2016-2017

	Visited a Dentist Within the Past Year			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	69	65	73	66
Age				
18-29	65	55	75	64
30-44	66	57	75	64
45-64	77	72	82	70
65+	63	55	71	66
Education				
< High School	42	23	60	43
High School	63	56	69	60
Some College	72	65	79	71
College Degree	84	78	89	81
Gender				
Female	72	67	77	69
Male	66	60	72	63
Income				
< $15,000	55	43	67	41
$15,000-$24,999	50	38	61	52
$25,000-$49,999	60	52	68	60
$50,000-$74,999	74	65	83	73
$75,000+	90	84	95	82
Race				
Non-Hispanic Black	63	48	78	56
Non-Hispanic White	70	65	74	69
Other	69	52	86	



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Children and Youth The Pennsylvania Department of Health (PA DOH) annually reports services provided to students in kindergarten and grades 1, 3, and 7 (K,1,3,7) through the mandated dental examination program, the dental hygiene services program, and the fluoride tablet program.

The most recent data available is for the 2012-2013 school year. During this school year, 9,555 students (K,1,3,7) in Erie County were seen by a dentist. Of these, 53% visited their family dentist (75% for PA), while 47% were seen by the school dentist (25% for PA) (Table 6).

Table 6. Student Dental Examination Prevalence, Grades K,1,3, & 7

Pennsylvania Mandated Dental Examination Program, Grades K,1,3,7
Number and Percent of Students Examined During the 2012-2013 School Year

	Grades K,1,3,7				*Other Grades*	*All Examined Students*	
	Family Dentist*		School Dentist**		School Dentist***	Referred for Further Trtmnt	Completed Referral Returned
School or School District	# students	% of all K,1,3,7	# students	% of all K,1,3,7	# students	# students	# students
General McLane SD	386	85%	69	15%	11	45	13
Montessori Regional CS	101	84%	19	16%	0	7	0
Harbor Creek SD	309	82%	68	18%	10	27	1
Wattsburg Area SD	234	76%	74	24%	9	18	1
Fairview SD	241	68%	115	32%	0	4	3
Millcreek Township SD	1,454	67%	726	33%	71	197	54
Girard SD	236	62%	142	38%	5	30	3
Iroquois SD	161	58%	116	42%	0	16	0
North East SD	213	55%	175	45%	40	40	5
Northwestern SD	174	54%	146	46%	11	68	5
Union City Area SD	128	54%	109	46%	135	33	2
Erie Rise Leadership Academy CS	77	50%	76	50%	31	0	0
Fort LeBoeuf SD	230	48%	245	52%	23	42	12
Erie City SD	1,091	37%	1,854	63%	75	610	17
Perseus House CS of Excellence	27	36%	49	64%	0	11	0
Corry Area SD	45	9%	452	91%	0	57	5
Robert B. Wiley Community CS	13	8%	141	92%	0	32	2
Erie County Total	5,120	53%	4,435	47%	421	1,237	123
PA Total	250,873	75%	81,890	25%	10,704	36,580	6,780

Note: *indicates that students were examined by a family dentist; **indicates that students were examined by a school dentist; ***indicates students from other grades who were examined by a school dentist; Includes all students in both public and private/non-public schools, combined, served by the school district

Differences in these percentages were seen among schools and school districts. For the General McLane School District, 85% of students in grades K,1,3,7 visited their family dentist for their mandated dental exam while only 15% were seen by the school dentist. Other school districts with high percentages of students seen by a family dentist were Montessori Regional Charter School (84%), Harbor Creek (82%), and Wattsburg Area School District (76%).

For the Robert B. Wiley Community Charter School, only 8% of students in grades K,1,3,7 visited a family dentist for their mandated dental exam while 92% were seen by the school dentist. The other schools or school districts with low percentages of students seen by a family dentist were Corry Area School District (9%), Perseus House Charter School of Excellence (36%), and Erie City School District (37%).

No data was reported for the dental hygiene services program in Erie County. The Wattsburg Area School District and the Union City Area School District were the only schools or school districts to enter statistics in the fluoride tablet program. Wattsburg Area reported 324 students and Union City Area reported 182 students participating in the program.

Water Fluoridation Fluoride treatment has been shown to aid in preventing cavities. Both the American Dental Association (ADA) and the Department of Health and Human Services (HHS) recommend fluoride levels of 0.7 parts per million (ppm) in drinking water to achieve optimal cavity prevention. In Erie County, fluoridated water (0.7 ppm) is provided to everyone served by the following public water systems: North East water supply, Edinboro water supply, and the City of Erie water supply. In addition to residents of Erie City, the City of Erie water supply services most of Millcreek Township, parts of Summit Township, parts of Fairview, parts of Wesleyville, parts of Lawrence Park, and parts of Harborcreek.

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Health Risk Behaviors

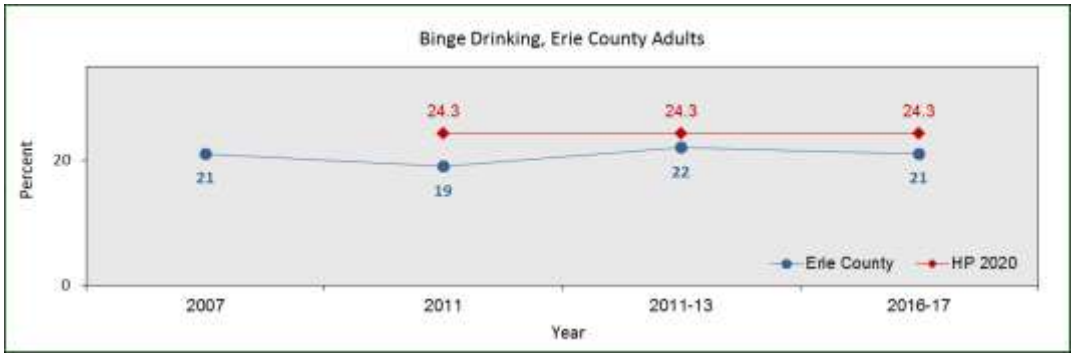
Alcohol Use - Adults

Despite its socially acceptable status, alcohol is harmful when used excessively. Excessive alcohol use includes binge drinking, heavy drinking, and any drinking by pregnant women or people younger than age 21.

Binge Drinking The CDC defines binge drinking as males having five or more drinks or females having four or more drinks on one occasion. Binge drinking accounts for more than half of the annual deaths resulting from excessive alcohol consumption in the United States. Current statistics released by the CDC for binge drinking report drinkers binging about four times a month and consuming an average of seven drinks per binge.

Based on the Behavioral Risk Factor Surveillance System (BRFSS) survey, the self-reported percentage of Erie County adults aged 18 and above who binge drank in the past thirty days decreased to 21% in 2016-2017 (19% for PA in 2016; 17% for U.S. in 2016) compared with 22% in 2011-13 (Figure 1). The prevalence of binge drinking among Erie County adults is higher than PA and higher than the U.S., but lower than the Healthy People 2020 goal of 24.3%.

Figure 1. Binge Drinking Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only

- Among age groups, the highest percentage of binge drinking was 31% for age group 18-29 followed by 26% for age group 30-44 (Table 1).
- As education levels increased, binge drinking increased. The highest percentage was 23% for adults with a college degree followed by those with some college at 21%.
- Binge drinking prevalence was significantly higher among males at 26% (28% in 2011-2013) compared to females at 16% (15% in 2011-2013).
- For income levels, the highest percentage of binge drinking was 27% for adults earning $15,000-$24,999 followed by those earning $75,000 and above at 25%. The lowest percentage was 10% for those earning less than $15,000.
- Binge drinking was higher among non-Hispanic Whites at 20% (21% in 2011-2013) compared to non-Hispanic Blacks at 14% (values for 2011-2013 are not available).

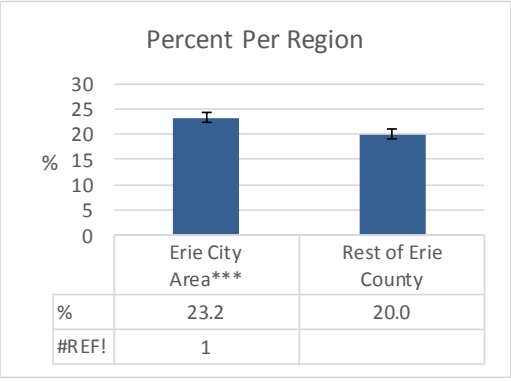
- The percentage of binge drinking among adults was 23% in the Erie City Area geographic area and 20% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of binge drinking among adults was 31% for those aged 18-29 followed by 27% for those earning $15,000-$24,999.
-

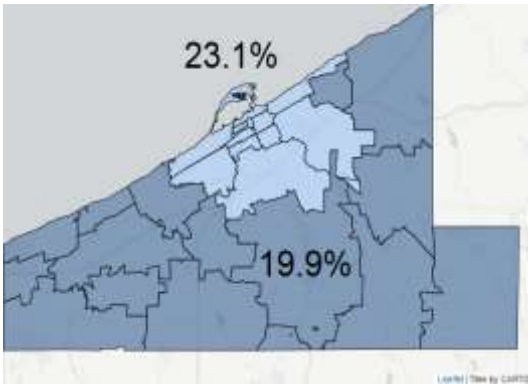
Overall, binge drinking prevalence increased as age decreased and education increased.

Table 1. Binge Drinking Prevalence, 2016-2017

Binge Drinking: Males having 5+ Drinks, Females having 4+ On 1+ Occasion(s)

All Adults	%	Lower CL	Upper CL	% PA 2016
	21	17	24	19
Age				
18-29	31	22	41	30
30-44	26	18	34	26
45-64	15	11	20	18
65+	12	7	17	6
Education				
< High School	19*	4*	34*	13
High School	19	14	24	19
Some College	21	15	28	21
College Degree	23	17	30	21
Gender				
Female	16	12	20	14
Male	26	20	31	25
Income				
< $15,000	10*	3*	17*	15
$15,000-$24,999	27	16	39	17
$25,000-$49,999	21	15	27	18
$50,000-$74,999	20	12	28	20
$75,000+	25	17	33	25
Race				
Non-Hispanic Black	14*	3*	26*	15
Non-Hispanic White	20	17	24	20
Other	**	**	**	





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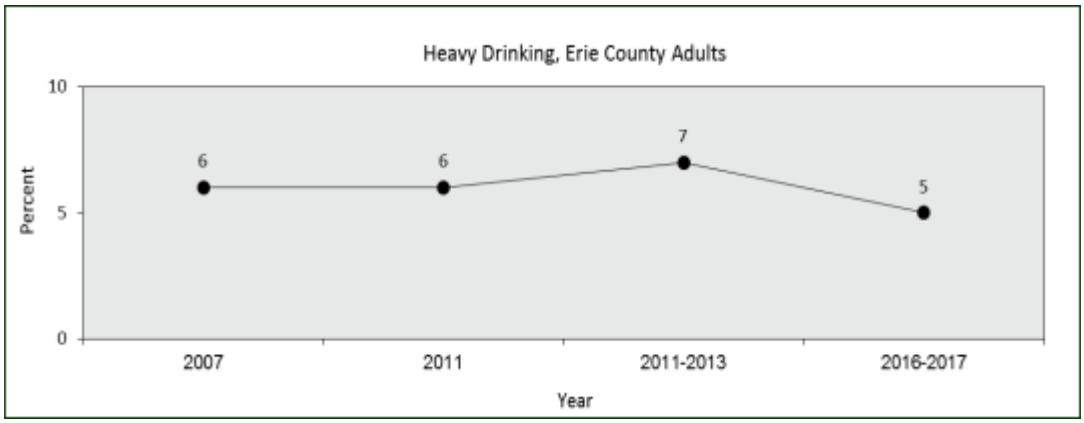
Heavy Drinking The CDC defines heavy drinking as males having more than two drinks per day or females having more than one drink per day. Heavy drinking prevalence in Erie County has been tracked since 2007.

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who drank heavily decreased to 5% in 2016-2017 (7% for PA in 2016; 7% for U.S. in 2016) compared to 7% in 2011-2013 (Figure 2).

Figure 2. Heavy Drinking Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

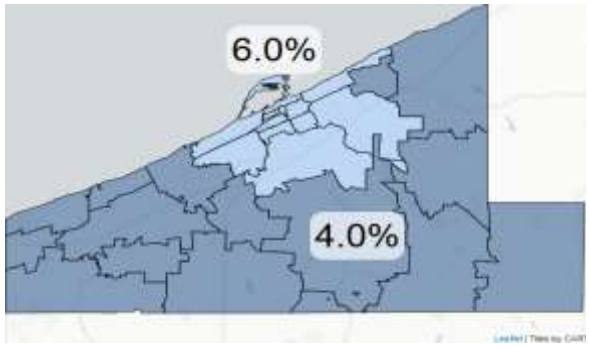
- Among age groups, the highest percentage of heavy drinking was 6% for age group 65 and above (Table 2). This was lower than the 2011-2013 value of 7%.
- As education levels increased, heavy drinking increased. The highest percentage was 7% for adults with a college degree followed by those with some college at 4%. Percentage for those with less than a high school education was not reported.
- Heavy drinking prevalence was higher among females at 6% (7% in 2011-2013) compared with males at 3% (8% in 2011-2013).
- For income levels, the highest percentage of heavy drinking was 6% for adults earning $75,000 and for those earning $25,000-$49,999. The lowest percentage was 2% for those earning $15,000-$24,999. The percentage for those earning less than $15,000 was not reported.
- Heavy drinking prevalence was 5% for non-Hispanic Whites (7% in 2011-2013). The percentage for non-Hispanic Blacks was not reported.
- The percentage of heavy drinking among adults was 6% in the Erie City Area geographic area and 4% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of heavy drinking among adults was 7% for those with a college degree.

Overall, heavy drinking prevalence increased with education.

Table 2. Heavy Drinking Prevalence, 2016-2017

Males Averaging over 2 Drinks per Day over 30 Days, Females Averaging over 1 Drink per Day over 30 Days

All Adults	%	Lower CL	Lower CL	% PA 2016
	5	3	3	7
Age				
18-29	5*	1*	1*	8
30-44	3*	1*	1*	7
45-64	4	2	2	7
65+	6*	2*	2*	4
Education				
< High School	**	**	**	8
High School	3*	1*	1*	5
Some College	4	2	2	7
College Degree	7	4	4	8
Gender				
Female	6	4	4	6
Male	3	2	2	7
Income				
< $15,000	**	**	**	5
$15,000-$24,999	2*	1*	1*	5
$25,000-$49,999	6	3	3	7
$50,000-$74,999	3*	1*	1*	6
$75,000+	6*	2*	2*	9
Race				
Non-Hispanic Black				4
Non-Hispanic White	5	3	3	7
Other	**			

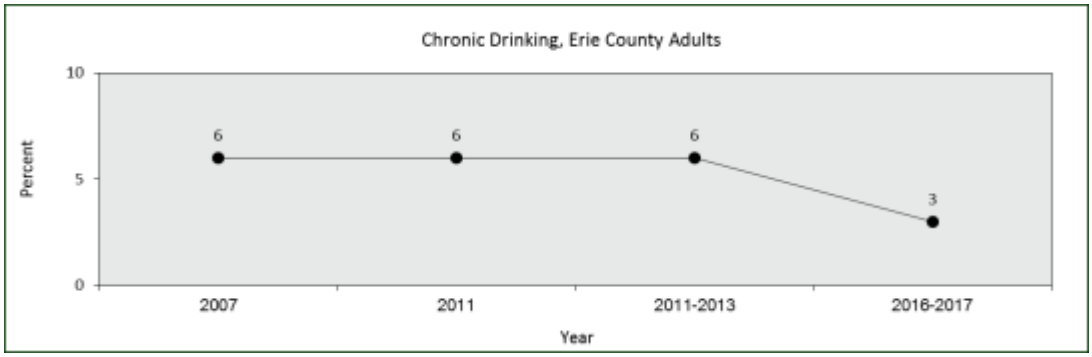


* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Chronic Drinking The CDC defines chronic drinking as having an average of two or more drinks per day for the past 30 days. Chronic drinking prevalence in Erie County has been tracked since 2007.

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who indicated that they were chronic drinkers dropped to 3% in 2016-2017 (6% for PA in 2016) compared to 6% in 2011-2013 (Figure 3).

Figure 3. Chronic Drinking Prevalence, 2007 to 2016-2017



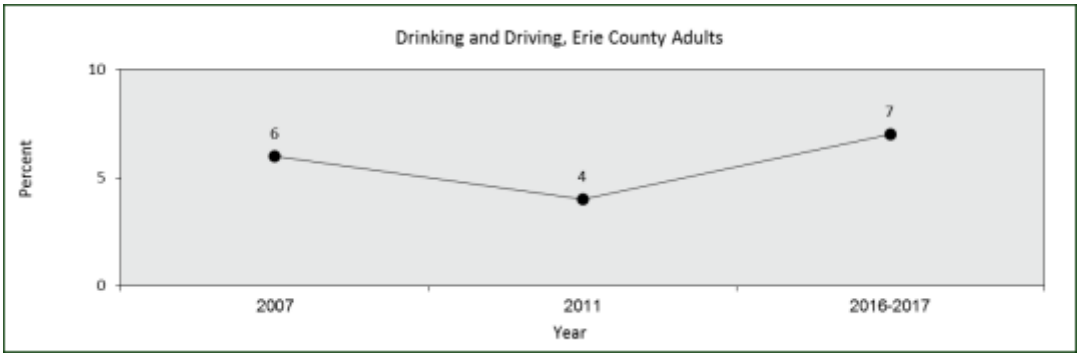
Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

- Among age groups, the highest percentage of chronic drinking was 6% for those earning $75,000 and above and for those with a college degree.
- As education levels increased, chronic drinking increased. The highest percentage was 6% for adults with a college degree followed by those with some college at 4%. The percentage for those with less than a high school education was not reported.
- Chronic drinking prevalence was higher among males at 5% (9% in 2011-2013) compared with females at 2% (3% in 2011-2013).
- For income levels, the highest percentage of chronic drinking was 6% for adults earning $75,000 and above. The only other percentage reported for income levels was 4% for those earning $25,000-$49,999.
- Chronic drinking prevalence was 4% for non-Hispanic Whites (5% in 2011-2013). The percentage for chronic drinking among non-Hispanic Blacks was not reported.
- The percentage of chronic drinking among adults was 2% in the Erie City Area geographic area and 4% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of chronic drinking among adults was 6% for those earning $75,000 and above and for those with a college degree.

Overall, chronic drinking prevalence increased as education increased.

Drinking and Driving Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who drove in the past month with perhaps too much to drink increased to 7% in 2016-2107 compared with 4% in 2011 (Figure 4). This was higher than PA at 4% (2016) and the U.S. at 4% (2016).

Figure 4. Drinking and Driving Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

- Among age groups, the highest percentage of drinking and driving was 11% for age group 30-44. This was higher than the 2011-2013 value of 8%.
- For education levels, the highest percentage of drinking and driving was 11% for adults with a college degree followed by those with a high school education at 7% and those with some college at 4%. The percentage for less than a high school education was not reported.
- Drinking and driving prevalence was higher among males at 9% (6% in 2011-2013) compared with females at 5% (2% in 2011-2013).
- For income levels, the highest percentage of drinking and driving was 9% for adults earning $75,000 and above followed by those earning $25,000-$49,999 at 6%. Percentages for other income groups were not reported.
- Drinking and driving prevalence was 7% for non-Hispanic Whites (4% in 2011-2013). The percentage for non-Hispanic Blacks was not reported.
- The percentage of drinking and driving among adults was 7% in the Erie City Area geographic area and 7% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of drinking and driving among adults was 11% for those aged 30-44 and those with a college degree.

Alcohol Use - Youth

Since 2005, Erie County has participated in the biannual Pennsylvania Youth Survey (PAYS) sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD). PAYS surveys 6th, 8th, 10th, and 12th grade students to determine youth behaviors and attitudes.

Alcohol is the most used drug among students in both Erie County and Pennsylvania. Four alcohol behaviors were evaluated: lifetime alcohol use, past-30-day alcohol use, binge drinking, and drinking and driving.

Lifetime Alcohol Use From 2013 to 2015, the overall lifetime use of alcohol among Erie County students decreased (Table 3). In 2015, 41.8% (44.0% in 2013) of Erie County students reported

that they had used alcohol at least once in their lifetime compared with 43.9% for PA. Usage ranged from a low of 18.6% in 6th grade to a high of 65.7% in 12th grade. When compared to national rates (26.1% for 8th grade; 47.1% for 10th grade; 64.0% for 12th grade), Erie County rates were higher for all grades. From 2013 to 2015, lifetime alcohol use prevalence decreased for 8th, 10th, and 12th grades, but increased by for 6th grade. The largest decrease (71.4% in 2013 to 65.7% in 2013) was seen for 12th grade.

From 2009 to 2015, the overall prevalence of lifetime alcohol use decreased from 46.6% in 2009 to 43.9% in 2015.

Table 3. Youth Alcohol Use Prevalence, 2013 & 2015

Alcohol Use Among Erie County Middle and High School Students
Erie County 2013 & 2015 PAYS

	*Lifetime Use**			*Past-30-Day Use***			*Binge Drinking****			*Drinking and Driving*****		
	Erie County		PA	Erie County		PA	Erie County		PA	Erie County		PA
Grade	2013	2015	2015	2013	2015	2015	2013	2015	2015	2013	2015	2015
6th	15.6%	18.6%	15.8%	3.6%	4.1%	3.3%	1.7%	1.2%	1.3%	0.2%	0.5%	0.4%
8th	36.7%	35.5%	33.9%	10.0%	10.0%	9.5%	3.0%	3.0%	3.2%	0.6%	1.7%	1.1%
10th	58.9%	55.3%	54.2%	25.2%	21.2%	22.3%	11.5%	7.5%	8.4%	1.5%	2.2%	1.4%
12th	71.4%	65.7%	71.0%	36.3%	33.5%	37.6%	19.6%	16.7%	18.0%	9.0%	6.5%	6.4%
Overall	44.0%	41.8%	43.9%	17.7%	16.0%	18.2%	8.2%	6.5%	7.8%	2.6%	2.6%	2.4%

Note: *Indicates that the student ever used alcohol; **Indicates that the student used alcohol within the past 30 days; ***Indicates that the student reported having five or more alcoholic drinks in a row within the past two weeks; ****Indicates driving while or shortly after drinking in past year

Past-30-Day Alcohol Use From 2013 to 2015, the overall 30 day use of alcohol among Erie County students decreased. In 2015, 16.0% (17.7% in 2013) of Erie County students reported that they had used alcohol within the past 30 days compared with 18.2% for PA. Usage ranged from a low of 4.1% in 6th grade to a high of 33.5% in 12th grade. When compared to national rates (9.7% for 8th grade; 21.5% for 10th grade; 35.3% for 12th grade), Erie County rates were similar for 8th and 10th grade, but lower for 12th grade. From 2013 to 2015, past-30-day alcohol use prevalence in Erie County was similar for 8th, and 10th grades, but increased for 6th and 12th grades.

From 2009 to 2015, overall prevalence of past 30-day-alcohol decreased from 22.1% in 2009 to 18.2% in 2015.

Binge Drinking PAYS defines binge drinking as having five or more drinks in a row within the past two weeks. From 2013 to 2015, overall binge drinking among Erie County students decreased. In 2015, 6.5% (8.2% in 2013) of Erie County students reported that they had that they had at least one episode of binge drinking within the past two weeks compared with 7.8% for PA. Usage ranged from a low of 1.2% in 6th grade to a high of 16.7% in 12th grade. When compared to national rates (4.6% for 8th grade; 10.9% for 10th grade; 17.2% for 12th grade), Erie

County rates were lower for all grades. From 2013 to 2015, binge drinking prevalence in Erie County remained the same for 8th grade and decreased for 6th, 10th, and 12th grades.

From 2009 to 2015, overall prevalence of binge drinking has steadily decreased from 11.7% in 2009 to 6.5% in 2015.

Drinking and Driving In 2015, 2.6% (2.6% in 2013) of Erie County students reported having driven a car shortly after drinking compared with 2.4% for PA. From 2009 to 2015, overall prevalence of drinking and driving decreased from 3.9% in 2009 to 2.6% in 2015.

Drunk or High at School In 2015, 6.9% (7.0% in 2013) of Erie County students reported that they had ever been drunk or high at school compared with 5.9% in PA. From 2009 to 2015, overall prevalence of being drunk or high at school has steadily decreased from 9.6% in 2009 to 6.9% in 2015.

Drug-Related Deaths

Drug overdose deaths (acute drug poisonings) have risen sharply throughout the United States in the past decade. This increase has been linked with the prescription drug abuse epidemic, including fentanyl, and the re-emergence of heroin. Most overdose deaths are unintentional (accidental).

According to the Erie County Coroner's Office, 191 accidental overdose deaths occurred among Erie County residents from 2014-2016, compared to 136 deaths during 2011-2013. Overall, there were 39 deaths in 2011, 48 in 2012, 49 in 2013, 53 in 2014, 58 in 2015, and 80 in 2016.

Based on statistics from the Erie County Coroner's Office for 2016, 70% of accidental overdose deaths were male while 90% were Caucasian/White. Among age groups, 34% were aged 31-40, 28% were aged 21-30, 20% were aged 41-50, and 13% were aged 51-60. Forty percent of accidental overdose deaths occurred among residents of the City of Erie, 48% among those who resided in the rest of Erie County, and 13% among those who resided outside of Erie County.

For 2017, the Coroner's Office recently reported a total of 124 drug-related deaths. These deaths included both accidental overdoses and suicides. Overall, 54% of deaths primarily involved fentanyl, 32% involved cocaine, and 26% involved heroin.

Drug-Related Hospitalizations

In 2016, there were 80 hospitalizations for opioid overdose in Erie County with a rate of 35.0 per 100,000 (31.1 for PA). Of these, 34 (42.5%) were for heroin with a rate of 12.3 per 100,000 (14.4 for PA) and 46 (57.5%) were for pain medication with a rate of 16.7 (16.8 for PA).

Drug Use - Adults

Marijuana Use Marijuana is the most commonly used illegal drug in the United States. It is estimated that about 1 in 10 marijuana users will become addicted. This narrows to about 1 in 6 for those who began using before the age of 18.

Based on the Behavioral Risk Factor Surveillance System (BRFSS) survey, the self-reported percentage of Erie County adults aged 18 and above who used marijuana one or more days in the past thirty days was 10% in 2016-2017.

- As age increased, marijuana use decreased. The highest percentage of marijuana was 19% for age group 18-29 followed by 11% for ages 30-44.
- As education levels increased, marijuana use decreased. The highest percentage was 17% for adults with less than a high school education followed by those with a high school education at 11%.
- Marijuana use was slightly higher among males at 10% compared with females at 9%.
- For income levels, the highest percentage of marijuana use was 24% for adults earning $15,000-$24,999 followed by those earning less than $15,000 at 16%. The lowest percentage was 4% for those earning $50,000-$74,999.
- Marijuana use prevalence was higher among non-Hispanic Blacks at 21% compared with non-Hispanic Whites at 8%.
- The percentage of marijuana use among adults was 15% in the Erie City Area geographic area and 7% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of marijuana use among adults was 24% for those earning $15,000-$24,999.

Overall, marijuana use increased as age and education decreased.

Driving Under the Influence of Drugs Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who drove in the past month while under the influence of drugs (excluding alcohol) was 4% in 2016-2107. The highest percentage was 13% among those with income of $15,000-$24,999 followed by those aged 18-29 at 9% and those with a high school education at 7%. Nine percent of males drove while under the influence of drugs compared with 5% for females.

Drug Use - Youth

Since 2005, Erie County has participated in the biannual Pennsylvania Youth Survey (PAYS) sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD). PAYS surveys 6th, 8th, 10th, and 12th grade students to determine youth behaviors and attitudes.

Lifetime Marijuana Use Marijuana is the third most used drug (after alcohol and tobacco) among students in both Erie County and Pennsylvania. It is also the most widely used illicit

drug. From 2013 to 2015, the overall lifetime use of marijuana among Erie County students decreased slightly (Table 4). In 2015, 18.9% (19.0% in 2013) of Erie County students reported that they had used marijuana at least once in their lifetime compared with 17.3% for PA. Usage ranged from a low of 1.4% in 6th grade to a high of 43.4% in 12th grade. When compared to national rates (15.5% for 8th grade; 31.1% for 10th grade; 44.7% for 12th grade), Erie County rates were lower for all grades. From 2013 to 2015, lifetime marijuana use prevalence remained the similar for 6th grade, increased for 8th and 12th grades, and decreased for 10th grade.

From 2009 to 2013, the overall prevalence of lifetime marijuana use steadily increased from 17.1% in 2009 to 18.9% in 2013.

Past-30-Day Marijuana Use From 2013 to 2015, the overall 30 day use of marijuana among Erie County students decreased (Table 4). In 2015, 9.8% (10.4% in 2013) of Erie County students reported that they had used marijuana within the past 30 days compared with 9.4% for PA. Usage ranged from a low of 0.8% in 6th grade to a high of 22.4% in 12th grade. When compared to national rates (6.5% for 8th grade; 14.8% for 10th grade; 21.3% for 12th grade), Erie County rates were lower for all grades. From 2013 to 2015, past-30-day marijuana use prevalence in Erie County remained the same for 6th, increased for 8th grade, and decreased for 10th and 12th grades.

From 2009 to 2013, overall prevalence of past 30-day-marijuana use increased from 9.5% in 2009 to 9.8% in 2015.

Table 4. Youth Marijuana Use Prevalence, 2013 & 2015

Marijuana Use Among Erie County Middle and High School Students
Erie County 2013 & 2015 PAYS

	*Lifetime Use**			*Past-30-Day Use***			*Driving Under Influence****		
	Erie County		PA	Erie County		PA	Erie County		PA
Grade	2013	2015	2015	2013	2015	2015	2013	2015	2015
6th	1.5%	1.4%	1.2%	0.8%	0.8%	0.6%	0.1%	0.2%	0.2%
8th	9.3%	11.2%	7.3%	4.9%	6.4%	3.8%	0.6%	1.7%	0.7%
10th	27.9%	26.3%	22.0%	16.0%	12.6%	12.0%	2.4%	2.4%	1.7%
12th	42.3%	43.4%	38.2%	22.6%	22.4%	20.8%	14.5%	11.4%	10.7%
Overall	19.0%	18.9%	17.3%	10.4%	9.8%	9.4%	4.0%	3.8%	3.5%

Note: *Indicates that the student ever used marijuana; **Indicates that the student used marijuana within the past 30 days;
***Indicates driving while or shortly after using marijuana in past year

Driving Under the Influence of Marijuana In 2015, 3.8% (4.0% in 2013) of Erie County students reported having driven a car shortly after marijuana use compared with 3.5% for PA (Table 4). From 2009 to 2013, overall prevalence of driving under the influence of marijuana has fluctuated from 3.9% in 2009 to 3.3% in 2011 and 3.8% in 2015.

Prescription Drug Use Illicit use of prescription drugs is a growing problem among students in both Erie County and Pennsylvania. It is the fourth most used drug, after alcohol, tobacco, and marijuana, among Erie County students.

In 2015, the overall lifetime use of pain relievers by students was 7.0% for Erie County (8.7% in 2013) compared with PA at 6.3%, while the past-30-day use was 2.2% for Erie County (2.7% in 2013) compared with 1.9% for PA (Table 5). From 2009 to 2015, overall prevalence of lifetime pain reliever use has fluctuated from 7.9% in 2009 to 6.4% in 2011 and 7.0% in 2015 while the past-30-day use has steadily decreased from 5.6% in 2009 to 2.2% in 2015.

In 2015, the overall lifetime use of tranquilizers by students was 1.6% for Erie County (2.3% in 2013) compared with PA at 2.3%, while the past-30-day use was 0.6% for Erie County (0.7% in 2013) compared with 0.7% for PA (Table 5). From 2009 to 2015, overall prevalence of lifetime tranquilizer use has fluctuated from 2.8% in 2009 to 2.0% in 2011 and 1.6% in 2015 while the past-30-day use has steadily decreased from 1.8% in 2009 to 0.7% in 2015.

In 2015, the overall lifetime use of stimulants by students was 2.9% for Erie County (4.3% in 2013) compared with PA at 3.7%, while the past-30-day use was 0.8% for Erie County (1.5% in 2013) compared with 1.3% for PA (Table 5). From 2009 to 2013, overall prevalence of lifetime stimulant use has fluctuated from 5.4% in 2009 to 3.3% in 2011 and 2.9% in 2015 while the past-30-day use has steadily decreased from 1.6% in 2009 to 0.8% in 2015.

Table 5. Youth Illicit Prescription Drug Use Prevalence, 2015

Illicit Prescription Drug Use Among Erie County Middle and High School Students
Erie County 2015 PAYS

	Narcotic Pain Relievers				Tranquilizers				Stimulants			
	*Lifetime Use**		*30-Day-Use***		*Lifetime Use**		*30-Day-Use***		*Lifetime Use**		*30-Day-Use***	
Grade	Erie County	PA	Erie County	PA	Erie County	PA	Erie County	PA	Erie County	PA	Erie County	PA
6th	1.4%	1.9%	1.0%	1.0%	0.1%	0.3%	0.1%	0.1%	0.7%	0.6%	0.4%	0.2%
8th	4.8%	4.3%	1.7%	1.6%	1.0%	0.8%	0.4%	0.3%	1.2%	1.0%	0.3%	0.4%
10th	9.4%	6.7%	3.0%	2.0%	1.6%	2.6%	0.7%	0.8%	3.1%	3.3%	0.8%	1.4%
12th	14.2%	12.1%	3.6%	3.0%	4.1%	5.3%	1.4%	1.4%	7.8%	9.7%	2.2%	3.2%
Overall	7.0%	6.3%	2.2%	1.9%	1.6%	2.3%	0.6%	0.7%	2.9%	3.7%	0.8%	1.3%

Note: *Indicates ever using the drug; **Indicates using the drug in the past 30 days

Other Drug Use Prevalence of other drug use among Erie County students is reported in Table 6. From 2013 to 2015, lifetime use of inhalants decreased from 6.6% to 5.2% (4.5% for PA) and past-30-day use of inhalants decreased from 1.9% to 1.4% (1.3% for PA). Lifetime use of all other drugs decreased from 2013 to 2015 while past-30-day use either remained similar or the same. Lifetime use of synthetic drugs is 3.0% for 2015.

Table 6. Youth Other Drug Use Prevalence, 2013 & 2015

Other Drug Use, Grades 6-12 Erie County 2013 & 2015 PAYS				
	*Lifetime Use**		*Past-30-Day Use***	
Substance	2013	2015	2013	2015
Inhalants	6.6%	5.2%	1.9%	1.4%
Synthetic Drugs	3.4%	3.0%	0.7%	0.8%
Hallucinogens	3.3%	2.8%	0.8%	0.6%
Ecstasy or Molly	2.8%	2.1%	0.6%	0.6%
Cocaine	1.9%	1.4%	0.4%	0.4%
Steroids & PEDs***	1.2%	1.0%	0.6%	0.3%
Crack Cocaine	0.8%	0.6%	0.2%	0.2%
Methamphetamine	0.7%	0.4%	0.3%	0.2%
Heroin	0.7%	0.3%	0.2%	0.1%

Note: *Indicates ever using the drug; **Indicates using the drug within the past 30 days; PEDs=Performance enhancing drugs; NA=Not available

Falls

Based on the BRFSS, the self-reported percentage of Erie County adults aged 45 and above who have fallen one or more times in the past 12 months was 32% in 2016-2017 compared with 30% for PA (2016).

- Among age groups, the highest percentage was 33% for age group 45-64 followed by 30% for ages 65 and above.
- For education levels, the highest percentage was 47% for adults with less than a high school education followed by those with some college at 34%.
- Percentage of falls was slightly higher among males at 32% compared with females at 31%.
- For income levels, the highest percentage of falls was 49% for adults earning $15,000-$24,999 followed by those earning less than $15,000 at 42%. The lowest percentage was 23% for those earning $75,000 and above.
- The prevalence of falls was higher among non-Hispanic Blacks at 40% compared with non-Hispanic Whites at 31%.
- The percentage of falls among adults was 34% in the Erie City Area geographic area and 31% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults who fell one or more times in the past 12 months was 49% for those with annual income of $15,000-$24,999.

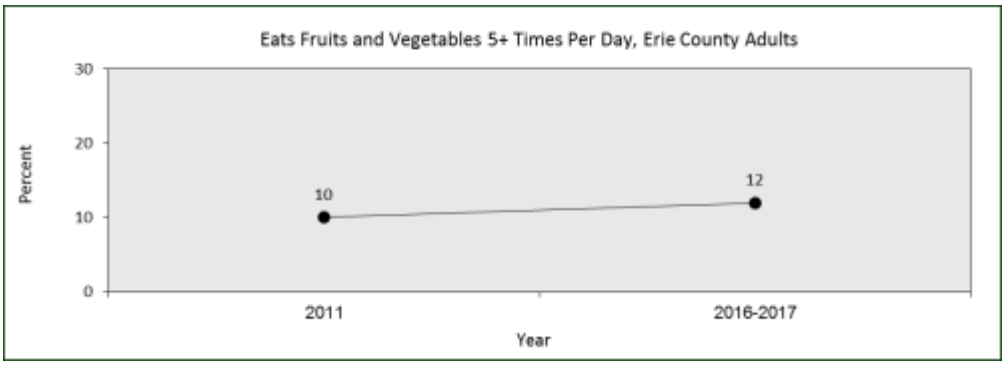
Overall, the prevalence of falls decreased as education and income increased.

Nutrition

Poor nutrition has been associated with high serum cholesterol, high blood pressure, cardiovascular disease, diabetes, obesity, and dental caries as well as other diseases. The *Dietary Guidelines for Americans, 2015-2020*, *Eighth Edition*, developed by the United States Department of Agriculture (USDA) and Health and Human Services (HHS), provides recommendations to help individuals make healthy food choices and reduce their risk for disease. Consumers are advised to eat more fruits, vegetables, whole grains, fat-free and low-fat dairy products, lean meats, seafood and other protein sources while limiting consumption of refined grains, solid fats, alcohol, and foods that contain a high content of cholesterol, saturated fats, trans fats, sodium, and added sugar.

Fruits and Vegetables Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who eat fruits and vegetables five or more times per day increased to 12% in 2016-2017 compared with 10% in 2011 (Figure 6). Erie County remains lower than the PA value of 15% (2015). Note that the wording of this question changed in the 2011 BRFSS survey. Before 2011, the number of *servings* of fruits and vegetables per day was reported. In 2011, the number of *times* fruits and vegetables were eaten per day was reported.

Figure 6. Fruit and Vegetable Consumption Prevalence, 2011 to-2016-2017



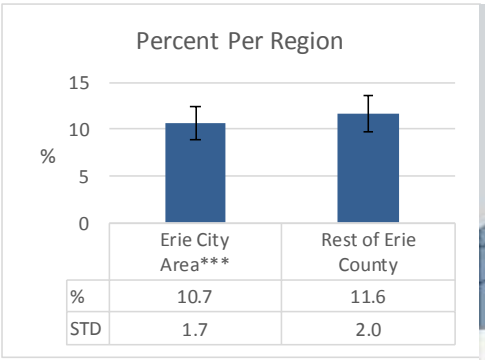
- Among age groups, the highest percentage of adults who ate fruits and vegetables five times per day was 13% for age groups 18-29 and 45-64 (Table 7). This was higher than the 2011 value of 10%.
- As education levels increased, five-a-day fruit and vegetable consumption increased. The highest percentage was 14% for adults with a college degree followed by those with some college and those with a high school education at 10%.
- Five-a-day fruit and vegetable consumption was higher among females at 13% (11% in 2011) compared with males at 10% (8% in 2011).
- For income levels, the highest percentage of five-a-day fruit and vegetable consumption was 19% for adults earning $15,000-$24,999 followed by those earning $75,000 and above at 15%. The lowest percentage was 9% for those earning $50,000-$74,999. Percentage for those earning less than $15,000 was not reported.

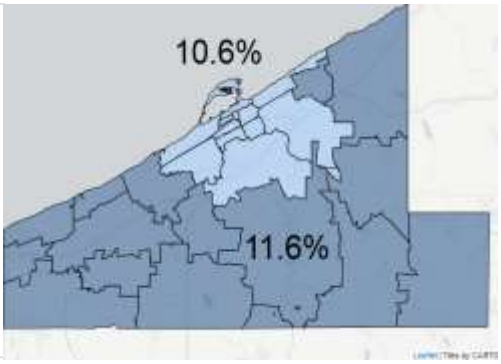
- Five-a-day fruit and vegetable consumption was higher among non-Hispanic Blacks at 18% (10% in 2011) compared with non-Hispanic Whites at 11% (12% in 2011).
- The percentage of five-a-day fruit and vegetable consumption among adults was 11% in the Erie City Area geographic area and 12% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults who ate fruits and vegetables five times per day was 19% for those with income of $15,000-$24,999.

Overall, five-a-day fruit and vegetable prevalence increased as education increased.

Table 7. Fruit and Vegetable Consumption Prevalence, 2016-2017

	Ate 5+ Times Per Day			
All Adults	**%**	Lower CL	Upper CL	**% PA 2015**
	12	9	14	15
Age				
18-29	13	6	20	12
30-44	11	5	17	19
45-64	13	9	18	16
65+	6	3	9	12
Education				
< High School	**	**	**	11
High School	10	6	14	11
Some College	10	5	16	17
College Degree	14	9	19	19
Gender				
Female	13	9	17	17
Male	10	6	14	13
Income				
< $15,000	**	**	**	13
$15,000-$24,999	19	8	30	14
$25,000-$49,999	12	7	17	18
$50,000-$74,999	9*	3*	15*	15
$75,000+	15	9	21	16
Race				
Non-Hispanic Black	18*	5*	32*	21
Non-Hispanic White	11	8	14	14
Other	**	**	**	





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Sugar Sweetened Beverages Based on the BRFSS, 16% of Erie County adults aged 18 and above reported drinking one or more soda or pop per day in 2016-2017. The highest percentage was 27% for those with income of $15,000-$24,999 followed by those aged 30-44 at 24% and those with income less than $15,000 at 23%. Twenty-two percent of males compared with 11% of females drink at least one soda or pop per day. In 2016-2017, 13% of Erie County adults aged 18 and above reported drinking one or more sugar-sweetened fruit drinks per day. The highest percentage was 32% among non-Hispanic Blacks followed by 23% for those aged 18-29 and those earning $15,000-$24,999.

Food Deserts

As defined by the United States Department of Agriculture, a food desert is a geographic area where residents, especially those with low-income, do not have ready accessibility to healthy and affordable food retailers. Low income areas are defined as census tracts with a poverty rate of 20% or higher, or tracts with a median family income less than 80% of the median family income for the state or metropolitan area. Low vehicle access is defined as tracts in which more than 100 households have no access to a vehicle and are more than ½ mile from the nearest supermarket. Food Desert census tracts are both low income and low vehicle access census tracts.

Erie County has 12 food deserts which are identified by their census tract number. Ten of these food deserts are in the City of Erie (Figure 7a):

- *Census Tract 3* which is bordered by State Street to Cranberry Street/Top Road and West 5th Street to Lake Erie. There is 1 community garden and 1 healthy corner store in this food desert.
- *Census Tract 6* which is bordered by Franklin Avenue to Brandes Street and East 12th Street to Lake Erie. There is 1 community garden and 2 healthy corner stores in this food desert.
- *Census Tract 9* which is bordered by Sassafras Street to Cranberry Street and West 9th Street to West 5th Street. There is 1 community garden and 1 healthy corner store in this food desert.
- *Census Tract 10* which is bordered by Sassafras Street to Greengarden Boulevard and West 12th to West 9th Street/Bayfront Parkway. There is only 1 healthy corner store in this entire food desert.
- *Census Tract 12* which is bordered by Sassafras Street/State Street to Cranberry Street and West 19th Street to West 12th Street. There are 5 community gardens and 1 healthy corner store in this food desert.
- *Census Tract 16* which is bordered by Bird Drive/Groveland Drive to Elm Street and the Bayfront Connector to Buffalo Road. There are 2 community gardens and 0 healthy corner stores in this food desert.
- *Census Tract 18* which is bordered by State Street to Chestnut Street and West 26th to West 19th Street. There are 2 community gardens on the border of this food desert and 0 healthy corner stores.

- *Census Tract 25* which is bordered by Parade Street/Pine Avenue to State Street and East 33rd to East 26th Street. There is 1 community garden and 1 healthy corner store in this food desert.
- *Census Tract 27* which is bordered by the City of Erie/Harborcreek border to Elm Street/Brandes Street and East Grandview Boulevard and the Bayfront Connector. There is 1 community garden and 0 healthy corner stores in this food desert.
- *Census Tract 30* which is bordered by Peach Street to Interstate 79 and West Grandview Boulevard and West 38th Street. There are 0 community gardens and 0 healthy corner stores in this food desert.

Corresponding low income areas and low motor vehicle access areas are shown in Figures 7b and 7c, respectively. The other two food deserts in Erie County are:

- *Census Tract 122.02*, Edinboro Borough, and
- *Census Tract 119.00*, City of Corry.

The 12 Erie County food deserts are shown in Figure 8a. Corresponding low income areas and low motor vehicle areas are shown in Figures 8b and 8c, respectively.

Erie County Combating Food Deserts

The Pennsylvania Healthy Corner Store Initiative is helping residents in food deserts obtain healthier food options. The store owners commit to selling healthier food options such as fresh or frozen fruits and vegetables, fat free dairy products, whole grains, low-sodium canned goods, lean proteins, and no sugar added beverages. Once the stores have added 4 new products in 2 of these categories, they are able to receive incentives. The first 2 years they receive 2 $100 checks to purchase healthy goods, and the following years they are able to obtain physical improvements for their stores such as shelving units, baskets, and refrigeration units. The program also provides health education to customers by having healthy in-store marketing materials, and utilizing a program called Heart Smarts. This program brings in health education, food samplings using healthy items purchased in the stores, health screenings, and heart bucks which the customers can use in the store on healthy items (Figure 9).

Community gardens allow individuals and families to help work in the garden during the growing season, and in return, receive a portion of the harvest. Many of these gardens also work with the Penn State Cooperative Extension Master Gardeners to incorporate educational programs and workshops such as seed starting, composting, and nutrition education. Individuals also learn recipes for the foods they are growing. Many gardens also help those in need by donating portions of the harvest to local food banks and food pantries (Figure 9).

Farmers markets are also aiding in combating food deserts. Running from mid-June through the end of September, farmers markets are helping bring regionally grown foods to areas with low food access. These markets offer less expensive fresh produce compared to large grocery chains, and also help build the local economy. Additionally, customers are able to interact with

the farmers growing their food and can ask questions relating to how the food was grown, suggested recipes, and the like.

Figure 7a. City of Erie Food Deserts, 2017

Figure 7b. Low Income Areas and Food Deserts, City of Erie, 2017

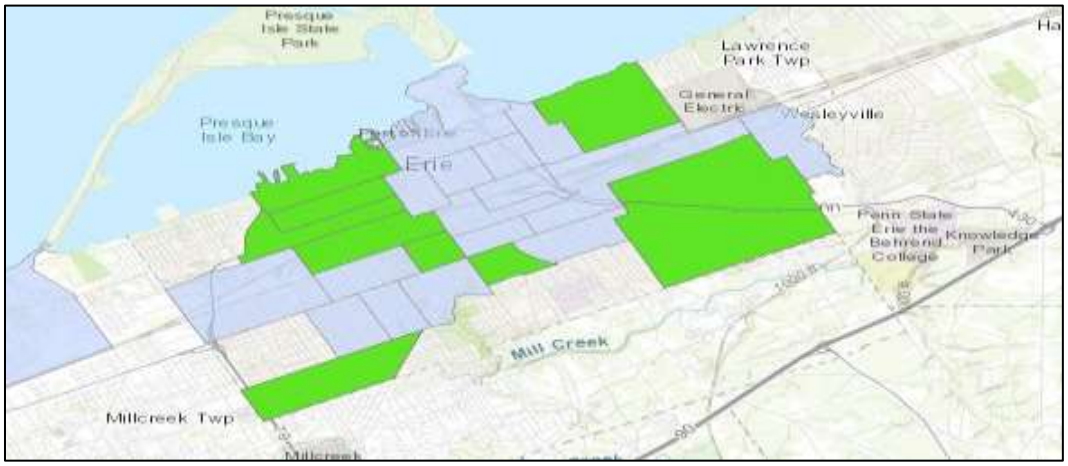


Figure 7c. Low Vehicle Access Areas and Food Deserts, City of Erie, 2017

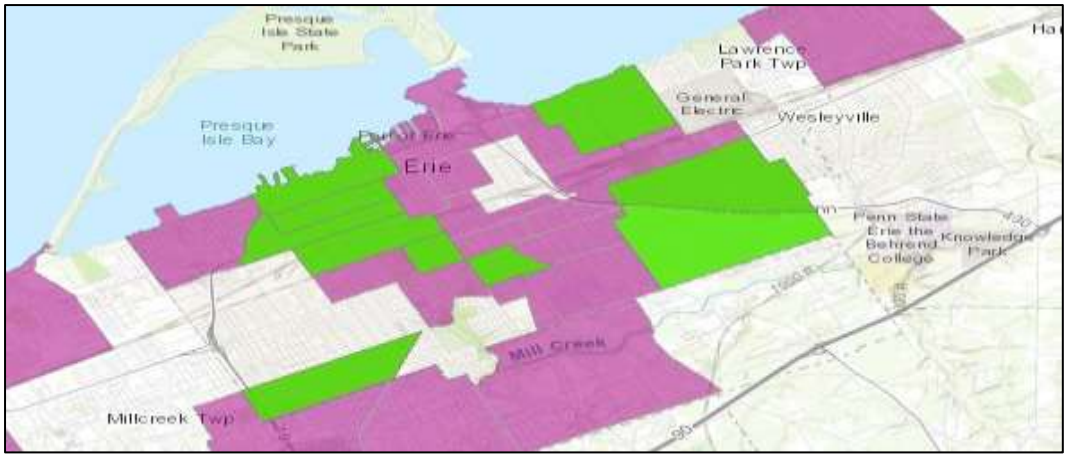


Figure 8a. Erie County Food Deserts, 2017

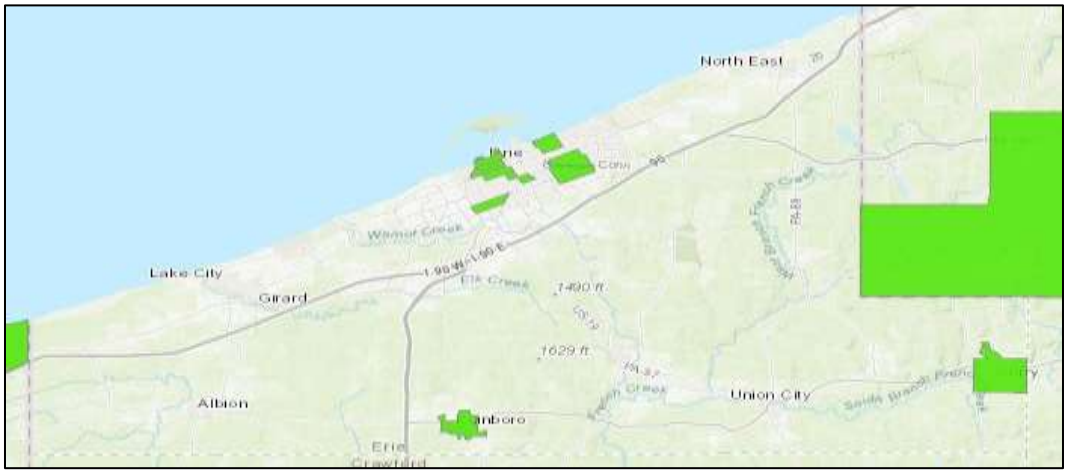


Figure 8b. Low Income Areas and Food Deserts, Erie County, 2017

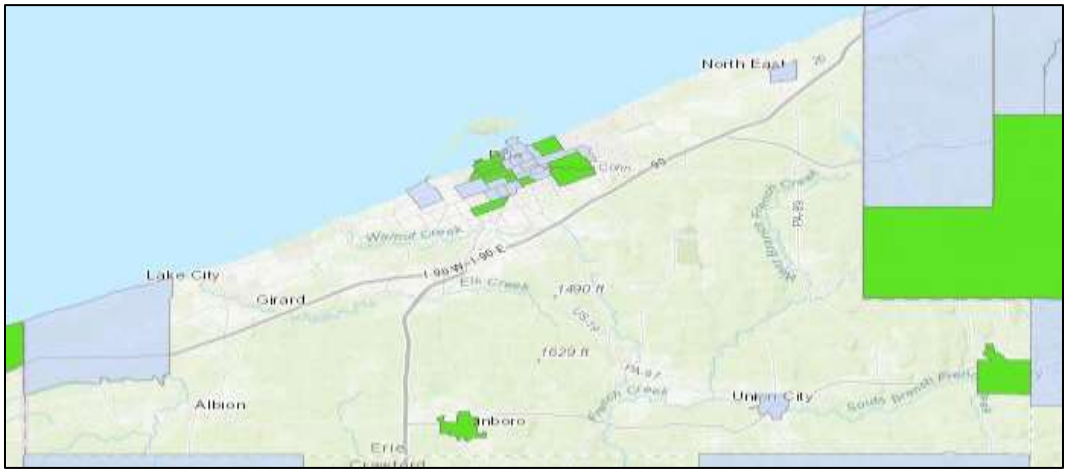


Figure 8c. Low Vehicle Access Areas and Food Deserts, Erie County, 2017

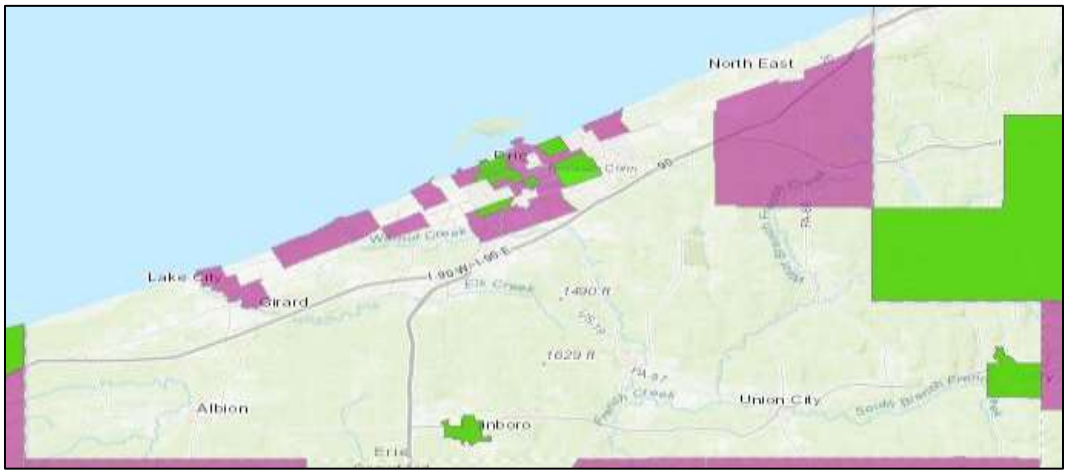
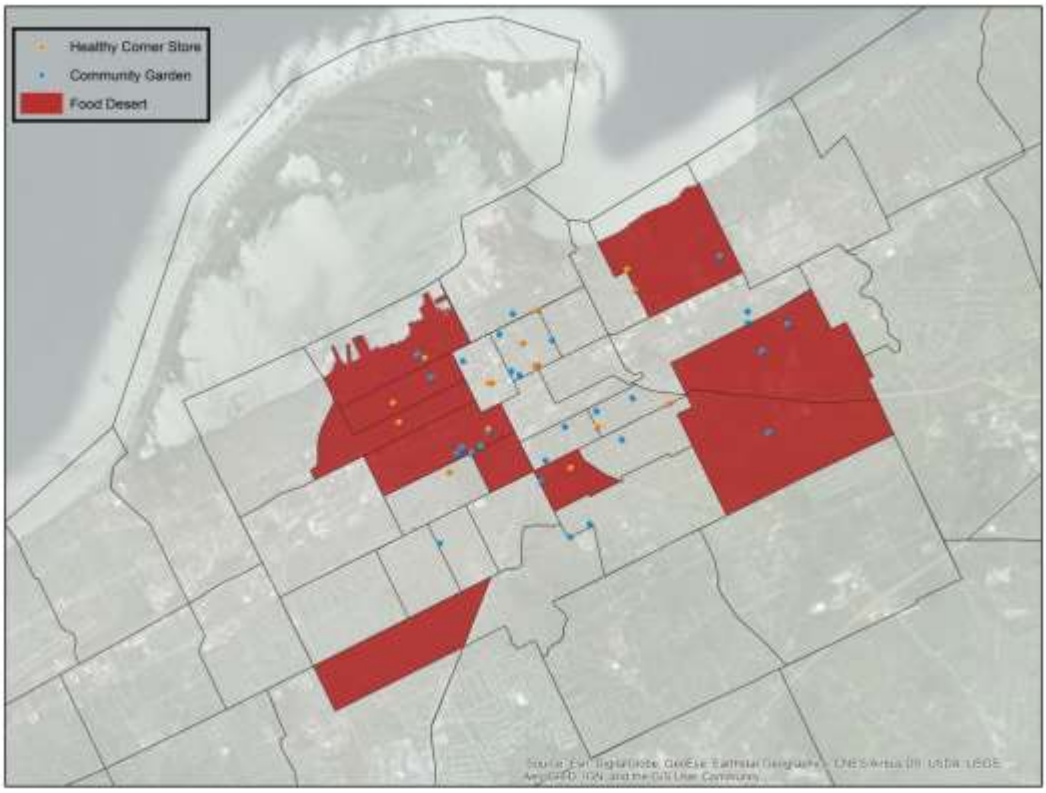


Figure 9. Healthy Corner Stores, Community Gardens, and Food Deserts, City of Erie, 2017



Food Insecurity

Based on the BRFSS, the percentage of Erie County adults aged 18 and above who have been concerned about having enough food for themselves or their family was 10% in 2016-2017.

- Among age groups, the highest percentage of food insecurity was 15% for age group 30-44 followed by age group 18-29 at 14%.
- As education levels decreased, the percentage of those experiencing food insecurity increased. The highest percentage was 14% for adults with less than a high school education followed by those with a high school education and those with some college at 12%. The lowest percentage was 4% for those with a college degree.
- Food insecurity was higher among females at 13% compared with males at 7%.
- As income levels increased, the percentage of adults experiencing food insecurity decreased. The highest percentage was 29% for adults earning less than $15,000 followed by 18% for those earning $15,000-$24,999 and 11% for those with annual income of $25,000-$49,999. Values for higher income groups were not reported.
- Food insecurity was higher among non-Hispanic Blacks at 22% compared with non-Hispanic Whites at 9%.
- The percentage of food insecurity among adults was 14% in the Erie City Area geographic area and 9% for the Rest of Erie County geographic area.

- For all groups, the highest percentage of food insecurity among adults was 29% for those earning less than $15,000.

Overall, the percentage of those concerned about having enough food for themselves or their family increased as education and income levels decreased.

Physical Activity

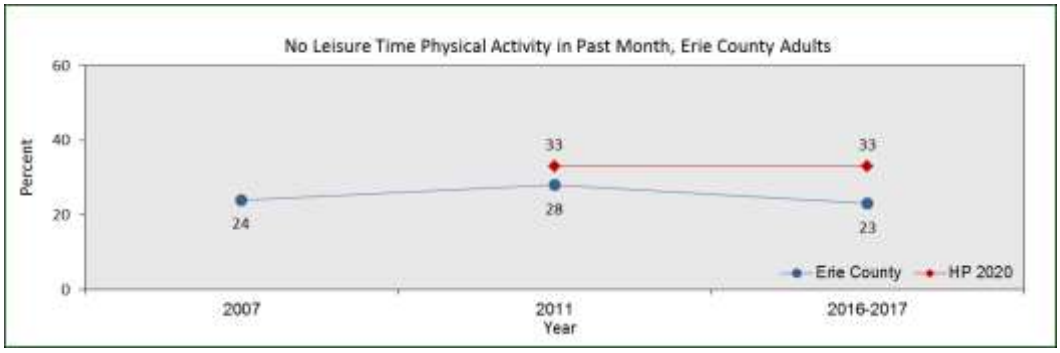
Physical activity is important to good health and is one of the most effective ways to maintain body weight. It reduces blood pressure, arthritis pain, disability associated with arthritis, depression symptoms, anxiety symptoms, and reduces the risk for type 2 diabetes, heart attack, stroke, several types of cancer, osteoporosis, and falls.

No Leisure Time Physical Activity Based on the BRFSS, the percentage of Erie County adults aged 18 and above who reported having no leisure time physical activity in the past month decreased to 23% in 2016-2017 compared with 28% in 2011 (Figure 10). This was the same as PA at 23% (2016) and the U.S. at 23% (2016), but lower than the Healthy People 2020 Goal of 33%.

- Among age groups, the highest percentage of no leisure time physical activity was 29% for age group 65 and above followed by age group 45-64 at 27% (Table 8). This was lower than the 2011 values of 33% and 28%, respectively.
- As education levels decreased, the percentage of those who were not physically active increased. The highest percentage was 41% for adults with less than a high school education followed by those with a high school education at 29%. The lowest percentage was 11% for those with a college degree.
- No leisure time physical activity was higher among females at 27% (31% in 2011) compared with males at 19% (25% in 2011).
- As income levels decreased, the percentage of those who were not physically active increased. The highest percentage of no activity was 34% for adults earning less than $15,000 followed by those earning $15,000-$24,999 at 29%. The lowest percentage was 11% for those earning $75,000 and above.
- No leisure time physical activity was higher among non-Hispanic Whites at 23% (27% for 2011) compared with non-Hispanic Blacks at 16% (29% in 2011).
- The percentage of no leisure time physical activity among adults was 22% in the Erie City Area geographic area and 24% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of no leisure time physical activity among adults was 41% for those with less than a high school education.

Overall, the percentage of those who were not physically active increased as age increased, education decreased, and income decreased.

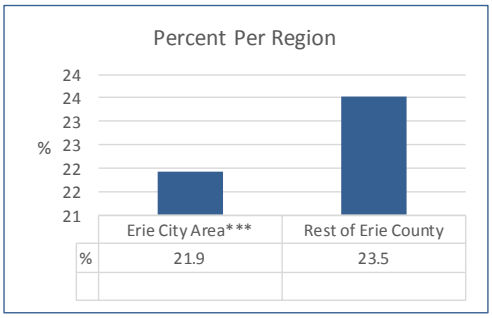
Figure 10. No Physical Activity Prevalence, 2007 to 2016-2017

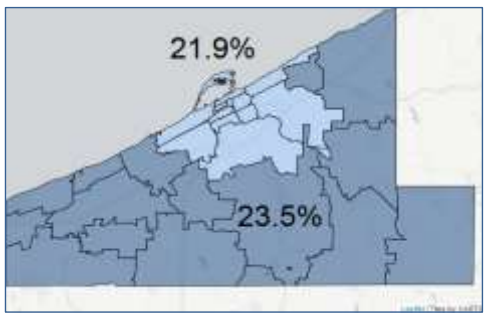


Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Table 8. No Physical Activity Prevalence, 2016-2017

	Not Physically Active			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	23	19	26	23
Age				
18-29	13	6	20	14
30-44	21	13	28	17
45-64	28	22	33	25
65+	29	21	36	33
Education				
< High School	41	24	59	36
High School	29	23	35	31
Some College	20	14	27	19
College Degree	11	7	14	10
Gender				
Female	27	22	32	25
Male	19	14	24	21
Income				
< $15,000	34	22	45	36
$15,000-$24,999	29	18	40	33
$25,000-$49,999	27	20	35	25
$50,000-$74,999	25	16	33	21
$75,000+	11	6	16	12
Race				
Non-Hispanic Black	16	8	25	28
Non-Hispanic White	23	19	27	22
Other	**	**	**	**





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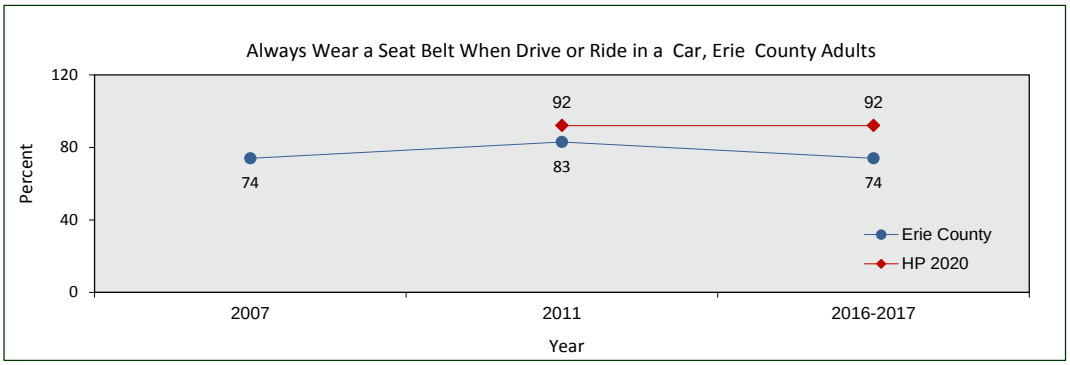
Exercise Per Week In 2016-2017, for all demographic groups except those with less than a high school education, 84% participated in some type of leisure time physical activity two or more times per week.

Seat Belt Use

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who always wear a seat belt when they drive or ride in a car significantly decreased to 74% in 2016-2017 compared with 83% in 2011 (Figure 11). This was lower than PA at 78% (2016) and the Healthy People 2020 Goal of 92.4%.

Figure 11. Seat Best Use Prevalence, 2007 to 2016-2017



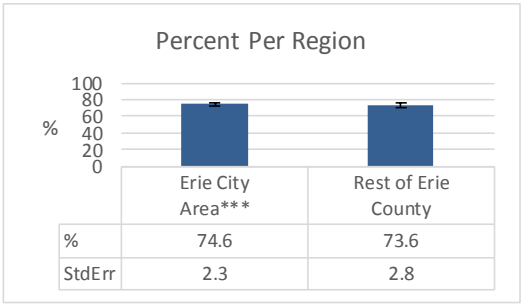
Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

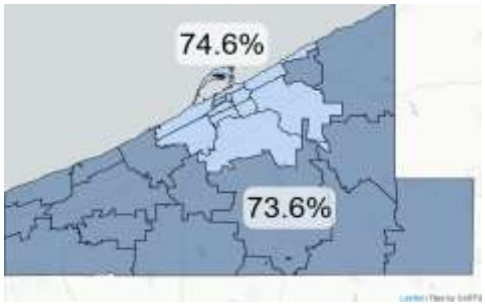
- As age increased, the percentage of those who always use a seat belt also increased. The highest percentage of seat belt use was 82% for age group 65 and above while the lowest was 62% for ages 18-29. (Table 9).
- As education levels increased, seat belt use increased. The highest percentage was 84% for adults with a college degree while the lowest was 68% for those with less than a high school education.
- The prevalence of those who always wear a seat belt was higher among females at 78% (87% in 2011) compared with males at 69%% (78% in 2011).
- For income levels, the highest percentage of seat belt use among adults was 79% for adults earning $75,000 and above while the lowest was 72% for those earning $25,000-$49,999.
- The prevalence of those who always were a seat belt was higher among non-Hispanic Whites at 75% (83% for 2011) compared with non-Hispanic Blacks at 64% (65% in 2011).
- In the Erie City Area geographic area, 75% of adults always use a seat belt compared with 74% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults who always wear a seat belt was 84% for those with a college degree.

Overall, seat belt use increased as age and education increased.

Table 9. Seat Belt Use Prevalence, 2016-2017

	Always Use Seat Belts			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	74	70	78	78
Age				
18-29	62	52	73	72
30-44	69	59	78	75
45-64	80	75	85	79
65+	82	77	88	83
Education				
< High School	68	50	85	67
High School	67	61	74	74
Some College	77	70	84	77
College Degree	84	78	90	89
Gender				
Female	78	74	83	83
Male	69	63	75	72
Income				
< $15,000	76	65	86	72
$15,000-$24,999	75	65	86	74
$25,000-$49,999	72	64	79	73
$50,000-$74,999	74	65	83	76
$75,000+	79	71	87	84
Race				
Non-Hispanic Black	64	49	78	75
Non-Hispanic White	75	71	79	78
Other	71	53	90	





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Sleep

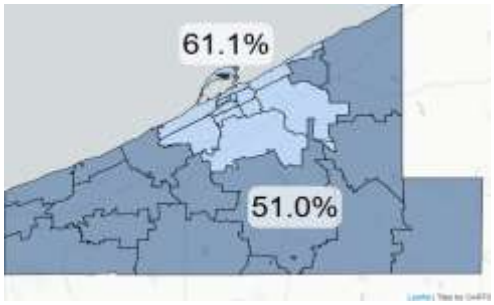
The health community has begun to recognize the importance of adequate sleep in maintaining good health and preventing chronic disease. Inadequate sleep has been associated with diabetes, cardiovascular disease, obesity, and depression and is a cause of motor vehicle and machinery-related crashes. The CDC recommends 7 to 9 hours of sleep for adults.

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who had at least one day with a sleep issue in the last two weeks was 55% in 2016-2017 (Table 10).

Table 10. Sleep Issues Prevalence, 2016-2017

Had at Least One Day with a Sleep Issue in the Last Two Weeks

All Adults	%	Lower CL	Upper CL	% PA 2016
	55	50	59	NA
Age				
18-29	61	50	72	NA
30-44	56	46	66	NA
45-64	55	49	62	NA
65+	44	36	52	NA
Education				
< High School	49	30	69	NA
High School	53	46	59	NA
Some College	63	55	70	NA
College Degree	51	43	58	NA
Gender				
Female	60	54	65	NA
Male	49	43	56	NA
Income				
< $15,000	70	59	81	NA
$15,000-$24,999	71	60	81	NA
$25,000-$49,999	48	40	56	NA
$50,000-$74,999	53	43	63	NA
$75,000+	48	39	57	NA
Race				
Non-Hispanic Black	61	46	75	NA
Non-Hispanic White	55	51	60	NA
Other	40	21	58	NA



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- As age increased, sleep issues decreased. The highest percentage of sleep issues was 61% for age group 18-29 while the lowest was 44% for age 65 and above (Table 10).
- Among education levels, the highest percentage was 63% for adults with some college while the lowest was 49% among those with less than a high school education.

- The prevalence of sleep issues was higher among females at 60%% compared with males at 49%.
- For income levels, the highest percentage of sleep issues was 70% for adults earning less than $15,000 and those earning $25,000-$49,999. The lowest percentage was 48% for those earning $25,000-$49,999 and those earning $75,000 and above.
- The percentage of sleep issues was higher among non-Hispanic Blacks at 61% compared with non-Hispanic Whites at 55%.
- The percentage of sleep issues among adults was 61% in the Erie City Area geographic area and 51% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of sleep issues among adults was 70% for those with income less than $15,000 and for those with income of $75,000 and above.

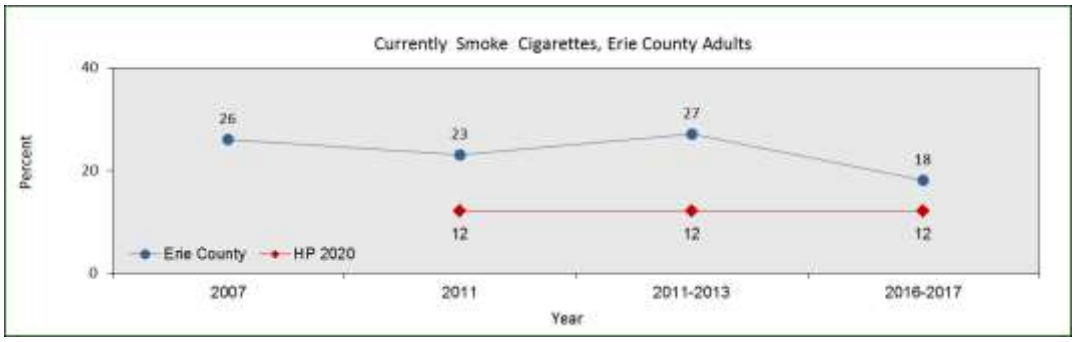
Overall, sleep issues decreased with increasing age and increasing education.

Tobacco Use - Adults

Tobacco use causes disease, disability, and death. Cigarette smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD). Pregnant women who smoke have a greater risk of pregnancy complications, premature birth, and low birth weight infants. Infants of mothers who smoked during pregnancy have a greater risk of sudden infant death syndrome (SIDS).

Current Smoker Based on the BRFSS, the percentage of Erie County adults aged 18 and above who currently smoke cigarettes significantly decreased to 18% in 2016-2017 compared to 27% in 2011-2013 (Figure 12). This is the same as PA at 18% (2016), but higher than the U.S. at 17% (2016), and the Healthy People 2020 Goal of 12.0%.

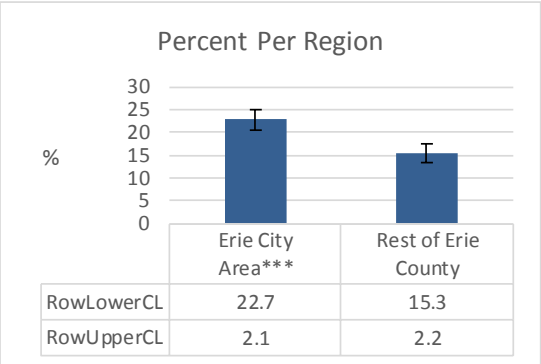
Figure 12. Cigarette Smoking Prevalence, 2007 to 2016-2017

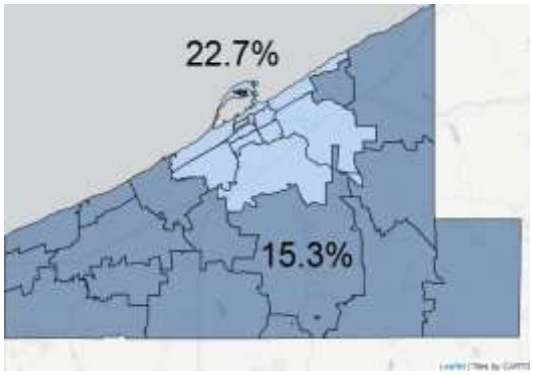


Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Table 11. Current Smoking Prevalence, 2016-2017

	Smoking Everyday or Somedays			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	18	15	21	18
Age				
18-29	13	6	19	17
30-44	22	14	29	24
45-64	23	18	28	22
65+	9	5	13	7
Education				
< High School	36	19	54	32
High School	21	16	26	22
Some College	16	11	21	18
College Degree	10	6	15	6
Gender				
Female	21	17	25	16
Male	15	10	19	20
Income				
< $15,000	30	19	41	36
$15,000-$24,999	26	16	35	27
$25,000-$49,999	20	14	27	21
$50,000-$74,999	16	9	23	16
$75,000+	8	3	13	10
Race				
Non-Hispanic Black	17*	7*	27*	24
Non-Hispanic White	18	15	22	17
Other	**	**	**	





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*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

- Among age groups, the highest percentage of cigarette smoking was 23% for age group 45-64 followed by ages 30-44 at 22% (Table 11).

- As education levels decreased, cigarette smoking increased. The highest percentage was 36% for adults with less than a high school education followed by those with a high school education at 21%. The lowest percentage was 10% for those with a college degree.
- Cigarette smoking was higher among females at 21% (22% in 2011-2013) compared with males at 15% (32% in 2011-2013).
- As income levels increased, cigarette smoking decreased. The highest percentage was 30% for adults earning less than $15,000. The lowest percentage was 8% for those earning $75,000 and above.
- Cigarette smoking was higher among non-Hispanic Whites at 18% compared with non-Hispanic Blacks at 17%.
- The percentage of cigarette smoking among adults was 23% in the Erie City Area geographic area and 15% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of cigarette smoking among adults was 36% for those with less than a high school education.

Overall, cigarette smoking decreased as education and income increased.

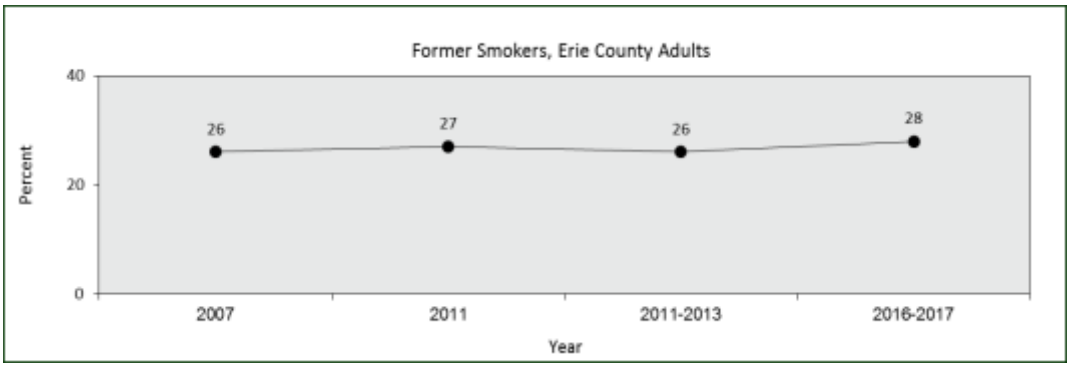
Ever Smoked Based on the BRFSS, the percentage of Erie County adults aged 18 and above who smoked at least 100 cigarettes in their lifetime (ever smoked) decreased to 46% in 2016-2017 compared with 53% in 2011-2013. This is higher than PA at 44% (2016) and the U.S. at 43% (2016).

- Among age groups, the highest percentage of adults who have ever smoked was 56% for age group 30-44.
- As education levels decreased, the percentage of those who ever smoked increased. The highest percentage was 68% for adults with less than a high school education followed by those with some college at 49% and those with a high school education at 47%. The lowest was 36% for those with a college degree.
- Ever smoking was higher among females at 47% compared with males at 45%.
- For income levels, the highest percentage of adults who ever smoked was 57% for adults earning $15,000-$24,999 followed by those earning $25,000-$49,999 at 51%. The lowest percentage was 42% for those earning $50,000-$74,999.
- The percentage of adults who ever smoked was higher among non-Hispanic Whites at 47% compared with non-Hispanic Blacks at 40%.
- The percentage of adults who ever smoked was 49% in the Erie City Area geographic area and 45% for the Rest of Erie County geographic area.
- For all groups, the highest percentage was 68% for those with less than a high school education.

Overall, the percentage of adults who have ever smoked increased as education decreased.

Former Smoker Based on the BRFSS, the percentage of Erie County adults aged 18 and above who are former smokers increased to 28% in 2016-2017 compared to 26% in 2011-2013 (Figure 13). This is higher than PA at 26% (2016) and the U.S. at 25% (2016).

Figure 13. Former Smoker Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

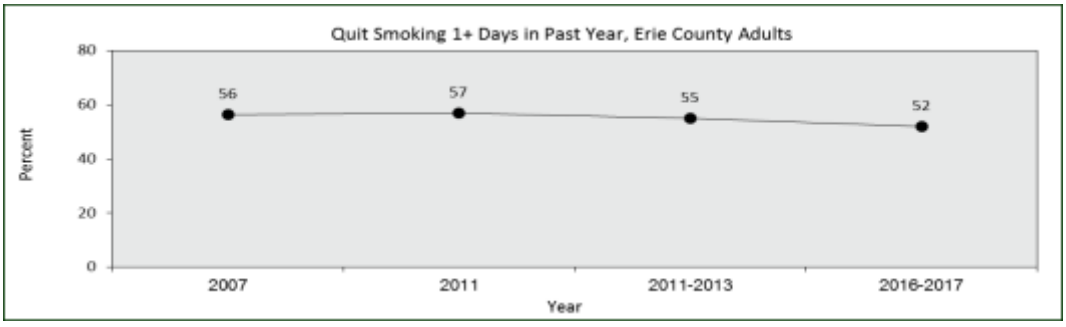
- Among age groups, the highest percentage of former smokers was 41% for age group 65 and above. This was lower than the 2011-2013 value of 42% for this age group.
- For education levels, the highest percentage was 33% for adults with some college followed by those with less than a high school education at 32%.
- The percentage of former smokers was higher among males at 31% (28% in 2011-2013) compared with females at 25% (24% in 2011-2013).
- For income levels, the highest percentage was 35% for adults earning $75,000 and above followed by those earning $15,000-$49,999 at 31%. The lowest percentage was 19% for those earning less than $15,000.
- The percentage of former smokers was higher among non-Hispanic Whites at 29% (28% in 2011-2013) compared with non-Hispanic Blacks at 24% (values for 2011-2013 are not available).
- The percentage of former smokers was 26% in the Erie City Area geographic area and 29% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of former smokers among adults was 41% for those aged 65 and above.

Quit Smoking at Least 1 Day in Past Year Based on the BRFSS, the percentage of Erie County adults aged 18 and above who quit smoking at least 1 day in the past year decreased to 52% in 2016-2017 compared to 55% in 2011-2013 (Figure 14). This is higher than PA at 51% (2016).

- Among age groups, the highest reported percentage of adults who quit smoking at least one day in the past year was 54% for age group 30-44 and 50% for ages 45-64.
- For education levels, the highest percentage of those who quit at least one day in the past year was 55% for adults with a high school education followed by those with a college degree at 54%.
- The percentage of those who quit for at least one day in the past year was higher among females at 55% compared with males at 47%.
- For reported income levels, the highest percentage was 53% for adults earning $25,000-$49,999 followed by those earning $15,000-$24,999 at 40%.

- The percentage of adults who attempted to quit smoking in the past year was 53% for non-Hispanic Whites. Values for non-Hispanic Blacks were not reported.
- The percentage of adults who quit smoking at least once in the past year was 56% in the Erie City Area geographic area and 48% for the Rest of Erie County geographic area.

Figure 14. Smoking Cessation Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

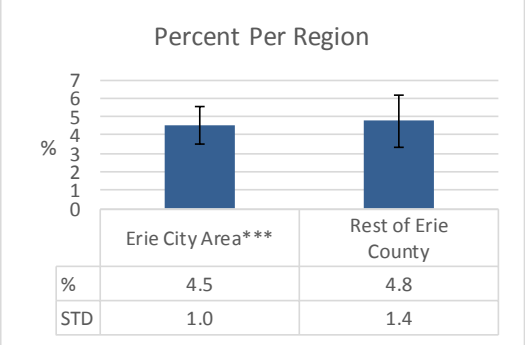
- For all groups, the highest percentage was 55% for females and for those with a high school education.

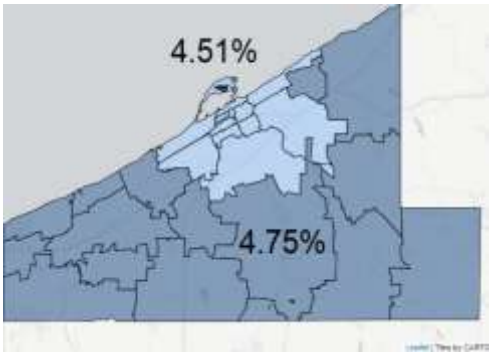
Electronic Cigarettes Based on the BRFSS, the percentage of Erie County adults aged 18 and above who currently use e-cigarettes or other electronic 'vaping' products every day or some days was 5% in 2016-2017. For PA, 20% of adults use electronic 'vaping' products every day or some days. Of these, 6% use these devices every day and 14% use them on some days (2016).

- Among age groups, the highest reported percentage of electronic vaping product use was 7% for age group 30-44 and 6% for ages 18-29 (Table 12).
- As education levels decreased, electronic vaping product use increased. The highest percentage was 6% for adults with a high school education and for those with some college. The lowest was1% for those with a college degree.
- Electronic vaping product use was slightly higher among females at 5% compared with males at 4%.
- For income levels, the highest percentage of electronic vaping product use was 7% for adults earning less than $15,000 and for those earning $25,000-$49,999. The lowest percentage was 3% for those earning $15,000-$24,999.
- Electronic vaping product use was 5% among non-Hispanic Whites. Values were not reported for non-Hispanic Blacks.
- The percentage of electronic vaping use among adults was 5% in the Erie City Area geographic area and 5% for the Rest of Erie County geographic area.
- For all groups, the highest percentage was 7% for those aged 30-44, for those earning less than $15,000, and for those earning$25,00-$49,999.

Table 12. Electronic Vaping Product Use Prevalence, 2016-2017

	Using Everyday or Somedays			
All Adults	**%**	Lower CL	Upper CL	**% PA**
	5	3	6	NA
Age				
18-29	6*	2*	11*	NA
30-44	7*	2*	12*	NA
45-64	4*	1*	7*	NA
65+	**	**	**	NA
Education				
< High School	**	**	**	NA
High School	6*	2*	9*	NA
Some College	6*	2*	10*	NA
College Degree	1*	0*	3*	NA
Gender				
Female	5	2	7	NA
Male	4*	2*	7*	NA
Income				
< $15,000	7*	0*	14*	NA
$15,000-$24,999	3*	1*	6*	NA
$25,000-$49,999	7	3	11	NA
$50,000-$74,999	6*	1*	1*	NA
$75,000+	**	**	**	NA
Race				
Non-Hispanic Black	**	**	**	NA
Non-Hispanic White	5	3	7	NA
Other	**	**	**	NA

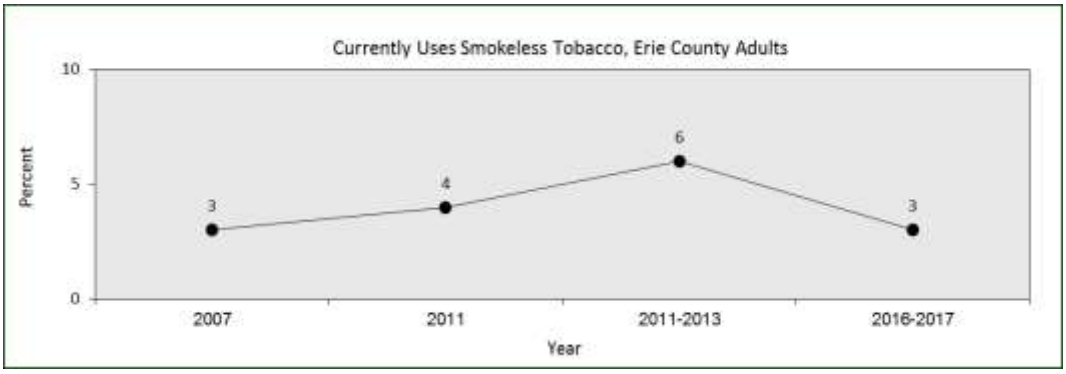




* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Smokeless Tobacco Based on the BRFSS, the percentage of Erie County adults aged 18 and above who currently use smokeless tobacco such as chewing tobacco, snuff, or snus decreased to 3% in 2016-2017 compared to 6% in 2011-2013 (Figure 14). This is lower than PA at 4% (2016).

Figure 14. Smokeless Tobacco Use Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

- Among reported age groups, the highest percentage of smokeless tobacco use was 4% for age group 18-29.
- Among reported education levels, the highest percentage was 4% for adults with some college and 3% for those with a high school education.
- For adult males, 6% reported using smokeless tobacco. No females reported using smokeless tobacco.
- For reported income levels, the highest percentage was 4% for adults earning $25,000-$49,999 followed by those earning $50,000-$74,999 at 3%.
- The percentage of smokeless tobacco use was 3% among non-Hispanic Whites. Values for non-Hispanic Blacks were not reported.
- The percentage among adults was 3% in the Erie City Area geographic area and 3% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of smokeless tobacco use among adults was 6% for males.

Secondhand Smoke Based on the BRFSS, the percentage of Erie County adults age 18 and above who never allow smoking in their house significantly increased to 80% in 2016-2017 compared with 43% in 2011.

- Among age groups, the highest percentage was 87% for age group 30-44.
- As education levels increased, the percentage of adults who never allow smoking in their house increased. The highest percentage was 90% for adults with a college degree while the lowest was 63% for those with less than a high school education.
- The percentage was the same for males and females at 80%.
- As income levels increased, the percentage of adults who never allow smoking in their house increased. The highest percentage was 92% for adults earning $50,000-$74,999 and for adults earning $75,000 and above. The lowest percentage was 66% for those earning less than $15,000.
- The percentage of adults who never allow smoking in their house was higher among non-Hispanic Whites at 81% compared with non-Hispanic Blacks at 78%.

- The percentage among adults was 75% in the Erie City Area geographic area and 84% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults who never allow smoking in their house was 92% for those earning $50,000-$74,999 and for those earning $75,000 and above.

Overall, the percentage of adults who never allow smoking in their house increased as education and income increased.

Tobacco Use - Youth

Since 2005, Erie County has participated in the biannual Pennsylvania Youth Survey (PAYS) sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD). PAYS surveys 6th, 8th, 10th, and 12th grade students to determine youth behaviors and attitudes.

Tobacco is the second most used drug among students in both Erie County and Pennsylvania. Four tobacco behaviors were evaluated: lifetime cigarette use, past-30-day cigarette use, lifetime smokeless tobacco use, and past-30-day smokeless tobacco use.

Lifetime Cigarette Use From 2013 to 2015, the overall lifetime use of cigarettes among Erie County students increased (Table 13). In 2015, 20.1% (18.8% in 2013) of Erie County students reported that they had smoked a cigarette at least once in their lifetime compared with 16.3% for PA. Usage ranged from a low of 4.8% in 6th grade to a high of 36.5% in 12th grade. When compared to national rates (13.3% for 8th grade; 19.9% for 10th grade; 31.1% for 12th grade), Erie County rates were higher for 8th, 10th, and 12th grades. From 2013 to 2015, lifetime cigarette use prevalence remained the same for 10th grade and increased for 8th and 12th grades.

From 2009 to 2015, the overall prevalence of lifetime cigarette use steadily decreased from 26.2% in 2009 to 18.8% in 2013 and then increased to 20.1% in 2015.

Table 13. Youth Tobacco Use Prevalence, 2013 & 2015

Tobacco Use Among Erie County Middle and High School Students
Erie County 2013 & 2015 PAYS

	Cigarette Use						Smokeless Tobacco Use						Vaping	
	*Lifetime Use**			*Past-30-Day Use***			*Lifetime Use**			*Past-30-Day Use***			*Past-30-Day Use***	
	Erie County		PA	Erie County		PA	Erie County		PA	Erie County		PA	Erie County	PA
Grade	2013	2015	2015	2013	2015	2015	2013	2015	2015	2013	2015	2015	2015	2015
6th	4.1%	4.8%	2.9%	1.3%	1.1%	0.8%	1.5%	2.4%	1.2%	0.7%	0.4%	0.4%	2.9%	2.6%
8th	12.2%	17.2%	11.0%	4.4%	4.9%	3.5%	5.8%	6.8%	4.5%	2.6%	2.5%	1.8%	14.0%	11.7%
10th	26.8%	26.8%	18.3%	12.6%	9.6%	6.8%	11.5%	11.7%	9.8%	5.5%	5.9%	4.9%	22.7%	20.4%
12th	36.1%	36.5%	32.7%	17.4%	15.4%	14.6%	20.0%	16.5%	18.1%	9.3%	7.8%	9.2%	28.3%	27.0%
Overall	18.8%	20.1%	16.3%	8.4%	7.1%	6.4%	9.1%	8.8%	8.4%	4.2%	3.8%	4.1%	16.0%	15.5%

Note: *Indicates that the student ever used cigarettes or smokeless tobacco; **Indicates that the student used cigarettes, smokeless tobacco or an electronic nicotine delivery system within the past 30 days; Smokeless tobacco includes chewing tobacco, snuff, and snus

Past-30-Day Cigarette Use From 2013 to 2015, the overall 30 day use of cigarettes among Erie County students decreased (Table 13). In 2015, 7.1% (8.4% in 2013) of Erie County students reported that they had smoked a cigarette within the past 30 days compared with 6.4% for PA. Usage ranged from a low of 1.1% in 6th grade to a high of 15.4% in 12th grade. When compared to national rates (3.6% for 8th grade; 6.3% for 10th grade; 11.4% for 12th grade), Erie County rates were higher for 8th, 10th, and 12th grades. From 2013 to 2015, past-30-day cigarette use prevalence in Erie County decreased for 8th, 10th, and 12th grades.

From 2009 to 2015, overall prevalence of past 30-day-cigarette use has decreased from 10.2% in 2009 to 7.1% in 2015.

Lifetime Smokeless Tobacco Use From 2013 to 2015, the overall lifetime use of smokeless tobacco among Erie County students decreased (Table 13). In 2015, 8.8% (9.1% in 2013) of Erie County students reported that they had used smokeless tobacco at least once in their lifetime compared with 8.4% for PA. Usage ranged from a low of 2.4% in 6th grade to a high of 16.5% in 12th grade. When compared to national rates (8.6% for 8th grade; 12.3% for 10th grade; 13.2% for 12th grade), Erie County rates were lower for 8th and 10th grades but higher for 12th grade. From 2013 to 2015, lifetime smokeless tobacco use prevalence increased for 6th, 8th, and 10th grades and decreased for 12th grade.

From 2009 to 2015, the overall prevalence of lifetime smokeless tobacco use steadily decreased from 13.1% in 2009 to 8.8% in 2015.

Past-30-Day Smokeless Tobacco Use From 2013 to 2015, the overall past-30-day use of smokeless tobacco among Erie County students decreased (Table 13). In 2015, 3.8% (4.2% in 2013) of Erie County students reported that they had used smokeless tobacco at least once in the past-30-days compared with 4.1% for PA. Usage ranged from a low of 0.4% in 6th grade to a high of 7.8% in 12th grade. When compared to national rates (3.2% for 8th grade; 4.9% for 10th grade; 6.1% for 12th grade), Erie County rates were lower for 8th grade and higher for both 10th and 12th grades. From 2013 to 2015, the prevalence of smokeless tobacco use within the past 30 days decreased for all grades with the exception of 10th grade.

From 2009 to 2015, the overall prevalence of past-30-day smokeless tobacco use steadily decreased from 7.0% in 2009 to 3.8% in 2015.

Past-30-Day Vaping Use In 2015, the overall past-30-day use of an electronic nicotine delivery system among Erie County students was 16.0% compared with 15.5% for PA. Percent usage per grade was 2.9% in 6th grade (2.6% for PA), 14.0% in 8th grade (11.7% for PA), 22.7% in 10th grade (20.4% for PA), 28.3% for 12th grade (27.0% for PA).

Weight Control

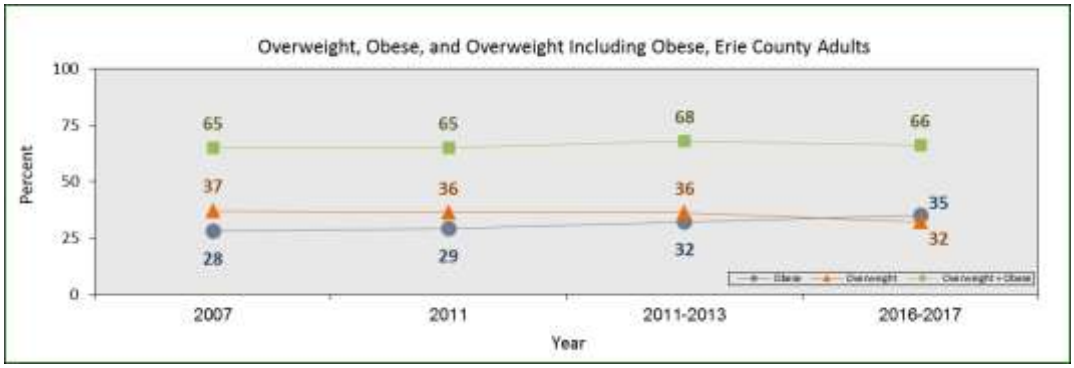
Body Mass Index (BMI) is a calculated variable based on an individual's height and weight and is used as an indicator to categorize weight status. A BMI below 18.5 is labeled as underweight, 18.5–24.9 as normal weight, 25.0–29.9 as overweight, and 30.0 and above as obese. A BMI of 25 or above is labeled as overweight including obese.

Overweight and obesity are known risk factors for type 2 diabetes, heart disease, stroke, hypertension, osteoarthritis, sleep apnea, respiratory problems, and some cancers. Obesity is also associated with high blood cholesterol, high levels of triglycerides, pregnancy complications, liver and gallbladder disease, menstrual irregularities, infertility, stress incontinence, and increased surgical risk. According to the CDC, the estimated annual medical cost of obesity in the U.S. was $147 billion in 2008 U.S. dollars; the medical costs for people who have obesity were $1,429 higher than those of normal weigh

In the BRFSS survey, respondents are asked to report their height and weight. BMI is calculated using this information.

From 2011 to 2016-2017, the percentage of Erie County residents aged 18 and above who were overweight has decreased by 4 percentage points (36% to 32%, respectively) (Figure 15). During this same period, the prevalence of obesity has increased by 6 percentage points (29% to 35%, respectively) while the percentage of overweight including obese adults has fluctuated between 65% and 68%.

Figure 15. Overweight, Obese, & Overweight Including Obese Prevalence, 2007 to 2016-2017



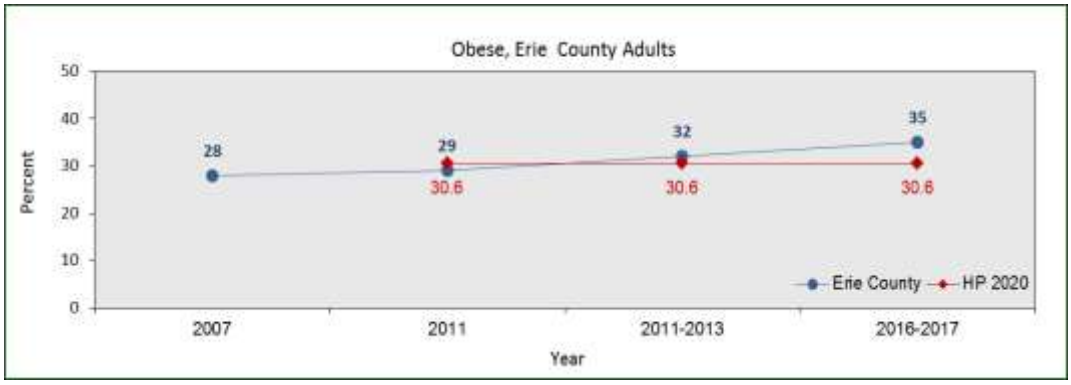
Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Obese Based on the BRFSS, the percentage of Erie County adults aged 18 and above who were obese (BMI ≥30) increased to 35% in 2016-2017 compared to 32% in 2011-2013 (Figures 15, 16). This is higher than PA at 30% (2016), the U.S. at 30% (2016), and the Healthy People 2020 Goal of 30.6% of those aged 20 and above.

- Obesity burden increased with increasing age. The highest percentage of obesity was 45% for age group 65 and above (Table 14). This was higher than the 2011-2013 value of 34% for this age group.
- Among education groups, the lowest percentage was 29% (25% in 2011-2013) for adults with a college degree. The highest percentage was 38% (35% for 2011-2013) for those with less than a high school education followed by 37% (35% in 2011-2013) for those with a high school education.
- Obesity prevalence was slightly lower among males at 34% (34% in 2011-2013) compared with females at 35% (29% in 2011-2013). Compared with 2011-2013, the percentage of obesity among males remained the same but increased among females.
- For income levels, the highest percentage of obesity was 38% (31% for 2011-2013) for adults earning less than $25,000 followed by 37% for those earning $25,000-$49,999. The lowest percentage was 29% for those earning $75,000 and above.
- Obesity prevalence was higher among non-Hispanic Blacks at 48% (values for 2011-2013 are not available) compared with non-Hispanic Whites at 34% (30% in 2011-2013).
- The percentage of obesity among adults was 33% in the Erie City Area geographic area and 36% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of obesity among adults was 48% for non-Hispanic Blacks.

Overall, obesity increased as age increased and income decreased.

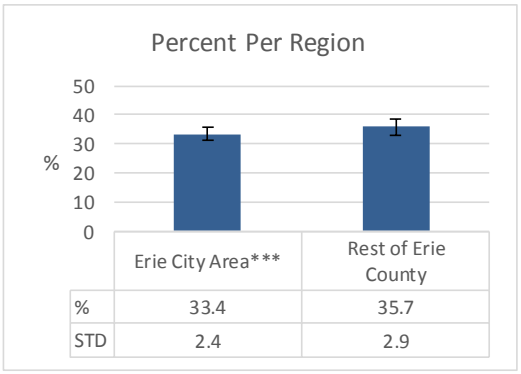
Figure 16. Obese Prevalence, 2007 to 2016-2017

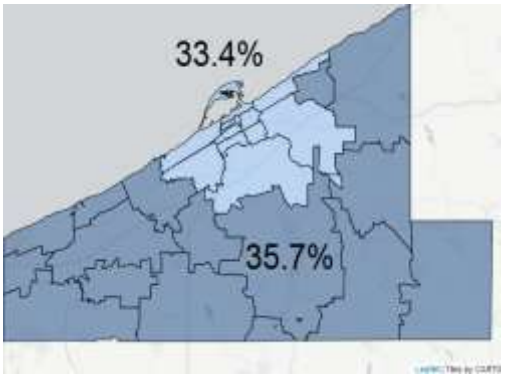


Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Table 14. Obese Prevalence, 2016-2017

	Obese Adults			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	35	31	39	30
Age				
18-29	22	13	31	19
30-44	32	23	41	32
45-64	40	33	46	36
65+	45	37	53	30
Education				
< High School	38	19	56	35
High School	37	31	43	35
Some College	36	29	44	30
College Degree	29	22	36	22
Gender				
Female	35	30	41	29
Male	34	28	40	31
Income				
< $15,000	38	27	50	35
$15,000-$24,999	38	26	50	35
$25,000-$49,999	37	29	45	34
$50,000-$74,999	33	24	42	34
$75,000+	29	21	37	25
Race				
Non-Hispanic Black	48	32	63	39
Non-Hispanic White	34	30	39	30
Other	**	**	**	





* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Overweight Based on the BRFSS, the percentage of Erie County adults aged 18 and above who were overweight (BMI = 25.0-29.9) dropped to 32% in 2016-2017 compared to 36% in 2011-2013 (Figure 15). This is lower than PA at 35% (2016) and the U.S. at 35% (2016).

- Among age groups, the highest percentage of overweight adults was 35% for ages 30-64.
- For education levels, the highest percentage was 35% for adults with some college followed by 33% for those with a high school education.
- Overweight prevalence among adults was higher among males at 35% compared with females at 28%.
- For income levels, the highest percentage of overweight adults was 37% for adults earning $50,000-$74,999 followed by 34% for those earning $75,000 and above.
- Overweight prevalence was higher among non-Hispanic Whites at 34% compared with non-Hispanic Blacks at 24%.
- The percentage of overweight among adults was 31% in the Erie City Area geographic area and 32% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of overweight among adults was 37% for those earning $50,000-$74,999.

Overall, overweight prevalence increased as income increased.

Overweight Including Obese Based on the BRFSS, the percentage of Erie County adults aged 18 and above who were overweight including obese (BMI ≥25) decreased to 66% in 2016-2017 compared with 68% in 2011-2013 (Figure 15). This is higher than PA at 65% (2016) and the U.S. at 65% (2016).

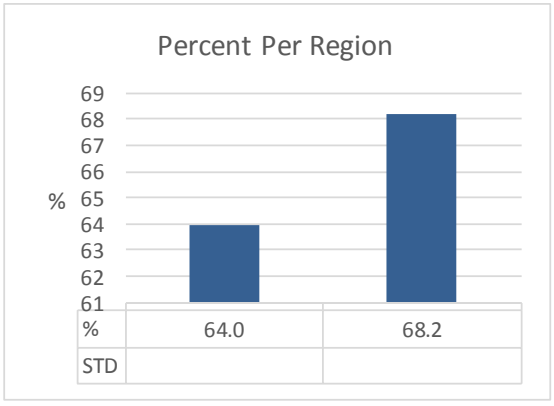
- Among age groups, the highest percentage of overweight including obese was 75% for ages 45 and above (Table 15). This was higher than the 2011-2013 value of 74% for ages 45-64 and 71% for ages 65 and above.
- For education levels, the highest percentage was 72% for adults with some college followed by those with a high school education at 69%. The lowest percentage was 54% for those with less than a high school education.
- Overweight including obese prevalence was higher among males at 69% (75% in 2011-2013) compared with females at 63% (60% in 2011-2013).
- For income levels, the highest percentage of overweight including obese was 70% for adults earning $50,000-$74,999 followed by 69% for those earning $25,000-$49,999 and 68% for those earning less than $15,000. The lowest percentage was 62% for those earning $75,000 and above.
- Overweight including obese prevalence was higher among non-Hispanic Blacks at 71% (values for 2011-2013 are not available) compared with non-Hispanic Whites at 68% (67% in 2011-2013).
- The percentage of overweight including obese adults was 64% in the Erie City Area geographic area and 68% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of overweight including obese among adults was 75% for those aged 45-64 and for those aged 65 and above.

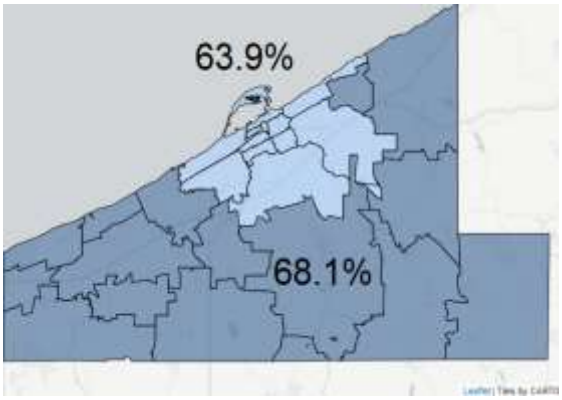
Overall, overweight including obese prevalence increased with increasing age.

Table 15. Overweight Including Obese Prevalence, 2016-2017

Overweight and Obese Adults

All Adults	%	Lower CI	Upper CI	% PA 2016
	66	62	70	65
Age				
18-29	44	33	54	48
30-44	67	58	76	65
45-64	75	69	80	72
65+	75	69	82	71
Education				
< High School	54	35	73	68
High School	69	63	76	69
Some College	72	64	79	66
College Degree	58	50	65	58
Gender				
Female	63	58	69	59
Male	69	63	75	71
Income				
< $15,000	68	57	80	66
$15,000-$24,999	65	54	77	69
$25,000-$49,999	69	61	76	68
$50,000-$74,999	70	61	80	68
$75,000+	62	54	71	63
Race				
Non-Hispanic Black	71	57	85	73
Non-Hispanic White	68	64	72	66
Other	**	**	**	





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* The estimate has a relative standard error greater than 30% and requires caution interpreting.

** The estimates were removed due to the relative standard error being greater than 50%.

*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Children and Youth BMI-for-Age

The Pennsylvania Department of Health (PA DOH) has reported growth screens/BMI-for-age-percentiles for school children in grades K-6 since the 2006-07 school year and in grades K-6 and 7-12 since the 2007-08 school year. The growth screens/BMI-for-age-percentiles are as follows: <5th percentile, at risk for underweight; 5th to <85th percentile, healthy weight; 85th to 95th percentile, overweight; and ≥95th percentile, obese. A BMI below 18.5 is labeled as underweight, 18.5–24.9 as normal weight, 25.0–29.9 as overweight, and 30.0 and above as obese.

Grades K-6 In 2015-2016, 24,033 students in grades K-6 were screened in Erie County. The percentile rank for obese students remained the same at 17.3% (17.3% in 2014-2015), the rank for overweight students decreased slightly to 15.5% (15.7% in 2014-2015), the rank for healthy weight students remained decreased slightly to 64.2% (64.4% in 2014-2015), and the rank for those at risk for underweight increased to 3.1% (2.7% in 2014-2015). In PA, for the 2015-2016 school year, 3.1% of students in grades K-6 were underweight, 65.0% a healthy weight, 15.2% overweight, and 16.7% obese (Table 16; Figures 17a, 17b).

Grades 7-12 In 2015-2016, 19,631 students in grades 7-12 were screened in Erie County. The percentile rank for obese students increased to 19.1% (18.7% in 2014-2015), the rank for overweight students increased to 16.7% (15.8% in 2014-2015), the rank for healthy weight students decreased slightly to 63.4% (63.9% in 2014-2015), and the rank for those at risk for underweight decreased slightly to 2.3% (2.7% in 2014-2015). In PA, for the 2015-2016 school year, 2.6% of students in grades 7-12 were underweight, 63.6% a healthy weight, 16.5% overweight, and 19.1% obese (Table 16; Figures 18a, 18b).

For the 2015-2016 school year, overall growth screens/BMI-for-age percentiles for Erie County students in grades K-12 were 2.7% (2.9% for PA) at risk for underweight, 63.8% (64.3% for PA) healthy weight, 16.1% (15.8% for PA) overweight, and 18.1% (17.8% for PA) obese.

Figure 17a. BMI-For-Age Percentiles, K-6, Erie County

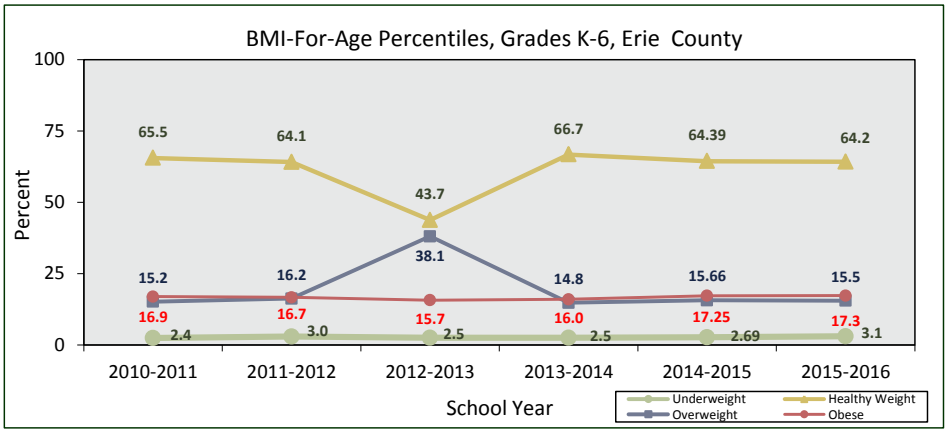

Figure 17b. BMI-For-Age Percentiles, K-6, Pennsylvania

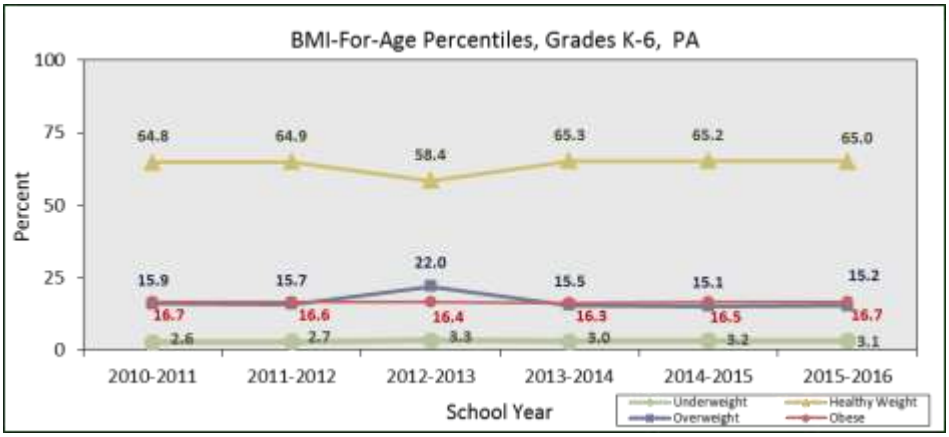

Figure 18a. BMI-For-Age Percentiles, 7-12, Erie County

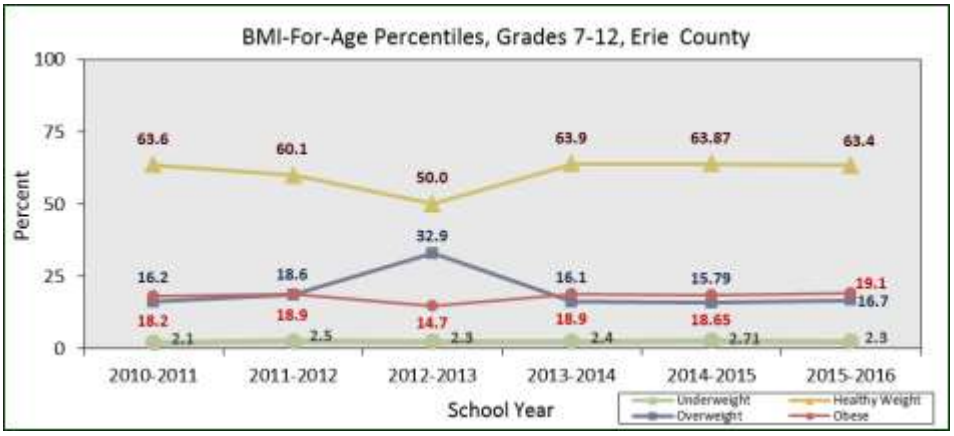

Figure 18b. BMI-For-Age Percentiles, 7-12, Pennsylvania

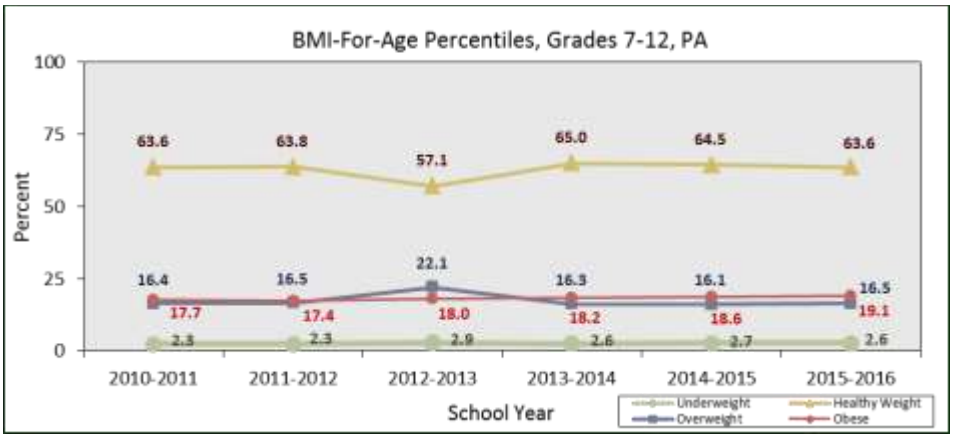

Table 16. BMI-For-Age-Percentiles, Grades K-12, 2015-2016 School Year

Growth Screens/BMI-For-Age Percentiles, Grades K-6 and 7-12
Erie County, 2015-2016 School Year

	# Students Screened	Underweight Risk		Healthy Weight		Overweight		Obese	
		# Students	Percent	# Students	Percent	# Students	Percent	# Students	Percent
Erie County									
Grades K-6	24,033	733	3.1%	15,422	64.2%	3,729	15.5%	4,149	17.3%
Grades 7-12	19,631	453	2.3%	12,446	63.4%	3,285	16.7%	3,755	19.1%
Total	43,664	1,186	2.7%	27,868	63.8%	7,014	16.1%	7,904	18.1%
Pennsylvania									
Grades K-6	964,369	30,325	3.1%	626,531	65.0%	146,864	15.2%	160,649	16.7%
Grades 7-12	815,795	20,981	2.6%	518,495	63.6%	134,376	16.5%	155,438	19.1%
Total	1,780,164	51,306	2.9%	1,145,026	64.3%	281,240	15.8%	316,087	17.8%

Note: Includes students in both public and private/non-public schools combined, served by the school district; <5th percentile = at risk for underweight; 5th to <85th percentile = healthy weight; 85th to 95th percentile = overweight; ≥95th percentile = obese

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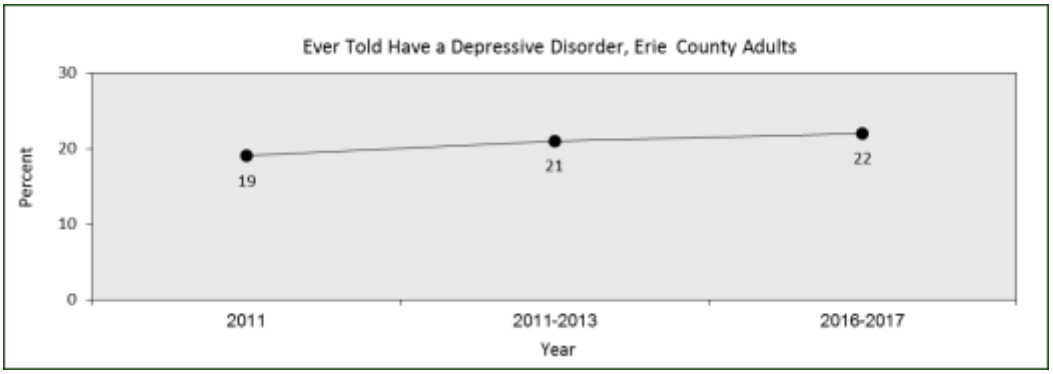
Mental and Behavioral Health

Depression – Adults

Diagnosed Depression Based on the Behavioral Risk Factor Surveillance Survey (BRFSS), the self-reported percentage of Erie County adults aged 18 and above who were ever told they had a depressive disorder was 22% in 2016-2017 compared to 21% in 2011-2013 (Figure 1). This is higher than PA at 19% (2016) and the U.S. at 17% (2016).

Figure 1. Depressive Disorder Prevalence, 2011 to 2016-2017

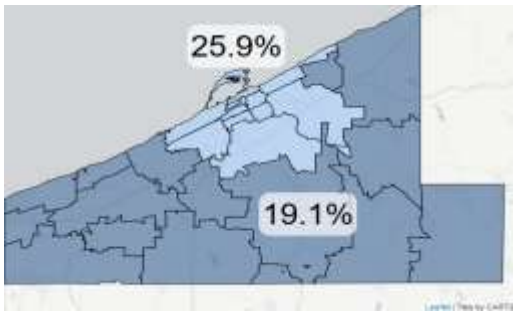


- Among age groups, the highest percentage of depression was 25% for age group 45-64 (Table 1). This was lower than the 2011-2013 value of 26% for this age group.
- As education levels decreased, depression burden increased. The highest percentage was 27% for adults with less than a high school education followed by those with a high school education at 23%.
- Depression prevalence was significantly higher among females at 28% (25% in 2011-2013) compared with males at 14% (17% in 2011-2013).
- For income levels, the highest percentage of depression was 42% for adults earning less than $15,000. The lowest percentage was 15% for those earning $50,000 or more annually. The percentage of adults who have been diagnosed with depression and who earn less than $15,000 was significantly higher than the percentage for those earning $25,000 or more.
- Diagnosed depression was higher among non-Hispanic Whites at 22% (21% for 2011-2013) compared with non-Hispanic Blacks at 21% (values are not available for 2011-2013).
- The percentage of diagnosed depression among adults was 26% in the Erie City Area geographic area and 19% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of diagnosed depression among adults was 42% for those earning less than $15,000.

Overall, depression prevalence decreased as age, education, and income increased.

Table 1. Depressive Disorder Prevalence, 2016-2017

	Ever Told Has Depressive Disorder			
All Adults	**%**	Lower CL	Upper CL	**% PA 2016**
	22	18	25	19
Age				
18-29	20	12	28	20
30-44	23	15	30	21
45-64	25	20	30	21
65+	16	10	22	12
Education				
< High School	27	11	42	26
High School	23	18	28	17
Some College	21	15	28	23
College Degree	18	13	23	13
Gender				
Female	28	24	33	23
Male	14	10	18	14
Income				
< $15,000	42	30	54	36
$15,000-$24,999	23	14	32	27
$25,000-$49,999	23	16	29	19
$50,000-$74,999	15	8	22	16
$75,000+	15	9	21	12
Race				
Non-Hispanic Black	21*	7*	34*	20
Non-Hispanic White	22	18	25	18
Other	18*	6*	31*	



* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Depressive Symptoms Based on the Behavioral Risk Factor Surveillance Survey (BRFSS), the self-reported percentage of Erie County adults aged 18 and above who felt so depressed most or all of the time in the past 30 days that nothing could cheer them up was 4% in 2016-2017.

- Among age groups, the percentage of adults with moderate or severe depressive symptoms was 8% for ages 18-29, 5% for ages 45-64, and 3% for ages 30-44. Values were not reported for those aged 65 and above.
- For education levels, the percentage was 4% for adults with a high school education and with some college. Values were not reported for other education levels.
- The prevalence of moderate or severe depressive symptoms was higher among females at 5% compared with males at 3%.
- For income levels, the highest percentage of moderate or severe depressive symptoms was 12% for adults earning less than $15,000 followed by 5% for those earning $25,000-$49,999 and 4% those earning $15,000-$24,999. Values were not reported for those earning $50,000 and above.
- Four percent of non-Hispanic Whites experienced moderate or severe depressive symptoms. Values were not reported for non-Hispanic Blacks.
- The percentage of depressive symptoms among adults was 5% in the Erie City Area geographic area and 3% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults with moderate or severe depressive symptoms was 12% for those earning less than $15,000.

Depression - Youth Symptoms

Since 2005, Erie County has participated in the biannual Pennsylvania Youth Survey (PAYS) sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD). PAYS surveys 6^{th}, 8^{th}, 10^{th}, and 12^{th} grade students to determine youth behaviors and attitudes.

Studies have shown depression to be the primary risk factor for teen suicide. Four questions were asked to determine student feelings of sadness, worthlessness, and hopelessness. They are: In the past year, 1) I felt depressed or sad most days, 2) Sometimes I think that life is not worth it, 3) At times, I think I am no good at all, and 4) All in all, I am inclined to think that I am a failure. A question about self-harm within the past 12 months is also included. For Erie County, prevalence increased for these behaviors from 2013 to 2015 and remains higher than PA (Table 2).

From 2013 to 2015, the percentage of students who 1) felt depressed or sad most days in the past year increased from 35.4% to 44.0% [38.3% for PA], 2) sometimes think that life is not worth it increased from 24.7% to 28.2% [23.9% for PA], 3) at times, think that they are no good at all increased from 34.9% to 38.9% [34.7% for PA], and 4) think they are a failure increased from 18.6% to 23.1% [19.9% for PA]. In 2015, during the past 12 months, 18.1% of students did something to harm themselves (such as cutting, scraping, burning) as a way to relieve difficult feelings, or to communicate emotions.

Table 2. Youth Symptoms of Depression, 2013 & 2015

Symptoms of Depression Among Erie County Middle and High School Students Erie County 2013 & 2015 PAYS														
	Felt Depressed or Sad Most Days in Past Year			*Sometimes Think That Life is Not Worth It*			*At Times Think That I Am No Good At All*			*Think I Am a Failure*			*Self-harm*	
	Erie County		PA	Erie County		PA	Erie County		PA	Erie County		PA	Erie County	PA
Grade	2013	2015	2015	2013	2015	2015	2013	2015	2015	2013	2015	2015	2015	2015
6th	31.3%	38.7%	33.9%	16.7%	21.2%	18.1%	27.1%	33.0%	29.5%	14.5%	17.0%	15.6%	12.1%	10.4%
8th	35.1%	44.7%	37.7%	25.5%	30.5%	24.2%	34.3%	39.8%	33.9%	19.5%	24.7%	21.1%	21.6%	16.7%
10th	39.8%	48.0%	40.6%	30.1%	33.2%	26.0%	41.5%	43.1%	37.3%	21.9%	26.7%	21.2%	22.5%	17.8%
12th	35.4%	44.8%	40.7%	26.8%	27.8%	26.8%	37.3%	39.9%	37.5%	18.6%	24.0%	21.6%	15.1%	15.1%
Overall	35.4%	*44.0%*	*38.3%*	24.7%	*28.2%*	*23.9%*	34.9%	*38.9%*	*34.7%*	18.6%	*23.1%*	*19.9%*	*18.1%*	*15.1%*

Suicide Risk - Youth

Since 2005, Erie County has participated in the biannual Pennsylvania Youth Survey (PAYS) sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD). PAYS surveys 6th, 8th, 10th, and 12th grade students to determine youth behaviors and attitudes.

Five questions specific to suicide are asked to determine depressed behavior, suicidal intention, suicide attempts, and the seriousness of those attempts. They are: In the past year, 1) Did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities, 2) Did you ever seriously consider attempting suicide, 3) Did you make a plan about how you would attempt suicide, 4) How many times did you actually attempt suicide, and 5) If you attempted suicide, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse. Prevalence for all suicide risk behaviors was higher for Erie County compared with PA (Table 3).

From 2013 to 2015, the percentage of students who 1) felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities decreased from 25.3% to 24.5% [21.5% for PA], 2) ever seriously considered attempting suicide decreased from 17.7% to 17.2% [16.0% for PA], 3) made a plan on how they would attempt suicide increased from 13.0% to 13.8% [12.7% for PA], 4) ever attempted suicide increased from 9.4% to 11.5% [9.5% for PA], and 5) needed medical treatment for their suicide attempt increased from 2.7% to 2.9% [2.3% for PA].

Table 3. Youth Suicide Risk, 2013 & 2015

Suicide Risk Among Erie County Middle and High School Students Erie County 2013 & 2015 PAYS															
	So Sad Stopped Doing Usual Activities			*Considered Suicide*			*Planned Suicide*			*Attempted suicide*			*Medical Treatment for Suicide Attempt*		
	Erie County		PA	Erie County		PA	Erie County		PA	Erie County		PA	Erie County	Erie County	PA
Grade	2013	2015	2015	2013	2015	2015	2013	2015	2015	2013	2015	2015	2013	2015	2015
6th	19.7%	17.8%	14.9%	8.4%	10.4%	8.7%	5.7%	6.8%	6.2%	5.0%	7.1%	5.8%	1.6%	1.5%	1.2%
8th	24.3%	24.7%	20.9%	18.5%	19.3%	15.4%	12.9%	15.7%	12.7%	9.4%	12.1%	10.1%	3.1%	3.1%	2.5%
10th	30.2%	28.5%	23.9%	22.1%	22.3%	19.2%	17.0%	18.2%	15.1%	12.0%	15.7%	10.5%	3.4%	4.2%	2.6%
12th	27.7%	27.0%	25.4%	22.4%	16.2%	19.5%	17.2%	13.9%	15.8%	11.5%	11.0%	11.2%	2.8%	2.8%	2.6%
Overall	*25.3%*	*24.5%*	*21.5%*	*17.7%*	*17.2%*	*16.0%*	*13.0%*	*13.8%*	*12.7%*	*9.4%*	*11.5%*	*9.5%*	*2.7%*	*2.9%*	*2.3%*

Mental Health Attitudes

Attitude Toward Treatment Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who agree (strongly or slightly) that treatment can help people with mental illness lead normal lives was 90% in 2016-2017. Among all groups surveyed, the highest percentage was 97% for both those with a college degree and those who earn $75,000 or more. The lowest percentage was 80% for those earning $15,000-$24,999 followed aby 83% for those earning less than $15,000.

Attitude Toward Seeking Help Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who have avoided seeking mental health services in the past 12 months was 7% in 2016-2017. Among all groups surveyed, the highest percentage was 14% for those earning $15,000-$24,999 followed by 12% for those aged 18-29, 11% for those earning less than $15,000, and 10% for those with less than a high school education. The lowest percentage was 2% for those earning $75,000 and above.

Among the Erie County adults aged 18 and above who avoided seeking mental health services in the past 12 months, 15% did so due to concern for their reputation or self-image.

Among the Erie County adults aged 18 and above who avoided seeking mental health services in the past 12 months, 33% did not feel that they have support and encouragement from their friends or family in seeking treatment.

Attention Deficit Disorder/Hyperactivity (ADD/ADHD)

Attention deficit hyperactivity disorder (ADHD) is a developmental and behavioral disorder of children that can carry into adolescence and adulthood. Hallmark behaviors of this disease are severe and frequent inattention, hyperactivity, and impulsivity.

The Pennsylvania Department of Health (PA DOH), Division of School Health reports the prevalence of ADD/ADHD among students in public and non-public/private schools for each school year. The most recent data available is for the 2012-2013 school year. In that school year, 6.5% of Erie County students (6.5% in 2011-2012) were diagnosed with ADD/ADHD compared with 6.2% for PA.

Childhood Abuse

Among the Erie County adults aged 18 and above who were surveyed for the BRFSS, 17% reported that before they were 18 years of age, a parent, another adult, or anyone at least 5 years older than them ever abused them physically, sexually, verbally, or emotionally.

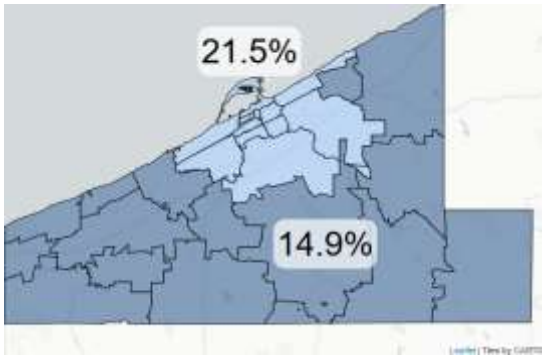
- Among age groups, the highest percentage of reported abuse was 22% for age group 45-64 (Table 4). The lowest was 12% for those aged 65 and above.
- For education levels the highest percentage was 21% for adults with less than a high school education and for those with a high school education. The lowest was 12% for those with a college degree.
- The percentage of reported abuse was significantly higher among females at 24% compared with males at 9%.
- For income levels, the highest percentage of abuse was 33% for adults earning less than $15,000. The lowest percentage was 7% for those earning $75,000 and above. This was significantly lower than the percentages reported for all adults earning less than $50,000.
- Sixteen percent of non-Hispanic Black adults and 17% of non-Hispanic White adults reported some type of abuse before they were 18 years of age.
- The percentage of adults who reported childhood abuse was 22% in the Erie City Area geographic area and 15% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of adults who reported childhood abuse was 33% for those earning less than $15,000.

Overall, the prevalence of childhood abuse decreased as education and income increased.

Table 4. Adults Ever Abused Before 18 Years of Age Prevalence, 2016-2017

Abused Physically, Sexually, Verbally, or Emotionally Before 18 Years of Age

All Adults	%	Lower CI	Upper CI	% PA
	17	14	20	NA
Age				
18-29	15	8	22	NA
30-44	16	9	22	NA
45-64	22	17	27	NA
65+	12	7	16	NA
Education				
< High School	21*	5*	36*	NA
High School	21	16	26	NA
Some College	14	9	19	NA
College Degree	12	8	16	NA
Gender				
Female	24	20	29	NA
Male	9	6	12	NA
Income				
< $15,000	33	22	44	NA
$15,000-$24,999	20	11	30	NA
$25,000-$49,999	17	12	23	NA
$50,000-$74,999	17	10	25	NA
$75,000+	7	3	11	NA
Race				
Non-Hispanic Black	16*	4*	28*	NA
Non-Hispanic White	17	14	20	NA
Other	14*	3*	26*	NA



* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

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Special Populations

Refugees and Immigrants

A refugee is a person who is outside his or her country of nationality and who is unable or unwilling to return to that country because of persecution or a well-founded fear of persecution, based on race, religion, nationality, public opinion, or membership in a particular social group. Refugees legally enter the United States in search of freedom, peace, and opportunity for themselves and their families. An immigrant is a person who chooses to resettle to another country. The United States has a legal process for that immigrant to seek legal residency and eventually citizenship.

Erie County is currently one of the leading refugee resettlement counties in Pennsylvania. From October 1, 2016 to September 30, 2017, 2,698 newly arrived refugees settled in 18 Pennsylvania counties. The largest number of refugees settled in Philadelphia County (643 refugees), followed by Lancaster County (614), Erie County (455), Allegheny County (448), and Dauphin County (159).

The 455 newly arrived refugees who settled in Erie County were from 17 countries. Five countries - Syria (127 refugees), the Democratic Republic of the Congo (96), Somalia (94), Bhutan (61), and Ukraine (22) - combined for 87.9% of all refugees (Table 1).

Table 1. Erie County Refugee Population by Country of Origin, 2016-2017

Country	Number of Refugees
Afghanistan	8
Bhutan	61
Burma	1
Central African Republic	1
Democratic Republic of the Congo	96
Eritrea	14
Ethiopia	8
Iraq	10
Ivory Coast	1
Libya	4
Moldova	1
Nepal	3
Russia	1
Somalia	94
Sudan	3
Syria	127
Ukraine	22
Total	455

In Erie County, the International Institute of Erie and Catholic Charities of Erie assist refugees in resettling in Erie County. The Multicultural Community Resource Center (MCRC) and St. Benedict's Education Center are refugee service contractors that provide employment services, vocational English as a second language, and skills training to refugees, eligible immigrants, and secondary migrants.

Because of the high rate of communicable diseases in their country of origin, each new refugee and eligible immigrant is required to undergo a health assessment. The primary components of the assessment are: 1) medical history and physical exam, 2) immunizations, 3) screenings for tuberculosis, sexually transmitted infections, HIV, hepatitis, and intestinal parasites, 4) mental/behavioral health screenings, and 5) specialist referrals and any needed follow-up. In Erie County, the Multicultural Health Evaluation Delivery System (MHEDS) has a signed participating provider agreement with the Pennsylvania Refugee Resettlement Program to provide health services to refugees, eligible immigrants, and secondary migrants. The Erie County Department of Health also provides health care coordination services for this population.

Homeless

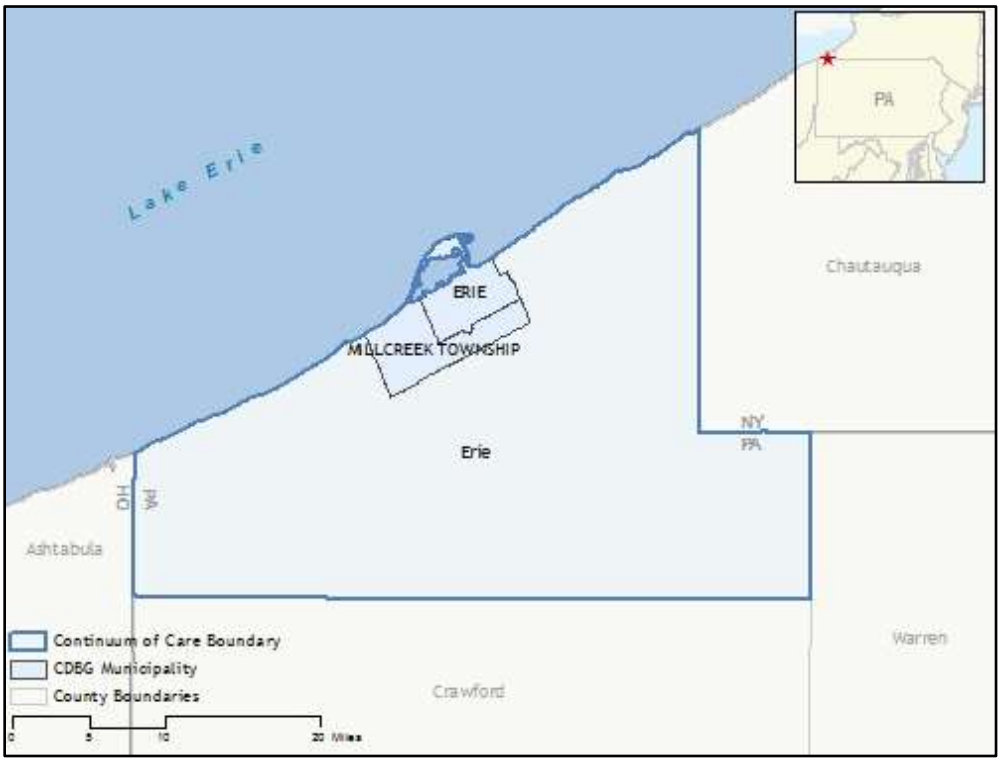
Through its Continuum of Care (CoC) Program, the United States Department of Housing and Urban Development (HUD) awards homeless assistance grants to address homelessness and its effect on people's lives. CoC Program funds may be used under five program components: permanent housing, transitional housing, supportive services, Homeless Management Information Systems (HMIS), and homelessness prevention.

Erie City & County is a CoC grantee identified as PA-605 (Figure 1). In Erie County, health care services for the general homeless population are provided by Community Health Net, a Federally Qualified Health Center (FQHC), and the Healthcare for the Homeless Partnership (HC4HP), a joint effort of the Erie United Methodist Alliance (EUMA) and Faith Community Nurses of NW PA. HC4HP is an outreach program that centers on collaboration among local organizations to provide integrated healthcare and social services to those in need. The Erie VA Medical Center provides health care and supportive services including mental/behavioral health for homeless veterans. Erie County Care Management (ECCM) provides supportive services including mental/behavioral health for the general homeless population while St. Martin Center and the Greater Erie Community Action Committee (GECAC) provide supportive services.

In Erie County, HMIS-Erie is a centralized database housed and administered by EUMA and funded by a recurring annual CoC grant. EUMA is responsible for maintaining data integrity and producing data reports as well as conducting annual trainings and providing updates on changes to HUD programs to partner organizations. Every organization in Erie County with CoC funding is required to enter data in HMIS-Erie. As a result, nearly all projects and organizations that service the homeless are included. Two levels of information are entered for each client: individual demographic data, and unique reporting organization data. As part of its reporting

requirements, EUMA provides annual point-in-time homeless population counts for Erie County to HUD.

Figure 1. Erie City & County Continuum of Care (CoC) Jurisdiction Map, 2017



The point-in-time count for 2017 was taken on January 27, 2017. On that day, the Erie City & County CoC serviced 369 individuals (14,138 for PA). Of these, 28% (105) were persons in households with adults and children (41% for PA), 71% (262) were persons in households without children (58% for PA), and 65% (241) were persons in emergency shelters (53% for PA) (Table 2).

The point-in-time count for households serviced was 298 households (10,015 for PA). Of these, 11% (34) were households with adults and children (19% for PA), 88% (262) were households without children (80% for PA), and 69% (205) were households in emergency shelters (53% for PA).

From 2014 to 2017, the number of persons in emergency shelters increased 12% from 215 to 241 (3% decrease for PA), the number of persons in transitional housing decreased 18% from 146 to 120 (27% for PA), and the number of unsheltered persons decreased 83% from 47 to 8 (74% increase for PA).

From 2014 to 2017, the number of households in emergency shelters increased 15% from 178 to 205 (6% decrease for PA), the number of households in transitional housing decreased 11%

from 96 to 85 (26% for PA), and the number of unsheltered households decreased 74% from 31 to 8 (77% increase for PA).

Table 2. Point-in-Time Counts of Homeless Population by Household Type
Erie City and County CoC & Pennsylvania, January 24, 2014 and January 27, 2017

Household Type	Sheltered								Unsheltered				Total			
	Emergency Shelter				*Transitional Housing*											
	Erie County		PA		Erie County		PA		Erie County		PA		Erie County		PA	
	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017
Households																
Households with Adult(s) and Children*	21	18	1,018	1,007	28	16	1,339	923	8	0	27	16	57	34	2,384	1,946
Households without Children**	157	186	4,655	4,314	67	68	2,674	2,055	23	8	919	1,648	247	262	8,248	8,017
Households with Only Children***	0	1	20	42	1	1	5	1	0	0	0	9	1	2	25	52
Total	178	205	5,693	5,363	96	85	4,018	2,979	31	8	946	1,673	305	298	10,657	10,015
Persons in Households																
Households with Adult(s) and Children*	58	54	3,012	3,091	76	51	3,869	2,720	24	0	93	56	158	105	6,974	5,867
Households without Children**	157	186	4,700	4,387	68	68	2,692	2,095	23	8	939	1,727	248	262	8,331	8,209
Households with Only Children***	0	1	21	46	2	1	7	1	0	0	0	15	2	2	28	62
Total	215	241	7,733	7,524	146	120	6,568	4,816	47	8	1,032	1,798	408	369	15,333	14,138

Note: Point-in-time counts are taken annually to provide an unduplicated count of homeless persons

* At least one adult and at least one child under age 18; ** Only adults age 18 and above; *** Persons under age 18

In 2017, point-in time counts were also taken for selected homeless subpopulations. In Erie County, 29 persons were chronically homeless, 75 were severely mentally ill, 85 were chronic substance abusers, 29 were veterans, and 59 were victims of domestic violence (Table 3). Additionally, there were 2 unaccompanied youth under 18, 7 parenting youth under 18, and 12 children of parenting youth.

Table 3. Point-in-Time Counts of the Homeless by Selected Subpopulations
Erie City and County CoC & Pennsylvania, January 24, 2014 and January 27, 2017

	Sheltered				Unsheltered				Total			
	Erie County		PA		Erie County		PA		Erie County		PA	
Subpopulation	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017
Chronically Homeless	38	29	1,134	828	8	0	473	610	46	29	1,607	1,438
Severely Mentally Ill	119	75	3,175	2,788	13	0	464	662	132	75	3,639	3,450
Chronic Substance Abuse	99	85	2,840	2,531	17	0	405	622	116	85	3,245	3,153
Veterans	20	27	1,336	875	1	2	75	88	21	29	1,411	963
Persons with HIV/AIDS	1	0	155	140	0	0	25	60	1	0	180	200
Victims of Domestic Violence	33	59	1,954	1,695	0	0	67	263	33	59	2,021	1,958

Note: Point-in-time counts are taken annually to provide an unduplicated count of homeless persons

Disabled

A disabled person can be defined as someone with a physical, sensory (deafness, blindness), intellectual, or mental health impairment significant enough to make a difference in their daily lives.

Use of Special Equipment Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who have health problems that require the use of special equipment was 10% in 2016-2017. This percentage did not change from 2011-2013. This was higher than PA at 9% (2015).

- Among age groups, the highest percentage of adults who require special equipment was 22% for age group 65 and above. This was higher than the 2011-2013 value of 17% for this age group.
- For education, the highest percentage of adults aged 18 and above who reported a health problem that requires use of special equipment was 19% for those with less than a high school education. The lowest percentage was 9% for those with some college education and a college degree.
- For income levels, adults aged 18 and above whose income was less than $15,000 reported highest percentage of a health problem that requires use of special equipment with 23%. Adults aged 18 and above with income from $50,000-$74,999 reported the lowest percentage of a health problem that requires use of special equipment with 1%.
- Eighteen percent of non-Hispanic Black adults aged 18 and above reported having a health problem that requires use of special equipment compared with 9% of non-Hispanic White adults.
- Twelve percent of females aged 18 and above reported having a health problem that requires use of special equipment compared with 8% of males.
- In the Erie City Area geographic area, 12% of adults aged 18 and above reported having a health problem that requires use of special equipment compared with 9% of adults in the Rest of the Erie County geographic area.
- For all groups, the highest percentage of adults who use special equipment was 23% for those earning less than $15,000 and 22% for those aged 65 and above.

Overall, use of special equipment among adults increased as age increased and income decreased.

Disability – American Community Survey As defined by the U.S. Census Bureau, a disability is a long-lasting physical, mental, or emotional condition. Among the civilian noninstitutionalized population in Erie County during 2012-2016, 15.1% of residents had some type of disability (13.7% for PA) (Table 4).

For those residents 65 years and older, 21.5% had an ambulatory difficulty (21.4% for PA), 14.4% had a hearing difficulty (16.8% for PA), and 14.6% had an independent living difficulty (14.1% for PA).

Table 4. Erie County and Pennsylvania Disability Characteristics, 2012-2016

Population	Erie County % with a Disability	Pennsylvania % with a Disability
Total civilian noninstitutionalized population	15.1	13.7
Male	14.9	13.3
Female	15.2	14.0
White	15.7	13.6
Black or African American	17.3	15.9
Hispanic or Latino (of any race)	16.2	13.8
Population under 18 years	6.8	5.2
With a hearing difficulty	0.8	0.6
With a vision difficulty	1.0	0.8
With a cognitive difficulty	7.5	5.5
With an ambulatory difficulty	0.8	0.7
With a self-care difficulty	1.0	1.1
Population 18 to 64 years	12.6	11.1
With a hearing difficulty	2.6	2.0
With a vision difficulty	2.3	1.8
With a cognitive difficulty	5.9	5.0
With an ambulatory difficulty	6.0	5.4
With a self-care difficulty	2.3	1.9
With an independent living difficulty	4.3	4.0
Population 65 years and over	34.5	36.8
With a hearing difficulty	16.8	14.4
With a vision difficulty	6.0	5.9
With a cognitive difficulty	8.4	8.1
With an ambulatory difficulty	21.4	21.5
With a self-care difficulty	7.4	7.4
With an independent living difficulty	14.1	14.6

LGBTQA

Based on the BRFSS, the percentage of Erie County adults aged 18 and above who self-report as gay, lesbian, bisexual, or other is 5%. No other health related behaviors for this group were reported in this survey.

In 2016, a report titled “Northwest Pennsylvania: LGBTQA Community Health Needs Assessment Results” was published. It was commissioned by the PERSAD Center with funding from the Pennsylvania Department of Health. The survey is internet based, statistically reliable, and includes residents of Erie, Crawford, Mercer, and Venango counties. The results provide the only picture we have for health related behaviors among this population in our area.

Of all respondents, 95.7% were aged 18 and above, 87.4% were White, 5.3% were Black, 5.0% were Hispanic or Latino/Latina, 62.8% had household income less than $50,000, and 22.2% had a high school education or less.

The top health issues identified for this community are:

1. Mental health (52.5%)
2. Suicide (47.2%)
3. STDs/HIV (41.9%)
4. Bullying (37.3%)
5. Loneliness/Isolation (37.3%)
6. Alcohol use (19.0%)
7. Welcoming health care access (18.5%)
8. Illicit drug use (13.2%)
9. Elder care (6.7%)
10. Tobacco (6.7%)
11. Obesity (6.5%)
12. Marriage (4.4%)
13. Cancer (0.5%)

Select responses are listed below:

- No health coverage 10.5%
- Now take or ever took medicine for mental health condition/emotional problem 55.6%
- Received psychological counseling in past 12 months 42.7%
- No leisure time physical activity 11.9%
- Two or more vegetable servings per day (excluding potatoes) 72.4%
- Overweight 24.2%
- Obese 38.8%
- Consumes 5+ drinks per day daily/weekly 14.7%
- Current smoker (some days/every day) 40.5%
- Current e-cigarette user (some days/every day) 13.1%
- Ever tested for HIV 64.7%
- Up to date with cervical Pap tests (assigned female at birth) 43.5%
- Up to date with mammography (age 50+; assigned female at birth) 79.3%
- Up to date with colonoscopy (age 50+) 55.0%
- Up to date with prostate exams (age 50+; assigned male at birth) 62.9%
- Ever had an anal Pap smear 8.6%
- Ever diagnosed with cancer 6.1%
- Not out to any of their doctors/healthcare providers 28.7%
- Often/always fear negative reaction by healthcare provider 17.0%
- Health provider reacted poorly (yes/somewhat) when learned LGBTQA status 42.3%

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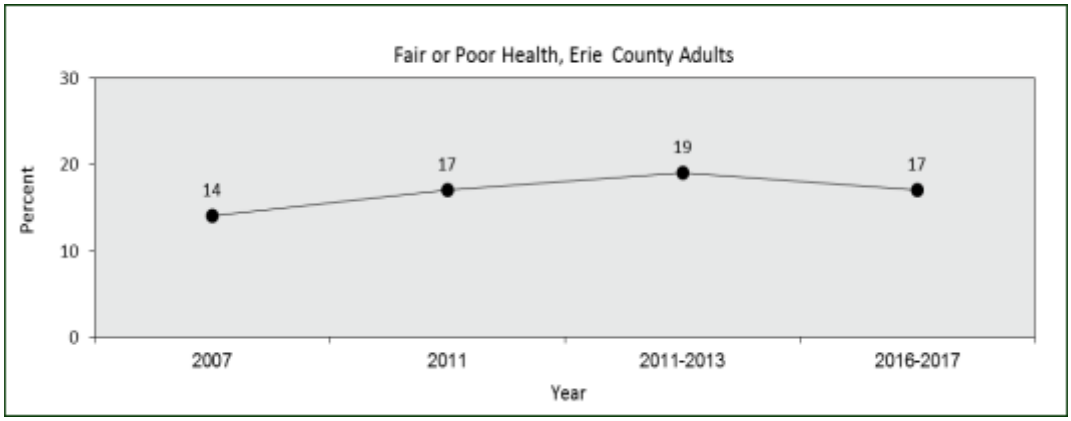
Health-Related Quality of Life

Fair or Poor Health

Based on the Behavioral Risk Factor Surveillance Survey (BRFSS), the self-reported percentage of Erie County adults aged 18 and above with fair or poor health decreased to 17% in 2016-2017 compared with 19% in 2011-2013 (Figure 1). This is the same as PA at 17% (2016) but higher than the U.S. at 16% (2016).

Figure 1. Fair or Poor Health Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

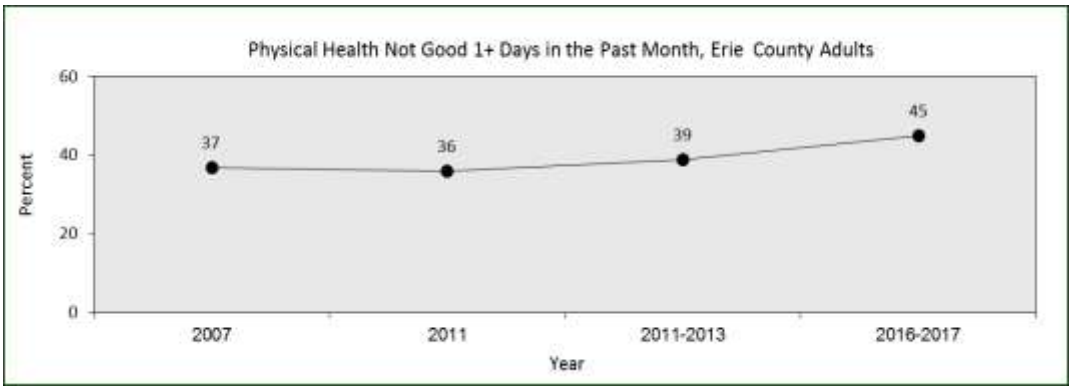
- Among age groups, the highest percentage of fair or poor health was 23% for age group 45-64. This was higher than the 2011-2013 value of 23% for this age group.
- For education, the highest percentage of adults aged 18 and above who reported fair or poor health was 27% for those with less than a high school education. The lowest percentage was 11% for those with a college degree.
- For income levels, adults aged 18 and above whose income was less than $15,000 reported highest percentage of fair or poor health with 38%. Adults aged 18 and above with income greater than $75,000 reported lowest percentage of fair or poor health with 6%.
- Twenty-eight percent of non-Hispanic Black adults aged 18 and above reported having fair or poor health compared with 17% of non-Hispanic White adults.
- Twenty-one percent of females aged 18 and above reported having fair or poor health compared with 13% of males.
- In the Erie City Area geographic area, 21% of adults aged 18 and above reported fair or poor health compared with 15% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of fair or poor health among adults was 38% for those earning less than $15,000 per year.

Overall, fair or poor health prevalence increased as education level and income level decreased.

Poor Physical Health

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who reported their physical health was not good one or more days in the past month increased to 45% in 2016-2017 compared with 39% in 2011-2013 (Figure 2). This was higher than PA at 39% (2016).

Figure 2. Poor Physical Health Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

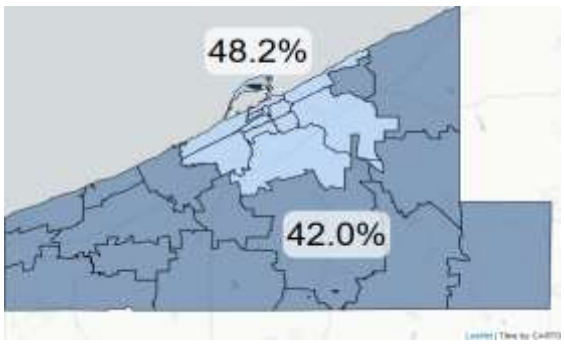
- Among age groups, the highest percentage of poor physical health was 49% for age group 45-64 (Table 1). This was higher than the 2011-2013 value of 44% for that age group.
- For education, the highest percentage of adults aged 18 and above who reported their physical health was not good on one or more days in the past month was 70% for those with less than a high school degree. The lowest percentage was 38% for those with some college education (Table 1).
- For income levels, the highest percentage of adults aged 18 and above who reported their physical health was not good on one or more days in the past month was 62% for those with incomes less than $15,000. The lowest percentage was 33% for adults with incomes greater than $75,000.
- Non-Hispanic Black adults aged 18 and above reported highest prevalence of not good physical on one or more days in the past month with 64% compared with 43% for non-Hispanic White adults.
- Forty-five percent of females aged 18 and above reported their physical health was not good on one or more days in the past month compared with 44% of males.
- In the Erie City Area geographic area, 48% of adults aged 18 and above reported their physical health was not good on one or more days in the past month compared with 42% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of poor physical health among adults was 70% for those with less than a high school education.

Overall, poor physical health increased as age increased and education decreased.

Table 1. Poor Physical Health Prevalence, 2016-2017

Physical Health Not Good 1 or More Days in the Past Month

All Adults	%	Lower CL	Upper CL	% PA 2016
	45	40	49	39
Age				
18-29	42	32	53	37
30-44	43	34	53	36
45-64	49	43	55	41
65+	41	33	48	41
Education				
< High School	70	53	87	47
High School	45	39	52	42
Some College	38	30	46	39
College Degree	43	36	51	33
Gender				
Female	45	39	50	42
Male	44	38	50	36
Income				
< $15,000	62	50	75	62
$15,000-$24,999	55	43	66	53
$25,000-$49,999	39	32	47	39
$50,000-$74,999	45	35	55	35
$75,000+	33	25	41	29
Race				
Non-Hispanic Black	64	50	78	43
Non-Hispanic White	43	38	47	38
Other	47	28	66	NA

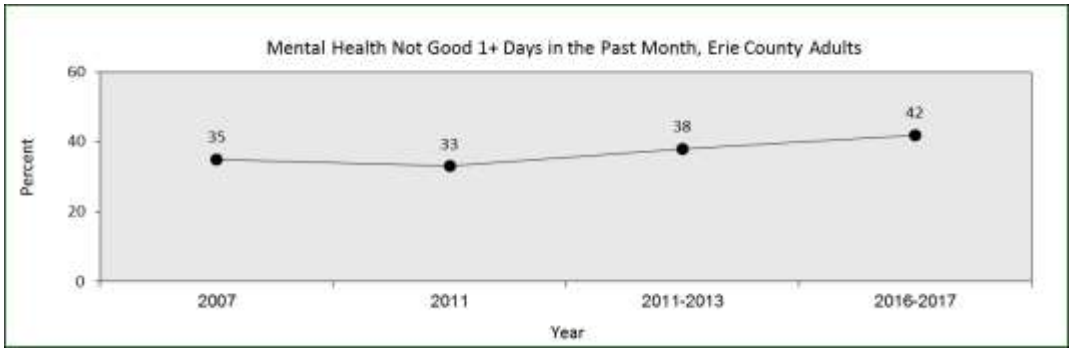


* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Poor Mental Health

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above whose mental health was not good one or more days in the past month increased to 42% in 2016-2017 compared to 38% in 2011-2013 (Figure 3). This was higher than PA at 39% (2016).

Figure 3. Poor Mental Health Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

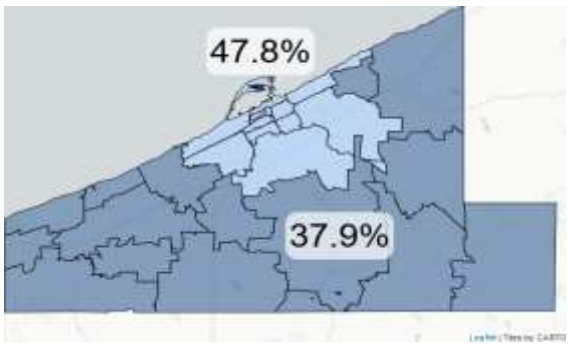
- As age increased, the prevalence of poor mental health decreased. The highest percentage of poor mental health was 58% for age group 18-29 (Table 2).
- As education levels decreased, poor mental health increased. The highest percentage was 48% for adults with less than a high school education followed by those with a high school education at 44%.
- Poor mental health prevalence was higher among females at 50% (42% in 2011-2013) compared with males at 34% (35% in 2011-2013).
- As income levels decreased, poor mental health increased. The highest percentage was 68% for adults earning less than $15,000 followed by those earning $15,000-$24,999 at 55%. The lowest percentage was 29% for those earning $75,000 and above. This was significantly lower than the percentage for adults earning $24,999 or less.
- Self-reported poor mental health was higher among non-Hispanic Blacks at 49% (values for 2011-2013 are not available) compared with non-Hispanic Whites at 41% (37% in 2011-2013).
- The percentage of poor mental health among adults was 48% in the Erie City Area geographic area and 38% for the Rest of Erie County geographic area.
- For all groups, the highest percentage of poor mental health among adults was 68% for those earning less than $15,000.

Overall, poor mental health prevalence decreased as age, education, and income increased.

Table 2. Poor Mental Health Prevalence, 2016-2017

Mental Health Not Good 1 or More Days in the Past Month

All Adults	%	N	Lower CL	Upper CL	% PA 2016
	42	485	38	46	39
Age					
18-29	58	81	47	68	52
30-44	45	92	36	55	46
45-64	40	205	34	46	38
65+	27	106	20	34	23
Education					
< High School	48	28	30	66	47
High School	44	166	37	50	36
Some College	42	136	34	50	43
College Degree	39	155	31	46	37
Gender					
Female	50	322	44	55	44
Male	34	163	28	41	34
Income					
< $15,000	68	73	56	79	59
$15,000-$24,999	55	86	43	67	47
$25,000-$49,999	41	130	33	49	37
$50,000-$74,999	32	68	23	41	37
$75,000+	29	80	21	38	35
Race					
Non-Hispanic Black	49	30	34	65	44
Non-Hispanic White	41	433	37	46	38
Other	45	21	26	63	NA

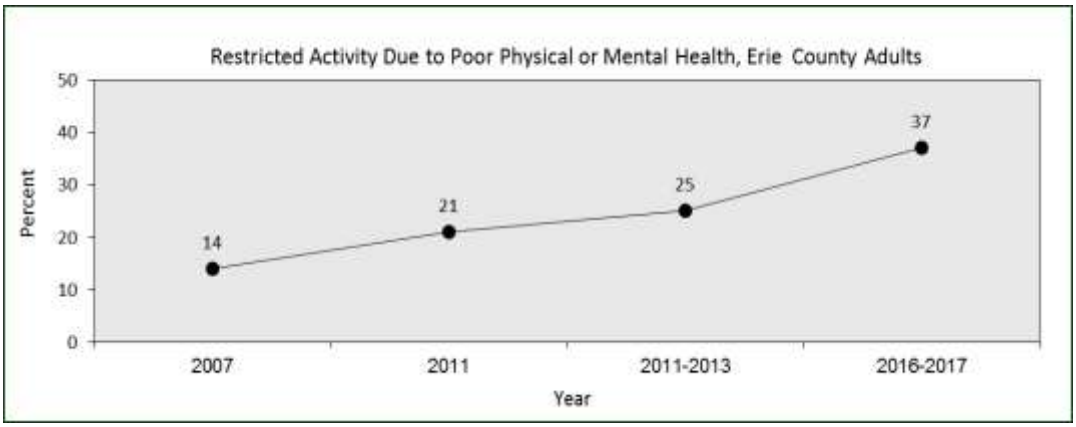


* The estimate has a relative standard error greater than 30% and requires caution interpreting.
** The estimates were removed due to the relative standard error being greater than 50%.
*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Restricted Activity

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above whose poor physical or mental health prevented their usual activity one or more days in the past month increased to 37% in 2016-2017 compared to 25% in 2011-2013 (Figure 4). This was higher than PA at 24% (2016).

Figure 4. Restricted Activity Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

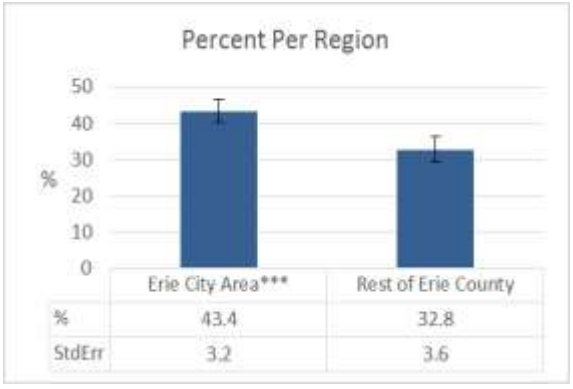
- Among age groups, the highest percentage of restricted activity was 43% for age group 45-64 (Table 4). This was higher than the 2011-2013 value of 27% for this age group.
- As education levels increased, restricted activity prevalence decreased. The highest percentage of adults aged 18 and above whose physical activity was restricted on one or more days in the past month due to poor physical or mental health was 49% for those with less than a high school education. The lowest percentage was 33% for those with a college degree.
- For income levels, the highest percentage of restricted physical activity was 50% for those with incomes was less than $15,000. The lowest percentage was 21% for adults with incomes greater than $75,000.
- Non-Hispanic Black adults aged 18 and above reported higher prevalence of restricted physical activity at 47% compared with 37% for non-Hispanic White adults.
- Forty-two percent of females aged 18 and above reported restricted physical activity on one or more days in the past month due to poor physical or mental health compared with 33% of males.
- In the Erie City Area geographic area, 43% of adults aged 18 and older reported restricted physical activity compared with 33% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of adults with restricted activities due to poor physical or mental health was 50% for those earning less than $15,000.

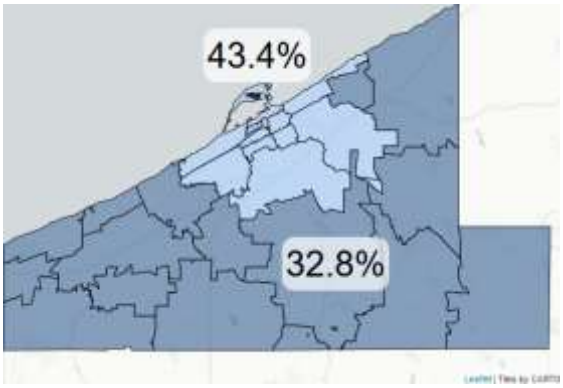
Overall, the percentage of adults with restricted activity due to poor physical or mental health increased as education level and income decreased.

Table 4. Restricted Activity Prevalence, 2016-2017

Restricted Activity 1 or More Days in Past Month

All Adults	%	Lower CL	Upper CL	% PA
	37	32	42	NA
Age				
18-29	31	20	41	NA
30-44	35	24	46	NA
45-64	43	35	51	NA
65+	40	29	50	NA
Education				
< High School	49	28	71	NA
High School	40	32	48	NA
Some College	34	24	44	NA
College Degree	33	24	42	NA
Gender				
Female	42	35	48	NA
Male	33	25	40	NA
Income				
< $15,000	50	36	64	NA
$15,000-$24,999	48	35	62	NA
$25,000-$49,999	35	26	44	NA
$50,000-$74,999	40	27	53	NA
$75,000+	21	12	31	NA
Race				
Non-Hispanic Black	47	29	66	NA
Non-Hispanic White	37	31	42	NA
Other	36*	14*	57*	NA





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*** The Erie City Area is comprised of zip codes which are wholly or partially within the boundaries of the City of Erie and are contiguous to these boundaries. This Area includes both whole and partial municipalities and is within the United States Census Bureau's defined "Erie Urbanized Area".

Limited Activity

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who reported that their activities were limited in any way due to physical, mental, or emotional problems was 21% in 2016-2017 (23% in 2011-2013). This percentage is higher than PA at 20% (2016).

- Among age groups, the highest percentage of limited activity was 26% for age group 45-64. This was lower than the 2011-2013 value of 32%.
- For education, the highest percentage of adults aged 18 and above who reported that their activities were limited in any way due to physical, mental, or emotional problems was 27% for those with less than a high school education. The lowest percentage was 17% for those with a college degree.
- For income levels, the highest percentage of adults aged 18 and above who reported that their activities were limited in any way due to physical, mental, or emotional problems was 40% for those with incomes was less than $15,000. The lowest percentage was 9% for adults with incomes from $50,000-74,999.
- Twenty-four percent of non-Hispanic Black adults aged 18 and above reported that their activities were limited in any way due to physical, mental, or emotional problems compared with 21% for non-Hispanic White adults.
- Females aged 18 and above reported higher prevalence of limited activities at 25% compared with 16% of males.
- In the Erie City Area geographic area, 24% of adults aged 18 and above reported that their activities were limited in any way due to physical, mental, or emotional problems compared with 18% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of limited activity among adults was 40% for those earning less than $15,000.

Overall, limited activity increased as age increased, education decreased, and income decreased.

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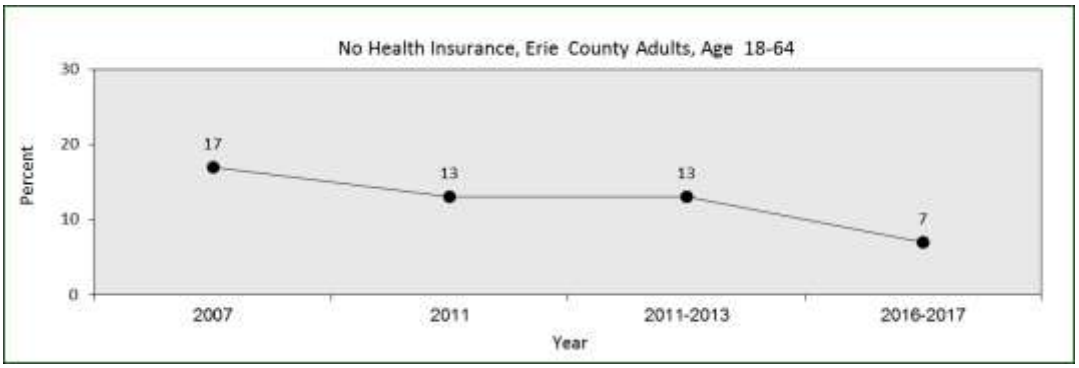
Health Care Access

Health Insurance

Based on the Behavioral Risk Factor Surveillance System (BRFSS) Survey, the self-reported percentage of Erie County adults aged 18-64 with no health insurance decreased to 7% in 2016-2017 compared with 13% in 2011-2013 (Figure 1). This was lower than PA at 9% (2016) and the U.S. at 10% (2016), but higher than the Healthy People 2020 Goal of 0% (100% with health insurance).

Figure 1. No Health Insurance Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

- Among age groups, the highest percentage of adults with no health insurance was 14% for age group 18-29.
- For education, the highest percentage of adults aged 18 to 64 without health insurance was 9% for those with some college education. The lowest percentage was 2% for those with a college degree. A percentage was not reported for those with less than a high school education.
- For income levels, the highest percentage of adults aged 18 to 64 without health insurance was 15% for those with incomes from $15,000 to $24,999. The lowest percentage was 6% for those adults with incomes from $25,000-$49,999. No percentages were reported for incomes from $50,000-$74,999 or for incomes of $75,000 or more.
- Seven percent of non-Hispanic White adults aged 18 to 64 reported having no health insurance. A percentage was not reported for non-Hispanic Black adults.
- Eight percent of males aged 18 and above reported having no health insurances compared with 6% of females.
- In the Erie City Area geographic area, 7% of adults aged 18 to 64 reported having no health insurance compared with 6% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of adults aged 18 to 64 without health insurance was 15% for those earning $15,000-$24,999.

Overall, the percentage of adults without health insurance increased as age, education, and income decreased.

Marketplace Enrollment

With passage of the Affordable Care Act, uninsured individuals now have the opportunity to acquire health insurance coverage through a health insurance marketplace. As of January 2017, using data provided by The Hospital & Healthsystem Association of PA (HAP), 6,210 individuals were enrolled in the federally facilitated marketplace in Pennsylvania. Of these, 6,132 were enrolled in a Public Health Insurance Exchange and 78 were enrolled as part of a small business. Based on the 2012-2016 American Community Survey population estimates for Erie County, 18,902 residents do not have insurance. Of these, 1,411 are children under the age of 18.

Medicaid

For 2016, 74,884 Erie County residents aged 21-64 received medical assistance (Table 1). This represents 26.9% (21.8% in 2013) of the population compared with 21.2% (16.4% in 2013) for Pennsylvania. From 2013 to 2016, the number of elderly and disabled Medicaid recipients decreased, the number of children and families receiving Medicaid benefits increased by 45%, and the number of chronically ill who receive Medicaid has decreased dramatically. Of all 67 counties in Pennsylvania, Erie County ranked third in percent of Medicaid recipients. Highest was Philadelphia County at 39.9% followed by Fayette County at 30.9%.

Table 1. Medicaid Recipients, 2013 & 2016

Medicaid Recipients
Erie County & PA, 2013^ & 2016^

	Erie County		PA	
	2013	2016	2013	2016
Total Population*	280,294	278,045	12,763,536	12,802,503
Medicaid Recipients				
Elderly	8,416	7,754	331,401	315,022
Disabled	14,624	13,797	507,264	483,575
Children & Families	36,634	53,261	1,200,222	1,908,208
Chronically Ill**	1,322	72	54,295	5,042
Total Medicaid Recipients	60,996	74,884	2,093,182	2,711,847
% of Population Receiving Medicaid	21.8%	26.9%	16.4%	21.2%

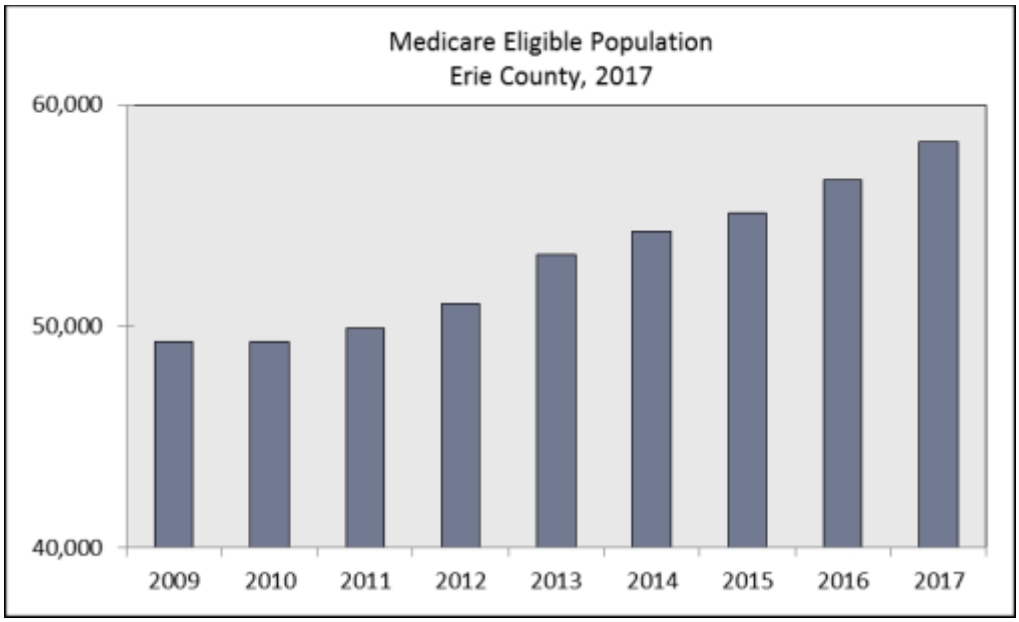
Note: *Estimated population; ** for single adults, age 21-64; ^indicates calendar year and represents counts reported January 2013 and January 2016
Source: The Hospital and Healthsystem Association of PA (HAP), Medical Assistance Recipients by Category, by PA County as reported by the Department of Public Welfare

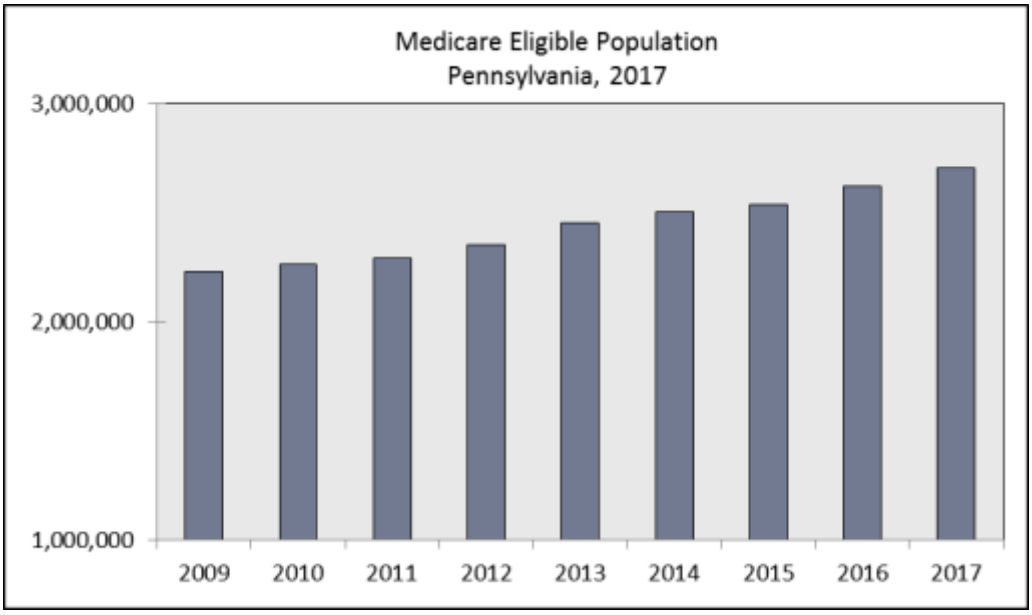
Medicare

From 2009 to 2017, the number of Erie County residents who were eligible for Medicare increased by 18.2% from 49,317 to 58,304 (Figure 2). During this same time period, the number

of Pennsylvania residents who were eligible for Medicare increased by 21.1% from 2,231,347 to 2,703,084. For 2017, 21.1% of all Erie County residents and all Pennsylvania residents were eligible for Medicare.

Figure 2. Medicare Eligible Population, 2017

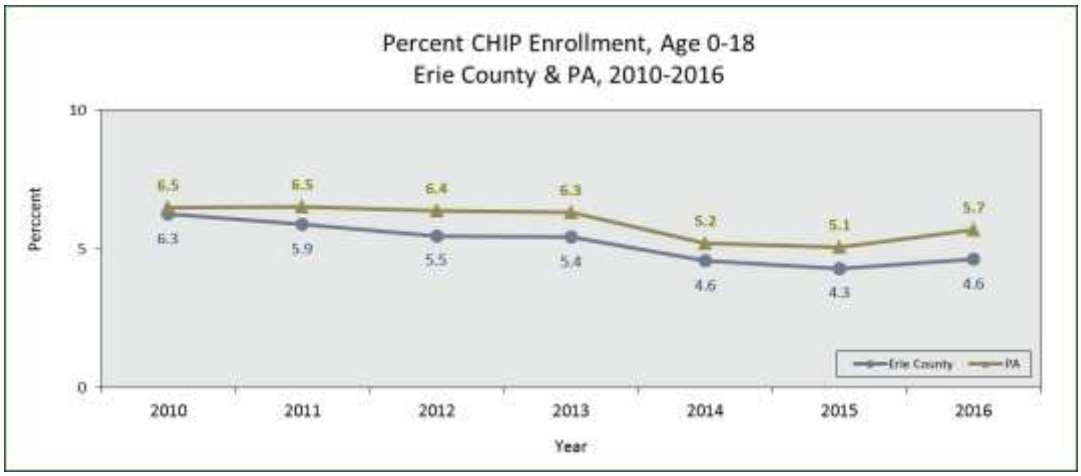




Children's Health Insurance Program (CHIP)

In 2016, 4.6% (5.7% for PA) of Erie County children under 19 years of age were enrolled in the Children's Health Insurance Program (CHIP) compared with a high of 6.3% in 2010 (6.5% for PA) (Figure 3).

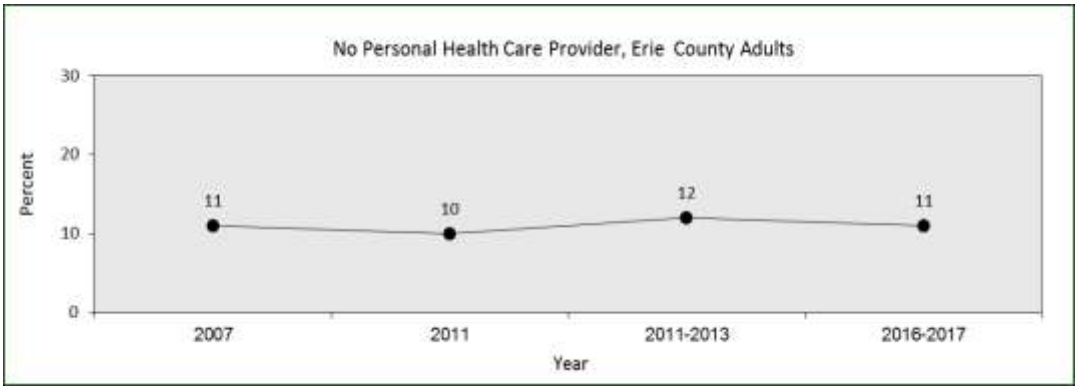
Figure 3. CHIP Enrollment, 2010-2016



Personal Health Care Provider

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who did not have a personal health care provider decreased to 11% in 2016-2017 compared with 12% in 2011-2013 (Figure 4). This was lower than PA at 14% (2016) and the U.S. at 22% (2016).

Figure 4. No Personal Health Care Provider Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

- Among age groups, the highest percentage of adults without a personal health care provider was 26% for age group 18-29.

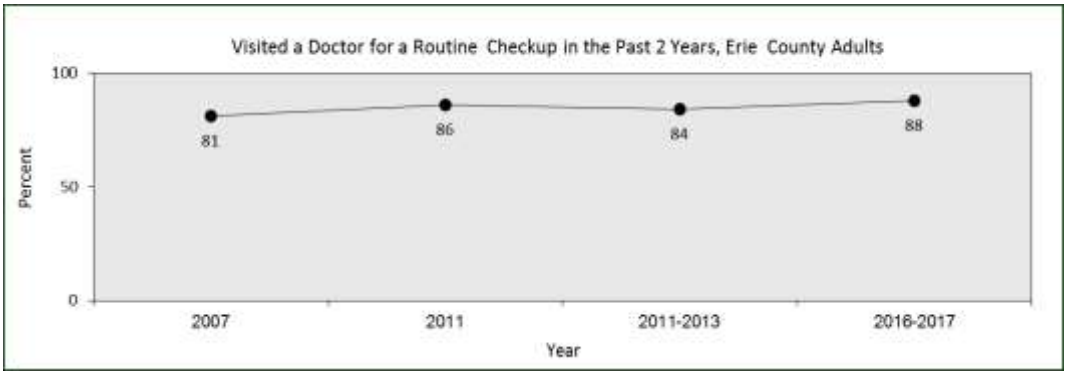
- For education, the highest percentage of adults aged 18 and above who did not have a personal health care provider was 12% for those with a high school education as well as those with some college education. The lowest percentage was 8% for those with a college degree. Prevalence was not reported for those with less than a high school degree.
- For income levels, the highest percentage of adults aged 18 and above who did not have a personal health care provider was 18% for those with incomes was less than $15,000. The lowest percentage was 6% for those adults with incomes greater than $75,000.
- Non-Hispanic Black adults aged 18 and above reported higher prevalence of no personal health care provider with 15% compared with 10% for non-Hispanic White adults.
- Males aged 18 and above reported higher prevalence of no personal health care provider with 15% compared with 7% of females.
- In the Erie City Area geographic area, 14% of adults aged 18 and older reported that they did not have a personal health care provider compared with 9% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of adults who did not have a personal health care provider was 26% for those aged 18-29.

Overall, the percentage of adults without a personal health care provider increased as age, education, and income decreased.

Routine Checkup

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who visited a doctor for a routine checkup in the past two years increased to 88% in 2016-2017 compared with 84% in 2011-2013 (Figure 5). This was higher than PA at 85% (2016) and the U.S. at 84% (2016).

Figure 5. Routine Checkup Prevalence, 2007 to 2016-2017



Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

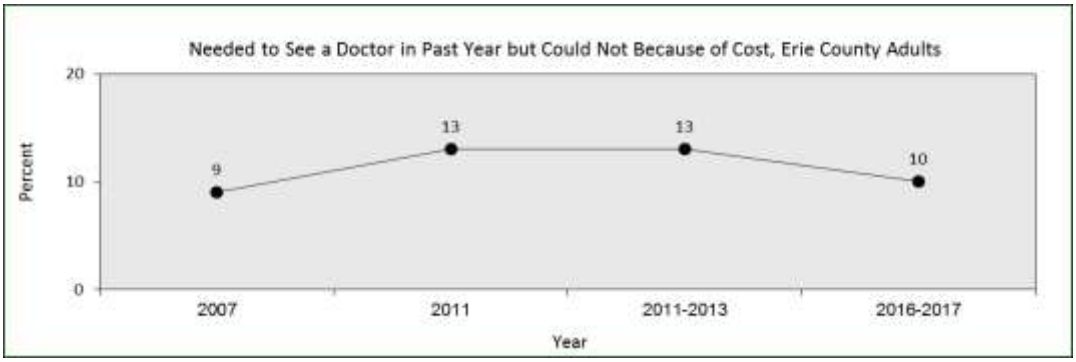
- Among age groups, the highest percentage of adults who had a routine checkup in the past 2 years was 98% for age group 65 and above. This was higher than the 2011-2013 value of 93% for this age group.
- For education, the highest percentage of adults aged 18 and above who visited a doctor for a routine checkup in the past two years was 92% for those with a high school education. The lowest percentage was 82% for those with less than a high school education.
- For income levels, the highest percentage of adults aged 18 and above who visited a doctor for a routine checkup in the past two years was 90% for those with incomes from $15,000-$24,999, those with incomes from $25,000-$49,999, and those with income of $75,000 or more. The lowest percentage was 82% for those adults with incomes from $50,000-$74,999.
- Ninety-two percent of non-Hispanic Black adults aged 18 and above visited a doctor for a routine checkup in the past two years compared with 87% for non-Hispanic White adults.
- Eighty-nine percent of females aged 18 and older visited a doctor for a routine checkup in the past two years compared with 86% of males.
- In both the Erie City Area geographic area and the Rest of the Erie county geographic area, 88% of adults aged 18 and older reported that they visited a doctor for a routine checkup in the past two years.
- For all groups, the highest percentage of adults who visited a doctor for a routine checkup in the past two years was 98% for those aged 65 and above followed by 92% for non-Hispanic Black adults and those with a high school education.

Overall, routine checkups increased as age increased.

Lack of Care Due to Cost

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who needed to see a doctor in the past year but could not because of cost decreased to 10% in 2016-2017 compared with 13% in 2011-2013 (Figure 6). This is lower than PA at 11% (2016) and the U.S. at 12% (2016).

Figure 6. Lack of Needed Care Due to Cost Prevalence, 2007 to 2016-2017

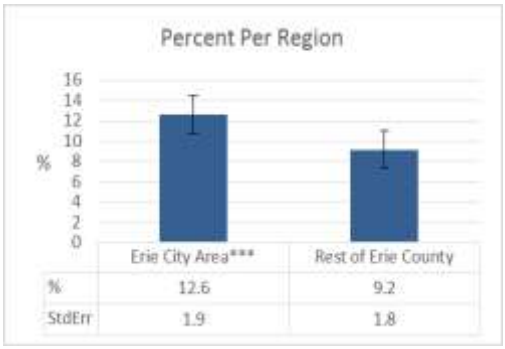


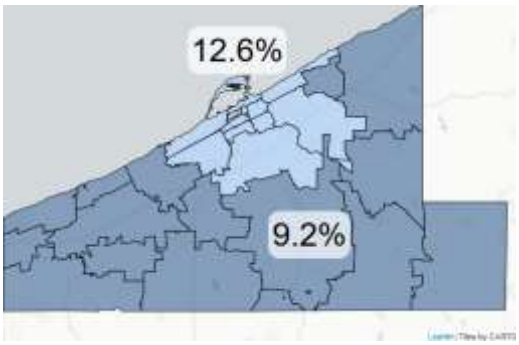
Note: Due to a new weighting methodology, BRFSS data has been re-benchmarked at 2011 values. Earlier data is provided for historical comparison only.

Table 2. Lack of Needed Care Due to Cost Prevalence, 2016-2017

Could Not Afford Care in the Last Year Due to Cost

All Adults	%	Lower CL	Upper CL	% PA 2016
	10	8	13	11
Age				
18-29	17	9	26	10
30-44	10	5	15	16
45-64	9	5	12	13
65+	5*	2*	8*	4
Education				
< High School	19*	3*	34*	19
High School	9	5	14	11
Some College	10	6	15	12
College Degree	9	5	14	7
Gender				
Female	13	9	17	12
Male	7	4	10	10
Income				
< $15,000	17	8	26	19
$15,000-$24,999	14	6	21	18
$25,000-$49,999	13	7	19	14
$50,000-$74,999	6*	1*	11*	11
$75,000+	5*	0*	9*	4
Race				
Non-Hispanic Black	17*	5*	30*	15
Non-Hispanic White	10	7	12	10
Other	**	**	**	NA





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- Among age groups, the highest percentage of adults who needed to see a doctor in the past 12 months but could not afford to do so was 17% for age group 18-29 (Table 3).
- For education, the highest percentage of adults aged 18 and above who needed to see a doctor in the past year but could not because of cost was 19% for those with less than a high school education (Table 2). The lowest percentage was 9% for those with a college degree.

- For income levels, the highest percentage of adults aged 18 and above who needed to see a doctor in the past year but could not because of cost was 17% for those with incomes less than $15,000. The lowest percentage was 5% for those adults with income of $75,00 or greater.
- Non-Hispanic Black adults aged 18 and above reported higher prevalence of not accessing medical care due to cost at 17% compared with 10% for non-Hispanic White adults.
- Females aged 18 and above reported higher prevalence of not accessing medical care due to cost at 13% compared with 7% of males.
- In the Erie City Area geographic area 13% of adults aged 18 and older reported they needed to see a doctor in the past year but could not because of cost compared with 9% of adults in the Rest of the Erie county geographic area.
- For all groups, the highest percentage of adults who did not see a doctor due to cost was 19% for those with less than a high school education.

Overall, the percentage of adults who did not see a doctor due to cost decreased as age and income increased.

Lack of Medication Due to Cost

Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who needed prescribed medication in the past year but did not get it due to cost was 7% in 2016-2017. This decreased from 12% in 2011 and is lower than PA at 9% (2016).

- Among age groups, the highest percentage of adults who did not take prescribed medication due to cost was 8% for age group 30-44. This was higher than the 2011-2013 value of 15% for this age group.
- For education, the highest percentage of adults aged 18 and above who needed prescribed medication in the past year but did not get it due to cost was 9% for those with a high school education. The lowest percentage was 4% for those with a college degree. Percentage was not reported for individuals with less than a high school education.
- For income levels, the highest percentage of adults aged 18 and above who needed prescribed medication in the past year but did not get it due to cost was 11% for those with incomes less than $15,000. The lowest percentage was 7% for those adults with incomes from $15,000-$24,999 and for those with incomes from $25,000-$49,999. Percentage was not reported for individuals earning $75,000 and above.
- Seven percent of non-Hispanic White adults aged 18 and above reported they needed prescribed medication in the past year but did not get it due to cost. A percentage was not reported for non-Hispanic Black adults.
- Nine percent of females aged 18 and above reported they needed prescribed medication in the past year but did not get it due to cost compared with 4% of males.
- In the Erie City Area geographic area 7% of adults aged 18 and above reported they needed prescribed medication in the past year but did not get it due to cost compared with 6% of adults in the Rest of the Erie county geographic area.

- For all groups, the highest percentage of adults who did not get prescribed medication due to cost was 11% for those earning less than $15,000.

Overall, the percentage of adults not getting needed prescriptions due to cost decreased as education increased.

Health Literacy

Medical Advice Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who find it somewhat or very difficult to get advice or information about health or medical topics was 4% in 2016-2017. Among all groups surveyed, the highest percentage was 9% for those earning less than $15,000. The percentage of adults who find it somewhat easy or very easy to get advice or information about health or medical topics was 78%. The highest percentage was 87% for those with a college degree. The lowest percentage was 67% for those earning $15,000-$24,999.

Understanding Verbal Information Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who find it somewhat or very difficult to understand information that doctors, nurses, and other health professionals tell them was 8% in 2016-2017. Among all groups surveyed, the highest percentage was 30% for those with less than a high school education. The percentage of adults who find it somewhat easy or very easy to get advice or information about health or medical topics was 92%. The highest percentage was 97% for those with a college degree and for those earning $75,000 or more. The lowest percentage was 70% for those with less than a high school education.

Understanding Written Information Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who find it somewhat or very difficult to understand written health information was 7% in 2016-2017. Among all groups surveyed, the highest percentage was 22% for those with less than a high school education. The percentage of adults who find it somewhat easy or very easy to get advice or information about health or medical topics was 82%. The highest percentage was 92% for those with a college degree. The lowest percentage was 50% for those with less than a high school education.

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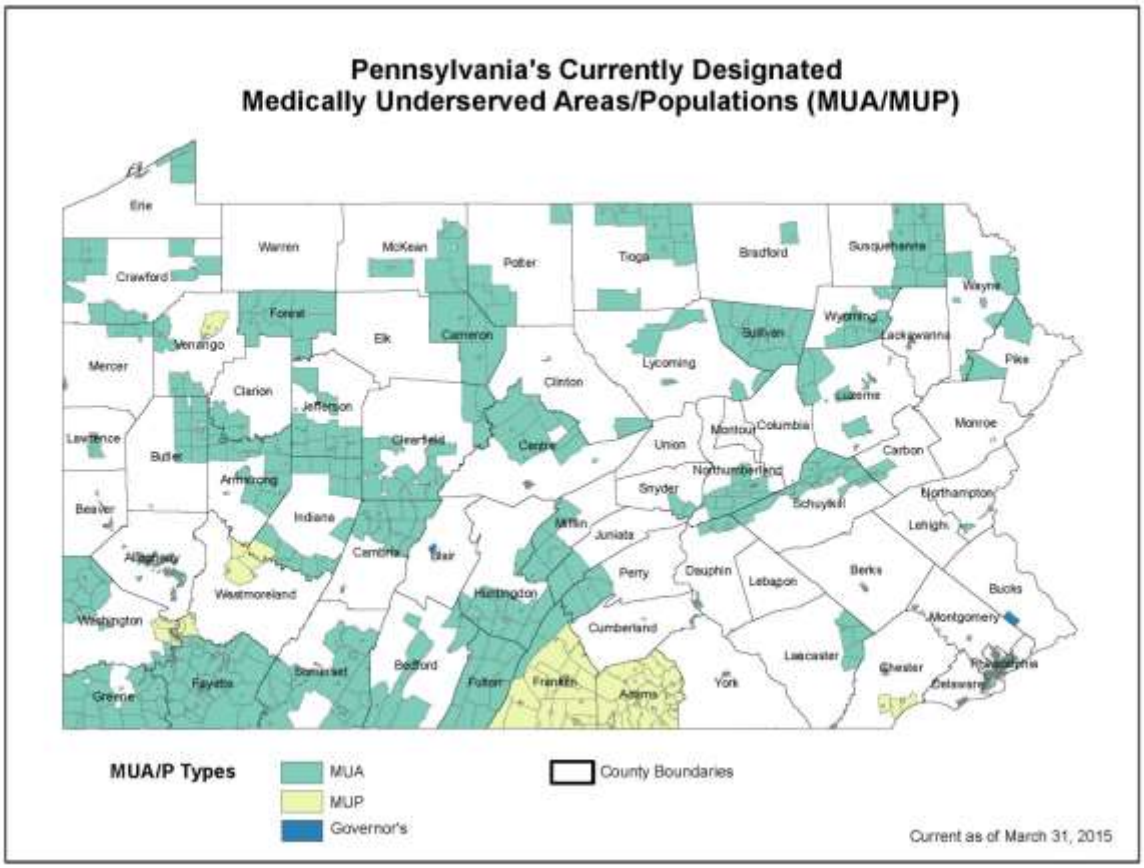
Health Care Providers

Federally Designated Underserved Areas

Not all communities or populations have equal access to needed medical, dental, or mental health care. The federal government classifies areas within the United States that are deficient in access to this health care as a Medically Underserved Area (MUA), a Medically Underserved Population (MUP), or a Health Professional Shortage Area (HPSA). MUA/MUPs are geographic areas or populations with a shortage of health services. The MUA/MUP designation is determined by the availability of health care providers, infant mortality, poverty rate, and percentage of the population aged 65 and above. A HPSA can be a geographic area (a county or service area), a target population group within a geographic area (low income population), or an institution (comprehensive health center, federally qualified health center, prison).

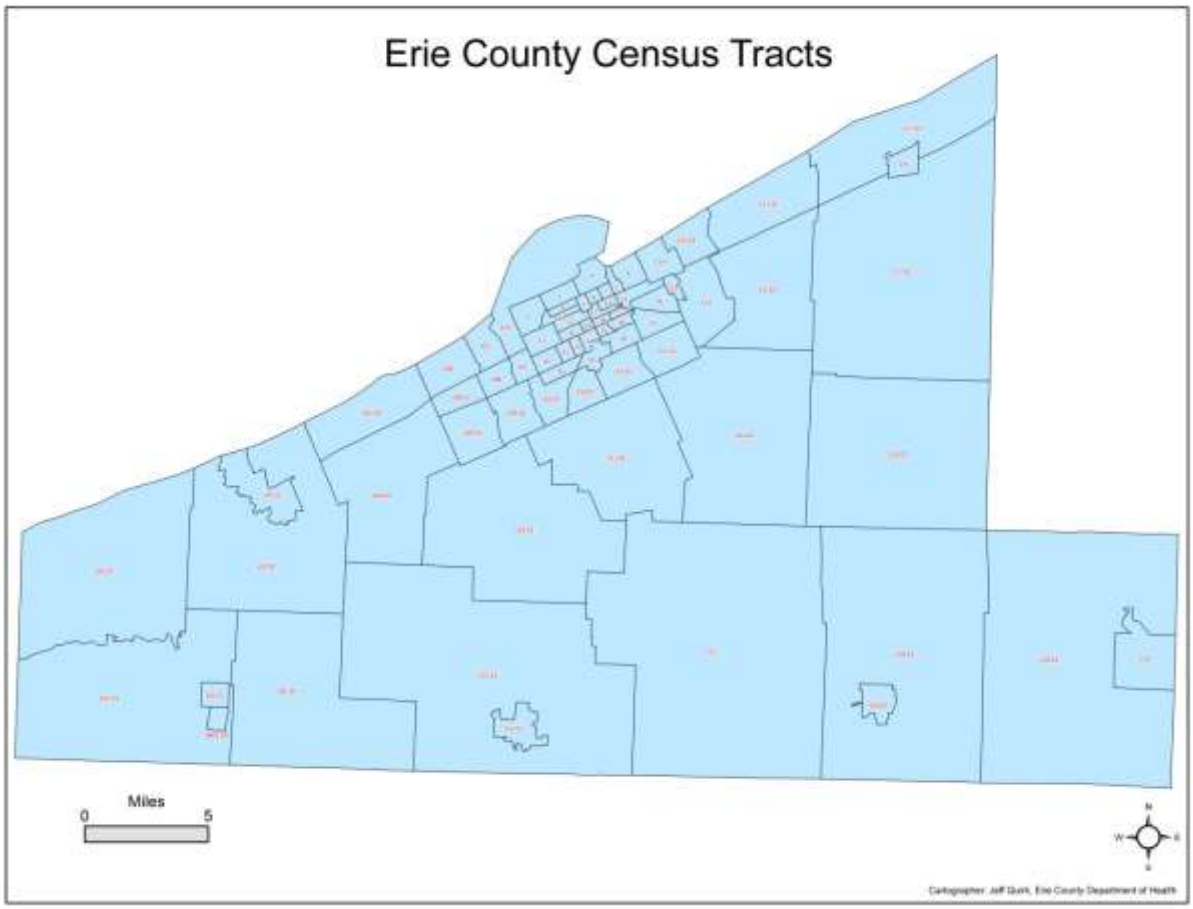
The Health Resources and Services Administration (HRSA) Division of the U.S. Department of Health and Human Services (HHS) has designated three areas within Erie County as MUA/MUP service areas (Figure 1).

Figure 1. Pennsylvania Medically Underserved Areas and Populations, 2015



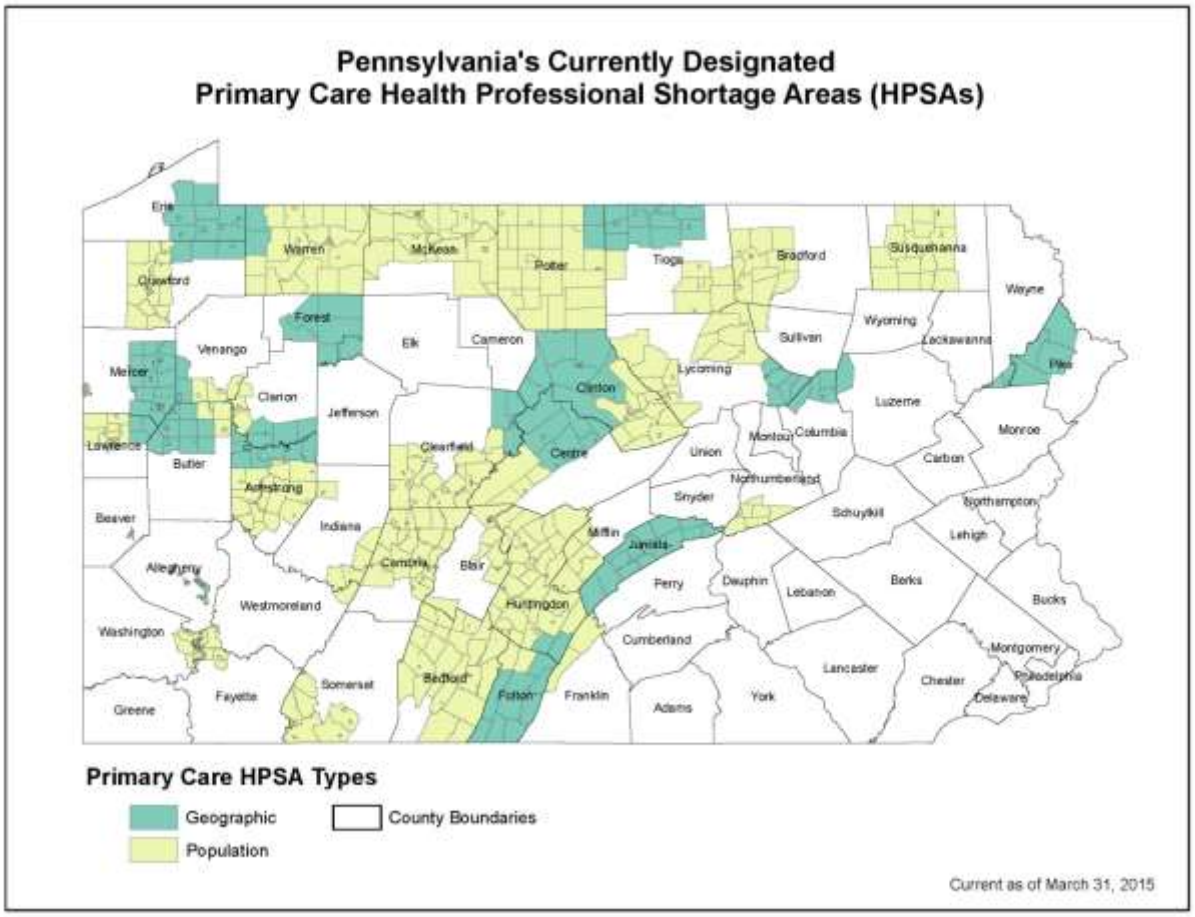
The first service area includes Census Tracts 115.05, 116, 117.01, and 117.02 (North East and surrounding area), the second service area includes Census Tracts 13, 15, 18, and 19 (City of Erie), and the third service area includes Census Tracts 1 and 12 (City of Erie) (Figure 2).

Figure 2. The 71 Census Tracts of Erie County



HRSA has also designated the Union City/Corry service area as a Primary Care HPSA lacking 11 FTE primary care physicians (Figure 3) and as a Primary Care Low Income HPSA lacking 3 FTE primary care physicians. HRSA has designated the entire low income population of Erie County as a Dental HPSA lacking 18 full time equivalent (FTE) dentists. There are no HRSA-identified mental health provider shortages in Erie County. In November 2017, HRSA designated the following Minor Civil Divisions as Primary Care HPSAs as part of the Union City/Corry service area: Amity Township, Concord Township, Corry City, Elgin Borough, Greene Township, Leboeuf Township, Mill Village Borough, Union City Borough, Union Township, Venango Township, Waterford Borough, Waterford Township, Wattsburg Borough, and Wayne Township.

Figure 3. Pennsylvania Primary Care Health Professional Shortage Areas, 2015



Community Health Net (FQHC)

In 2013, 60,996 (21.8%) of Erie County residents received medical assistance. A Federally Qualified Health Center (FQHC) is a community-based organization that provides comprehensive primary care and preventive care, including health, oral, and mental health/substance abuse services to persons of all ages, regardless of their ability to pay or their health insurance status. FQHCs are called Community/Migrant Health Centers (C/MHC), Community Health Centers (CHC), or 330 Funded Clinics and provide services to MUA/MUPs, migrants and seasonal agricultural workers, the homeless population, and residents of public housing.

Community Health Net is a community health center. It consists of a main facility that offers medical, vision, dental, and pharmacy services, satellite health care locations (Barber National Institute, Harborcreek Youth Services, Harborcreek Health Center, Stairways Campus, John Horan Gardens, Highpoint Towers, and the Girard School Based Health Center [SBHC]) and four satellite dental locations.

Primary Health Network (FQHC)

In February 2015, Wayne Primary Care joined Primary Health Network, a Federally Qualified Health Network, to become a school-based Federally Qualified Health Center located inside Wayne School. Wayne School, a PreK-8 elementary school within the Erie City School District, is located in an area of the City of Erie characterized by high ethnic, racial, and socioeconomic disparities.

Wayne Primary Care is a community health center that offers family medicine services including primary and mental health care.

Multi-Cultural Health Evaluation Delivery System (MHEDS)

MHEDS was developed in 1972 as a joint project of the Erie Diocesan Mission Office and the Erie Council of Churches to meet the primary health care needs of African American and Hispanic Farm Workers.

MHEDS service area includes all of Erie County. Its largest group of patients are members of the resettled refugee populations, and the migrant and seasonal farm workers. General primary care services are offered in two locations: 2928 Peach Street and 1841 East 18th Street, in Erie, PA.

Patient countries of origin mainly include Bhutan and Nepal, Bosnia, Burma, Democratic Republic of the Congo, Eritrea, Ethiopia, Haiti, Iraq, Mexico, Puerto Rico, Russia, Somalia, Sudan,

and Ukraine. In addition to health care, MHEDS offers an onsite WIC (Women, Infants, and Children) program, interpretation and translation services, Latino drug and alcohol education, prevention, and case management, patient education, and general support. It serves as an approved provider for the Pennsylvania Refugee Resettlement Program, conducting health screens and referral services as necessary for newly arriving refugees. MHEDS workers are mostly hired from the populations served, allowing for a higher level of cultural competence, understanding, and trust. MHEDS also offers immigration services including a Civil Surgeon to provide the required physical examination.

Rural Health Centers

Erie County is considered a metropolitan county as defined by the Office of Management and Budget and reported by the Pennsylvania Office of Rural Health (Figures 4,5).

Figure 4. Pennsylvania Rural and Urban Municipalities, 2010

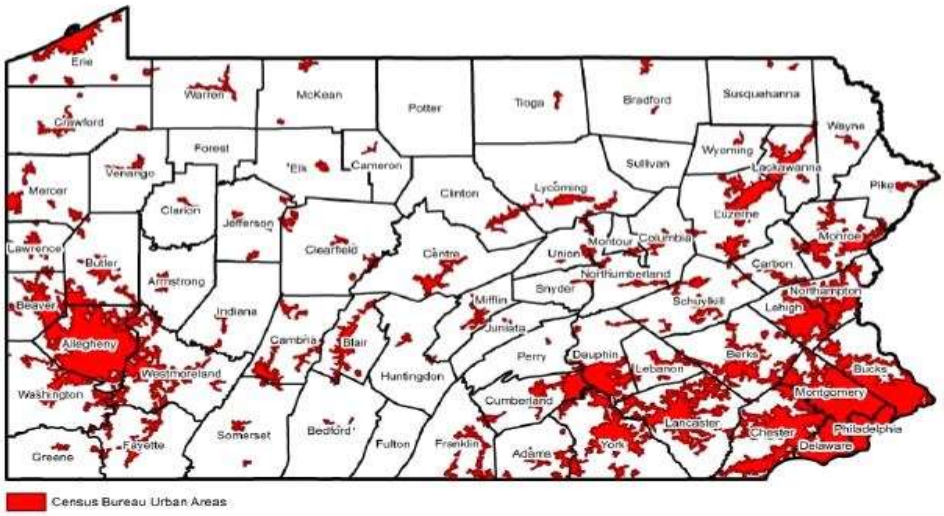
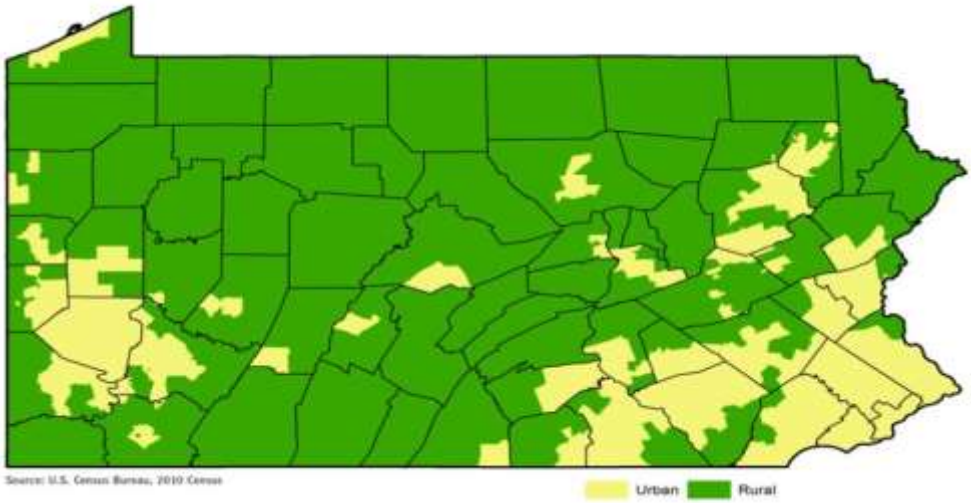


Figure 5. Pennsylvania Rural and Urban School Districts, 2010



As defined by the Rural Assistance Center, a Rural Health Clinic/Center (RHC) is a clinic certified to receive special Medicare and Medicaid reimbursement. The purpose of the RHC program is to improve access to primary care in underserved rural areas. RHCs are required to use a team approach of physicians and midlevel practitioners such as nurse practitioners, physician assistants, and certified nurse midwives to provide services. The clinic must be staffed at least 50% of the time with a midlevel practitioner. RHCs are required to provide out-patient primary care services and basic laboratory services.

There are two RHCs in Erie County. They are the St. Vincent Medical Group of Corry in and John E. Balmer, DO/Canadohta in Union City.

Free Clinics

The St. Paul's Neighborhood Free Clinic is a nonprofit clinic located in the City of Erie that provides free primary health care and dental care by volunteer health professionals to qualified individuals. The clinic does not offer pediatric care or emergency services. Appointments are required for care.

Established in 2012, the Corry Area Free Clinic provides primary health care services by volunteer health professionals to qualified individuals. Appointments are required for care.

Mental Health & Drug and Alcohol Services

The Erie County Offices of Mental Health/Intellectual Disabilities and Drug and Alcohol Abuse assure that a full array of mental health, intellectual disability, and drug and alcohol services are in place and made accessible to the citizens of Erie County, regardless of income-level. These activities include both Medical Assistance HealthChoices and eligibility-based Base funded services. A listing of the major providers of mental health and/or drug and alcohol services for Erie County residents enrolled in Medical Assistance and/or eligible for Base funded services is presented in Table 1.

The Offices of Mental Health/Intellectual Disabilities and Drug and Alcohol Abuse provided 2017 aggregate data for Erie County residents whose mental health services were provided by HealthChoices or Base funds and/or whose drug and alcohol services were provided by HealthChoices funds. Resident services provided by other means, such as private insurance, were not included in the following data summaries. In 2017, 22,573 Erie County residents received mental health and/or drug and alcohol services. The demographic profile for these clients was: 50% male, 50% female, 16% ages 0-11, 13% ages 12-17, 10% ages 18-24, 9% ages 25-29, 23% ages 30-44, 24% ages 45-64, and 5% ages 65 and older.

Table 1. Major Erie County Mental Health & Drug and Alcohol Service Providers

Service Provider	Mental Health Services	Drug and Alcohol Services
Achievement Center	X	
Barber National Institute	X	
Bethesda Children's Home	X	
Brevillier Village	X	
Catholic Charities Counseling & Adoption Services	X	X
Children's Behavioral Health	X	
Community Country Day School	X	
Counseling Services Center, Inc. (Corry Counseling)	X	
Crime Victim Center	X	
Deerfield Dual Diagnosis, LP	X	X
Erie City School District	X	
Erie County Care Management, Inc.	X	
Esper Treatment Center		X
Family Services of NW PA	X	
Gateway Center		X
Gaudenzia Erie	X	X
Glenbeigh Center of Erie		X
Harborcreek Youth Services	X	
Independence Court	X	
Lakeshore Community Services,Inc.	X	
Lakeview Estates	X	
Mental Health Association of Northwestern PA	X	
Multi-Cultural Health Evaluation Delivery System		X
Millcreek Community Hospital	X	X
Multicultural Community Resource Center		X
National Alliance for the Mentally Ill of Erie County	X	
Northwest Tri-County Intermediate Unit #5	X	
PERSAD Center, Inc.	X	
Perseus House, Inc.	X	
Pyramid Healthcare		X
Safe Harbor Behavioral Health	X	
Saint Vincent Health Center Behavioral Services	X	
Sarah A. Reed Children's Center	X	
St. Martin Center, Inc.	X	
Stairways Behavioral Health	X	X
White Deer Run/Cove Forge		X

In 2017, 17% of service funding provided for children and adults was for major depressive disorder (recurrent), followed by bipolar disorder (12%), opioid related disorders (8%), attention-deficit hyperactivity disorders (8%), reaction to severe stress and adjustment disorders (7%), persistent mood (affective) disorders (6%), schizophrenia (6%), pervasive developmental disorders (6%), and schizoaffective disorders (6%). Compared with males, females had higher percentages of service funding received for major depressive disorder (recurrent) (61% to 39%) and bipolar disorder (57% to 43%), but lower percentages of service funding received for opioid related disorders (47% to 53%), attention-deficit hyperactivity disorder (25% to 75%), reaction to severe stress and adjustment disorders (45% to 55%), persistent mood (affective) disorders (30% to 70%), schizophrenia (30% to 70%), pervasive developmental disorders (25% to 75%), and schizoaffective disorders (47% to 53%).

Percentages of service funding received among age groups were: 1) for ages 0-11, attention deficit-hyperactivity disorders (25%), reaction to severe stress and adjustment disorders (18%), and pervasive developmental disorders (16%), 2) for ages 12-17, persistent mood (affective) disorders (20%), attention-deficit hyperactivity disorders (14%), and pervasive developmental disorders (12%), 3) for ages 18-24, major depressive disorder (recurrent) (19%), bipolar disorder (15%), and opioid related disorders (14%), 4) for ages 25-29, opioid related disorders (30%), major depressive disorder (recurrent) (15%), and bipolar disorder (13%), 5) for ages 30-44, major depressive disorder (recurrent) (21%), bipolar disorder (19%), and opioid related disorders (19%), for ages 45-64, major depressive disorder (recurrent) (30%), bipolar disorder (20%), and schizophrenia (13%), and for ages 65 and older, major depressive disorder (recurrent) (41%), schizophrenia (24%), and bipolar disorder (13%).

During the 2017 calendar year, the Erie County Office of Drug and Alcohol Abuse had 3,190 unduplicated adult client contacts. These services include in-person assessments to determine the appropriate level of care for treatment and intervention. The Office utilizes a variety of substance abuse treatment resources, including 2 detoxification units (Millcreek Community Hospital and Gaudenzia Erie), 4 residential facilities (2 of which offer dual services, 1 allows women with children), 2 halfway houses, and 6 outpatient providers located in Erie, Corry, North East, Girard, and Edinboro.

The Erie County Heroin Overdose Community Awareness Task Force was formed in 2014. Its mission is to engage organizational and community leaders to focus on prevention, intervention, treatment, health care, criminal justice and law enforcement, and to develop local coalitions and policy to fight the heroin and opioid epidemic. Since its inception, the Task Force has met as large community groups and as smaller subcommittees. Work has resulted in: 1) public awareness and media campaigns to reduce the stigma of addiction, 2) community awareness forums on how to prevent addiction and access help, 3) professional training seminars, 4) collaborations between health care systems and treatment providers (e.g., initiation of a warm handoff program for overdose survivors), 5) public, first responder, and law enforcement Naloxone initiatives, 6) the establishment of an Opioid Use Disorder Center of Excellence in Erie County, and 7) new grant opportunities, such as the Medication Assisted Treatment – Prescription Drug and Opioid Addiction Program (MAT-PDOA).

In an additional effort to combat prescription drug abuse, the Erie County Department of Health, the LECOM School of Pharmacy, and the Erie office of the Pennsylvania Attorney's General have teamed together to offer MedReturn drug collection units at several law enforcement facilities located throughout Erie County. The offering of MedReturn units as an alternative for medication disposal has proven to be a very successful public health initiative by removing from circulation large quantities of unused, unneeded, or expired medications with significant abuse potential (e.g., opioid pain relievers).

Medical Professionals

In 2014, there were 912 physicians (719 in 2012) who were employed in health care and provided direct patient care in Erie County (Table 1). Of these, 832 (91%; 90% in 2012) accepted Medicaid and 840 (92%; 93% in 2012) accepted Medicare. The average age of a physician in Erie County is 48.5.

Table 1. Medical Professionals

Medical and Dental Professionals Providing Direct Patient Care
Erie County and Pennsylvania

	Erie County			PA		
Profession*	Estimated Number of Professionals*	% of Total	Population per Professional*	Estimated Number of Professionals*	% of Total	Population per Professional*
All Physicians	912	–	308	43,122		295
Primary Care	345	37.8%	813	10,448	24.2%	1,216
Family Medicine/General Practice	221	24.2%	1,270	4,045	9.4%	3,140
Internal Medicine	67	7.3%	4,188	3,515	8.2%	3,614
Pediatrics^	24	2.6%	2,659	1,634	3.8%	1,709
Obstetrics & Gynecology^^	31	3.4%	3,904	1,097	2.5%	5,141
Gynecology (Only)	NA	–	–	NA		
All Dentists	152	–	1,846	7,586	–	1,674
General Dentists	123	80.9%	2,281	5,835	76.9%	2,177
Registered Nurses	3,664	–	77	155,213	–	82
Licensed Practical Nurses	988	–	284	32,313	–	393
Physician Assistants	200	–	1,403	6,608	–	1,922
Dental Hygienists	146	–	1,922	7,384	–	1,720

Reporting years: Physicians and Physician Assistants, 2014; Dentists and Dental Hygienists, 2015; Registered Nurses, 2012/2013; Licensed PracticaL Nurses, 2014

Note: *Health practitioners who are employed in health care and provide direct patient care in Erie County; Population per professionals is the population per capita that is served per medical profession; Number of professionals are estimated and equals the number of survey respondents divided by the percent response rate; ^ For pediatrics, per population age 0-17; ^^For obstetrics & gynecology, per female population age 13 and above; Census 2010 population used to calculate population per professional; LPN's are those who were employed in nursing in a direct patient care position. LPN's with an RN license who worked only as an RN are not included.
Source: 2014 Pulse of Pennsylvania's Physician and Physician Assistant Workforce; 2015 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce; 2012/2013 Pulse of Pennsylvania's Registered Nurse Workforce; 2014 Pulse of Pennsylvania's Licensed Practical Nurse Workforce

In 2015, there were 152 dentists (146 in 2013) who were employed in health care and provided direct patient care in Erie County. Of these, 38 (25%; 23% in 2013) accepted Medicaid and 33 (22%; 20% in 2012) accepted Medicare. For the 74,884 Medicaid recipients in Erie County, the

population per dentist is 1,971 (1,840 in 2013) compared with 1,846 (1,922 in 2013) for the total population. The average age of a dentist in Erie County is 52.5.

The Robert Wood Johnson 2018 County Health Rankings report that in 2017 the ratio of population to mental health provider was 570 to 1 compared with PA at 560 to 1.

Pediatric Care

In addition to local pediatric medical practices, Children's Hospital of Pittsburgh of UPMC operates the Specialty Care Center Erie – Shriner's Hospital and the Specialty Care Center Erie at Magee - Womens, UPMC Hamot. Both are pediatric subspecialty offices, located in Erie, that offers access to pediatric specialists in endocrinology, gastroenterology, nephrology, neurology, neurosurgery, and pulmonary medicine. These specialists from Children's Hospital of Pittsburgh of UPMC travel to the center to provide outpatient services, including diagnostic evaluations and follow-up care.

Pharmacists

According to the Pennsylvania Department of State, there were 68 actively licensed pharmacies operating throughout Erie County in March, 2018. These included community, institutional, and specialty pharmacies. Additionally, there were 368 actively licensed pharmacists and 598 active pharmacy interns registered in the county. These figures are indicative of a local growing pharmacy workforce. This growth has in large part been driven by the Doctor of Pharmacy (Pharm.D.) degree offered by the Lake Erie College of Osteopathic Medicine School of Pharmacy (LECOM SOP)

Hospital Utilization

There are seven hospitals in Erie County. Corry Memorial Hospital, Millcreek Community Hospital, Saint Vincent Hospital, and UPMC Hamot are acute care facilities. HealthSouth Rehabilitation Hospital of Erie and Select Specialty Hospital Erie are specialty facilities, while the Veterans Affairs Medical Center is part of the federal system and provides services for veterans. Erie Shriners Ambulatory Surgery Center and Outpatient Specialty Care Center is a pediatric specialty facility while the Regional Cancer Center is a cancer specialty facility. Acute care hospital utilization data for Erie County and Pennsylvania is shown in Tables 2 and 3.

Table 2. Acute Care Hospital Utilization, 2016

Acute Care Hospital Utilization Erie County & PA, 2016*						
Utilization Variables	Corry Memorial	Millcreek Community Hospital	Saint Vincent Health Center	UPMC Hamot	Total	PA
Long Term Care Unit	No	Yes	No	No	–	–
Licensed Beds	20	144	371	423	958	34,667
Beds Set Up and Staffed	20	144	371	319	854	31,676
Admissions	571	4,752	14,087	20,573	39,983	1,478,030
Discharges	563	4,937	14,852	20,625	40,977	1,478,869
Patient Days of Care	2,513	25,546	63,464	90,890	182,413	7,137,673
Discharge Days	2,510	28,844	63,663	91,323	186,340	7,266,752
Bed Days Available	7,320	52,704	135,662	120,990	316,676	11,617,033
Average Length of Stay (Days)	4.46	5.84	4.29	4.43	4.76	4.91
Occupancy Rate	34.3	48.5	46.8	75.1	51.18	62.6
Live Births	1	141	1,028	2,273	3,443	124,440

Note: *Reporting period January 1, 2016 through December 31, 2016
Source: Pennsylvania Department of Health, 2016 Hospital Reports

Table 3. Acute Care Hospital Emergency Services, 2016

Acute Care Hospital Emergency Services Capability and Utilization Erie County & PA, 2016*						
Utilization Variables	Corry Memorial	Millcreek Community Hospital	Saint Vincent Health Center	UPMC Hamot	Total	PA
Emergency Services Capability	General	General	General	Comprehensive	–	–
Visits to Emergency Room	10,439	16,972	61,560	79,216	168,187	6,272,689
Inpatient Admissions from Emergency Room	334	3,763	12,627	11,236	27,960	995,718
Doctors with Clinical Privileges in Emergency Medicine (Total)	2	1	23	24	50	3,507
Board Certified	0	1	23	24	48	2,964
Other	2	0	0	0	2	543
Hospital Owned/Leased Ambulance Services**						
ALS	Yes	No	No	Yes	–	–
BLS	Yes	No	No	Yes	–	–
AIR	No	No	No	Yes	–	–
MICU	No	No	No	Yes	–	–
MCCU	No	No	No	Yes	–	–

Note: *Reporting period January 1, 2016 through December 31, 2016; **ALS = Advanced Life Support; BLS = Basic Life Support; AIR = Air Ambulance; MICU = Mobile Intensive Care Unit; MCCU = Mobile Critical Care Unit
Source: Pennsylvania Department of Health, 2016 Hospital Reports

Potentially Preventable Hospitalizations

The most recent data available for potentially preventable hospitalizations is for 2010. In 2010, slightly more than 12% of Pennsylvania adults aged 18 and above were hospitalized in general acute care hospitals with potentially preventable hospitalizations. As defined by the Pennsylvania Health Care Cost Containment Council (PHC4), potentially preventable hospitalizations are inpatient stays that might have been avoided with timely and effective outpatient care and management of twelve acute and chronic conditions and diseases. Of these twelve, heart failure, COPD or asthma among older adults, and bacterial pneumonia had the highest percentage of hospital stays. Potentially preventable hospitalizations are reported as number of hospitalizations per 10,000 adult residents aged 18 and above.

For 2010, rates of potentially preventable hospitalizations for Pennsylvania counties were reported for 1) all twelve acute and chronic conditions and diseases, 2) COPD and asthma among older adults, 3) heart failure, and 4) bacterial pneumonia.

For all twelve acute and chronic conditions and diseases, Erie County ranked 21st with a rate of 152.2 (186.9 for PA) (Table 4). Pike County ranked 1st with the lowest rate of 64.7 and Philadelphia County ranked 67th with the highest rate of 299.4.

For COPD and asthma among older adults, Erie County ranked 23rd with a rate of 44.5 (61.2 for PA). Pike County was 1st at 12.1 and Venango County was 67th at 122.3.

For heart failure, Erie County ranked 32nd along with Perry County with a rate of 41.1 (46.3 for PA). Union County was 1st at 23.8 and Philadelphia County was 67th at 78.8.

For bacterial pneumonia, Erie County ranked 17th with a rate of 28.6 (32.5 for PA). Union County was 1st at 10.6 and Cameron County was 67th with a rate of 60.4.

Table 4. Potentially Preventable Hospitalizations, 2010

Potentially Preventable Hospitalizations Erie County & PA, 2010		
	Erie County	PA
Hospitalization	Rate*	Rate*
All Acute and Chronic Conditions	152.2	186.9
COPD of Asthma in Older Adults	44.5	61.2
Heart Failure	41.1	46.3
Bacterial Pneumonia	28.6	32.5

Note: *Rate per 10,000 adult residents age 18 and above
Source: Pennsylvania Health Care Cost Containment Council (PHC4)

Ambulatory Surgery Center Utilization

Ambulatory Surgery Centers are health care facilities focused on providing same-day surgical care, including diagnostic and preventive procedures. There are six ambulatory surgery centers in Erie County. Three are affiliated with acute care hospitals and three are independent. Utilization data for all centers is shown in Table 5.

Table 5. Ambulatory Surgery Center Utilization, 2016

Ambulatory Surgery Center Utilization and Services
Erie County & PA, 2016*

	Acute Care Hospitals				Independent Centers				Total	
Utilization Variables	UPMC Hamot Surgery Center	Saint Vincent Endoscopy Center	Saint Vincent Surgery Center of Erie	Acute Care Hospital Total	Greater Erie Surgery Center	Village SurgiCenter of Erie	Shriners Hospitals for Children Erie	Independent Total	Erie County	PA
Patient Surgical Visits (Total)	16,216	3,684	9,155	29,055	2,769	5,736	363	8,868	37,923	1,060,207
0-17 Years	909	0	1,069	1,978	0	368	348	716	2,694	51,337
18-64 Years	10,894	2,637	4,444	17,975	1,488	3,166	15	4,669	22,644	566,521
65 Years and Above	4,413	1,047	3,642	9,102	1,281	2,202	0	3,483	12,585	406,180
Ultrasound Exams	0	0	0	0	0	0	0	0	0	11,544
Diagnostic X-Rays	0	0	50	50	0	231	178	409	459	26,510
Total Operations	16,216	3,684	9,155	29,055	2,769	5,736	363	8,868	37,923	1,075,895
Total Operating Rooms	6	0	5	11	1	5	2	8	19	674
Availability of Services										
Cardiopulmonary Lab	No	No	No		No	No	No			
EKG	No	No	Yes		No	Yes	No			
Pharmacy	No	No	No		No	Yes	No			
Clinical Lab	No	No	Yes		No	Yes	No			
Inhalation Therapy	No	No	No		No	No	No			

Note: *Reporting period January 1, 2016 through December 31, 2016
Source: Pennsylvania Department of Health, 2016 Ambulatory Surgery Center Reports

Home Health Agencies

Home Health Agencies provide health care services to ill, disabled, or vulnerable individuals in their homes or places of residence, enabling them to live as independently as possible. Home health agencies provide skilled nursing care and other skilled care services like physical therapy, occupational therapy, and speech therapy. Home health services must be ordered by a physician. All home health agencies are licensed by the Pennsylvania Department of Health. There are ten licensed home health agencies in Erie County.

Homecare Agencies

Personal care and private duty homecare agencies provide help with everyday activities, such as bathing, dressing and preparing meals. There are thirty four licensed homecare agencies in Erie County.

Hospice

As defined by the Pennsylvania Department of Health, hospice care is designed to provide comfort and support to patients and their families as they approach the end of life. There are eight licensed hospice providers in Erie County.

Nursing Home Utilization

A nursing home provides care for individuals who need constant nursing care or significant assistance with daily living skills. Skilled nurses and nursing aides are usually available 24 hours a day. There are twenty licensed nursing homes in Erie County. Utilization data for these homes is shown in Table 6.

Table 6. Nursing Home Utilization, Erie County, 2016-2017

Nursing Home Utilization by Facility
Erie County & PA, 2016-2017*

Facility	Licensed Beds	Patient Days Medicare	Patient Days Medicaid	Patient Days VA	Patient Days Private Insurance	Patient Days Self Pay	Patient Days Other	Patient Days Total	Bed Days Available	Occupancy Rate
Abington Crest Nursing & Rehab Center	80	2,025	5,398	0	1,157	187	0	8,767	29,200	30.02
Ball Pavilion	85	1,123	17,361	369	722	9,985	10	29,570	31,025	95.31
Corry Manor	121	4,299	27,746	264	2,352	4,051	12	38,724	44,165	87.68
Edinboro Manor	121	2,227	30,786	63	5,681	3,908	0	42,665	44,165	96.60
Elmwood Gardens	51	3,381	10,460	0	145	3,383	0	17,369	18,615	93.31
Fairview Manor	121	6,247	30,374	581	237	5,737	0	43,176	44,165	97.76
Forestview	80	2,619	8,894	0	103	15,930	0	27,546	29,200	94.34
LECOM at Presque Isle, Inc.	141	3,797	33,962	0	393	597	0	38,749	51,465	75.29
Manchester Commons of Presby Seniorc	78	4,293	15,892	0	155	6,747	0	27,087	28,470	95.14
Manorcare Health Services Erie	120	3,828	31,990	151	258	1,785	0	38,012	43,800	86.79
Millcreek Community Hosp Trans Care U	24	2,641	0	0	4,240	43	0	6,924	8,760	79.04
Millcreek Manor	138	5,965	32,936	0	4,195	5,081	0	48,177	50,370	95.65
Pennsylvania Soldiers & Sailors Home	107	0	16,626	18,844	0	1,577	0	37,047	39,055	94.86
Pleasant Ridge Manor West	300	3,631	87,538	0	597	8,881	0	100,647	109,500	91.92
Saint Mary's at Asbury Ridge	80	4,233	14,265	0	112	9,884	0	28,494	29,200	97.58
Saint Mary's East	139	6,631	29,346	0	218	13,139	0	49,334	50,735	97.24
Sarah Reed Senior Living	106	5,733	19,862	0	11	11,403	0	37,009	38,690	95.66
Village at Luther Square	110	1,545	33,128	0	987	940	0	36,600	40,150	91.16
Walnut Creek Healthcare and Rehab Cer	115	3,489	20,537	0	6,450	2,777	0	33,253	41,975	79.22
Golden Living Center Western Reserve	133	1,408	20,853	462	1,902	1,437	0	26,062	36,309	71.78
Erie County Total	2,250	69,115	487,954	20,734	29,915	107,472	22	715,212	809,014	92.05
Pennsylvania Total	88,137	3,241,993	19,292,414	265,746	1,008,287	3,989,475	261,422	28,110,972	31,635,178	88.86

Note: *Reporting period July 1, 2016 through June 30, 2017
Source: Pennsylvania Department of Health, 2016-2017 Nursing Home Reports

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Safety and Crime

Crime

In Pennsylvania, crimes are reported by type of offense. Part I offenses include Crime Index offenses and manslaughter by negligence. Crime Index offenses are more serious and include murder and non-negligent manslaughter, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. They are reported as either violent crimes or property crimes and are used nationally as a standard for comparison. Part II offenses include other assaults, forgery and counterfeiting, fraud, embezzlement, stolen property, vandalism, weapons, prostitution, other sex offenses, drug abuse violations, illegal gambling, offenses against the family, driving under the influence, liquor law violations, drunkenness, disorderly conduct, vagrancy, and all other offenses

In 2015, 20,344 actual crimes of all types were reported to the Uniform Crime reporting (UCR) Program for Erie County. Of these, 6,403 were confirmed Crime Index offenses with a rate of 2,305.1 per 100,000 and 2,125 arrests, while 13,941 were Part II offenses with a rate of 5,018.7 and 7,739 arrests.

During 2014, 19,648 actual crimes of all types were reported for Erie County. Of these, 6,672 were confirmed Crime Index offenses with a rate of 2,381.8, while 12,976 were Part II offenses with a rate of 4,632.2.

For Pennsylvania, 844,615 actual crimes of all types were reported to the UCR Program in 2015. Of these, 279,564 were confirmed Crime Index offenses with a rate of 2,131.5 per 100,000 and 78,734 arrests, while 571,109 were Part II offenses with a rate of 4,465.6 and 325,435 arrests.

During 2014, 850,913 actual crimes of all types were reported for Pennsylvania. Of these, 288,695 were confirmed Crime Index offenses with a rate of 2,258.4, while 562,200 were Part II offenses with a rate of 4,453.1.

In 2014 and 2015, the rates for both Crime Index offenses and Part II offenses were higher for Erie County compared to Pennsylvania, and the rates for the City of Erie were higher compared to Erie County as a whole (Table 1).

Table 1. Reported Crime Rates for the City of Erie, Erie County, and Pennsylvania, 2014 & 2015

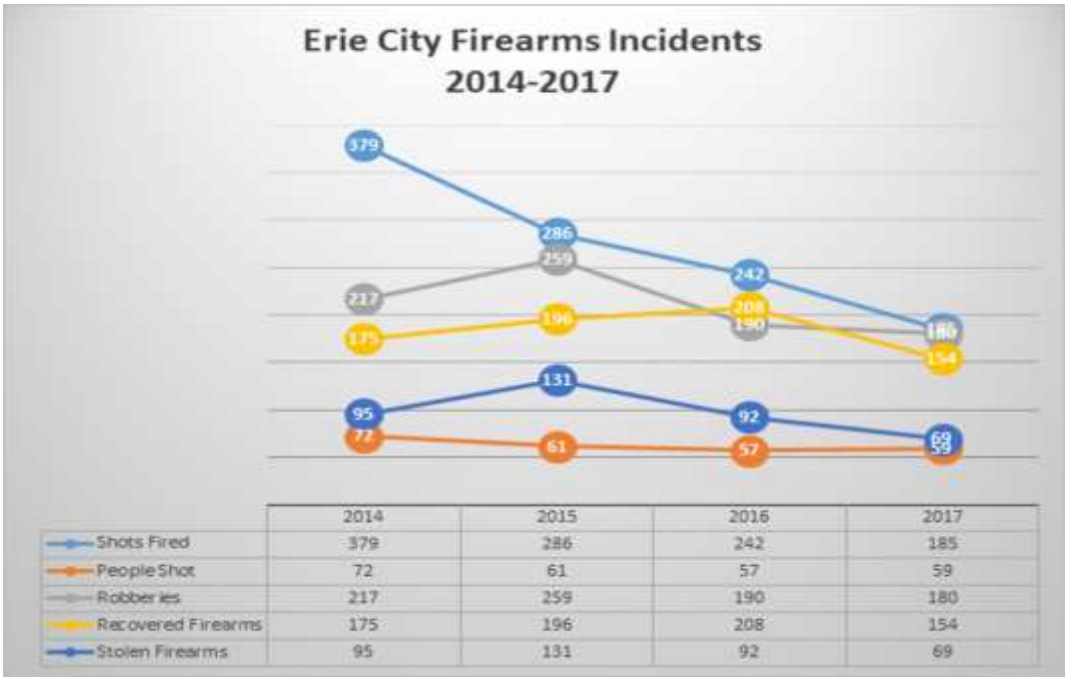
	2014			2015		
	City of Erie	Erie County	PA	City of Erie	Erie County	PA
Crime Index offenses	3,072.6	2,381.8	2,258.4	2,293.3	2,305.1	2,131.5
Part II offenses	5,730.9	4,632.2	4,453.1	6,136.3	5,018.7	4,465.6

Note: Rates are per 100,000 population

Crime and violence have become areas of concern in Erie County. In 2010, a cross-section of Erie County leaders and partners formed UnifiedErie, a collaborative violence reduction initiative which follows a three-pronged approach of crime prevention, law enforcement, and reentry for offenders.

Results of long term efforts to address firearms incidents are shown in Figure 1. From 2014-2017 the annual number of shots fired dropped from 379 to 185, the number of people shot decreased from 72 to 59, the number of robberies decreased from 217 to 180, the number of recovered firearms fluctuated from 175 to 154, and the number of stolen firearms dropped from 95 to 69.

Figure 1. Group Violence Reduction Strategy Outcomes



	2014	2015	2016	2017
Shots Fired	379	286	242	185
People Shot	72	61	57	59
Robberies	217	259	190	180
Recovered Firearms	175	196	208	154
Stolen Firearms	95	131	92	69

Mercyhurst Civic Institute, 2018

In 2014 the Neighborhood Resource Organization (NRO) was created to help neighborhood watch groups reduce violence and develop programs with a focus on youth. NRO Outcomes for 2015-2016 are:

- Assisted in establishing 9 more neighborhood groups/associations, particularly in the county areas
- Provided 2 dozen mini grants to assist neighborhood groups/associations
- Expanded camera surveillance in 9 different neighborhoods
- Assisted over 15 neighborhoods in clean ups
- Awarded 22 Good Neighbor Awards in recognition of volunteer efforts

Child Abuse

Anyone under the age of 18 is considered a child. Child abuse or maltreatment includes doing something to directly harm a child (act of commission) or not doing something that puts a child at risk of harm (act of omission). Acts of commission include physical abuse, sexual abuse, and psychological or emotional abuse while acts of omission include physical neglect, emotional neglect, medical and dental neglect, educational neglect, inadequate supervision, and exposure to violent environments.

In 2016, there were 1,231 total reports of suspected child abuse in Erie County and 94 (7.6%) were substantiated. The 2016 Erie County counts were similar to those seen in 2015 with 1,244 reports and 98 (7.9%) substantiated. There were 48 females and 46 males among the 94 substantiated victim reports, and 6 (7.5%) were repeat abuse cases. The overall rates were 19.9 total reports per 1,000 children, and 1.5 substantiated reports per 1,000 children.

In 2016, there were 44,539 total reports of suspected child abuse in Pennsylvania and 4,597 (10.4%) were substantiated. The 2016 Pennsylvania counts were slightly higher than those in 2015 with 42,018 reports and 4,305 (10.2%) substantiated. There were 2,814 females and 1,783 males among the 4,597 substantiated victim reports, and 261 (5.7%) were repeat abuse cases. The overall rates were 16.3 total reports per 1,000 children, and 1.7 substantiated reports per 1,000 children.

Among the Erie County adults aged 18 and above who were surveyed for the 2016-2017 Erie County Health Survey-BRFSS, 17% reported that before they were 18 years of age, a parent, another adult, or anyone at least 5 years older than them ever abused them physically, sexually, verbally, or emotionally. More information can be found on p. 165.

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Environmental Health

The Erie County Department of Health (ECDH) has many programs to safeguard the health of county residents and of visitors to Erie County. What follows is a description of these programs as well as current statistics regarding air quality and childhood lead poisoning.

Food Safety

The Food Protection Program utilizes inspection, enforcement, and education to protect the public who patronize public food facilities in Erie County. ECDH enforces the Pennsylvania Retail Food Act. The Department inspects approximately 1,600 permanent food facilities including restaurants, taverns, grocery, and convenience stores. In addition, over 700 temporary food facilities at events such as fairs and carnivals are inspected each year. The Department also holds a 2-day food safety and certification class for restaurant personnel 11 times per year. The students are given a nationally recognized test which certifies them as a food handler.

Water Supply

The Water Supply Program enforces the rules and regulations of the Pennsylvania Safe Drinking Water Act in Erie County. ECDH inspects the water supplies of public facilities such as restaurants and businesses that serve 25 or more people for at least 60 days out of the year. These water supplies are categorized as Transient Non-Community water supplies meaning they server a population that comes and goes. The Department also reviews the results of required routine bacteriological and chemical samples of these water supplies. There are approximately 88 water supplies regulated by ECDH.

Water Pollution

The Water Pollution Control Program enforces the rules and regulations of the Clean Streams Law and the Pennsylvania Sewage Facilities Act in Erie County. The goal is to protect the health of the public, terrestrial, and marine aquatic life by routinely inspecting permitted discharges from sewage and industrial waste treatment plants and by reviewing plant monitoring reports. ECDH also responds to unpermitted spills and discharges and assures that proper cleanup of the contaminants is achieved. There are approximately 39 sewage, 16 industrial waste, and 62 storm water discharges that are regulated in Erie County, as well as over 450 permitted Small Flow Treatment Facilities. ECDH also issues an average of 125 on-lot septic permits annually.

Public Bathing

The Public Bathing Place Program enforces the rules and regulations of the Pennsylvania Department of Health in Erie County. In addition to the Public Beach Program, the Department inspects and monitors the bacteriological quality of all public swimming pools and water rides in the county. This involves routine inspections of outdoor pools during the summer as well as year-round monitoring of indoor pools. If a facility does not meet the required water quality

standards, the pool is closed until the water quality is acceptable. There are about 100 public pool facilities with 164 permitted public pools, spas or water attractions in Erie County.

School Environment

The School Environment Program enforces the rules and regulations regarding the public safety conditions in schools. ECDH annually inspects 69 public schools, in the fall, looking for physical hazards and issues related to food safety, and re-inspections are conducted in the spring. ECDH also conducts fall and spring cafeteria inspections of 15 non-public schools that participate in the National School Lunch program.

Camps and Campgrounds

The Recreational Environment Program regulates organized camps and campgrounds. This program focuses on inspection of the water supply, sewage disposal, availability of an adequate number of restrooms, and general maintenance of the facilities. There are 8 organized camps and 24 campgrounds in Erie County that are regulated by ECDH.

Manufactured Home Parks

The Manufactured Home Park (MHP) Program regulates all MHPs in Erie County. This program focuses on the inspection of water and sewer related issues, maintenance of the park specifically related to handling of trash and hazardous conditions of the manufactured homes, and the potential for the spread of vectors that could cause damage or carry disease. There are 87 manufactured home parks that are regulated by ECDH.

Vector Control

The Vector Control Program addresses two disease vectors. The first is *Ixodes* tick identification. This program identifies the species of ticks brought to the Department by citizens who find a tick on themselves, a family member, or a pet. The Department also receives ticks from physicians and hospitals. The Department determines if the tick is one that could potentially carry the Lyme disease spirochete and informs the client. In 2017, 176 ticks were submitted to ECDH for identification.

The second disease vectors are mosquito species which transmit the West Nile virus. The Department monitors and traps mosquitoes throughout Erie County, applies larvicide on areas of standing water, and applies adulticide if mosquitoes test positive for the virus. In addition, ECDH also collects select species of dead birds that are tested to determine if they carry West Nile virus. In 2017 two mosquito pool and two birds tested positive for the virus. No humans tested positive in 2017.

Beach Monitoring and Notification

ECDH has administered the Pennsylvania Beach Monitoring and Notification Program since 2006. ECDH is the only local agency in the country that directly receives and administers the federal funds allocated for the National Beach Monitoring and Notification Program administered by the Environmental Protection Agency (EPA). The program is intended to increase the monitoring of beach water as well as to conduct sanitary surveys of the Lake Erie watershed to locate possible sources of bacterial contamination affecting beaches. It is also intended to provide additional means to inform the public of water quality at swimming beaches. In 2017 there were 27 Advisories, 4 Restrictions, and 35 Precautionary Advisories issued at Presque Isle State Park Beaches. At Freeport Beach there were no Advisories or Restrictions issued.

Body Art

Erie County established body art regulations in 2008. Revisions were made in 2016. Body art includes piercing, permanent cosmetics, and tattooing. These regulations set safety standards for physical facilities, artists, equipment, and operations. There are approximately 20 body art establishments in Erie County.

Air Quality

According to the American Lung Association, there was a weighted annual average of 1 day per year during 2013-2015 that Erie County experienced ozone air pollution in unhealthy ranges (greater than the national ambient air quality standard of 0.075 parts per million).

Childhood Lead Poisoning

Of the 3,658 Erie County children under the age of six that were tested in 2015, there were 76 confirmed cases of elevated blood lead levels greater than or equal to 10 micrograms per deciliter (µg/dl). Overall, the percentage of children with levels greater than or equal to 10 µg/dl was 2.1% (for Pennsylvania, 1.3%).

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Quality of Life

In general, “quality of life” is defined as one’s personal satisfaction or dissatisfaction with the conditions in which one lives. States, counties, and municipalities across the country use various indicators to measure the quality of life or vital signs of their communities, such as employment trends, educational attainment, home values, health outcomes, cost of living statistics, and the like. For the purposes of this Needs Assessment, this chapter provides an overview of some of the major resources in Erie County that enhance the well-being of residents in relation to leisure and recreation, social engagement, and modes of transportation.

Leisure and Recreation

Arts, Culture, and Entertainment

Erie County is home to a diverse range of arts, culture, and entertainment resources. These resources include, but are not limited to, large organizations and venues in downtown Erie, heritage venues and sites in many communities, colleges and universities with arts and cultural programming, church-based cultural activities, arts councils, ethnic communities and traditions, and artists representing a wide range of disciplines. These resources contribute to the region’s identity, economy, and quality of life.

Erie Arts & Culture is a charitable organization offering services to providers of arts and cultural products and activities, investors, and the general public in an effort to sustain a healthy arts and cultural sector in the Erie region. Charter members include Lake Erie Ballet, the Erie Art Museum, the Erie Philharmonic and the Erie Playhouse. Erie Arts & Culture is one of Erie County’s Lead Assets as recognized by the Erie County Gaming Revenue Authority.

Erie County has a rich and varied heritage stemming from the area's unique geographical location and natural harbor, and is home to 18 historical museums and societies, 12 organizations dedicated to historical research and living history demonstrations, and over 15 ethnic heritage groups. The following is a list of museums and historical societies in Erie County: Erie Maritime Museum/Flagship Niagara League, Erie County Historical Society, Harborcreek Area Historical Society, North East Area Historical Society, Union City Museum, Hornby School Restoration Society, Corry Area Historical Society, Lake Shore Railway Museum, Museum of GE History, Lawrence Park Historical Society, Wattsburg Area Historical Society, Valley School Museum, Fairview Area Historical Society, Edinboro Area Historical Society, Hurry Hill Farm and Maple Syrup Museum, Goodell Gardens and Homestead, Judson House/Fort LeBeouf Museum and Hazel Kibler Museum.

In addition to these varied arts and cultural resources, Erie County offers residents a variety of entertainment opportunities. The Erie Bayhawks (NBA G League Basketball), Erie Otters (Ontario Hockey League), Erie Seawolves (Eastern League AA Baseball), Erie Commodores (National Premier Soccer League), Lake Erie Speedway, and numerous athletic teams from the region’s colleges and universities call Erie County home.

Lake Erie Wine Country, located in the largest grape-growing region east of the Rockies, extends roughly 50 miles from Silver Creek, New York to Harborcreek Township, Erie County. It is home to over 20 commercial and estate wineries. The Erie County Convention Center Authority owns and operates four multi-use venues in downtown Erie, including the Bayfront Convention Center, UPMC Park, Erie Insurance Arena, and the Warner Theatre. The Erie Zoo and Botanical Gardens is a 15 acre park located within the City of Erie and houses hundreds of animals and thousands of plants from around the world.

Waldameer and Water World is an amusement/water park with over 100 attractions located at the base of Presque Isle State Park. Splash Lagoon Indoor Waterpark Resort features water slides, a wave pool, and laser tag area. Asbury Woods Nature Center/Asbury Park has over 200 acres of diverse habitats and 4.5 miles of walking trails. The Nature Center's "green" building features live animal exhibits, hands-on displays, and educational programs. The Tom Ridge Environmental Center, also located at the base of Presque Isle State Park, offers 7,000 square feet of exhibits that highlight Presque Isle's history, and a glass-enclosed 75 foot tower providing spectacular views of Lake Erie.

Festivals and Events

There are more than 50 wide-ranging festivals and events occurring annually in Erie County. Some of the more notable summertime community happenings include the following events: Lake City Fire Company Carnival, North East Firemen's Cherry Festival, Discover Presque Isle, Girard Dan Rice Days, Celebrate Erie, Erie County Fair in Wattsburg, Waterford Community Fair, Albion Area Fair, and Edinboro Highland Games.

The number and availability of ethnic festivals are of special note. Conveniently located on the shores of a Great Lake, Erie County has long been considered a prosperous region to settle for generations of immigrants from across the globe. Many of the so-called "old" neighborhoods continue to honor their rich cultural histories through community outreach and cultural education. Annual festivals and events serve as celebrations of the rich ethnic diversity of our community. The Troika Russian Festival, Asian Festival, Italian Festival, Zabawa Polish Festival, Panegyri Greek Festival, German Heritage Festival, Slavic Festival, and Erie Irish Festival allow citizens the opportunity to experience and enjoy ethnic entertainment and traditions.

Libraries

The public libraries in the Commonwealth of Pennsylvania are divided into 29 library districts. The library district servicing Erie and Crawford Counties is the Erie District. The Erie District is headquartered in the Erie County Public Library's Blasco Memorial Library, which is known as the District Center. As the District Center, Blasco Memorial Library serves a population of nearly 370,000 northwest Pennsylvania residents.

Public libraries in Erie County include the Erie County Public Library and its four branch libraries (Edinboro, Iroquois Avenue, Lincoln Community Center in Fairview, and Millcreek), and the six following independent public libraries: Albion Area Public Library, Corry Public Library, McCord

Memorial Library in North East, Rice Avenue Community Public Library in Girard, Union City Public Library, and Waterford Public Library.

In addition to these public libraries, several academic and special collections libraries are available as well. Academic libraries include Edinboro University's Baron-Forness Library, Penn State Erie's Lilley Library, Gannon University's Nash Library, Lake Erie College of Osteopathic Medicine's Health Sciences Library, and Mercyhurst University's Hammermill Library. Special collections libraries include the Erie County Law Library, the Erie County Historical Society Library, UPMC Hamot Medical Library, and the Veterans Affair Medical Center Library.

Parks and Trails

Erie County boasts over 100 municipal parks and playgrounds, 15 separate State Game Lands which collectively encompass 16 square miles, and two State Parks. Presque Isle State Park is a 3,200 acre sandy peninsula that extends into Lake Erie. Presque Isle offers its visitors numerous recreational activities, including swimming, boating, fishing, hiking, bicycling, and in-line skating. Erie Bluffs is Pennsylvania's newest State Park, encompassing over 500 undeveloped acres along the Lake Erie shoreline in western Erie County.

Erie County's pedestrian, bicycle, and trail network serves many of the urban areas with an extensive public sidewalk system and multi-use pathways, while also connecting to rural areas with a combination of bicycle routes, off-road recreational trails, and rail-trail corridors. Notable focal points of this system include:

BicyclePA Route A is a 199 mile route running north-south from Greene County at the Pennsylvania/West Virginia border to Erie County. Route A enters Erie County along PA 98 before turning onto PA 832 and connecting with Presque Isle. **BicyclePA Route Y** runs east-west through the entire state from Ohio to New York and enters Erie County from Crawford County along US 19 before turning east onto US 6 to Warren County. **BicyclePA Route Z** runs east-west from Ohio to New York, primarily following PA 5 and the Great Lakes Seaway Trail.

The **Great Lakes Seaway Trail** is a designated National Scenic Byway and a 518 mile route connecting the shores of Lake Erie to the Niagara River, Lake Ontario and the St. Lawrence River in New York. The trail runs east-west through Erie County for approximately 64 miles primarily along PA 5, but including portions of Alternate PA 5, the Bayfront Parkway, Presque Isle Drive and US 20. The Great Lakes Seaway Trail provides biking and driving links to historical locations, cultural heritage sites and scenic vistas.

The **PA Route 6 Heritage Corridor** is one of twelve Pennsylvania Heritage Areas. The corridor runs east-west across the state's northern tier through 11 counties along US Route 6. Through Erie County the corridor also includes US Route 6N, which turns off the main corridor west of Mill Village Borough and runs through the Boroughs of Albion and Edinboro. The corridor is managed by the Route 6 Alliance.

The **Bayfront District Trail Network** runs through the City of Erie connecting various amenities and providing public access to the waterfront for pedestrians and bicyclists. This network includes the Bayfront Connector Trail, a paved multipurpose trail that runs along the Bayfront Connector and connects Presque Isle State Park to Penn State Erie.

The **Karl Boyes Trail** is a designated National Recreation Trail. This 13 mile multipurpose trail makes a circuit of Presque Isle State Park and is regularly used by walkers, bicyclists, in-line skaters, and joggers.

The Northwest Pennsylvania Trail Association's **Corry Junction Greenway Trail** is Erie County's first rail-to-trail venture. It runs north-south for approximately 7 miles through the Brokenstraw Valley and along the old Penn Central rail corridor to connect Corry to Clymer, New York.

Social Engagement

A key indicator of quality of life is social belonging. In Erie County, the two large urban centers of Erie and Corry have all the amenities of a city, while providing residents with a small-town feel. Residents take pride in their communities, and commitment to community organizations, clubs, and religious activities is strong, as can be seen by the large number of civic groups and churches in the area.

Erie County is proud to have a vast offering of religious organizations and churches. Every major denomination can be found in the county including Baptist, Catholic, Muslim, Lutheran, Methodist, Buddhist, Presbyterian, Jewish, and many more. In 2015, there were over 250 congregations residing in Erie County.

Civic and social organizations are comprised of people who join together to provide a service or services to their community. Erie County is home to over 100 civic and social organizations. The American Legion, Loyal Order of Moose, Girl Scouts, Elks Lodge, Lions Club, YMCA, Masonic Lodge, Polish Falcons Club, Veterans of Foreign Wars, and Erie Yacht Club are all examples of local civic and social organizations.

With over 15% of Erie County's population 65 years of age and older, senior centers are an important part of the social fabric of the county as they enrich and enhance the quality of life for senior citizens. There are currently 12 senior centers located in Erie County - 6 of these centers are located in the City of Erie and the rest are located throughout the county in Albion, Corry, Fairview, Millcreek, North East, and Union City.

Modes of Transportation

There are two public airports that serve the Erie County region. These are the Erie International Airport/Tom Ridge Field, located in Millcreek Township, and the Corry-Lawrence Airport in the City of Corry. Erie International Airport/Tom Ridge Field is host to three airlines which provide connecting flights through each of their respective hubs. US Airways Express operates daily roundtrip flights between Erie and Philadelphia, United Air Lines offers daily nonstop jet service

to its connecting hub in Chicago, and Delta Air Lines offers flights to its connecting hub in Detroit. The Corry-Lawrence Airport is operated by the Airport Authority of the City of Corry, and is a general aviation facility serving travelers and businesses in northwestern Pennsylvania and western New York.

The Erie Metropolitan Transit Authority (EMTA, or the "e") operates local public transit service in the county. The fixed bus route services include daily routes traversing the City of Erie and outlying communities including the City of Corry and Union City. In addition to these daily routes, the "e" also operates routes serving Mercyhurst University, Mercyhurst North East, Gannon University, Penn State Erie, and Edinboro University. EMTA also operates the LIFT paratransit transportation system for residents who live beyond bus routes or are unable to utilize bus services. Included in this system are a rural transportation program for persons with disabilities and a medical assistance transportation program for qualified individuals. Additional EMTA services include welfare to work, bike rack, and senior citizen programs, as well as the free BayLiner Trolley which serves many downtown Erie destinations.

Within Erie County, regularly scheduled inter-city motor coach service is provided by Greyhound Lines, with additional charter operations provided by the carriers Anderson Coach and Travel and Coach USA. Greyhound Lines operates out of Erie's Intermodal Center and links passengers to over 2,300 North American destinations. Amtrak passenger rail service is operated out of Union Station in the City of Erie. Amtrak provides service through Erie County along the Lakeshore Limited Line from Chicago to Albany, where the line splits to serve New York City or Boston. Service is limited to one train in each direction daily (1:48 AM for the westbound train, and 7:20 AM for the eastbound train).

Erie Yellow Cab is the largest taxi service provider within Erie County. Yellow Cab provides point-to-point transportation throughout the county and surrounding areas, as well as delivery and courier services. Public cab stands are located at the airport, Greyhound bus station, and within a few blocks of the Amtrak train station. Additional taxi services are provided by the Corry Cab Company and several private limousine services. Seasonal water taxi services are provided by the Erie-Western Pennsylvania Port Authority with connections between the Erie Bayfront and the Waterworks area at Presque Isle State Park.

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Focus Groups

Introduction

As part of the Health Needs Assessment, a series of six semi-structured focus groups were conducted throughout Erie County with key populations of interest. These groups were comprised of individuals from or representing the African American residents (community leaders); the Amish women; the City of Corry & Union City (community leaders); Erie County (community leaders); the LGBTQIA community (Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersexual, and Asexual); Refugee, migrant, and immigrant populations (community agency leaders). The purpose of the focus groups was to gather participant perspectives on community needs, assets, and barriers to maintaining good health as well as possible solutions to the needs and issues identified. This section represents a summary of the responses of the focus group participants. Please note that this is not intended to reflect responses of the community at large.

Methodology and Sample

Six focus groups were held with individuals as described in the introduction. They were conducted during the months of January and February 2018. The groups discussed the topics and corresponding questions developed and approved by the ECHNA Steering Committee. The Corry and Union City and Erie leadership groups explored issues as related to the broader community as a whole. The smaller, targeted groups shared information regarding the concerns within their specific population cluster. Group member and gender distributions among the groups are shown in Table 1.

Table 1. Focus Group Participants

Focus Group	Corry & Union City	Erie County	Refugee, Migrant, Immigrant	African American	LGBTQIA	Amish	Total
Number of participants	9	24	6	7	9	5	60
Gender	7 women 2 men	15 women 9 men	3 women 3 men	4 women 3 men	5 women 4 men	5 women	39 women 21 men

The steering committee identified prospective participants for recruitment with assistance from the facilitator and the Erie County Health Department. Potential individuals and groups were contacted via email, telephone, or in person. Sessions were scheduled at times and venues convenient for most participants. The Amish and the LGBTQIA focus group participants were each provided $20.00 to defray the costs of transportation and family care during their respective meetings.

Prior to the presentation of questions, attendees were given background information about the County Health Needs Assessment including previous findings and current quantitative data that

had been obtained via the BRFSS telephone survey. They were told the reasoning behind the assessment, what would be contained in the final report, and the mechanism for release of the completed document. All were told that their names would not appear in the report. One participant was under the age of 18. Written parental consent was obtained for him to participate and his mother came with him to the focus group. Meetings lasted up to 90 minutes each. Recording was done via pen and paper. There was no electronic recording of the discussions to assure participants' comfort while openly discussing the topics. Participants were given the option to leave at any time before or during the discussion. All agreed to stay and participate.

The facilitator performed content analysis to identify key themes. Key themes were identified based on the number of groups in which the theme arose and the number of respondents within each group who discussed the theme. Consideration was also given to the intensity with which themes were discussed. It is important to note that the responses are unique to these groups and may not necessarily reflect the opinion of the community at large.

Questions for the sessions were determined by the Steering Committee members based on various data from the Erie County Health Department including the 2015 Health Needs Assessment and focus group report, results from the Steering Committee survey, data from the PA Department of Health, the 2015 Pennsylvania Youth Survey (PAYS), and Healthy People 2020 Goals and Objectives.

The same questions were asked of each group with prompts used if the participants were not responding or if the responses did not include the topic information. Each session was led by a facilitator and supported by an ECDH staff member who took notes. The qualitative data from the focus groups were reviewed and manually coded to determine common themes as well as those themes unique to specific groups. These findings were reviewed by the Steering Committee to determine conclusions and prioritize recommendations.

The health topics that were discussed included Health Behaviors, Mental Health, opioids and other drugs, and the impact of electronics usage on health. The same five questions were asked of each group. A complete listing of the questions and prompts appears at the end of this chapter in Focus Groups - Appendix 1. Patricia Stubber, PhD, MBA facilitated the groups and Valerie Bukowski, MS, took notes of the sessions. Recordings were not performed as to protect the identity of individuals and to maintain an uninhibited discussion of the topics. Dr. Stubber performed the content analysis and prepared this report. Transcription of the notes appears in Focus Groups – Appendix 2.

Key Discussion Themes

Key discussion themes in order of rank from highest to lowest were Access to Care (18%), Health Literacy (18%), Home Situation (15%), Risky Behavior (12%), Cultural Competency (11%), Income/Cost (10%), Other Barriers (10%), and Stigma (4%). Note that stigma was mentioned only in response to the discussion of mental health and drug use. Other Barriers includes culture and religion, (4%) transportation (4%), and language (2%).

Chart 1 illustrates the Key Themes as categorized by question and group. Access to Health Care and Health Literacy are expanded into subgroups to illustrate specific concerns. Access to health care is separated into dental care, mental health care, and remaining access to care issues, most relating to specialties, language, and cost or insurance coverage. Access to primary care itself was not a strong theme, but is included in other access to care.

The Patient Protection and Affordable Care Act of 2010, Title V, defines health literacy as the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions. It is dependent in part, on the provider's ability to communicate information effectively to support the individual's health decision making and health system navigation (retrieved from https://health.gov/communications/literacy/quickguide at Health Literacy - Quick Guide to Health Literacy). Because of the definition and importance of provider communication skills, the health literacy theme is divided into and charted as Health Literacy (client) to reflect comments related directly to the client's ability to understand and execute directions accurately and Health Literacy (provider) to illustrate issues related to communication and instructions given by the provider. Chart 2 shows Access to Care and Health Literacy in total. Access to Care is combined into one category as is Health Literacy. Table 2 provides a listing of the percentages and rank of the Key Themes.

Chart 1. Key Themes Expanded

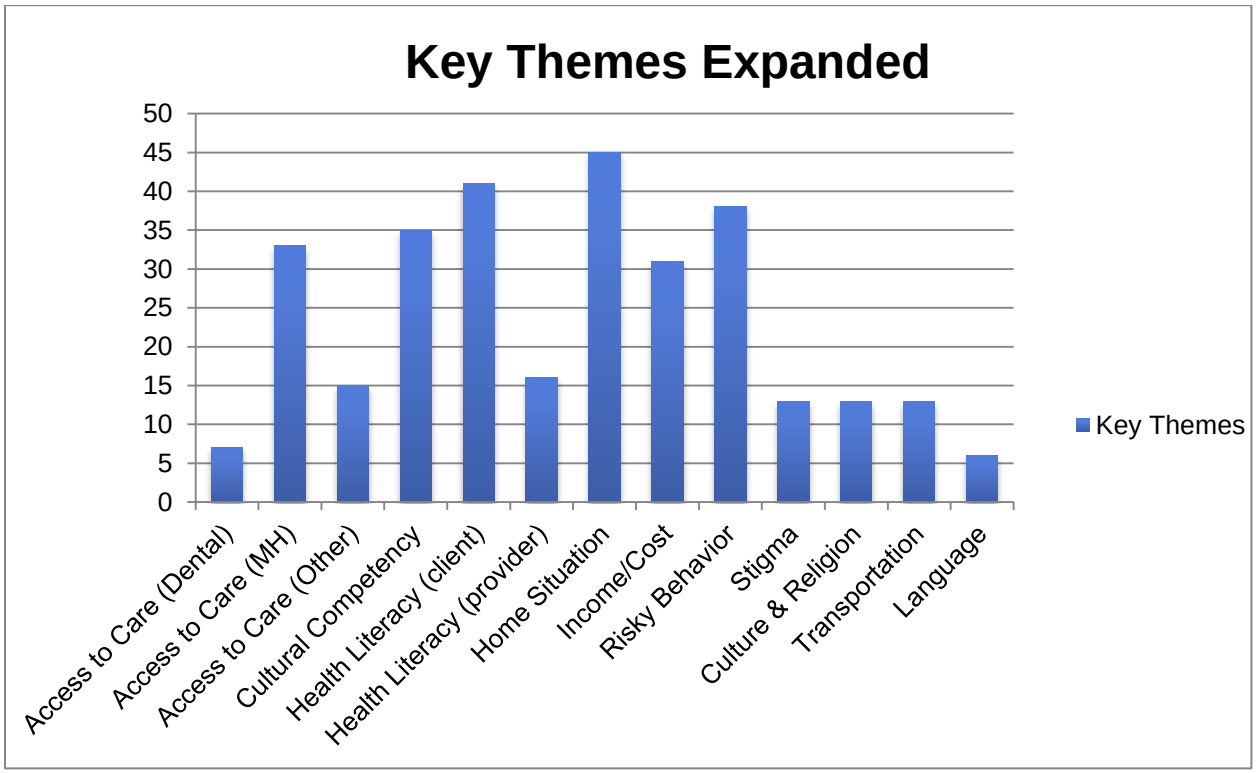


Chart 2. Key Themes Combined

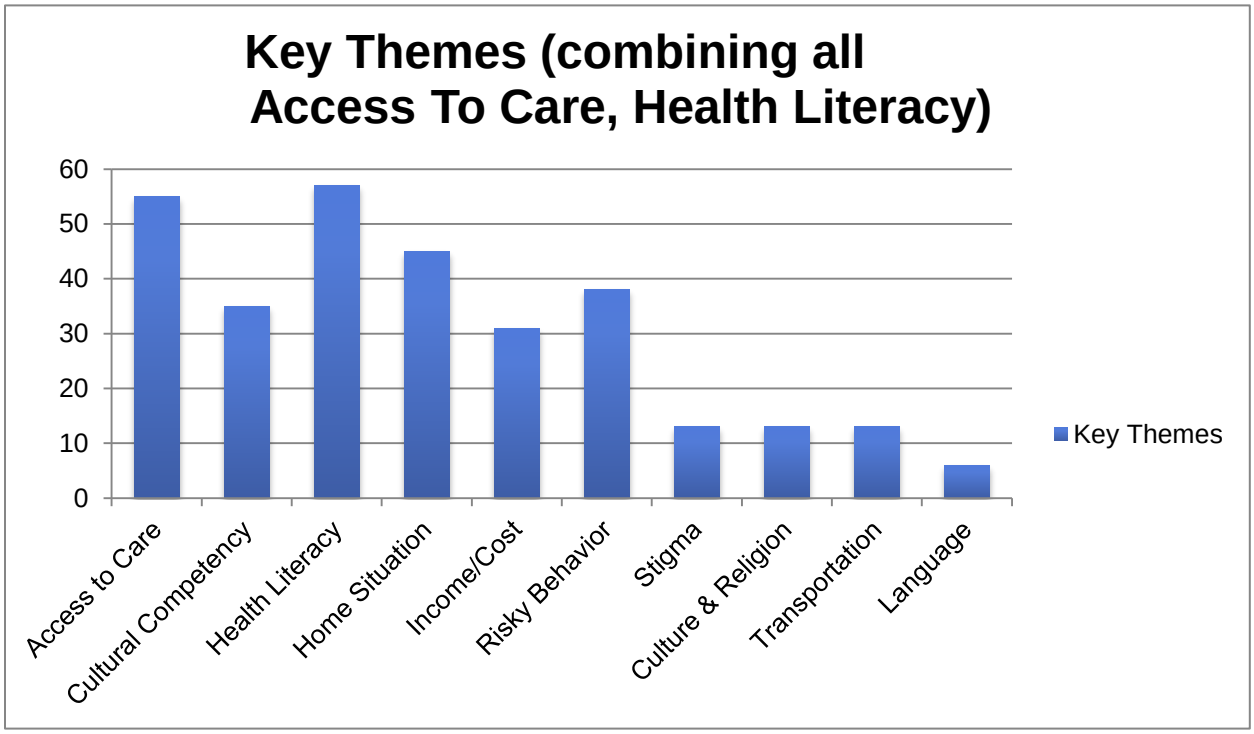


Table 2. Key Themes by Percentages and Rank

	Key Themes	Percent	Combined General	Rank
Access to Care (Dental)	7	2%		
Access to Care (MH)	33	11%		
Access to Care (Other)	15	5%	18%	1
Cultural Competency	35	11%	11%	4
Health Literacy (client)	41	13%	18%	1
Health Literacy (provider)	16	5%		
Home Situation	45	15%	15%	2
Income/Cost	31	10%	10%	5
Risky Behavior	38	12%	12%	3
Stigma	13	4%	4%	6
Other Barriers (Culture/Religion, Language, Transportation)	32	10%	10%	5
Culture/Religion	13	4%		
Transportation	13	4%		
Language	6	2%		

Health Behaviors

Positive comments were made regarding attendees' practices of exercising, eating healthy, using alternative medicines such as aromatherapy and other practices, ultimately resorting to seeing a clinician only when necessary. Attendees' responses were greatest when discussing Access to Care and Health Literacy, with 18% of the responses related to each of those categories.

Access to Care for mental health was the greatest concern. It is discussed more thoroughly in the Mental Health section. The next most discussed problem was the ability to find dentists for individuals who have Medical Assistance as their insurer. One participant shared that they transport their clients to Grove City to obtain Oral Maxillofacial services. With respect to other access to care issues, a number of participants cited their need to travel to Pittsburgh for certain specialists including a pediatric endocrinologist, pediatric oncologists, and physicians who deal with transgender and LGBTQIA health. Lack of adequate transportation remains a problem for the refugee population.

Health Literacy issues tied with Access to Care as a key issue of discussion. Health Literacy on behalf of the patient or client was mentioned 41 times (13%), whereas it was tied to the provider 16 times (5%). Most often cited were issues related to the patient or client's inability to understand instructions and navigate the health system. One example is prescription medication refills in the Limited English Proficiency (LEP) community. They may understand how and when to take the medication, but, they may not understand the need to refill the prescription, causing health issues such as hypertension to remain untreated. This example demonstrates low health literacy on behalf of the patient, while also illustrating lack of effective communication on behalf of the provider.

The Home Situation was mentioned 45 times or 15% of responses. While this has been mentioned in past assessments, this is the first time it has attained this level of prominence. Examples cited included single parent households, violence, drug use including parents stealing their children's medications, poverty, lack of education, and children undertaking major family responsibilities. Because of these types of situations, neither parents nor children are expected to achieve healthy lifestyle practices without some type of professional intervention.

Cultural Competency was cited 35 times (11%), mostly related to the Amish, African American, LEP and LGBTQIA populations. In all cases, the lack of understanding about cultural practices and the populations themselves was frustrating to participants.

The local African American population is very willing to engage with providers and agencies, but they may not be included in the discussion. A key phrase repeated numerous times throughout the session was "if you want to know more about us, include us!" This was applied to situations from how to cook ethnic foods in a healthier way to the question of whether or not mental health diagnoses were applied to youth who were really acting out because of home environments. A number of examples were given where

various individuals and leaders in the African American community worked together with schools, students, and their families to resolve situations that schools attempted to resolve using expulsion and mental health referrals.

The Amish talked about GM3 synthase deficiency, a genetic disorder that profoundly disrupts brain development, resulting in severe intellectual disability and lack of development of skills related to walking, talking, reaching and other activities of daily living. It occurs in a small percentage of old order Amish and is not easy to diagnose if the practitioner is not culturally aware. Even though an infant may experience seizures, they may be atypical and not responsive to traditional medication management (retrieved from https://ghr.nlm.nih.gov/condition/gm3-synthase-deficiency).

Refugees and other members of the LEP community experience difficulty understanding the English language and our cultural norms versus theirs. While interpretation is usually provided as required by law and regulation, when telephonic interpretation is used, it is sometimes difficult to understand due to variations in dialects and the fact that some words in our language do not have words in their language. As example is kidney. There is no word in the Nepali language for kidney. As psychologist and communications expert Dr. Albert Mehrabian points out(retrieved from https://www.toolshero.com/communication-skills/communication-model-mehrabian/), 55% of communication is non-verbal, 7% is the actual words and phrases, and 38% is intonation. Face to face interpretation where gesturing and other cultural behaviors are used results in more precise and possibly more accurate communication and greater satisfaction of the patient. One example where cultural competency is important is in the Somali population. Pregnant women are encouraged and sometimes prescribed iron supplements for themselves and their babies. However, laboratory tests confirm very low hemoglobin values in the women and babies, resulting in babies sometimes being required to go to Pittsburgh for evaluation by pediatric hematology/oncology. Because of strict adherence to religious principles, they will only take the supplements if they can be assured that they do not contain pork, gelatin, or non-medicinal alcohol. This assurance and encouragement must come from a male head of household of this ethnic group or the women will tend to ignore instructions to take iron supplements. This has on at least one occasion resulted in a child being treated with intravenous iron at a Pittsburgh health care facility.

A representative from an agency that serves the intellectually disabled shared that her clients have been treated rudely by some of the local physician offices. While she does not wish to report these incidents to regulatory agencies, she stated that they deserve to be treated with the same level of respect that would be granted other patients. There were numerous examples of cultural competency issues shared by the LGBTQIA group. For example, one participant who is a lesbian mother asked why pediatrics offices only list mother and father on intake forms, rather than parents. Note that this describes one office and not all.

Why do the forms in pediatrician offices ask for "mother" and "father" instead of just asking for **parents'** names?

Others voiced their concerns about emergency situations. There is great fear that if

they travel by ambulance or go to an emergency department, their legal next of kin may not be notified. Instead, it is sometimes assumed that the next of kin may be a sibling or parent rather than their legal partner. Another issue is offering of PrEP (Pre-Exposure Prophylaxis) for HIV. It is not widely available and some physicians seem to be unaware of its existence. PrEP is offered by the Erie County Health Department. Another issue where participants feel practitioners seem to be lacking is in their knowledge about the transgender group. 40% of transgender individuals attempt suicide at some point, yet this aspect of their mental health seems to be ignored.

Another issue that affects overall health and reflects access to care issues is the support provided for those who are victims of crimes including physical and sexual assault. At the present time, there are not enough sexual assault nurses at our local hospitals. Abused children have to go to the ER for an exam. Along the same lines, it was noted that closer attention should be paid to screening for domestic violence during medical screenings. Asking if an individual is exposed to domestic violence during an intake interview by ancillary staff members is not enough to allow for recognition of those issues.

Lastly, WIC is a supplemental food program. It is not meant to be the sole source of food for the families of clients, but that is sometimes how it is used. Also of note is that WIC staff members are trained to identify abuse and neglect. At times, medical providers will "excuse" WIC clients from their regular WIC assessment appointment, allowing for a "missed opportunity" for prevention or intervention related to an unhealthy home environment.

Mental Health

Although stigma was mentioned, discussion centered more around cost and the opinion that there are not enough mental health providers to meet participant needs. Most had insurance with high deductibles and high copays. They noted long wait times of up to three months for appointments. One participant described an incident where her organization attempted to have a client admitted for a greatly needed psychiatric medication adjustment. Two local hospitals turned the patient away, citing lack of sufficient criteria for admission. This resulted in travel to Pittsburgh where the individual was readily accepted for admission at Western Psychiatric Hospital.

There's a lengthy wait-time for children to see a mental health professional—family loses interest and doesn't follow-up!

According to County Health Rankings (retrieved from http://www.countyhealthrankings.org/), Erie County maintains a patient to mental health provider ratio of 570:1; for Pennsylvania it is 560:1, and the top U. S. performers maintain a ratio of 330:1. Note that the federal government defines mental health providers as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and mental health providers who treat alcohol and other drug abuse, and advance practice nurses who specialize in mental health care. Erie County as a whole does not qualify for the federal designation as a Mental Health Professional Shortage Area (MHPSA). Community Health Net maintains an automatic facility designation with a score of 20 out of 25.

A score of 16 or greater is used for the National Health Service Corps to place mental health professionals in their loan repayment program. This means that the mental health service providers are in high need for their patients. Because CHN mainly serves the uninsured and underinsured, this statistic may not be generalizable to other Erie County residents.

African American leaders (confirmed by African Americans in other groups) shared that their community does not talk about mental health. They again confirmed their recommendation that they be included in the discussion if providers want them to be engaged in maintaining a positive mental health status.

Amish participants shared that they also recognize the need for additional mental health providers. They typically seek services for more severe mental illness at Mennonite run "Rest Homes". Individuals seeking care will spend weeks or months at the home where they will receive an assessment, medication if indicated, and counseling by mental health providers. The closest one is hundreds of miles away. Those present are hopeful that there will be one built in a nearby community in Ohio.

Several members of the LGBTQIA group expressed the need for more counselors citing the stress and related mental health challenges with respect to family and personal relationships. It is very stressful when they are coming out. Another issue discussed is the need for providers to have a better understanding of the issues. Also, even though the LGBTQIA "group" is lumped together, each one is very different from the other, with different health and social issues.

The attempted suicide rate for transgenders is 40%!

One participant stated that there was inadequate mental health evaluation for refugees. It was affirmed by the facilitator whose professional experience includes refugee health, that the appropriate mental health examination for refugees is different from domestic evaluations and that guidelines have been developed to perform more accurate assessments (accessed from https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/mental-health-screening-guidelines.html).

Opioids & Other Substances

For those who identify as addicts, opioids are the drug of choice, but heroin will be substituted if an opioid is not available. Opioids do not discriminate with respect to age and circumstances. Many, including the older population, have become addicted because of what was originally a legitimate physical complaint of pain. They were prescribed these substances legally and became addicted. NAMI is experiencing a 10% to 15% increase in the number of families seeking help to deal with their loved ones who are users and/or overdose. Stories of parents stealing drugs from their children, others who "borrow" from friends because they "haven't gotten their

Domestic street drug use is rampant, with trading done secretly among the older groups.

prescription filled yet" were shared. Many will buy from those with legitimate prescriptions who have "leftovers" because it is much less expensive than purchasing through the pharmacy. One nursing home administrator commented that staff members must be vigilant in their observation of patients now more than ever because of the number of younger individuals who are there for physical rehabilitation and have been found to bring in their street drugs. As has been shown throughout the nation, opioid use is not a problem in the African American community. Other drugs are the problem, especially if there are also mental health problems with the individual. Another important factor for the overall health of the community is law enforcement. The City of Erie's biggest challenge at this time is staffing. This may be true of other areas as well, but Erie leadership was the only group that police attended. Children see their parents using drugs and sometimes those drugs are medication that was prescribed for the child. In general, younger people are using alcohol and marijuana, while there is heavy drug use in adults. One participant commented that most overdoses are intentional. Several organizations have naloxone (Narcan) readily available, with EmergyCare having a "leave behind" program where an extra dose is left with the individual if they refuse additional treatment once they have been revived. During 2017, EmergyCare dispensed 459 doses of Narcan. One individual received naloxone six times in the past 8 months.

…she was sitting at a traffic light, foot on the brake, passed out, with a needle in her arm and two kids in the back seat…

Electronics & Social Media

There are no Key Themes charted with respect to the impact of electronics on health and life in general. All groups indicated that electronics are a double-edged sword. The use of texting appointment reminders, telemedicine, and being able to film various legal proceedings worked well. Many used cell phones for social contact, but did not engage in the use of patient portals or researching health information. With respect to negative comments regarding electronics, issues include relying on misinformation for health management, use of social media for the purposes of bullying, too much time being spent on it, not only for youth but also young moms who opted to engage in social media drama rather than nurture their children.

The use of electronics is a double-edged sword.

Conclusions

Comments made by participants in the focus group activity overall were similar and in alignment with the BRFSS findings. The differences were found to be population specific as a result of health conditions or practices related to the group. Key issues are related to mental health, health literacy, home life, cultural competence, literacy in general, and challenges accessing dental services for the population who are insured in the Medicaid program.

In addition to the challenges and negative situations, there were also a number of activities and new services to support positive change reported. With respect to mental health, many of the

organizations shared that their employers are providing, and sometimes requiring, supports including education, evaluation, and counseling.

Corry Area School District is engaged in a new program that includes a full time psychologist. The program provides social workers and counselors who go into the homes to assess the food situation and overall home environment.

Sarah A. Reed Children's Center offers an acute care program for children who are not suicidal or a danger to others. It is a 15-day program where the child is evaluated by a psychiatrist within the first five days. They also provide emotional and educational support to the families of the children in the program.

A new rest home is being planned for construction in Middlefield, Ohio to serve the mental health needs of our Amish community.

Areas of Opportunity

Participants in the Erie Leadership focus group offered a great deal of information and networking opportunities for the various organizations represented. They also expressed interest in meeting at least once a year to update everyone on what they are doing so they can identify opportunities to collaborate. This is an opportunity for one or more of Erie's organizations to convene this meeting.

Those individuals who represented the LGBTQIA population also expressed interest in learning and networking more, and being involved in activities to heighten awareness and improve the health of their community.

WIC's promotion of fresh fruits and vegetables provided a gateway to discussion of bringing some of the farmers or possibly food trucks to various inner city locations to allow residents to make healthier food purchases.

Programming to improve literacy in general and supports to assist with the development of better domestic environments were also identified as opportunities throughout the groups.

The African American focus group participants identified issues related to compliance with immunization requirements of school-age children. They ask that consideration be given to provide immunization clinics on site at the schools to help facilitate students' timely start and attendance. Most importantly, they ask to be included in planning, and not be provided with plans developed by groups that do not include members of their community. This theme resonated in the other targeted focus groups as well. Perhaps being mindful of the slogan "nothing about us, without us" could help organizations improve engagement of all residents.

Engaging the community in overall health improvement will require the combination of improved cultural competency and health literacy to address the key themes and support the overarching goals of the 2018 Erie County Health Needs Assessment.

Focus Groups – Appendix 1

Erie County 2018 Health Needs Assessment
Focus Group Agenda/Questions

Introductions, explanation about focus group activity, and review of current health status trends, definition of health as "a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity" (defined in the WHO constitution of 1948).

1. What are your/your family's/your clients' biggest challenge to being healthy?
    a. Tell me some of the things you do to maintain health/prevent disease (including medical and dental checkups, screenings, immunizations, nutrition/exercise, etc).
    b. What are some of the barriers to being healthy?
    c. Tell me about how the changes in health insurance and local health care systems affect your/your family's/your clients' ability to be healthy.
    d. What are some of the supports you use to remove barriers?

2. Eating healthy foods is very important in the prevention and control of conditions such as high blood pressure, diabetes, heart disease.
    a. How do/you/your family/your clients access "healthy" foods (five fruits/vegetables per day, etc.)?
    b. What are some of the reasons you do not or cannot eat healthy foods?

3. Facilitator will define mental health, contributors to MH problems, and early warning signs (https://www.mentalhealth.gov/basics/what-is-mental-health/index.html) and then ask for discussion as follows:

    Thinking about yourself, members of your family and your community:
    - describe any mental health problems you know about within your circle of family/friends/community
    - describe any issues related to missed work, family or other important activities
    - how/where do individuals got help?
    - What makes it difficult for them to get help? –how does stigma affect their willingness to seek/accept help?

4. How do electronics fit into your/your family's/your clients health and well-being? By electronics I mean cell phones and the Internet and devices you connect to them.
    a. Explain how you use electronics to
        i. make appointments, check test results, monitor conditions such as high blood pressure, blood sugar
        ii. learn more about prevention, your condition, and any treatments?
        iii. Other uses?

b. How do some of the applications (including social media) help or hurt your/your family's/your clients overall health and well-being?

5. How do opioids impact your life and that of your family/friends/clients?
    a. If you are prescribed opioids for chronic pain management, what are your concerns
        i. about obtaining them legally?
        ii. about keeping them safely away from others?
        iii. other concerns?

6. Is there anything else you would like to share?

Focus Groups – Appendix 2

Erie County Leaders
Erie County 2018 Health Needs Assessment
Erie County Leadership
Focus Group Notes

1. **Biggest challenge to being healthy** (each agency provided input about their respective clients)
   - For older adults (GECAC)—important to provide evidence based programming; nutrition—Meals on Wheels and Senior Center lunches; funding is a problem; increased collaboration with healthcare providers;
   - CVC—mental well-being; hospital visits for rape victims; not enough sexual assault nurse examiners at the hospitals;
   - Abused children have to go to ER now for an exam; hospitals need to work together with agencies to provide professional care outside of the ER;
   - The WIC program is not meant to be the main food provider for clients—they provide supplemental food for the diets of eligible mothers, infants, and children;
   - Issue with employers not providing adequate time and space for lactating mothers to pump breast milk;
   - The duration of breast-feeding is decreasing even though early breastfeeding is increasing;
   - WIC not only evaluates babies for nutritional needs, but also to evaluate them for abuse or neglect. If the physician writes an "excuse" for the client so that they do not have to be seen, it becomes a barrier for WIC to provide complete services in a timely manner;
   - Obtaining dental services for people with disabilities is problematic; issues include accessibility in the office, and there are not enough dentists who accept Medicaid insurance;
   - The County Assistance Office relies on people to come to them to determine eligibility, but the client is responsible for learning about nutrition and many do not have the knowledge; if a client is not eligible for Medicaid, they want to advise them about other resources;
   - The Housing Authority of the City of Erie has a health office available, but it is not used enough;
   - Shriners provides services for all children, not only those who are physically disabled; they evaluate and treat children who cannot gain weight or cannot eat; they help educate and navigate clients with respect to various specialties; and other services;
   - As an EMS provider, EmergyCare responds to the 911 system; they are reactive to events; their organization is a private, non-profit corporation; they have an education department that provides EMT training;
   - During 2017 EmergyCare dispensed 459 doses of Narcan (naloxone); they have a "Leave Behind" program in place where if the individual they revive refuses any further help, they "leave behind" a dose of Narcan with the client;

- For the Erie City police department, the biggest problem is staffing; For overdosed residents, officers have to stay with the person until an agency representative shows up; example given of an individual who was stopped at a red light with a needle in their arm, passed out, their foot on the brake with children in the back seat; one person since June 2017 was given Narcan six times; tainted heroin is an issue—police must wear gloves to prevent absorption; announcement--there are training sessions for police where agency representatives are welcome to present information about their agency;
- Primary Health Network (offers health care services at the former Wayne Middle School)—most patients are low income, uninsured; most are refugees so barriers include language and transportation;
- L'Arche –there are numerous barriers—
- mental health admissions for people with Intellectual Disabilities that need a longer term stay to adjust medications is severely lacking. They can only be admitted if they plan to harm themselves or someone else, but there are many other times when people need medications adjusted in a secure setting and there is nothing like that available here in Erie. We had an individual refused admission at St. Vincent and Millcreek who was later admitted at Western Psych in Pittsburgh due to his psychiatric needs not being met here in Erie. It's been hard to even get the psychiatrists at the hospitals to even take a moment to evaluate the patients themselves.
- Dental care as far as oral surgeons is limited due to many people not accepting Medicaid. We have to travel to get oral surgery services so our friends don't have to pay $1,000 or more for oral surgery out of pocket here. We need more MA providers for this.
- There are also several medical providers who do not treat individuals with intellectual disabilities as well as they deserve to be treated.
- A positive aspect in Erie is we have great relationships with a local college and we have many volunteers that offer their time and expertise to us. Ex: Physical Therapy students work well with us to help them with their education while enhancing our friends' lives.
- SafeNet—Dental care is an issue;
- abuse victims tend to be low income women who become homeless;
- would like more screening in the medical arena for abuse such as choking;
- (clients) need this one on one relationship (with health care professionals) to feel comfortable;
- if client goes to hospital multiple times and doc sees them each time, they sometimes consider them to be a "frequent flier" and will dismiss their complaints or have a biased viewpoint;
- Regarding children—if there is a mental health referral, they may have to wait several months. Then the family loses interest and will not follow-up;
- Obesity is a problem for children and adults;
- WIC provides Farmers' market vouchers; barriers include the need for nutritional education beyond what WIC can provide; 69% of vouchers are redeemed at the

farmer's markets—93% of those are redeemed by elderly; redemption rate of vouchers for fresh fruit and vegetables at the grocery store is low;
- Sight Center—for elderly blind or low vision, transportation is provided for clients; overall, transportation is a barrier—Meals on Wheels program provides grocery shopping transportation;
- Elderly clients call in grocery list for center to shop and choices are not always good (healthy);
- Focus on diabetes prevention—65+y/o finish program and lose weight—the younger population is not so successful; they do not follow through with the program;
- Gannon students are involved in new program to help clients grow vegetables at home;

2. **Eating healthy foods**
   - No grocery stores downtown;
   - Transportation is an issue;
   - Education is needed;
   - A small number of small farmers offer fresh foods during growing season;
   - WIC is trying to get farmers to come to their parking lot at the main office;
   - Fresh fruits and vegetables not readily available downtown

3. **Mental health problems, issues related to missed activities, how and where individuals get help, and difficulties getting help including stigma**
   - Wait for a psychiatrist appointment is very long;
   - Isolation is an issue for the elderly—GECAC is trying to work on this;
   - Access—Sarah Reed has an acute care program for children who are not suicidal or a danger to others (take those rejected by the hospitals);
   - 15 day program (Sarah Reed)—get to see psychiatrist within 5 days—also provide support for the child and family;
   - Acute partial hospitalization is provided by Sarah Reed and Perseus House;
   - County Assistance Office—needs forms completed by a physician or other healthcare provider; focus is on self-sufficiency, but what effect does mental health have on job procurement?; challenges with families—mental health needs to be addressed first;
   - Primary Health Net—Depression screening lacking (for refugees—Washington State tools suggested); issues with hypertension, diabetes, obesity; problems with inpatient services and psychiatrist deficiency; mental health coverage has high copays;
   - Organizations have burnout in staff—try to monitor as best we can;
   - African American Community—mental health has a stigma; Hispanic community too
   - Gannon has organizational health in its strategic plan to try and be proactive;
   - Children's Advocacy Center—every three months they are required to visit a counselor/psychologist;

- Erie Dawn—serve homeless moms/women—try to get them into housing to improve their overall health; put housing and health together; stable housing and health are connected;
- Zip Code determines health;
- Can call 814-SHELTER for housing;
- Police—officers receive counseling; during the big snow storm 211 became a popular tool; recommend that agencies share vulnerable clients information with authorities so either the police or the agencies can check on clients during an emergency such as a significant snowstorm;
- At GECAC, individuals have a caseworker that will call their clients.
- NAMI has limited resources and funding; stigma is a barrier for those seeking help; they deliver presentations at colleges and schools because they are asked; they provide services on a shoestring budget;

4. How electronics fit into health and well-being

- Bayfront East Side Taskforce (BEST)—electronics are a double edged sword—majority of residents have them, but many may not have interest; it is a barrier to physical activity; the elderly don't have electronics or an interest in them; many have cell phones;
- GECAC uses electronics to track client; remote monitoring;
- Shriner's Hospital—have a patient portal but many clients don't use it; it's difficult to communicate with the Amish population because they do not use electronics;
- Use to contact clients because many do not provide a current phone number;
- Young people only want notified by texting; texting decreases their no-show rate;
- Problem—phone numbers change often;
- Crime Victim Center—Electronic data storage used; victim has a right to be present at court hearing and parole hearing; closed circuit is often used;

5. How opioids impact life

- Gaudenzia has been dealing with the "Opioid Crisis"; some of the barriers include the need for easy entry points into the care system; people with private insurance often have high copays; stigma is also an issue;
- Sarah Reed has a Narcan policy for parents, visitor who may use/overdose;
- BEST reports about overdosing;
- Netflix documentary on heroin;
- PHN—no problem with pain management requests;
- NAMI—10-15% increase in families who are asking for help with family members who are users and/or overdose;
- Domestic street drug use is rampant—trading of drugs is done secretly among older groups;

Corry/Union City Leadership
Erie County 2018 Health Needs Assessment
Corry and Union City Leadership Focus Group Notes

02/15/2018

1. **Biggest challenge to being healthy**
   - Poverty
   - Knowledge
   - Mental health needs and access to care
   - Lack of insurance
   - Broken marriages
   - Divorce, separation, boyfriend, more children
   - Domestic violence—mental health, money issues, drugs
   - Inability to get care providers, especially the elderly;
   - Large elderly population in Corry
   - Try to teach health eating, but client says they do not have money, do not have time to cook healthy foods; use fast foods
   - Many don't know how to cook, especially the 19-20 year olds
   - Parents with low cognitive ability (~75 IQ, 70-85 range) are having children and are not able to care for them
   - Low cognitive skills
   - Not able to get mental health services
   - Many only have an 8th grade education
   - Many families are home schooling, but no longer have guidelines; poor education regulations
   - With regulation changes, there is a lot more home schooling; if there are discipline problems at school, parents take kids out and "home school" them
   - Poor parenting skills
   - Teen pregnancy—low income usually because they don't have the opportunities that the wealthy do
   - Appears that low income individuals are falling through the cracks
   - Elective program (through the IU) for teens who get pregnant while in school

2. **Eating Healthy Foods**
   - Healthy foods are more expensive and not accessible
   - Generational—if you don't grow up on healthy food, you don't eat it as adults
   - WIC—provides vouchers for fresh fruits and vegetables, but most clients don't use them
   - Fresh fruits and vegetables are not readily available all year
   - Child care offers the Pre-K Counts Program—on Monday mornings some children are very hungry and eat a lot; parents are told to bring food for other meals—some have brought bags of chips, small bags of carrots to last 2-3 meals; candy bars, a can of green beans for 2-3 meals, etc.

- At the elementary school, free breakfast and lunches are offered; excellent program; kids are hungry; meals may not be super healthy, but better than what they get at home
- Many clients do not know how to cook; don't know the nutritional value of foods like cereal;
- Don't know how to cook an egg—especially those with low IQ
- Schools teach Home Economics in 8th grade only, but home schooled students miss this

3. **Mental health**
   - Depression, anxiety, and trauma that prohibits them from functioning
   - Corry School District hired a full-time licensed psychologist
     - ~30 kids are sent to counseling facilities; treated for ~60 days; problems usually stem from home situation; they see parents using drugs—even drugs that were prescribed for their kies; domestic violence also present in their homes;
     - have to transport them to Erie, Warren, etc.
   - Co-morbidities with behavioral health and mental health issues;
   - Elderly have Alzheimer's and dementia, anxiety and depression; middle-aged have depression
   - Sixth graders and middle school students have depression
   - Concerns about what will happen to current population when you look at current cuts in federal funds for care

4. **Electronics**
   - Significant time is spent on social media and drama is often creted
   - Young moms—a lot of electronic use; no nurturing
   - A lot of cyber bullying
   - Misinformation; example—bleach and hydrochloric acid will cure autism
   - In school, no lunch money, but have phones
   - Positive—in schools, have social workers, counselors to deal with problem children and their families; they go into the homes and have a lot of authority
   - Through a Community School-Based Mental Health program, a team of professionals go into the homes—look at food and the situation in the house
   - Regarding a domestic violence shelter program—abuser uses cell phone to contact client when they are in a shelter
   - 60 of women in shelters are injured once they leave
   - Hospital—patients bring phones and computers and these become their priority; conduct business instead of focusing on their health
   - WIC—texting appointment reminders works well—cuts no –show rates
   - Union City Family Center—texting works well with their clients
   - Counseling Center has a no cell phone policy while in their office
   - Challenge is to educate clients on what is credible information and what is not

- Flipside on poverty—those who take advantage of the poor: slum lords, wage exploitation—low wages~$8/hr—not enough to live on, but enough to make them not eligible for government benefits
- Homelessness—not sure if increasing or not
- Children living in domestic violence homes—at risk to become abusers—how does a 3 year old in Pre-K know to throw a chair across the room?

5. **How opioids, other drugs impact life**
    - Significant growth of parents on drugs; especially those 30 and older
    - Test students for drugs when they go out for job interning or if there are behavioral problems
    - Large population of transient adults who come from Erie and other states
    - Opioids are the primary drug of choice—move to heroin when they can't get them
    - Selling each other's meds
    - At a lot of organizations, there are more adults addicted than kids
    - in community—cheaper to buy neighbor's drugs than to pay for an actual prescription
    - Doctors have the ability to control prescribing
    - Some people change their names in order to get prescriptions from doctors—doesn't show up in the drug database
    - One organization asks client if they take drugs and if they answer yes, they will try to get them help
    - Drug use is seen with many domestic violence cases
    - Overdoses—most are intentional
    - Family Center—more alcohol and marijuana use among young adults; heavy drug use see in adults
    - In nursing home, there are issues among younger clients who are there for rehabilitation

African American Leadership Focus Group Notes
January 25, 2018

Biggest challenges to being healthy

- To be healthy, you need healthy food and time to prepare it;
- You need the money to purchase it;
- Most (home-cooked) are the ethnic recipes handed down for generations. They are generally unhealthy according to today's standards. They are often high in fat and calories. Education programs are needed to teach how to prepare those foods in a healthier way with healthier ingredients;
- If parents are addicts, children aren't fed properly;
- More physical activity is needed;
- We need a more holistic approach to health—physical, mental, and social aspects should be addressed at the same time;
- You need to meet us where we are—example: children who weren't immunized in time for the start of the school year. Sometimes it really is difficult to take a day off work to go to the doctor or the health department. Sometimes it is the parents' lack of response. Instead of sending notification and preventing students from starting the school year, is it possible to have teams at the schools to immunize the students who have not met the deadlines?
- Organizations need to do outreach **wit**h the African American community—"if I am not important to you, you are not important to me";
- If you want to reach us, include us in the planning (committees, boards, etc.)
- Take programs to the community;
- Include everyone (not just your specific clientele; i.e.., programming only for **OUR** patients/subscribers/etc);
- Send immunization nurses to the community schools

Eating healthy foods

- Even though they try to buy or acquire healthy, individuals can end up with unhealthy foods because of additives;
- Snacks available for after school programs must be individually wrapped and distributed to students. Most options (from supplier) are not healthy;
- Food trucks (fresh fruits & vegetables) are in other counties (Crawford—Meadville). Erie County has a lot of farms that offer fresh produce including surplus—is it possible to get a food truck to travel through the neighborhoods with the least access to fresh fruits & vegetables (no transportation, elderly, disabled)?

Mental Health

- Mental health is something we do not talk about. Again, if you want to engage us, include us;
- Schools seem to focus too much on mental health as the cause for undesirable behaviors; sometimes kids act up because they didn't have enough sleep, have too many adult responsibilities; maybe they just need focused activities/something to join or participate in;

- Organizations have the tendency to automatically recommend mental health as the answer;
- Mental health and social activity go hand in hand;
- There's too much misdiagnosed mental illness in the African American community;
- Students need to establish relationships with trusted adults to share problems;
- Mental health (issues) sometimes result from trauma;
- Many students have a lot of (adult) responsibilities at home;
- African Americans don't want to admit/recognize mental health issues in their community. They don't hear about it (from the minority community)—they hear about it from doctors;
- Access to mental health services is easy;
- Problem is stigma; African Americans don't want to admit or accept (a) mental health diagnosis;
- For better performance in schools, hire more minority teachers;
- Shared story—disabled mom called one of the leaders. Her daughter was to be suspended from school for one year because a marijuana roach was found in her backpack. The school focused on her past behavior. The mom recruited trusted members of the community to advocate for her daughter. As a result, the school changed the student's suspension to 45 days of alternative education. School should ask that student how she feels about her mom being in a wheel chair and how she is coping with issues related to that. They recommended counseling at Safe Harbor. (Instead or in addition) look to the support the system in the African American community;
- Have community organizations enhance these support systems that are in place;
- Cultural competence is needed in the health care provider interactions;
- Africans may have different experiences than African Americans;
- Black community does not admit there are mental health issues. No one is talking about it.
- We need a collaborative forum and work with African American leaders to develop it.

Electronics and well-being

- Need resources (money) to provide electronics (computers) to individuals to use;
- Most of the African American community use phones; Need mobile-friendly information;
- Use of ear buds is causing hearing problems;
- Videogames are causing problems with hands;
- Technology is both good and bad;
- UPMC gets patients connected to all their health information;
- ER is able to access health care plan, history, etc of the client;
- Helps doctors with home care plans;
- Electronic medical records and health care plans (are used for continued health care wherever the individual may be);
- We don't use mobile devices a lot to learn about treatments;
- Need to make web information friendly for smart phones;

- Don’t use phone to learn about diseases;
- Hamot app—UPMC My Health—sends emails to remind us about meds;
- Young minorities do not think about seeing a doctor unless they are sick; we don’t use the apps provided by UPMC Health plan. We don’t think about health when we are worrying about money; we do not usually get health care coverage until we have employment that provides it;
- You have to eat what is given to you when you are poor;
- Erie County Health Department should be more engaged with the African American community. People don't come there because they don’t feel connected.
- Cultural competency mentioned again as a much-needed skill among providers; recommend having a big symposium to address it at after the assessment is done.

How opioids impact life

- (prescribed) meds are expensive;
- We need education about taking opioids and drug interactions.
- Members of our community turn to (illegal) drugs such as marijuana and others to deal with mental health issues;
- Opioids are not a minority issue;
- Heroin is not a minority issue;
- Minorities are involved with selling drugs and then being incarcerated;
- Crack cocaine is an issue, especially among pregnant moms;
- Marijuana is an issue, especially among pregnant women;
- Selling drugs is a way to provide income because of the lack of other opportunities; forced into it due to poverty;
- The heroin problem is not an African American problem; Before it became an issue among whites, not many arrests of sellers; now that drugs are a white issue, they’re sending sellers to jail; most sellers are minorities;

Other

- Access to health care for individuals with sickle cell is a problem. Doctors need to know more about the disease, how to treat it appropriately. Previously we had education for them. We need to re-educate doctors (about Sickle Cell disease and treatment) again. We need to raise awareness about it and the current treatment guidelines.

LGBTQIA
Erie County 2018 Health Needs Assessment
Focus Group Notes

Biggest challenge to being healthy

- Out for 40 years. Good Health is more challenging for this age group (60+) because social scene was mainly gay bars;
- Would not go in an ambulance to a hospital without an advocate (i.e., fear that hospital staff may make assumptions like calling his sister rather than his partner who has the legal right to make decisions). Others agreed;
- When doctor and his partner were discussing his health, the doctor asked inappropriate questions;
- Female physicians listen more and provide holistic treatment;
- There's a lot of anxiety and worry about what people think;
- Has a doctor appointment coming up and does not know if he will talk about his asexuality—doctor is a man—previous doctor was a woman and more understanding;
- Lesbian mother—struggled with infertility; had infertility treatments to become pregnant;
- Doctors as "what does your husband do?"
- Pediatrician listed her wife as relative, not mom;
- Doctor office forms ask for mother and father names—no option for mom and mom;
- Cancer treatment was provided in Pittsburgh—had great anxiety about seeing a new physician. The name of a contact was requested. He listed his husband. That practice understood and was open to it;
- Don't understand why "Mr." and/or "Mrs." is asked on (patient) records—
    - Ask "parent" name instead of "mom" or "dad";
    - Ask for "significant other" or "partner" rather than husband, wife (applies to heterosexual as well);
- It (healthcare) is a challenge with partners who are not married because health insurance is not covered;
- Resources including the HIV Task Force were mentioned
    - Problems with getting PrEP[1] (Pre-exposure Prophylaxis); Many physicians don't do that—some do not know what PrEP is and/or don't want to do it;
- Transgender youth was out in 7th grade with no problems. He informed his counselor who informed teachers. Everyone was supportive;
- there are no physicians in Erie to treat transgender youth; must travel to Pittsburgh (to see the pediatric endocrinologist; noted that there are specialists who come to Shriners Hospital—perhaps this is a possibility to help with transgender youth as well as those children who are diabetics?);

Eating healthy foods

[1] https://www.cdc.gov/hiv/basics/prep.html

- Healthy foods don't taste as good;
- Eastside Bayfront connector caused problems (with easy access to markets);
- Horan apartments—residents take buses;
- Fast food is abundant and cheap.

Mental health problems, issues related to missed activities, how and where individuals get help, and difficulties getting help including stigma

- Exercise, healthy lifestyle;
- Need support;
- Have anxiety when coming out;
- A 14-year relationship ended; was a surprise; took two years to recover;
- Pulling away from an older group of friends—developing new friendships with those who are similar—can talk to this new group because of the similarities;
- Has been diagnosed with prostate cancer, two strokes, and a heart attack, but that was nothing compared to an event that occurred at the age of two, resulting in PTSD. It was sexual abuse that was ongoing by a family member, but the family ignored it;
- In the African American community, we are not brought up to seek help (for mental health);j we tend to socialize in isolated groups; there are not many counselors who are African American;
- One participant experiences a "double" issue—being both African American and lesbian—they are two different cultures with two different outlooks and viewpoints; she is comfortable in a group of African American lesbians because they understand;
- Need trauma-based pediatricians in Erie;
- Adult gay male—had "therapy" in 6th grade—was sent to the YMCA to socialize with boys, being involved in sports; it was terrifying; mental health and physical health still not recovered;
- the attempted suicide rate for transgender individuals is 40% (confirmed www.transequality.org/sites/default/files/docs/usts/USTS%20Full%20Report%20-%20FINAL%201.6.17.pdf);
- Adult trans issues include being bullied; beaten by grandparents when they discovered his/her identity; put on medication to try and "cure" her; mental health issues resulted in a visit to a counselor, but was given medication and pushed on; considered suicide in May of 2017 but did not due to help of another transgender woman;
- Transgender people have to hide their true identities—this causes severe mental health issues;
- Need doctors who understand the issues;
- Encounter problems at shelters;
- Domestic violence can be an issue;
- Limited number of counselors for any transgender individuals, especially for children;
- Need more therapist support for parents of transgender youth—at puberty therapy is needed for the kid, but (many) parents won't support that;
- Big difference between kids who have parental support and those who do not;

- Trans individuals feel trapped in a foreign body;
- Trans teen who identifies as male has a problem when menstrual periods start—need support;
- African American lesbian does not see people like herself in Erie—would have to move to a bigger city to do that;
- Cisgenders do not always understand transgenders;
- Gender identity and sexual orientation are different;
- Lesbians are more welcoming than other groups;
- The most vitriolic words about the community come from within the community;
- LGBTQIA are all different and should not be "lumped into" one group.

How electronics fit into health and well-being

- Use apps to check lab results;
- Receive appointment reminders by text;
- Talk with doctor by phone;
- Telemedicine;
- Transgender teen cannot use telemedicine very much;

How opioids impact life

- A lot of elderly are addicted to oxycodone;
- Elderly may not know that the drug is oxycodone (example given where older woman was addicted and did not realize why and then had to seek treatment to safely remove herself from the narcotic);
- A lot of individuals don't even know that they are hooked on drugs;
- In Erie, the problem is multi-drug use—example, heroin is used when opioids cannot be obtained.
- In the Gay and Lesbian communities there is a lot of addiction—heroin, meth
- In the Gay community 30- to 40-year-old affluent men follow circuit parties where there is drinking and then random pills are passed around.

Amish Community
Erie County 2018 Health Needs Assessment
Amish Community Focus Group Notes

Biggest challenge to being healthy/ways to keep healthy

- Walk when we can but hard in winter and with children;
- GM3 Synthase deficiency (Genetic) in 8 year old daughter; has neurological problems including seizures; she is not able to stand; she lays a lot; had been in a wheelchair mostly, but that was not good; usually do not see symptoms in the first two months of life; attends school from 7:15 a.m. to 3:15 p.m. in Titusville school district; has attendant
- Visit doctor only when sick
- Work at home, live near family—sews, bakes, cleans;
- GM3 child was diagnosed by Taosheng Huang, MD, a medical geneticist (associated with Cincinnati Children's Hospital)—knew something was wrong with her child at two months; EEG was done—showed seizure activity, but child did not have seizures; takes seizure medication; needs help to sleep; uses meds for acid reflux;
- No health insurance—self pay;
- GM3 child has insurance;
- Flu shot last year;
- GM3 child receives flu shot; rest of family does not;
- Some use essential oils;
- Accidents happen with logging—both cutting trees and the sawmill;
- Accidents with carpentry—story shared—man on beam on top story of a barn; crowbar hit him in the chin; he fell two stories into a pile of hay; no permanent damage;
- Dental—used to get teeth cleaned, but with invalid husband (who requires care 24/7, it is hard to get out;
- Most do not visit the dentist for checkups;
- Visit the dentist to have tooth pulled—also wisdom teeth;
- Don't visit the dentist due to cost;
- Story regarding a 6 year old—dentist charged $700 to extract 2 baby teeth;
- Rides to Erie are expensive—usually $80 or $100; sometimes a friend takes them and charges $60;
- Wife of invalid does not like to ask for help; family will help if needed; doesn't use community services; during summer she goes outside and works in the garden while husband is in chair on the porch; husband became an invalid after a traffic accident; he was left for dead, oxygen deprived for eight minutes—now does not speak and can't do anything for himself;

Eating healthy foods

- Eat oatmeal every morning, homemade yogurt, flaxseed;
- Take vitamins;
- Eat fruit, yogurt;
- Can fruit and vegetables (for use outside of growing season);

- Raise own beef; have gardens;
- Walks in basement for exercise;
- Takes raw vinegar every day;
- Drink raw milk;
- Listen to Dr. Oz;

Mental health problems, issues related to missed activities, how and where individuals get help, and difficulties getting help including stigma

- Sings to relieve stress;
- Uses essential oils;
- On Guard (essential oil) is good for sore throat;
- Had gestational diabetes—when ate sweets, had blackout spells; On Guard helps with this and ear aches;
- Breathe Good used to help breathing;
- Lavender used for stiff neck;
- Invalid husband was taken to St Vincent's Hospital for bleeding and had good experience; went to local doctor with invalid husband—he wanted $700; now go to doctor in Titusville (Brian Los, MD—Oil Valley Internal Medicine) and like him; they have a good relationship; everything is self pay; sold farm and now living on the money from the sale; if possible to get health professions students to come and help with invalid husband—think he would enjoy this type of company; wife doesn't get out much and its hard to have conversation when husband cannot speak;
- Some visit Dr. Balmer to get medications;
- Some go to Rest Haven in Indiana or Greener Pastures in Lancaster for several months for mental health help—run by Mennonites;
- Trying to start one in Middlefield Ohio—need is great;
- Had friend whose son went to Rest Haven; was there for a couple of months; received counseling and medications; visiting is restricted;
- Child with GM3 has UPMC health insurance and gets lots of help;
- Cant get Medical Assistance—don't get Medicare (cultural practice);
- Worry about stigma—what people think;
- One person stopped taking medications because of this (stigma);
- People don't understand mental health problems;
- Physical health is affected by mental health;

How electronics fit into well-being

Not Applicable

How opioids impact life

- One member of community on opioids for pain and is addicted; one person gave the individual some of their pain meds because they asked; realize they are addicted because kept asking even though they no longer have pain;
- Alcohol is a problem in the community;
- Commonly used among teenagers;

Other

- Children receive immunizations;
- Have own schools; teachers from the Amish community; K-8; all students are in the same room; about 20 schools with 20 students in each; church related; no church structure;
- One person (wife of invalid) goes to chiropractor; lifting her husband hurts her back;
- Neighbors—husband and wife; wife ill and at St Vincent's and now in extended care facility near St Vincent's; travel to Erie is expensive for the husband;
- Shop in Titusville at Save-A-Lot and Wal-Mart; shop at Aldi's in Meadville or Erie;
- Dr. Huang does genetic carrier testing for $75 (per disease)—much more expensive in PA; determine status of one family member at a time to eliminate unnecessary testing;
- Heart problems in the Amish community;
- One member of the group—her sister has heart issues and is having genetic testing to determine what kind of heart disease; once diagnosis is made, all family members will be tested for that genetic anomaly;
- Diabetes is in the community;
- Mother of child with GM3—her sister, mom, and other close relatives all died from a genetic form of kidney cancer;
- Child with GM3 broke her hip and it took two weeks to find out the diagnosis;

Refugee, Immigrant, Migrant Worker
Erie County 2018 Health Needs Assessment
Refugee, Immigrant, Migrant Worker Focus Group Notes
January 25, 2018

Biggest challenge to being healthy

- lack of accessible sidewalks;
- understanding the need to see the doctor;
- transportation;
- understanding what the doctor says; some English words do not exist in some of the languages of our refugees;
- individuals in some foreign countries only go to the doctor when they are ill;
- there are no visits to the dentist;
- changes in diet lead to ill health (processed food, canned food, preservatives, lots of dairy in the U. S.);
- Refugees are used to fresh foods in their country of origin
- Diabetes is becoming a problem;
- Health insurance—did not have this system in their country of origin;
- Health care in home country was mainly folk/alternative medicine;
- Care here involves more doctor visits for preventative care; prenatal care occurs earlier and includes many tests;
- Navigating the healthcare system—example—clients do not understand that they must get their prescriptions refilled. They will take the first vial and think they are done. They do not refill their prescriptions or do not know how to refill them;
- Language barriers—providers don't offer interpreter or sometimes use language line;
- Effective communication is needed;
- Proven supports with healthcare navigation were offered; Provide help with Medicaid and FQHC applications; Explain available health plans;
- In United States you need appointments to see doctors;
- Clients use the ER instead of visiting Urgent Care;
- Where referrals are made will make a difference—referrals to UPMC Children's in Pittsburgh versus a doctor in Erie? Physicians need to realize the problems associated with referrals to Pittsburgh.

Eating healthy foods

- Life skills classes would be beneficial—take them to Wal-Mart so they learn to shop;
- A problem in the U. S. includes a quantity issue; there is increased access to unhealthy foods and the refugee population has increased consumption;
- Have increased carbohydrate consumption—an affinity for pasta;
- They like the unhealthy foods;
- They acquire bad habits;
- Erie is not walkable; there is no opportunity to exercise regularly;
- U. S. has more processed food;
- Tend to buy least expensive food;

- Financial restriction to buying healthier foods;
- Food deserts where they live; tend to purchase from the dollar stores.

Mental Health

- Domestic violence occurs in the refugee population; mostly it is women who are abused;
- Example given of woman with mental health issues who displayed reckless behavior; results in female with recurring pregnancies; multiple fathers; suicidal tendencies; does not speak English; under OCY supervision; OCY has taken all her children away; put one child up for adoption;
- There is sadness/depression—U. S. is not what they expected; they miss their homelands; not fully engaged in the U. S.
- Hopelessness, especially in the Syrian population—(current U. S. immigration changes) their families are not coming here to join them and they cannot go back to Syria;
- Move to the U. S. results in culture shock;
- (Families may) live in two different countries, neither one is home;
- expect to get job here similar to what they did in home country; not always able to do that, resulting in depression;
- need to let refugees know that there are services and resources to get help;
- when domestic violence against women occurs, it may be difficult for them to leave their husbands because he may have all their paperwork—also difficult to report him;
- weather changes are significant; come from hot climates; areas with more standard day/night cycles;
- there is stigma associated with mental health; difficult to admit or declare problem and need for help; embarrassed;
- ***PROBE: Is (mental health) treatment in the U. S. appropriate for their culture?***
    - U. S. is not equipped to deal with refugees' problems—they come from countries where always on guard for gunmen or other life-threatening circumstances;
    - Mental health is an elitist system; if you have insurance, you can get help. Otherwise, may not be able to afford.
    - Mental health assessment here may not be appropriate for refugees.
- Bullying—in some cases refugee groups are bullying each other;

Electronics and well-being

- Younger members of the refugee community will Google information, but not older;
- Syrians all have phones;
- Congolese all have phones;
- Bhutanese –not as many with phones;
- Phones are used to make appointments;
- They do not go on line to check for information from hospitals;
- Used more for social reasons.

How opioids impact life

- Members of our Latino clientele are using opioids and alcohol heavily;
- Some started with prescription drugs;
- Other population groups have their own ethnic substances including Khat (illegal in the U. S.), beetlenuts (legal), etc.

Other

- Discussion of case of active tuberculosis;
- HIV more prevalent in the Congolese with some in the Iraqi and Syrian groups;
- Hepatitis A& B is sometimes an issue;
- Sexually transmitted infections are a more prevalent in the Somali and Congolese populations;
- There is bias by physicians with where the Medicare/Medicaid systems are concerned—they are not interested in that insurance coverage

Selected Healthy People 2010 and 2020 Goals

Healthy People Goals		
Objective	2010	2020
Maternal, Infant and Child Health		
Infant Mortality	4.5 deaths per 1,000 live births	6.0 deaths per 1,000 live births
Neonatal Mortality	2.9 deaths per 1,000 live births	4.1 deaths per 1,000 live births
Prenatal Care During First Trimester	90.0% of live births	77.9% of live births
Low Birth Weight Infants (< 5 lbs. 9 ozs.)	5.0% of live births	7.8% of live births
Nonsmoking Mother During Pregnancy	99.0% of live births	98.6% of live births
Mortality, Cancer, and Injury		
Cancer Age-Adjusted Death Rate	159.9 per 100,000 population	160.6 per 100,000 population
Lung Cancer Age-Adjusted Death Rate	44.9 per 100,000 population	45.5 per 100,000 population
Colorectal Cancer Age-Adjusted Death Rate	13.9 per 100,000 population	14.5 per 100,000 population
Female Breast Cancer Age-Adjusted Death Rate	22.3 per 100,000 population	20.6 per 100,000 population
Prostate Cancer Age-Adjusted Death Rate	28.8 per 100,000 population	21.2 per 100,000 population
Stroke Age-Adjusted Death Rate	48.0 per 100,000 population	33.8 per 100,000 population
Accident Age-Adjusted Death Rate	17.5 per 100,000 population	36.0 per 100,000 population
Motor Vehicle Accident Age-Adjusted Death Rate	9.2 per 100,000 population	12.4 per 100,000 population
Homicide Age-Adjusted Death Rate	3.0 per 100,000 population	5.5 per 100,000 population
Infectious Diseases		
AIDS Crude Incidence Rate	1.0 case per 100,000 pop age 13+	13.0 cases per 100,000 pop age 13+
Gonorrhea Crude Incidence Rate	19.0 cases per 100,000 population	-----
Gonorrhea Crude Incidence Rate	-----	257.0 cases per 100,000 females 15-44
Gonorrhea Crude Incidence Rate	-----	198.0 cases per 100,000 males 15-44
Hepatitis A Crude Incidence Rate	4.3 cases per 100,000 population	0.3 cases per 100,000 population
Acute Hepatitis B Crude Incidence Rate	-----	1.5 cases per 100,000 pop age 19+
Acute Hepatitis C Crude Incidence Rate	1.0 case per 100,000 population	0.2 cases per 100,000 population
Measles Incidence	0 cases per year	-----
Meningococcal Disease Crude Incidence Rate	1.0 case per 100,000 population	0.3 cases per 100,000 population
Mumps Incidence	0 cases per year	-----
Primary and Secondary Syphilis Crude Incidence Rate	0.2 cases per 100,000 population	-----
Primary and Secondary Syphilis Crude Incidence Rate	-----	1.4 cases per 100,000 females
Primary and Secondary Syphilis Crude Incidence Rate	-----	6.8 cases per 100,000 males
Congenital Syphilis Incidence	1.0 case per 100,000 live births	9.1 cases per 100,000 live births
Tuberculosis (Active) Incidence	1.0 case per 100,000 population	1.0 case per 100,000 population

Healthy People Goals (Continued)

Objective	2010	2020
Chronic Diseases and Conditions		
Hypertension	16.0% of pop age 20+ has hypertension	26.9% of pop age 18+ has hypertension
Cholesterol	80.0% age 18+ had chol. check last 5 yrs	82.1% age 18+ had chol. check last 5 yrs
Cholesterol	17.0% age 20+ have high cholesterol	13.5% age 20+ have high cholesterol
Preventive Health Services		
Mammogram	70.0% women 40+ had mammo in last 2 yrs	81.1% women 50-74 had a screening*
Pap Test	90.0% women 18+ had Pap test in last 3 yrs	93.0% women age 21-65 had screening*
Colonoscopy/Sigmoidoscopy	50.0% age 50+ ever had either procedure	70.5% of pop age 50-75 had a screening*
Fecal Occult Blood Test (FOBT)	50.0% age 50+ had test in past 2 years	70.5% of pop age 50-75 had a screening*
Flu Shot	90.0% age 65+ had flu shot in past year	90.0% age 65+ had flu shot in past year
Flu Shot	60.0% age 18-64 had flu shot in past year	80.0% age 18-64 had flu shot in past year
Pneumonia Vaccination	90% of pop age 65+ ever vaccinated	90.0% of pop age 65+ ever vaccinated
Pneumonia Vaccination	16.0% of pop age 18-64 ever vaccinated	60.0% of high risk 18-64 ever vaccinated
Health Risk Behaviors		
Smoking Cessation	75.0% of 18+ quit at least 1 day in past yr	80.0% of 18+ quit at least 1 day in past yr
Seat Belt	92.0% of age 18+ always use safety belt	92.4% of occupants always use safety belt
Smoke Alarms	100% of households have smoke alarm	-----
Binge Drinking	6.0% 18+ binge drink in past month	24.3% 18+ binge drink in past month
Binge Drinking	-----	22.7% h.s. seniors binge drink in past 2 wk
Exercise	20.0% age 18+ no leisure physical activity	32.6% age 18+ no leisure physical activity
Healthy Weight	60.0% of pop age 20+ at healthy weight	33.9% of pop age 20+ at healthy weight
Obese	15.0% of pop age 20+ are obese	30.6% of pop age 20+ are obese
Health Care Access		
Health Insurance	100% of pop age 18-64 have insurance	100% of pop has health insurance

Note: * In Healthy People 2020, recommended cancer screenings are based on the most recent guidelines for that particular cancer

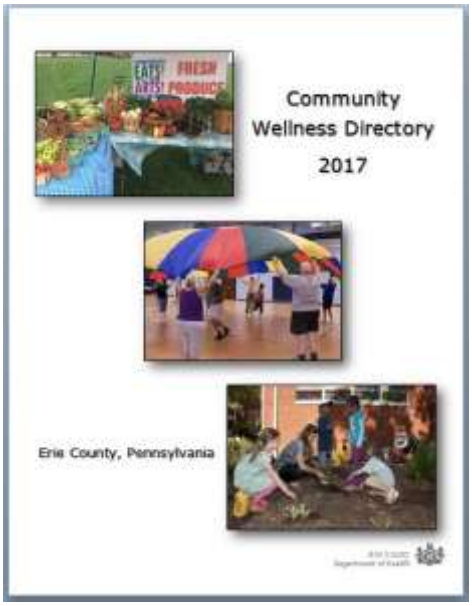
Appendix A: Community Resources

PA 2-1-1 Northwest, Powered by United Way of Erie County
Call center that provides telephone numbers and web resources for finding health and human services for everyday needs and in crisis situations.
PA 2-1-1 Northwest

Erie County Free and Low Cost Medical/Dental Clinics and Community Health Centers
Erie County Free Clinics Directory

Erie County Department of Human Services, Erie Sprout
A web-based directory that contains a wide range of community resources.
Erie Sprout

Erie County Department of Health, 2017 Erie County Community Wellness Directory
Nutrition and physical activity information for Erie County.
[Erie County Department of Health]

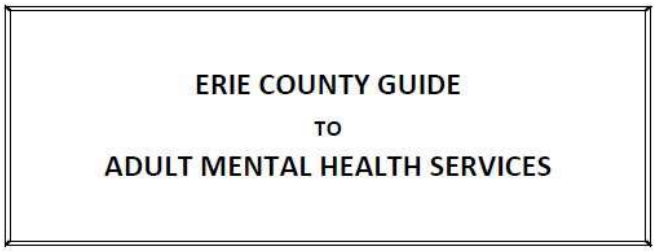


Pennsylvania Department of Health, 2015 Erie County Online Resource Guide
[Pennsylvania Department of Health]

Erie County Resource Guide

Children and youth with special healthcare needs and their families

Erie County Guide to Adult Mental Health Services
https://www.eriecountypa.gov/media/271284/erie-county-adult-mh-services.pdf



Additional Community Resources

Community Based Organizations and Collaboratives

- Regional Tobacco Coalition, Northwest PA
- School-Based Health Centers
- Healthcare Collaborative Initiative
- Erie Vital Signs
- United Way Health Initiatives
- Erie County Policy and Planning Council
- Erie Together
- Gannon University, Erie GAINS
- Mercyhurst Civic Institute, Mercyhurst University

Medical and Health Resources

Cancer Resources

- American Cancer Society: Erie and Corry, PA, Local
- UPMC Hamot: Cancer Institute
- St. Vincent Hospital: Cancer Institute
- Regional Cancer Center - Northwest PA - Erie

Cardiovascular Health Resources

- American Heart Association – Online Programs
- UPMC Hamot – Cardiopulmonary Rehabilitation
- UPMC Hamot – Dr. Dean Ornish Program to Reverse Heart Disease
- St. Vincent Heart and Vascular Center
- LECOM Health – Cardiology
- Corry Memorial Hospital - Cardiology

Diabetes Resources

- St. Vincent Center for Nutrition and Diabetes
- UPMC Hamot - Diabetes Institute
- The Sight Center of NWPA: Diabetes Prevention Program
- LECOM Health Institute of Successful Aging: Diabetes Care Pathway

Home Health Care/Medical Equipment Resources

- Blackburn's
- UPMC Health Plan
- Great Lakes Home Healthcare Services
- Lynch Home Medical Supply
- Lanza Respiratory Services and Home Medical Equipment
- Interim HealthCare of Erie, Inc.
- BAYADA Home Health Care
- LECOM Health - Regional Home Health
- Ramps of Hope
- American Home Patient
- Apria Healthcare
- Carter Orthopedics Ltd.
- Lincare
- Villa Medical Supply
- Community Resources for Independence

Hospice Resources

- Hospice of Metropolitan Erie
- Heartland Hospice Services of Erie
- Great Lakes Hospice Care - UPMC Hamot
- LECOM Health - Regional Home Health and Hospice
- Visiting Nurse Association of Erie County

Urgent Care

- UPMC Urgent Care West
- UPMC Urgent Care South
- EmergyCare, Inc.
- Corry Memorial Hospital-Corry Ambulance Services
- Millcreek Paramedic Service
- St. Vincent Hospital Urgent Care
- Millcreek Community Hospital Urgent Care
- MedExpress Urgent Care
- Erie VA Medical Center
- PlushCare

Vision

- Bureau of Blindness and Visual Services
- Sight Center of NWPA

Behavioral Health Resources

Crisis or Mental Health Resources

- Mental Health Association - Our Place
- National Runaway Safeline
- National Youth Crisis Hotline
- Adult Protective Services - GECAC

- Safe Harbor Behavioral Health of UPMC Hamot
- Crime Victim Center - Crisis Intervention
- Stairways Behavioral Health
- Corry Counseling Services
- Family Services of NWPA
- Millcreek Community Hospital – Millcreek Behavioral Care

Housing and Living Resources

Food and Meals

- The Second Harvest Food Bank
- St. Martin Center
- Salvation Army Family Store
- North East Community Food Pantry
- Metro-Erie Meals on Wheels (City Residents)
- Kearsarge Area Food Pantry
- Joel Two Restoration Outreach
- Farmers Market Nutrition Program - GECAC
- Erie City Mission - Family Care Center, Food Pantry
- Emmaus Ministries
- Community of Caring
- Bethany Outreach Center
- Second Harvest Food Bank NWPA
- Tri-Boro Senior Center

Clothing Assistance

- Thrifty Shopper
- Salvation Army Family Store - Erie and Corry
- Rainbow Connection Thrift Store
- My Sister's Closet
- Bella Design
- 4 Neighbors In North East Thrift Store (4 N.I.N.E)
- Erie United Methodist Alliance

Homeless Prevention and Outreach

- Erie United Methodist Alliance - Hope for the Homeless
- Erie County Care Management - Homeless Case Management
- GECAC Homeless Prevention
- St. Martin Center - Housing Services
- Mental Health Association - Consumer Recovery Center

Appendix B: Sample Health Indicator Data Sheets

ADULT HEALTH RISK BEHAVIORS													
	Erie County		PA		U.S.								
Indicator	2011-13	2016-17	2013	2016	2013	2016	HP 2020	Disparity	Focus Group	CDC Health Indicator	2018 RWJF County Ranking	Vital Signs	GECAC
Binge Drinking % age 18+	22	21	18	19	17	17	24.3	X		X	X	X	
Drink & Drive % age 18+	4	7	NA	4		4							
Marijuana, Past 30 Days % age 18+	NA	10	NA	NA									
Current Smoker % age 18+	27	18	22	18	19	17	12.0	X		X	X	X	X
Quit Smoking, 1+ day % age 18+	55	52	54	51	NA	NA	80.0			X			
Electronic Cigarettes % age 18+	NA	5		20		NA							
Obese % age 18+	32	35	29	30	29	30	30.6	X		X	X	X	X
Overweight (only) % age 18+	36	32	36	35	36	35		X		X		X	X
Overweight + Obese % age 18+	68	66	65	65	65	65						X	X
5 Fruit/Vegetable per Day % age 18+	10	11	15	15	NA	NA		X		X			
No Leisure Physical Activity % age 18+	28	23	26	23	24	23	33.0	X		X	X	X	X
Sleep Issues, One Day in Past Week % age 18+	NA	55	NA	NA	NA	NA		X		X			
Falls % age 45+	NA	32	NA	30	NA	NA							
Seat Belt, Always Use % age 18+	83	74	78	78	87	NA	92.4	X			X		

INDICATOR	IMPROVING	WORSE THAN PA	WORSE THAN U.S.	WORSE THAN HP2020	DISPARATE GROUPS
Binge Drinking	Level	Y	Y	N	Young, High Income, Male, White
Drink & Drive	N	Y	Y		Higher educ, Male
Marijuana - Past 30 Days	na	na	na		Young, Low ed, Low inc, AfAm, City
Current Smoker	Y	Same	Y	Y	Low educ, Low inc, AfAm, City
Quit Smoking - 1+ day	N	N	na		Low inc, Male, Rural
Electronic Cigarettes	na	N	na		<College degree
Obese	N	Y	Y	Y	AfAm, Older, <College, Lower inc
Overweight (only)	Y	N	N		Higher inc, White, Male
5 Fruit/Vegetable per Day	Slight	Y	na		65+, White
No Leisure Physical Activity	Y	Same	Same	N	Older, <HS, Low inc, Female, White
Sleep Issues - One Day in Past Week	na	na	na		Younger, Low inc, Female, City

Appendix C: Prioritization Matrix Template Sheet

Scale 1-10 1=Low 10=High	TOTAL	**Magnitude**	**Seriousness**	**Variance against Benchmark**	**Feasibility; Ease of Implementation**	**Impact on Other Health Outcomes**	**Availability of Community Resources**
INDICATOR							