2017 Community Health Needs Assessment Report

Total Service Area

Prepared for:

Ephraim McDowell Regional Medical Center

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2016-5052-02

Professional Research Consultants, Inc.

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Introduction

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Project Overview

Project Goals

This Community Health Needs Assessment, a follow-up to similar studies conducted in 2011 and 2014, is a systematic, data-driven approach to determining the health status, behaviors and needs of residents in the service area of Ephraim McDowell Regional Medical Center. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness.

A Community Health Needs Assessment provides information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status. This Community Health Needs Assessment will serve as a tool toward reaching three basic goals:

- **To improve residents' health status, increase their life spans, and elevate their overall quality of life.** A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.
- **To reduce the health disparities among residents.** By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors which have historically had a negative impact on residents' health.
- **To increase accessibility to preventive services for all community residents.** More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

This assessment was conducted on behalf of Ephraim McDowell Health by Professional Research Consultants, Inc. (PRC). PRC is a nationally recognized healthcare consulting firm with extensive experience conducting Community Health Needs Assessments such as this in hundreds of communities across the United States since 1994.

Methodology

This assessment incorporates data from both quantitative and qualitative sources. Quantitative data input includes primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data); these quantitative components allow for trending and comparison to benchmark data at the state and national levels. Qualitative data input includes primary research gathered through an Online Key Informant Survey.

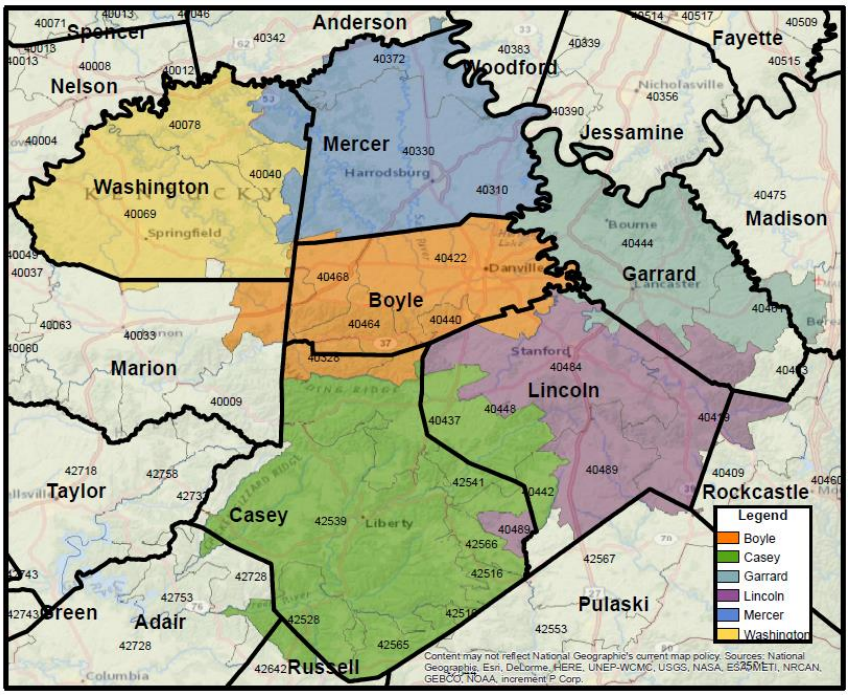
PRC Community Health Survey

Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by Ephraim McDowell Health and PRC and is similar to the previous survey used in the region, allowing for data trending.

Community Defined for This Assessment

The study area for the survey effort (referred to as the "Total Service Area" in this report) includes Boyle, Casey, Garrard, Lincoln, Mercer, and Washington counties in Kentucky. Ephraim McDowell Health is the predominant provider in these areas, and collectively these counties make up the known and accepted service area.



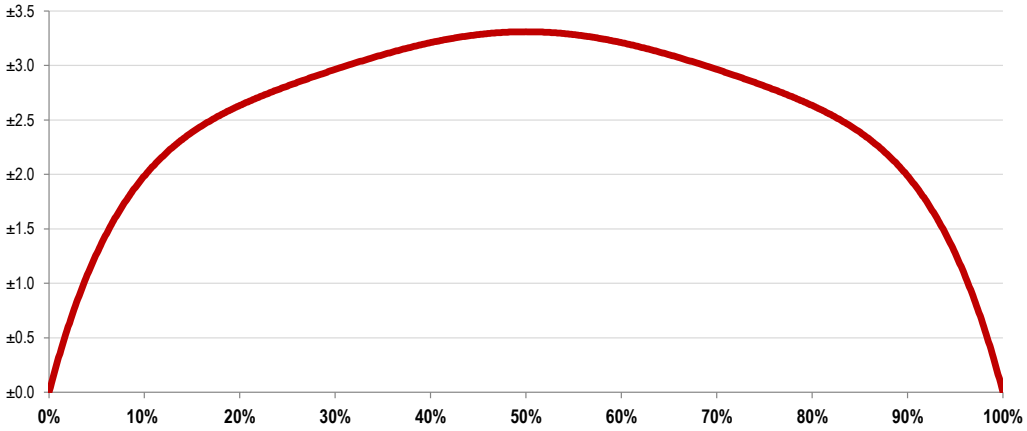
Sample Approach & Design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the PRC Community Health Survey. Thus, to ensure the best representation of the population surveyed, a telephone interview methodology — one that incorporates both landline and cell phone interviews — was employed. The primary advantages of telephone interviewing are timeliness, efficiency, and random-selection capabilities.

The sample design used for this effort consisted of a stratified random sample of 902 individuals age 18 and older in the Total Service Area, including 400 in Boyle County; 101 each in both Garrard and Lincoln counties; and 100 each in Casey, Mercer, and Washington counties. Once the interviews were completed, these were weighted in proportion to the actual population distribution so as to appropriately represent the Total Service Area as a whole. All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC).

For statistical purposes, the maximum rate of error associated with a sample size of 900 respondents is ±3.3% at the 95 percent level of confidence.

Expected Error Ranges for a Sample of 900 Respondents at the 95 Percent Level of Confidence



Note:
- The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples:
- If 10% of the sample of 1,000 respondents answered a certain question with a "yes," it can be asserted that between 8.0% and 12.0% (10% ± 2.0%) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 46.7% and 53.3% (50% ± 3.3%) of the total population would respond "yes" if asked this question.

Sample Characteristics

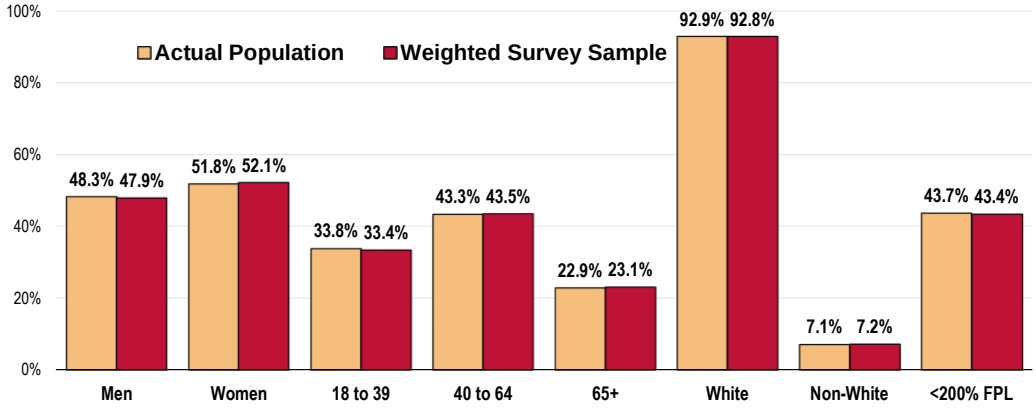
To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to “weight” the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed

(poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following chart outlines the characteristics of the Total Service Area sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child's healthcare needs, and these children are not represented demographically in this chart.]

Population & Survey Sample Characteristics

(Total Service Area, 2017)



Sources:
- Census 2010, Summary File 3 (SF 3). US Census Bureau.
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc.

Further note that the poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household *(e.g., the 2016 guidelines place the poverty threshold for a family of four at $24,300 annual household income or lower)*. In sample segmentation: "**low income**" refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice the poverty threshold; "**mid/high income**" refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

Online Key Informant Survey

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey was also implemented as part of this process. A list of recommended participants was provided by Ephraim McDowell Health; this list included names and contact information for physicians, public health representatives, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation. In all, 45 community stakeholders took part in the Online Key Informant Survey, as outlined below:

Online Key Informant Survey Participation		
Key Informant Type	**Number Invited**	**Number Participating**
Physicians	29	6
Public Health Experts	6	4
Social Service Representatives	2	2
Community Leaders	120	33

Final participation included representatives of the organizations outlined below.

- Boyle County Fiscal Court
- Boyle County Health Department
- Boyle County Property Valuation
- City Commissioner
- City of Crab Orchard
- City of Lancaster
- Danville City Commission
- Ephraim McDowell Health
- Ephraim McDowell Regional Medical Center
- Casey County Property Value Administrator's Office
- Funeral Home
- Heart of Kentucky United Way
- Lake Cumberland District Health Department
- Lancaster City Council
- Lincoln County Fiscal Court
- Lincoln County Schools
- Mercer County Health Department
- Mercer County Schools
- Presbyterian Church of Danville
- The Salvation Army
- Washington County Property Value Administrator's Office

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Minority/medically underserved populations represented:

> *African-Americans, children raised by others (not parents), deaf, disabled, elderly, free- and reduced-lunch population, Hispanics, immigrants, low income, Medicare/Medicaid recipients, rural, undocumented, unemployed, uninsured/underinsured*

In the online survey, key informants were asked to rate the degree to which various health issues are a problem in their own community. Follow-up questions asked them to describe why they identify problem areas as such, and how these might be better addressed. Results of their ratings, as well as their verbatim comments, are included throughout this report as they relate to the various other data presented.

NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are not necessarily based on fact.

Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Needs Assessment. Data for Total Service Area were obtained from the following sources (specific citations are included with the graphs throughout this report):

- Center for Applied Research and Environmental Systems (CARES)
- Centers for Disease Control & Prevention, Office of Infectious Disease, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
- Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance (DHIS)
- Centers for Disease Control & Prevention, Office of Public Health Science Services, National Center for Health Statistics
- Community Commons
- National Cancer Institute, State Cancer Profiles
- US Census Bureau, American Community Survey
- US Census Bureau, County Business Patterns
- US Census Bureau, Decennial Census
- US Department of Agriculture, Economic Research Service
- US Department of Health & Human Services
- US Department of Health & Human Services, Health Resources and Services Administration (HRSA)
- US Department of Justice, Federal Bureau of Investigation
- US Department of Labor, Bureau of Labor Statistics

Benchmark Data

Trending

A similar survey was administered in the Total Service Area in 2011 and 2014 by PRC on behalf of Ephraim McDowell Health. Trending data, as revealed by comparison to prior survey results, are provided throughout this report whenever available. Historical data for secondary data indicators are also included for the purposes of trending.

Kentucky Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data represent the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trends Data* published online by the Centers for Disease Control and Prevention. State-level vital statistics are also provided for comparison of secondary data indicators.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts, are taken from the *2015 PRC National Health Survey*; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across communities and sectors.
- Empower individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People strives to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, State, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.

Determining Significance

Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level) using question-specific samples and response rates. For secondary data indicators (which do not carry sampling error, but might be subject to reporting error), "significance," for the purpose of this report, is determined by a 5% variation from the comparative measure.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups — such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish — are not represented in the survey data. Other population groups — for example, pregnant women, lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups — might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly medical conditions that are not specifically addressed.

IRS Form 990, Schedule H Compliance

For non-profit hospitals, a Community Health Needs Assessment (CHNA) also serves to satisfy certain requirements of tax reporting, pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. To understand which elements of this report relate to those requested as part of hospitals' reporting on IRS Form 990 Schedule H, the following table cross-references related sections.

IRS Form 990, Schedule H (2016)	See Report Page
Part V Section B Line 3a *A definition of the community served by the hospital facility*	8
Part V Section B Line 3b *Demographics of the community*	44
Part V Section B Line 3c *Existing health care facilities and resources within the community that are available to respond to the health needs of the community*	230
Part V Section B Line 3d *How data was obtained*	8
Part V Section B Line 3e *The significant health needs of the community*	16
Part V Section B Line 3f *Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups*	Addressed Throughout
Part V Section B Line 3g *The process for identifying and prioritizing community health needs and services to meet the community health needs*	19
Part V Section B Line 3h *The process for consulting with persons representing the community's interests*	11
Part V Section B Line 3i *The impact of any actions taken to address the significant health needs identified in the hospital facility's prior CHNA(s)*	234

Summary of Findings

Significant Health Needs of the Community

The following "areas of opportunity" represent the significant health needs of the community, based on the information gathered through this Community Health Needs Assessment and the guidelines set forth in Healthy People 2020. From these data, opportunities for health improvement exist in the area with regard to the following health issues (see also the summary tables presented in the following section).

The Areas of Opportunity were determined after consideration of various criteria, including: standing in comparison with benchmark data (particularly national data); identified trends; the preponderance of significant findings within topic areas; the magnitude of the issue in terms of the number of persons affected; and the potential health impact of a given issue. These also take into account those issues of greatest concern to the community stakeholders (key informants) giving input to this process.

Areas of Opportunity Identified Through This Assessment	
Access to Healthcare Services	• Barriers to Access ○ Cost of Prescriptions • Skipping/Stretching Prescriptions • Difficulty Accessing Children's Healthcare • Primary Care Physician Ratio • Emergency Room Utilization

Cancer	• *Cancer is a leading cause of death*.
	• Cancer Deaths
	  ○ Including Lung and Colorectal Cancer Deaths
	• Cancer Incidence
	  ○ Including Lung and Colorectal Cancer Incidence
	• Female Breast Cancer Screening [Age 50-74]
	• Cervical Cancer Screening [Age 21-65]
	• Colorectal Cancer Screening [Age 50-75]
	• *Cancer ranked as a top concern in the Online Key Informant Survey*.

Dementia, Including Alzheimer's Disease	• Alzheimer's Disease Deaths

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Areas of Opportunity (continued)	
Diabetes	• Diabetes Deaths • *Diabetes ranked as a top concern in the Online Key Informant Survey.*
Heart Disease & Stroke	• *Cardiovascular disease is a leading cause of death*. • Heart Disease Deaths • Heart Disease Prevalence • Stroke Prevalence • High Blood Pressure Prevalence • Overall Cardiovascular Risk
Infant Health & Family Planning	• Low-Weight Births • Infant Mortality • Teen Births
Injury & Violence	• Unintentional Injury Deaths ○ Including Motor Vehicle Crash Deaths • Falls [Age 45+] • Firearm-Related Deaths • Firearm Prevalence ○ Including in Homes With Children • Firearm Storage/Safety • Domestic Violence Experience
Kidney Disease	• Kidney Disease Deaths • Kidney Disease Prevalence
Mental Health	• Diagnosed Depression • Symptoms of Chronic Depression • [Depressed] Seeking Mental Health Services • Stress • Suicide Deaths
Nutrition, Physical Activity & Weight	• Fruit/Vegetable Consumption • Difficulty Accessing Fresh Produce • Overweight & Obesity [Adults] • Overweight & Obesity [Children 5-17] • Meeting Physical Activity Guidelines • Access to Recreation/Fitness Facilities • *Nutrition, Physical Activity & Weight ranked as a top concern in the Online Key Informant Survey*.
Oral Health	• Dental Insurance Coverage • Regular Dental Care • Children's Dental Care [Age 5-17]

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Areas of Opportunity (continued)	
Potentially Disabling Conditions	• Activity Limitations • Arthritis Prevalence [Age 50+] • Osteoporosis Prevalence [Age 50+] • Sciatica/Back Pain Prevalence • Blindness/Vision Trouble • Deafness/Hearing Trouble • Caregiving
Respiratory Diseases	• Chronic Lower Respiratory Disease (CLRD) Deaths • Asthma Prevalence [Adults] • Chronic Obstructive Pulmonary Disease (COPD) Prevalence • Pneumonia/Influenza Deaths • Flu Vaccination [Age 65+ and High-Risk Age 18-64]
Sexually Transmitted Diseases	• Condom Use [Unmarried 18-64]
Substance Abuse	• Cirrhosis/Liver Disease Deaths • Excessive Drinking • Drinking & Driving • Drug-Induced Deaths • Seeking Help for Alcohol/Drug Issues • *Substance Abuse ranked as a top concern in the Online Key Informant Survey*.
Tobacco Use	• Cigarette Smoking Prevalence • Environmental Tobacco Smoke Exposure at Home ○ Including Among Households With Children • Cigar Smoking Prevalence • Smokeless Tobacco Prevalence • *Tobacco Use ranked as a top concern in the Online Key Informant Survey.*

Community Feedback on Prioritization of Health Needs

Prioritization included input from community stakeholders. On June 6, 2017 approximately 10 community and business leaders, social service providers, as well as internal stakeholders of gathered to evaluate, discuss and prioritize health issues for the hospital's community, based on findings of the 2017 PRC Community Health Needs Assessment (CHNA).

A list of recommended participants for the group was provided by the sponsors. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall. Participants included a representative of public health, as well as several individuals who work with low-income, minority or other medically underserved populations, and those who work with persons with chronic disease conditions.

The meeting included a presentation of key findings from the CHNA, highlighting the significant health issues identified from the research (see Areas of Opportunity above).

Following the data review, a group dialogue occurred, allowing participants to advocate for any of the health issues discussed. Finally, participants were provided an overview of the prioritization exercise that followed.

In order to assign priority to the identified health needs (i.e., Areas of Opportunity), each participant the participants were asked to evaluate each health issue along two criteria:

- **Scope & Severity** — The first rating was to gauge the magnitude of the problem in consideration of the following:
    - How many people are affected?
    - How does the local community data compare to state or national levels, or Healthy People 2020 targets?
    - To what degree does each health issue lead to death or disability, impair quality of life, or impact other health issues?
- **Ability to Impact** — A second rating was designed to measure the perceived likelihood of the hospital having a positive impact on each health issue, given available resources, competencies, spheres of influence, etc.

Another group discussion occurred, and the facilitator ranked the priorities based on feedback from each participant at the table. This process yielded the following prioritized list of community health needs:

1. **Diabetes**
2. **Access to Healthcare Services**
3. **Cancer-Early Detection & Prevention**
4. **Cardiovascular Disease & Related Risk Factors**

5. **Nutrition, Physical Activity & Weight**
6. **Injury & Violence**
7. **Substance Abuse**
8. **Dementia, Including Alzheimer's Disease**
9. **Mental Health**
10. **Sexually Transmitted Diseases & HIV/AIDS**
11. **Oral Health**
12. **Infant Health & Family Planning**
13. **Respiratory Diseases**
14. **Tobacco Use**
15. **Chronic Kidney Disease**
16. **Sickle-Cell Anemia**

Hospital Implementation Strategy

The top priority areas, numbers 1-5 above, and plans to address these, will be integrated into Implementation Strategy. The rationale for selecting these areas is an understanding that impacting these would also impact many other areas of need identified in the assessment, numbers 6-16 above. These areas also represent a continuation of existing work and allow the hospital to build on past successes.

Note: An evaluation of the hospital's past activities to address the needs identified in prior CHNAs can be found as an appendix to this report.

Summary Tables: Comparisons With Benchmark Data

The following tables provide an overview of indicators in the Total Service Area, including comparisons among the individual counties, as well as trend data. These data are grouped to correspond with the Focus Areas presented in Healthy People 2020.

Reading the Summary Tables

TREND SUMMARY
(Current vs. Baseline Data)

Survey Data Indicators: Trends for survey-derived indicators represent significant changes since 2011. Note that survey data reflect the ZIP Code-defined Total Service Area.

Other (Secondary) Data Indicators: Trends for other indicators (e.g., public health data) represent point-to-point changes between the most current reporting period and the earliest presented in this report (typically representing the span of roughly a decade).

Note that secondary data reflect county-level data.

In the following charts, Total Service Area results are shown in the larger, blue column. For survey-derived indicators, this column represents the ZIP Code–defined hospital service area; for data from secondary sources, this column represents findings for the county as a whole. *Tip: Indicator labels beginning with a "%" symbol are taken from the PRC Community Health Survey; the remaining indicators are taken from secondary data sources.*

The green columns [to the left of the Total Service Area column] provide comparisons among the six counties, identifying differences for each as "better than" (), "worse than" (), or "similar to" () the combined opposing areas.

The columns to the right of the Total Service Area column provide trend comparisons (trending from the earliest data year available), as well as comparisons between local data and any available state and national findings, and Healthy People 2020 targets. Again, symbols indicate whether the Total Service Area compares favorably (), unfavorably (), or comparably () to these external data.

Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.

Overall Health	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% "Fair/Poor" Physical Health	25.3	24.5	29.6	32.8	28.0	26.2	27.7	22.2	18.3		24.9
% Activity Limitations	29.4	24.1	41.1	22.1	29.9	22.3	28.5	26.5	20.0		23.3
% Caregiver to a Friend/Family Member	31.0	17.7	42.5	39.5	36.2	34.4	33.7		20.9		30.2

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Access to Health Services	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [Age 18-64] Lack Health Insurance	6.4	21.4	19.4	13.3	12.5	12.7	13.2	8.1	10.1	0.0	22.0
% [Private/Medicaid <65] Have Coverage Through Kynect/ACA							22.1		14.9		
% Difficulty Accessing Healthcare in Past Year (Composite)	42.2	40.4	34.3	45.7	34.1	41.2	39.9		35.0		43.6
% Inconvenient Hrs Prevented Dr Visit in Past Year	15.8	18.5	13.6	18.4	13.0	8.6	15.2		14.4		14.9
% Cost Prevented Getting Prescription in Past Year	12.2	13.3	14.1	18.0	15.7	18.2	14.9		9.5		23.1
% Cost Prevented Physician Visit in Past Year	8.6	14.8	10.5	15.8	12.2	21.7	12.9	12.3	11.5		20.0
% Difficulty Getting Appointment in Past Year	21.2	13.1	17.7	19.8	16.1	13.2	17.7		15.4		15.0
% Difficulty Finding Physician in Past Year	9.0	5.8	12.7	6.9	16.9	9.4	10.2		8.7		11.8
% Transportation Hindered Dr Visit in Past Year	6.7	6.4	9.8	7.8	7.5	3.0	7.1		5.0		9.2
% Skipped Prescription Doses to Save Costs	13.3	17.0	14.1	21.2	14.9	15.3	15.8		10.2		25.2
% Difficulty Getting Child's Healthcare in Past Year							5.8		3.9		1.9

Access to Health Services (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			TREND
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	
% Low Health Literacy	12.8	27.9	34.9	14.4	15.3	27.7	20.1		23.3		
Primary Care Doctors per 100,000	97.6	12.6	29.7	36.8	28.1	33.5	45.8	74.0	87.8		51.7
% [Age 18+] Have a Specific Source of Ongoing Care	82.3	83.8	84.3	79.3	64.3	79.1	78.7		74.0	95.0	77.5
% [Age 18-64] Have a Specific Source of Ongoing Care							76.7		73.1	89.4	
% [Age 65+] Have a Specific Source of Ongoing Care							87.3		76.8	100.0	
% Have Had Routine Checkup in Past Year	68.5	62.6	76.8	72.8	54.5	80.9	68.3	75.2	70.5		65.6
% Child Has Had Checkup in Past Year							85.6		89.3		87.1
% Two or More ER Visits in Past Year	10.4	7.4	15.7	12.4	13.4	7.5	11.4		8.5		10.4
% Rate Local Healthcare "Fair/Poor"	9.5	26.5	12.9	24.6	22.4	9.6	17.4		14.2		19.8

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Arthritis, Osteoporosis & Chronic Back Conditions	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [50+] Arthritis/Rheumatism	45.0	47.1	48.8	41.1	55.2	47.3	47.2		32.0		48.1
% [50+] Osteoporosis	10.4	16.3	7.9	14.6	14.1	20.9	13.2		8.7	5.3	13.0
% Sciatica/Chronic Back Pain	25.8	25.2	45.8	39.7	29.3	20.1	31.3		19.4		25.1

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Cancer	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
Cancer (Age-Adjusted Death Rate)	161.3	229.5	200.4	213.3	192.4	156.6	191.1	198.0	161.0	161.4	220.9
Lung Cancer (Age-Adjusted Death Rate)							67.9	66.9	42.0	45.5	
Prostate Cancer (Age-Adjusted Death Rate)							16.2	19.0	19.0	21.8	
Female Breast Cancer (Age-Adjusted Death Rate)							19.2	21.0	20.6	20.7	

Cancer (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
Colorectal Cancer (Age-Adjusted Death Rate)							19.0	17.1	14.4	14.5	
Prostate Cancer Incidence per 100,000	133.5	119.9	99.6	111.0	127.7	134.3	121.4	118.1	123.4		
Female Breast Cancer Incidence per 100,000	141.8	105.0	139.3	111.7	130.4	113.6	125.7	122.0	123.4		
Lung Cancer Incidence per 100,000	77.6	108.6	97.8	98.5	93.3	80.5	92.1	96.4	62.6		
Colorectal Cancer Incidence per 100,000	44.8	52.5	64.7	60.5	60.5	50.2	55.0	50.8	40.6		
% Skin Cancer	11.7	5.4	9.8	8.3	5.1	7.3	8.3	7.6	7.7		7.1
% Cancer (Other Than Skin)	6.9	4.6	9.2	8.5	8.4	3.9	7.2	7.8	7.7		5.9
% [Women 50-74] Mammogram in Past 2 Years							69.6	79.6	80.3	81.1	70.7
% [Women 21-65] Pap Smear in Past 3 Years							73.5	81.3	84.8	93.0	84.4
% [Age 50+] Sigmoid/Colonoscopy Ever	77.4	70.9	84.3	67.1	74.3	78.4	75.3	69.6	75.6		

Cancer (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [Age 50+] Blood Stool Test in Past 2 Years	22.3	33.4	32.5	21.4	14.9	8.5	22.6	14.6	31.8		
% [Age 50-75] Colorectal Cancer Screening	71.0	66.0	78.0	67.8	68.3	68.5	70.0	67.2	74.5	70.5	68.2

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Chronic Kidney Disease	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
Kidney Disease (Age-Adjusted Death Rate)	16.9	21.9	20.0	19.0	15.7		17.2	19.9	13.3		27.4
% Kidney Disease	5.4	7.5	6.0	2.9	3.0	10.7	5.3	3.0	3.6		3.3

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Dementias, Including Alzheimer's Disease	Each County vs. Others Combined						Total Service Area vs. Benchmarks				
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	vs. KY	vs. US	vs. HP2020	TREND
Alzheimer's Disease (Age-Adjusted Death Rate)	59.1	18.8	47.6	66.7	61.8	30.2	50.4	32.8	26.1		30.0
% [Age 45+] Increasing Confusion/Memory Loss in Past Yr	12.8	20.1	14.0	14.2	15.2	14.9	14.8		12.8		

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Diabetes	Each County vs. Others Combined						Total Service Area vs. Benchmarks				
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	vs. KY	vs. US	vs. HP2020	TREND
Diabetes Mellitus (Age-Adjusted Death Rate)	38.2		19.8	23.1	21.4	35.4	26.0	25.2	21.1	20.5	17.3
% Diabetes/High Blood Sugar	14.5	22.6	12.2	17.6	8.4	15.9	14.9	13.4	14.5		13.6
% Borderline/Pre-Diabetes	4.6	8.7	5.7	10.9	5.9	8.4	7.1		5.7		5.3
% [Non-Diabetes] Blood Sugar Tested in Past 3 Years	53.6	44.5	45.9	57.0	49.2	55.9	51.3		55.1		53.1

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Family Planning	Each County vs. Others Combined						Total Service Area vs. Benchmarks				Total Service Area
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	vs. KY	vs. US	vs. HP2020	TREND	
Teen Births per 1,000 (Age 15-19)	40.0	57.3	47.9	62.9	55.8	32.2	48.4	36.6		54.2	49.5

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Hearing & Other Sensory or Communication Disorders	Each County vs. Others Combined						Total Service Area vs. Benchmarks				Total Service Area
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	vs. KY	vs. US	vs. HP2020	TREND	
% Deafness/Trouble Hearing	15.3	17.5	10.7	13.0	15.9	17.6		8.6		15.7	14.8

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Heart Disease & Stroke	Each County vs. Others Combined						Total Service Area vs. Benchmarks				Total Service Area
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	vs. KY	vs. US	vs. HP2020	TREND	
Diseases of the Heart (Age-Adjusted Death Rate)	159.9	171.7	154.2	210.6	207.3	178.1	200.6	168.4	156.9	215.6	180.1
Stroke (Age-Adjusted Death Rate)	32.9	41.2	27.2	36.9	43.2	51.1	41.4	36.8	34.8	50.6	37.8

Heart Disease & Stroke (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% Heart Disease (Heart Attack, Angina, Coronary Disease)	8.4	12.0	9.6	9.5	5.6	18.7	9.7		6.9		10.7
% Stroke	4.5	5.2	6.9	4.7	3.8	7.9	5.2	4.3	2.6		3.5
% Blood Pressure Checked in Past 2 Years	95.9	91.1	95.8	93.7	95.7	99.8	95.1		93.6	92.6	94.7
% Told Have High Blood Pressure (Ever)	41.0	45.6	52.9	46.9	50.3	48.3	46.8	39.0	36.5	26.9	41.0
% [HBP] Taking Action to Control High Blood Pressure							93.1		92.5		96.1
% Cholesterol Checked in Past 5 Years	88.2	82.1	92.7	93.1	84.0	93.3	88.7	76.5	87.4	82.1	88.0
% Told Have High Cholesterol (Ever)	34.9	32.9	34.3	36.9	27.6	49.2	34.9		33.5	13.5	36.9
% [HBC] Taking Action to Control High Blood Cholesterol							89.6		84.2		92.4
% 1+ Cardiovascular Risk Factor	87.6	94.4	87.2	95.5	87.0	87.9	89.9		83.0		86.6

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

HIV	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
HIV Prevalence per 100,000	82.8	59.4	49.2	34.5	89.5		64.7	159.4	353.2		
% [Age 18-44] HIV Test in the Past Year							16.8		21.3		13.5

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Immunization & Infectious Diseases	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [Age 65+] Flu Vaccine in Past Year							55.4	67.3	58.9	70.0	72.5
% [High-Risk 18-64] Flu Vaccine in Past Year							32.4		48.0	70.0	43.6
% [Age 65+] Pneumonia Vaccine Ever							70.7	74.1	76.3	90.0	63.0
% [High-Risk 18-64] Pneumonia Vaccine Ever							37.9		38.7	60.0	31.7

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better similar worse

Injury & Violence Prevention	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
Unintentional Injury (Age-Adjusted Death Rate)	40.9	65.9	55.7	66.5	49.4	55.6	54.6	60.0	41.0	36.4	60.5
Motor Vehicle Crashes (Age-Adjusted Death Rate)		28.3		25.4	15.5	25.3	17.5	15.7	10.6	12.4	21.4
% "Always" Wear Seat Belt	81.7	63.8	86.9	77.1	87.2	64.7	78.7	85.0		92.0	76.6
Firearm-Related Deaths (Age-Adjusted Death Rate)							13.2	14.3	10.6	9.3	11.4
% Firearm in Home	58.0	78.7	66.8	69.5	60.7	60.8	65.0		33.8		61.1
% [Homes With Children] Firearm in Home							64.9		31.0		71.2
% [Homes With Firearms] Weapon(s) Unlocked & Loaded	26.9	27.1	41.1	47.4	23.8	17.0	31.7		20.4		21.9
Homicide (Age-Adjusted Death Rate)							3.1	5.0	5.6	5.5	
Violent Crime per 100,000	224.2	64.6	59.0	53.8	120.8	42.4	107.3	237.0	395.5		
% Victim of Violent Crime in Past 5 Years	4.1	1.3	5.9	0.8	4.6	1.5	3.2		2.3		3.2

Injury & Violence Prevention (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% Victim of Domestic Violence (Ever)	17.9	11.7	25.5	16.9	18.1	16.0	17.8		15.1		13.7
% [Age 45+] Fell in the Past Year	34.1	50.5	30.3	32.5	40.6	20.4	35.4		28.2		
% [Age 45+] Injured from a Fall in the Past Year	14.4	18.5	12.0	12.1	12.0	12.7	13.6		30.2		
[65+] Falls (Age-Adjusted Death Rate)							22.4	42.1	59.0	47.0	

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better similar worse

Maternal, Infant & Child Health	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
Low Birthweight Births (Percent)	8.3	9.0	10.4	9.1	8.1	7.1	8.7	9.1	8.2	7.8	
Infant Death Rate							8.4	6.8	5.9	6.0	5.6

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Mental Health & Mental Disorders	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
% "Fair/Poor" Mental Health	11.5	11.1	23.3	16.5	10.7	20.9	14.8		15.5		15.6
% Diagnosed Depression	27.2	23.3	22.4	32.8	15.1	25.8	24.7	18.8	17.9		22.8
% Symptoms of Chronic Depression (2+ Years)	38.6	31.9	37.8	39.2	30.7	43.2	36.7		29.9		34.7
Suicide (Age-Adjusted Death Rate)	15.0	25.0		19.3	22.1		18.0	16.2	13.0	10.2	14.1
% Have Ever Sought Help for Mental Health	30.7	20.7	23.0	28.4	23.1	22.8	25.7		27.4		25.4
% [Those With Diagnosed Depression] Seeking Help							76.4		91.7		72.0
% Unable to Get Mental Health Svcs in Past Yr	1.6	2.4	9.7	2.7	5.2	0.2	3.6		4.4		
% Typical Day Is "Extremely/Very" Stressful	15.1	12.4	23.8	14.1	9.8	22.5	15.5		11.7		12.2

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Nutrition, Physical Activity & Weight	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% Eat 5+ Servings of Fruit or Vegetables per Day	41.5	35.3	36.4	36.4	32.0	36.1	36.8		27.4		48.5
% "Very/Somewhat" Difficult to Buy Fresh Produce	19.7	28.1	39.5	35.6	26.4	13.9	27.3		21.9		23.6
Population With Low Food Access (Percent)	16.7	4.4		15.4	11.4	17.3	11.5	18.0	22.4		
% Food Insecure	20.5	23.3	17.3	23.8	22.0	11.3	20.5		25.9		
% Healthy Weight (BMI 18.5-24.9)	24.3	22.2	41.5	24.5	21.4	15.5	25.3	30.9	32.9	33.9	32.3
% Overweight (BMI 25+)	74.9	77.8	58.6	74.4	78.6	80.3	73.9	67.2	65.2		66.5
% Obese (BMI 30+)	35.5	37.7	29.1	47.7	43.6	43.9	39.2	34.6	33.4	30.5	30.8
% Medical Advice on Weight in Past Year	25.5	20.9	18.4	23.9	26.9	25.8	23.8		20.4		26.3
% [Overweights] Counseled About Weight in Past Year	30.1	24.4	29.6	26.8	31.6	33.1	29.2		27.1		
% [Obese Adults] Counseled About Weight in Past Year							43.1		40.8		

Nutrition, Physical Activity & Weight (continued)	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
% Child [Age 5-17] Healthy Weight							37.2		67.2		
% Children [Age 5-17] Overweight (85th Percentile)							51.8		24.2		36.8
% Children [Age 5-17] Obese (95th Percentile)							30.2		9.5	14.5	24.3
% No Leisure-Time Physical Activity	26.4	33.1	18.4	28.5	32.4	29.8	27.9	28.2	27.9	32.6	28.5
% Meeting Physical Activity Guidelines	25.8	9.8	21.8	18.6	16.0	18.5	19.3	18.0	23.6	20.1	
Recreation/Fitness Facilities per 100,000	17.6	6.3	0.0	4.0	9.4	0.0	7.6	7.7	10.1		
% Child [Age 2-17] Physically Active 1+ Hours per Day							58.9		47.9		56.3

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Oral Health	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [Age 18+] Dental Visit in Past Year	65.5	44.4	61.0	52.7	41.2	74.6	56.0	61.0	67.2	49.0	58.6
% Child [Age 2-17] Dental Visit in Past Year							80.5		90.7	49.0	76.4
% Have Dental Insurance	65.2	51.5	63.4	52.6	55.1	68.8	59.3		66.5		50.9

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Respiratory Diseases	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
CLRD (Age-Adjusted Death Rate)	51.0	81.5	62.6	84.7	82.8	47.7	68.9	64.2	41.4		61.6
Pneumonia/Influenza (Age-Adjusted Death Rate)	15.5	18.7	24.9	25.6	18.9		19.2	19.7	15.4		28.3
% COPD (Lung Disease)	11.6	19.5	27.5	12.2	19.6	9.0	16.3	12.1	9.5		13.0
% [Adult] Currently Has Asthma	12.1	11.0	6.2	10.2	19.3	10.3	11.8	11.9	9.5		7.8
% [Child 0-17] Currently Has Asthma							10.0		6.5		9.1

Sexually Transmitted Diseases	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
Gonorrhea Incidence per 100,000	75.8	43.6	17.7	45.1	23.4	33.7	43.5	99.0	110.7		
Chlamydia Incidence per 100,000	468.8	217.8	283.8	385.7	332.6	336.8	354.6	400.4	456.1		
% [Unmarried 18-64] 3+ Sexual Partners in Past Year							11.2		10.3		11.3
% [Unmarried 18-64] Using Condoms							27.5		44.5		33.2

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Substance Abuse	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
Cirrhosis/Liver Disease (Age-Adjusted Death Rate)							9.9	11.6	10.5	8.2	8.0
% Current Drinker	45.7	28.0	33.4	31.6	41.5	46.2	38.2	40.8	59.7		33.9
% Excessive Drinker	14.9	12.2	13.5	22.9	16.8	26.0	17.2		22.2	25.4	12.3

Substance Abuse (continued)	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
% Drinking & Driving in Past Month	3.1	0.0	0.8	3.1	4.4	0.0	2.3		4.1		0.5
Drug-Induced Deaths (Age-Adjusted Death Rate)							19.3	27.2	15.8	11.3	19.1
% Illicit Drug Use in Past Month	2.5	1.4	0.0	0.0	5.8	0.0	1.9		3.0	7.1	2.4
% Ever Sought Help for Alcohol or Drug Problem	3.4	0.9	0.5	4.9	2.0	1.4	2.5		4.1		3.2

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Tobacco Use	Each County vs. Others Combined: Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	Total Service Area vs. Benchmarks: vs. KY	vs. US	vs. HP2020	TREND
% Current Smoker	13.6	18.9	29.4	31.7	29.2	24.3	23.7	26.0	14.0	12.0	21.3
% Someone Smokes at Home	14.7	23.8	23.2	21.3	24.8	25.3	21.2		10.2		21.7
% [Nonsmokers] Someone Smokes in the Home	5.3	8.3	6.1	5.5	7.7	18.5	7.5		3.9		8.2

Tobacco Use (continued)	Each County vs. Others Combined						Total Service Area	Total Service Area vs. Benchmarks			
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County		vs. KY	vs. US	vs. HP2020	TREND
% [Household With Children] Someone Smokes in the Home							21.4		10.2		17.7
% [Smokers] Received Advice to Quit Smoking							76.2		76.0		64.6
% [Smokers] Have Quit Smoking 1+ Days in Past Year							54.4		43.7	80.0	48.8
% Smoke Cigars	1.8	0.3	18.3	8.0	4.9	2.3	5.7		3.6	0.2	4.2
% Use Smokeless Tobacco	6.3	9.4	0.0	7.8	6.0	7.3	6.1	7.3	3.0	0.3	6.8
% Currently Use Electronic Cigarettes	3.4	0.0	10.6	5.5	4.0	4.0	4.5		3.8		

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better similar worse

Vision	Each County vs. Others Combined						Total Service Area vs. Benchmarks				
	Boyle County	Casey County	Garrard County	Lincoln County	Mercer County	Washington County	Total Service Area	vs. KY	vs. US	vs. HP2020	TREND
% Blindness/Trouble Seeing	10.8	14.3	13.0	13.7	7.1	9.2	11.3	6.8	7.3		10.4
% Eye Exam in Past 2 Years	71.0	48.6	58.5	64.8	56.4	59.9	61.4		59.3		58.8

Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

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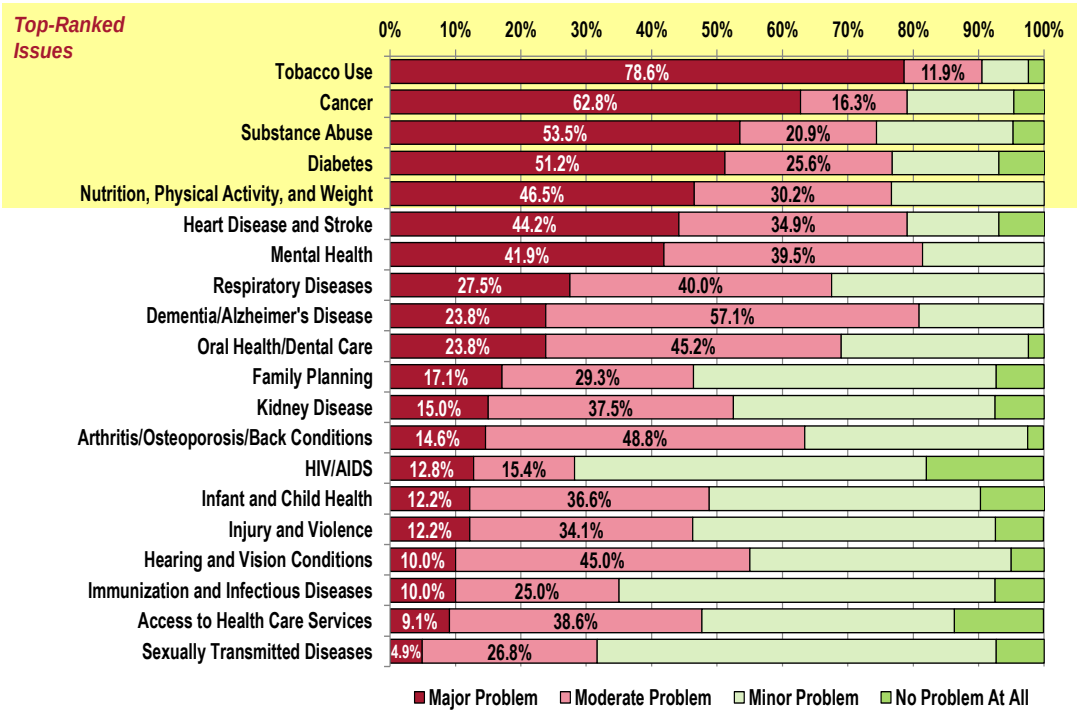
Summary of Key Informant Perceptions

In the Online Key Informant Survey, community stakeholders were asked to rate the degree to which each of 20 health issues is a problem in their own community, using a scale of "major problem," "moderate problem," "minor problem" or "no problem at all." The following chart summarizes their responses; these findings are also outlined throughout this report, along with the qualitative input describing reasons for their concerns. (Note that these ratings alone do not establish priorities for this assessment but rather are one of several data inputs considered for the prioritization process described earlier.)

Key Informants: Relative Position of Health Topics as Problems in the Community



Community Description

Professional Research Consultants, Inc.

Population Characteristics

Total Population

The combined Total Service Area, the focus of this Community Health Needs Assessment, encompasses 1,733.56 square miles and houses a total population of 120,068 residents, according to latest census estimates.

Total Population

(Estimated Population, 2011–2015)

	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Boyle County	29,388	180.41	162.89
Casey County	15,954	444.23	35.91
Garrard County	16,976	230.08	73.78
Lincoln County	24,498	332.73	73.63
Mercer County	21,342	248.83	85.77
Washington County	11,910	297.27	40.07
Total Service Area	120,068	1,733.56	69.26
KY	4,397,353	39,485.22	111.37
United States	316,515,021	3,532,070.45	89.61

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Population Change 2000-2010

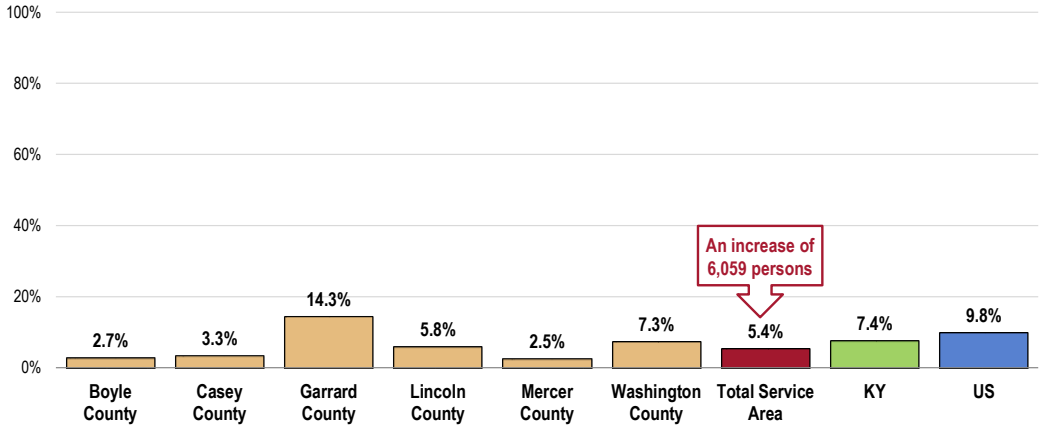
A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

Between the 2000 and 2010 US Censuses, the population of the Total Service Area increased by 6,059 persons, or 5.4%.

- A lesser proportional increase than seen across both the state and the nation overall.
- Note the greatest increase (14.3%) in Garrard County.

Change in Total Population

(Percentage Change Between 2000 and 2010)

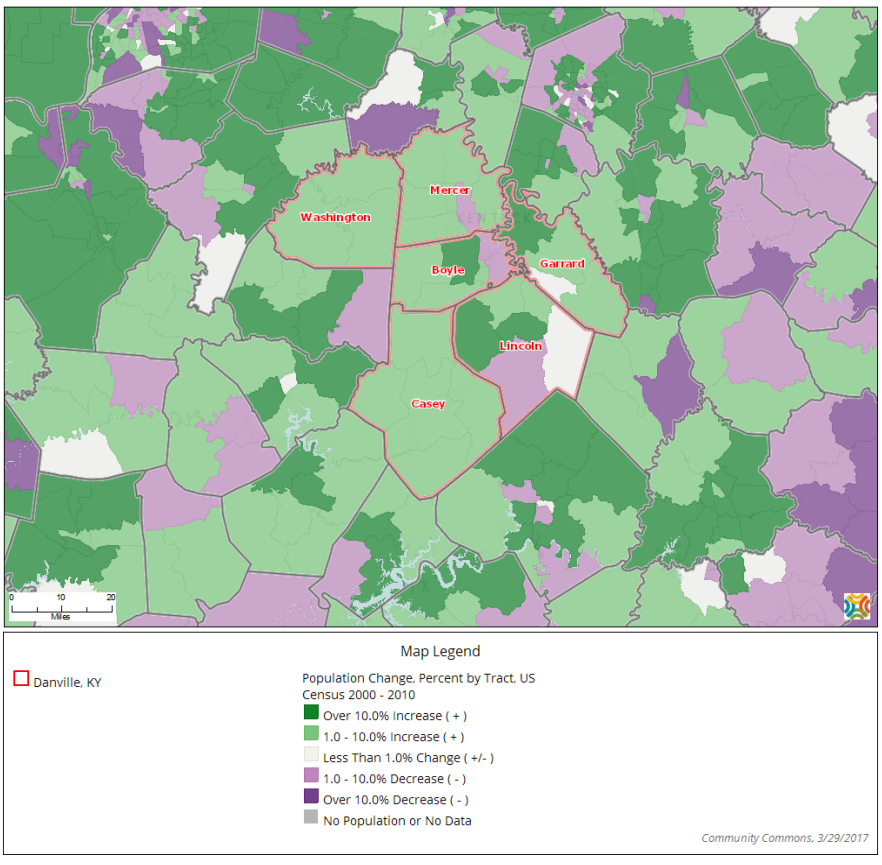


Sources:
- Retrieved March 2017 from Community Commons at http://www.chna.org.
- US Census Bureau Decennial Census (2000-2010).

Notes:
- A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

The following map provides an illustration of the various levels of population growth in the service area between 2000 and 2010.

Population Change, Percent by Tract, US Census 2000-2010

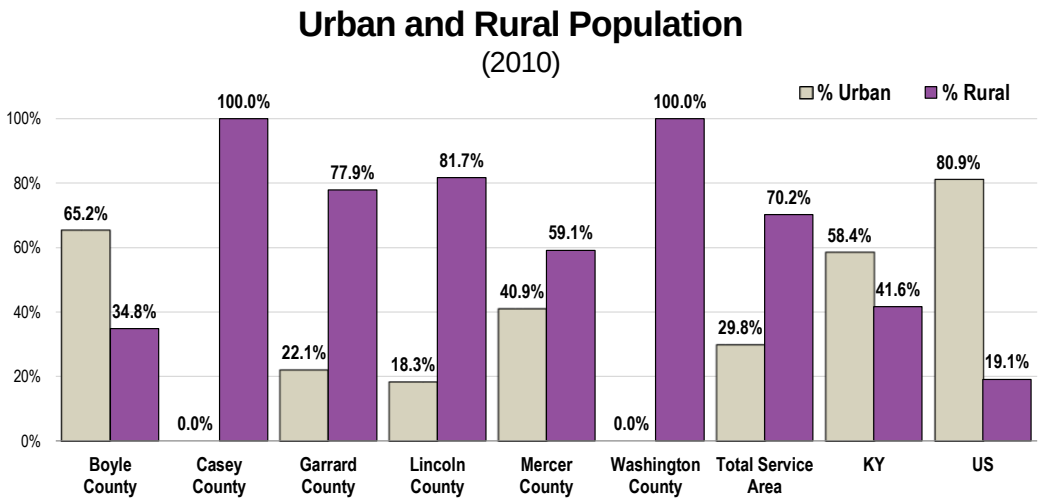


Urban/Rural Population

Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

The Total Service Area is predominantly rural, with 70.2% of the population living in areas designated as rural.

- This rural proportion is much higher than those reported across Kentucky and the US overall.
- Note the disparity in urban vs. rural populations when viewed by county.

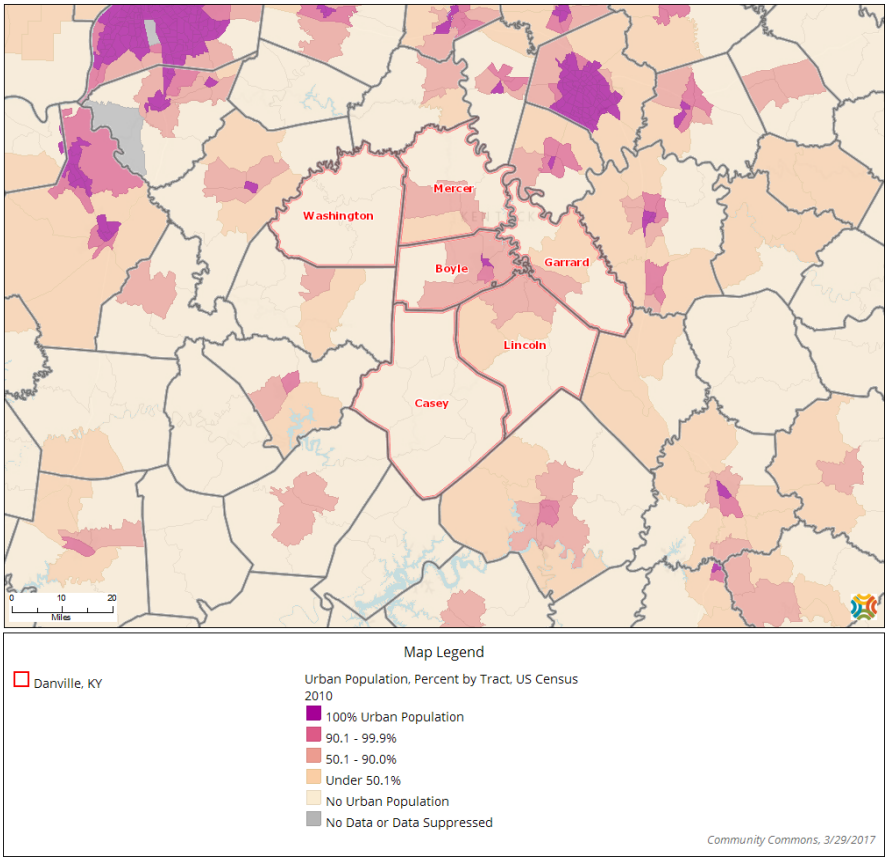


Sources:
- US Census Bureau Decennial Census (2010).
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

- The following map outlines the urban population in the Total Service Area census tracts as of 2010.

Urban Population, Percent by Tract, US Census 2010



Age

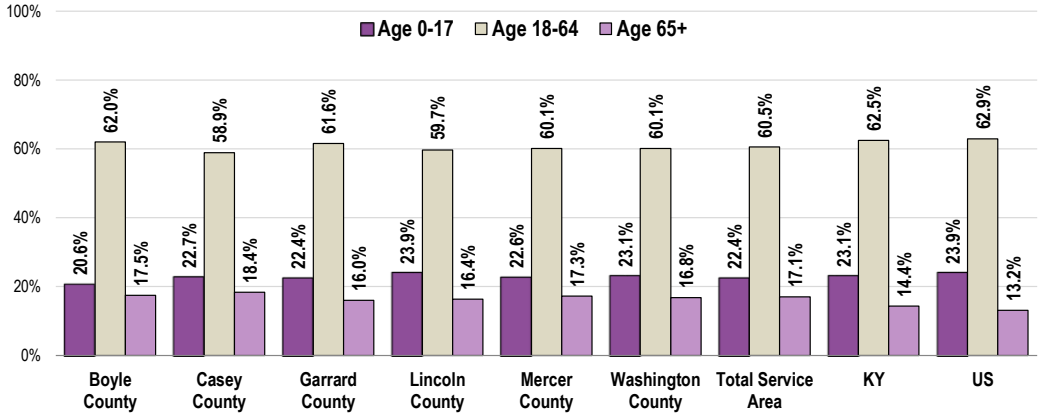
It is important to understand the age distribution of the population as different age groups have unique health needs which should be considered separately from others along the age spectrum.

In the Total Service Area, 22.4% of the population are infants, children or adolescents (age 0-17); another 60.5% are age 18 to 64, while 17.1% are age 65 and older.

- The percentage of older adults (65+) is higher than the state and national figures.
- The breakout by age is similar by county, although young adults appear least likely to live in Boyle County.

Total Population by Age Groups, Percent

(2011–2015)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

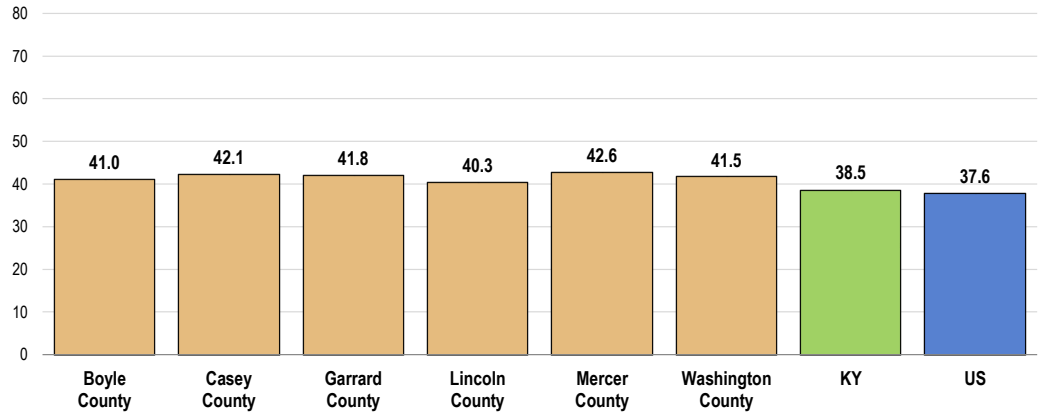
Median Age

The median age in the six-county area ranges from 40.3 (Lincoln County) to 42.6 (Mercer County).

- Each of the 6 counties reports a higher median age than found across Kentucky and the US overall.

Median Age

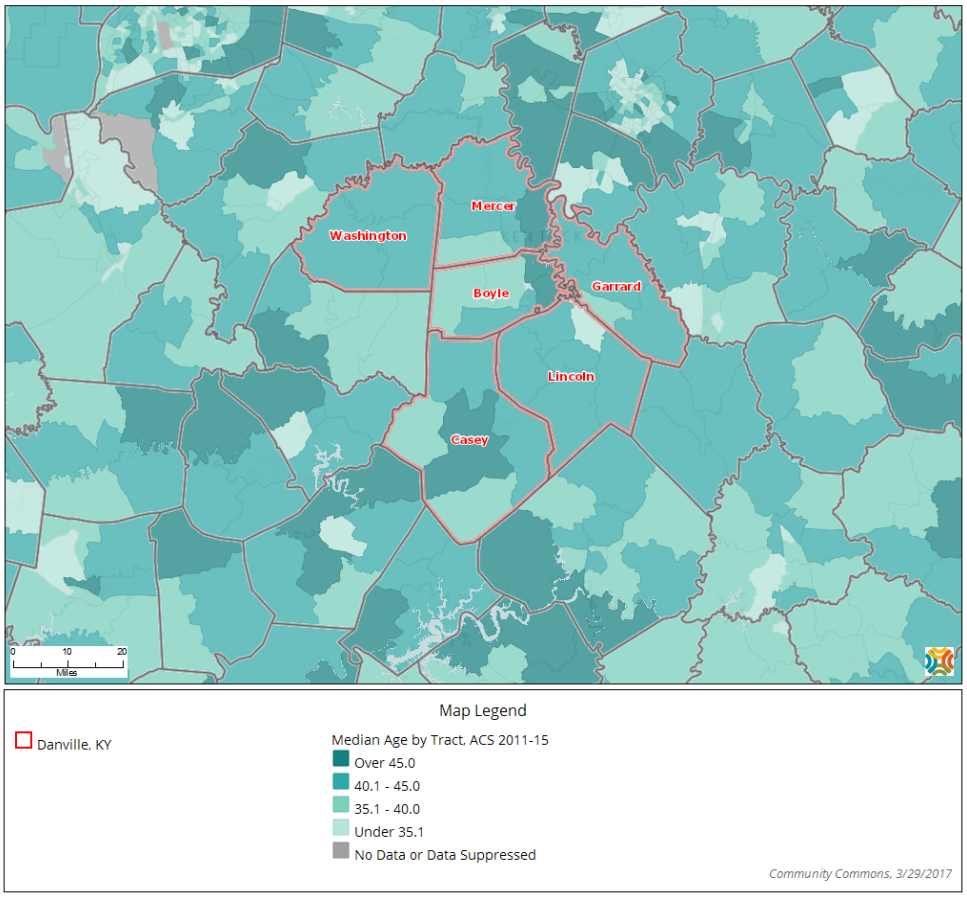
(2011–2015)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

- The following map provides an illustration of the median age in the Total Service Area, segmented by census tract.

Median Age by Tract, ACS 2011-2015



Race & Ethnicity

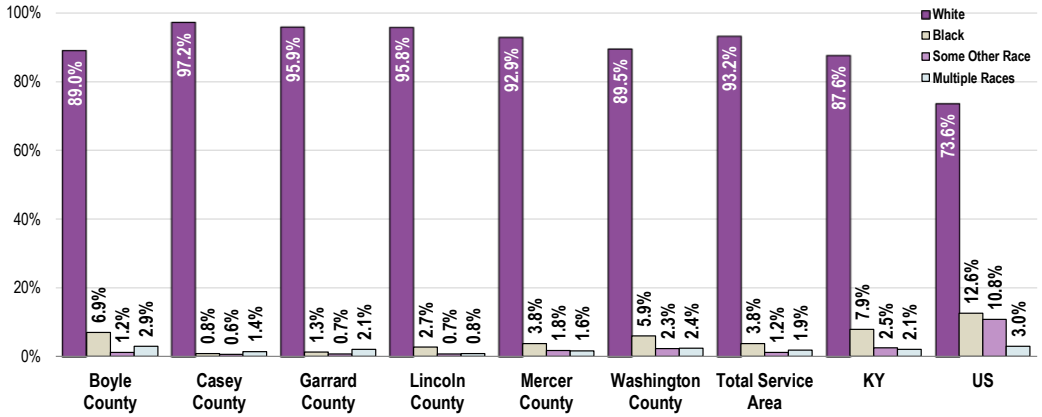
Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 93.2% of residents in the Total Service Area are White, and 3.8% are Black.

- Both the state and US populations are less White, more Black, and more “other” race.
- Boyle and Washington counties appear to be the most racially diverse.

Total Population by Race Alone, Percent

(2011–2015)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

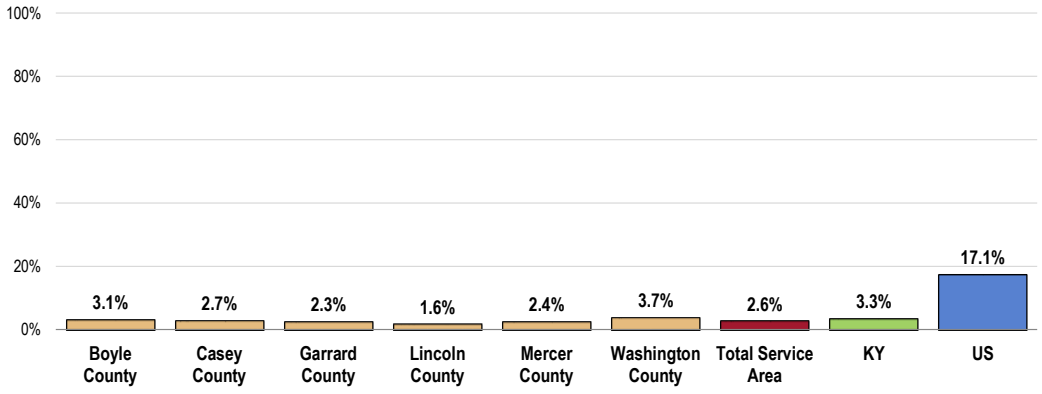
Ethnicity

A total of 2.6% of Total Service Area residents are Hispanic or Latino.

- Lower than state percentage; the US percentage is 6 times the local ratio.
- The Hispanic population is highest in Washington County.

Hispanic Population

(2011–2015)

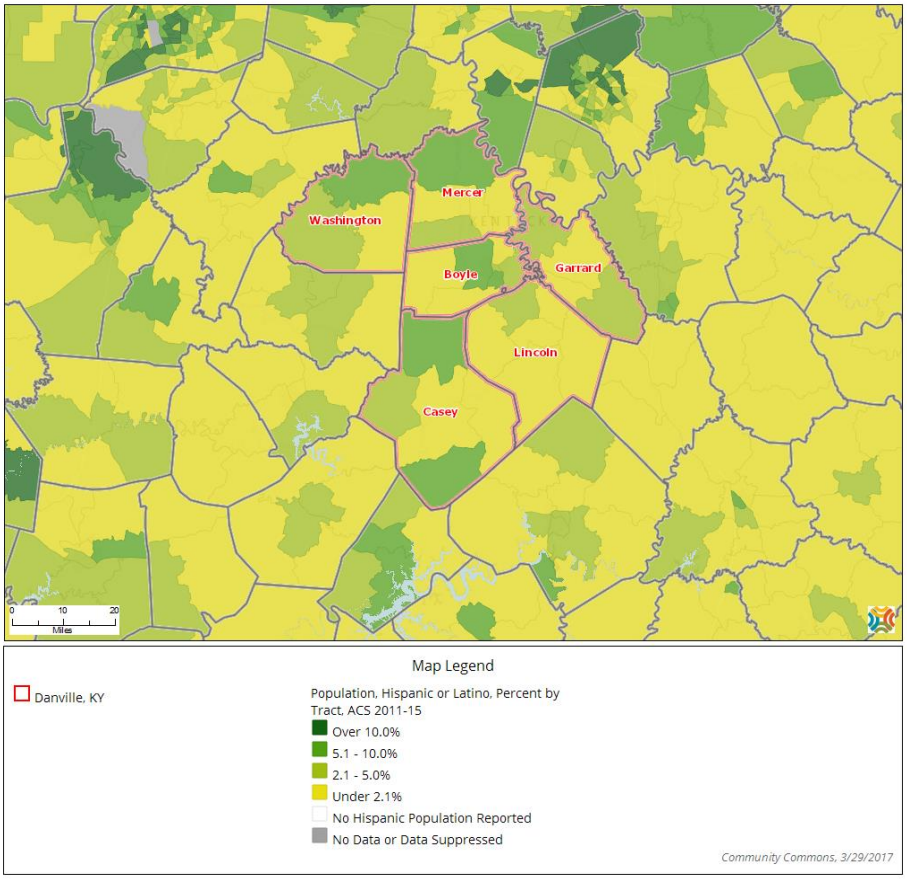


Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

- Note also the geographic concentration of Hispanic residents in the community.

Population Hispanic or Latino, Percent by Tract, ACS 2011-2015

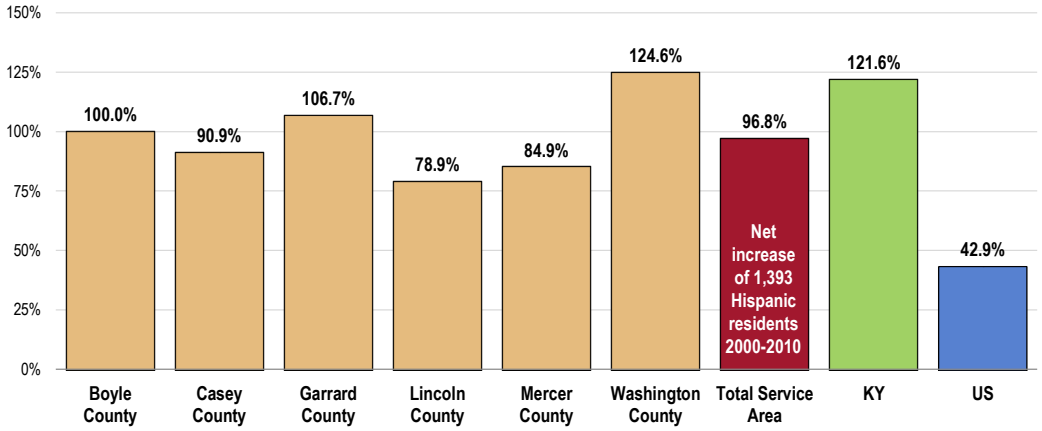


Between 2000 and 2010, the Hispanic population in the Total Service Area increased by 1,393, or 96.8%.

- Lower (in terms of percentage growth) than found statewide.
- Twice as high as the Hispanic population increase nationwide.
- The 2000–2010 proportional increase varied considerably by county and was highest in Washington County.

Hispanic Population Change

(Percentage Change in Hispanic Population Between 2000 and 2010)



Sources:
- US Census Bureau Decennial Census (2000-2010).
- Retrieved March 2017 from Community Commons at http://www.chna.org.

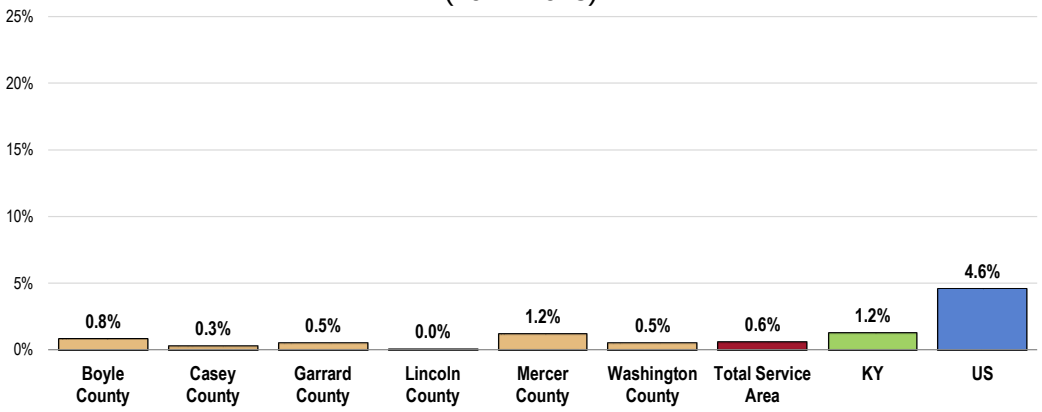
Linguistic Isolation

A total of 0.6% of the Total Service Area population age 5 and older lives in a home in which no persons age 14 or older is proficient in English (speaking only English, or speaking English "very well").

- Lower than found statewide and especially nationally.
- Highest in Boyle and Mercer counties.

Linguistically Isolated Population

(2011–2015)

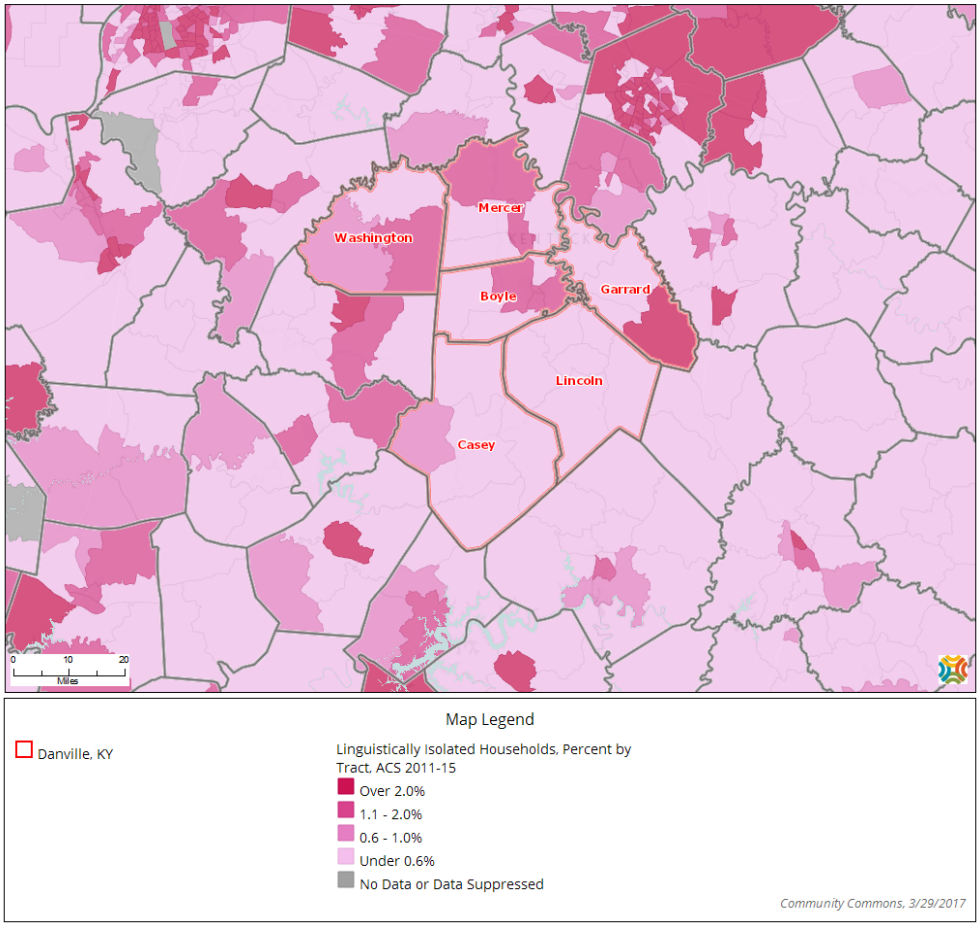


Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the percentage of the population age 5+ who live in a home in which no person age 14+ speaks only English, or in which no person age 14+ speak a non-English language and speak English "very well."

- Note the following map illustrating linguistic isolation in the Total Service Area.

Population in Linguistically Isolated Households, Percent by Tract, ACS 2011-2015



Social Determinants of Health

About Social Determinants

Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, not smoking, getting the recommended immunizations and screening tests, and seeing a doctor when we are sick all influence our health. Our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why Americans more generally are not as healthy as they could be.

- Healthy People 2020 (www.healthypeople.gov)

Poverty

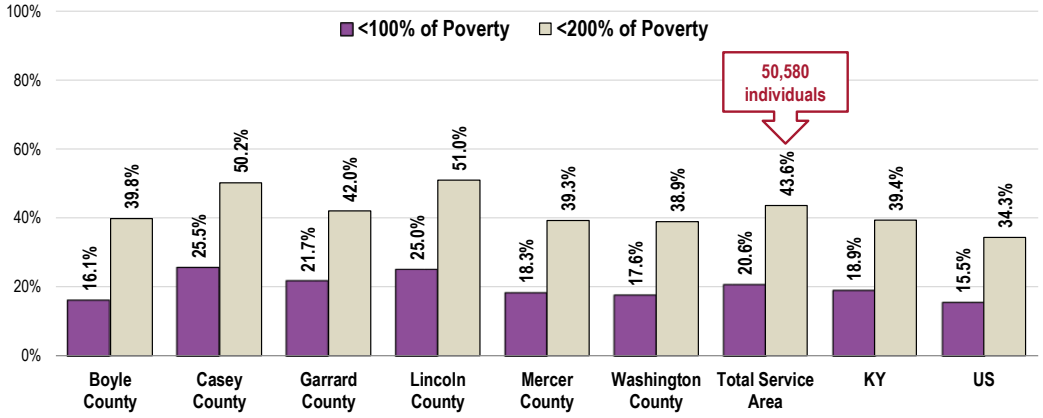
The latest census estimate shows 20.6% of the Total Service Area population living below the federal poverty level.

In all, 43.6% of Total Service Area residents (an estimated 50,580 individuals) live below 200% of the federal poverty level.

- Higher than the proportions reported statewide and nationally.
- The percentage is unfavorably high in Casey and Lincoln counties.

Population in Poverty

(Populations Living Below 100% and Below 200% of the Poverty Level; 2011–2015)

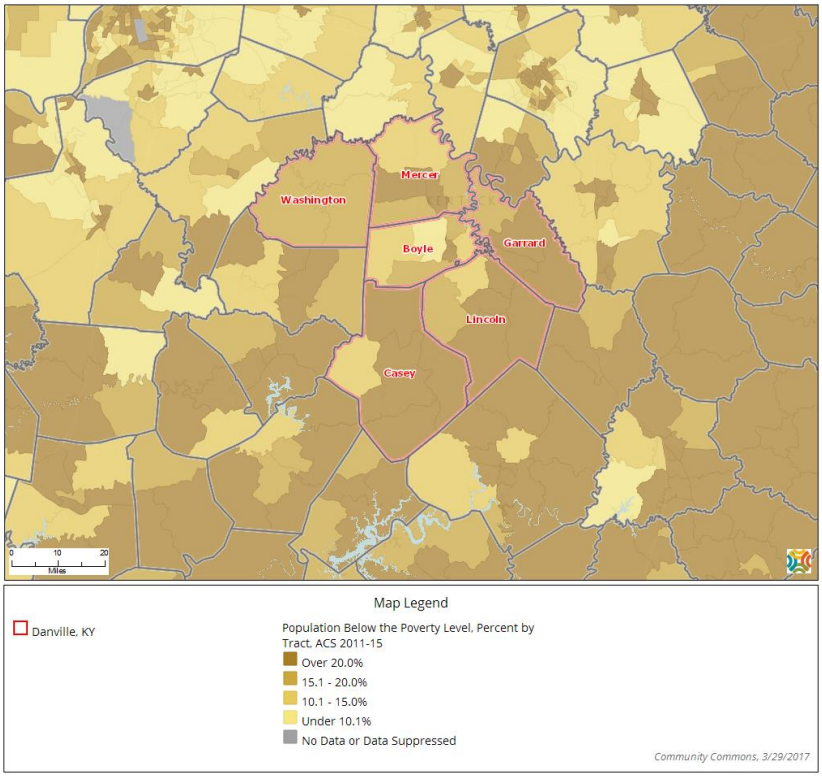


Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

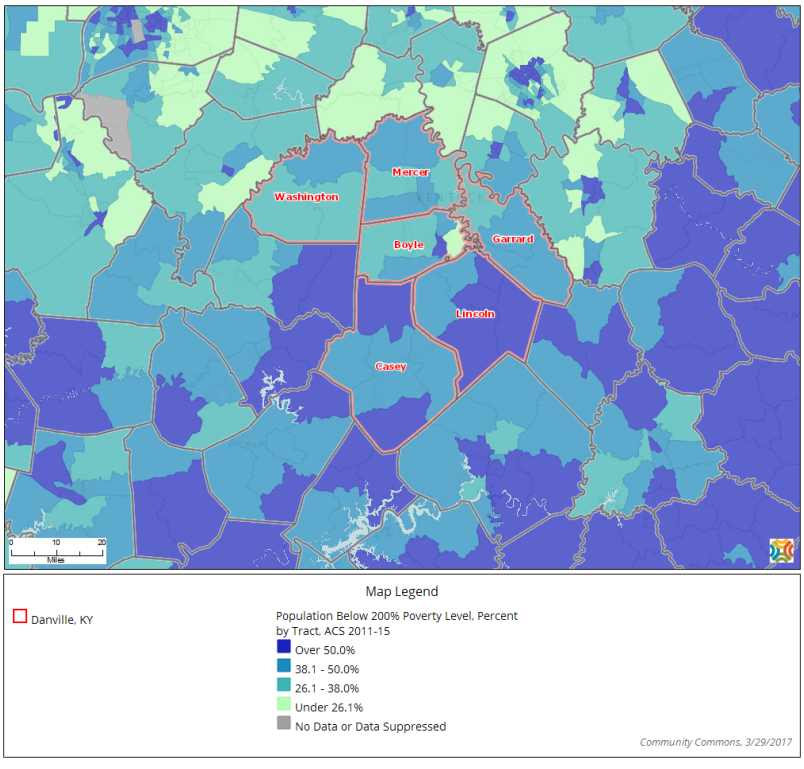
Notes:
- Poverty is considered a key driver of health status. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

- The following maps provide geographic illustrations of both levels of poverty among residents of the Total Service Area.

Population Below the Poverty Level, Percent by Tract, ACS 2011-2015



Population Below 200% of Poverty, Percent by Tract, ACS 2011-2015



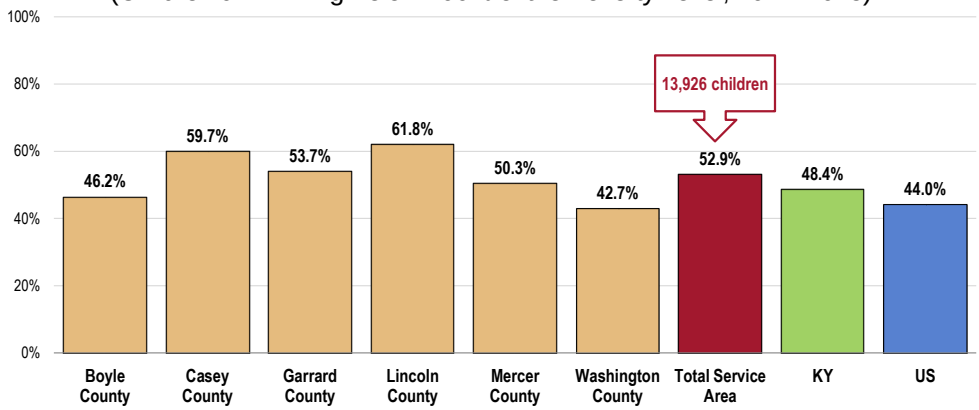
Children in Low-Income Households

Additionally, 52.9% of Total Service Area children age 0-17 (representing an estimated 13,926 children) live below the 200% poverty threshold.

- Above the proportion found statewide and across the US.
- The percentage is highest in Casey and Lincoln counties.

Percent of Children in Low-Income Households

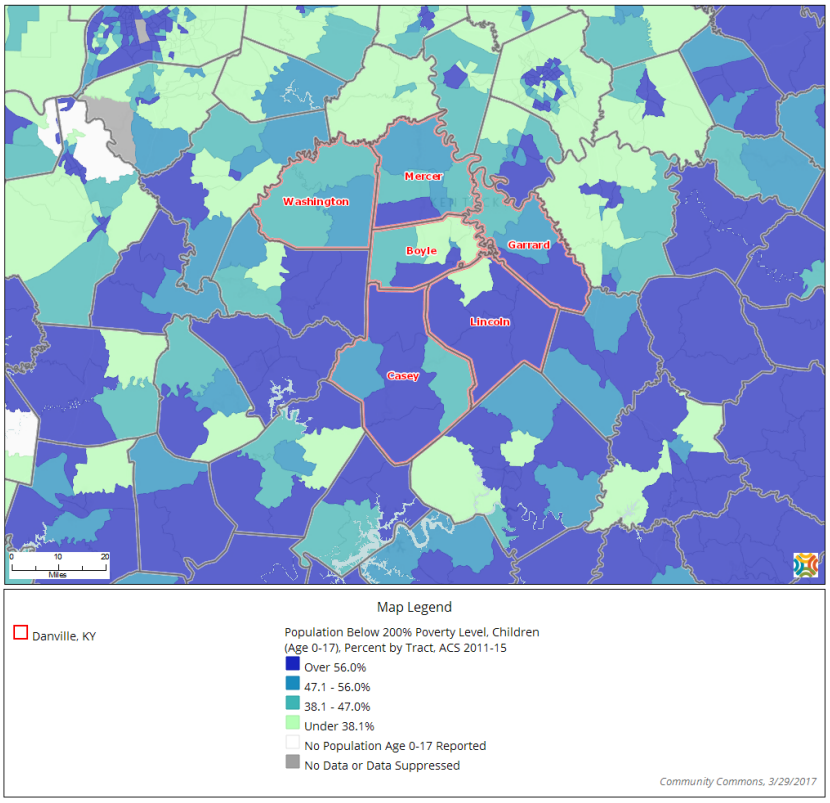
(Children 0-17 Living Below 200% of the Poverty Level, 2011–2015)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the percentage of children aged 0-17 living in households with income below 200% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Children (0-17) Living Below 200% of Poverty, Percent by Tract, ACS 2011-2015



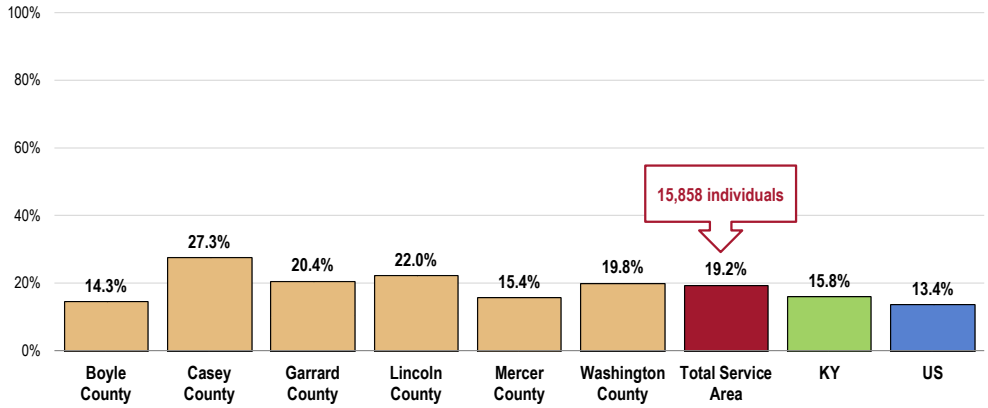
Education

Among the Total Service Area population age 25 and older, an estimated 19.2% (over 15,800 people) do not have a high school education.

- Higher than the state and national percentages.
- Unfavorably high in Casey and Lincoln counties.

Population With No High School Diploma

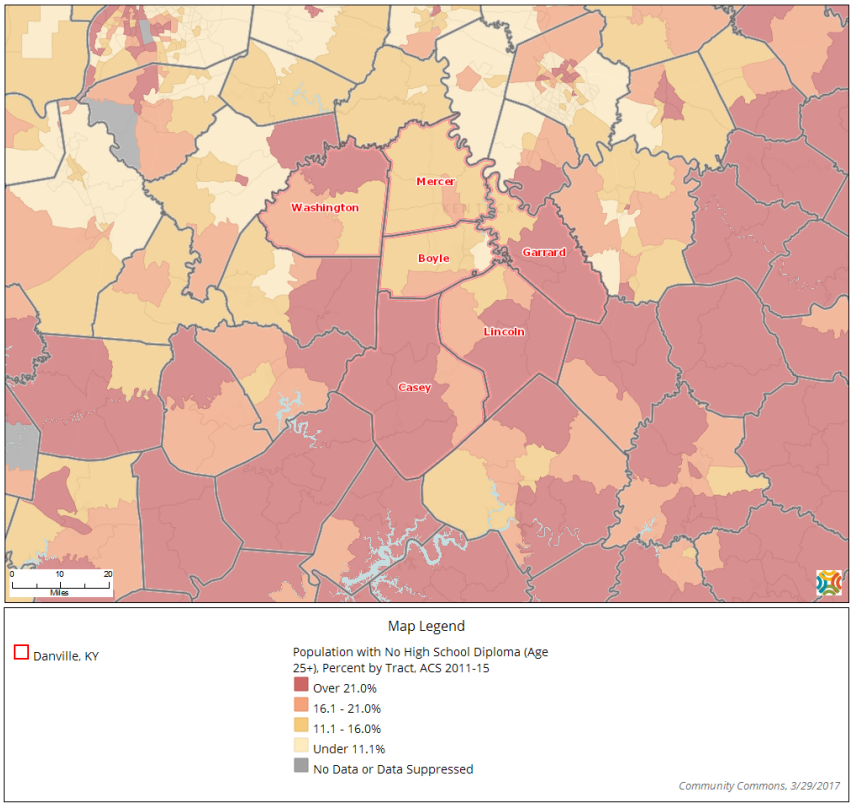
(Population Age 25+ Without a High School Diploma or Equivalent, 2011–2015)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because educational attainment is linked to positive health outcomes.

Population with No High School Diploma, Percent by Tract, ACS 2011-2015



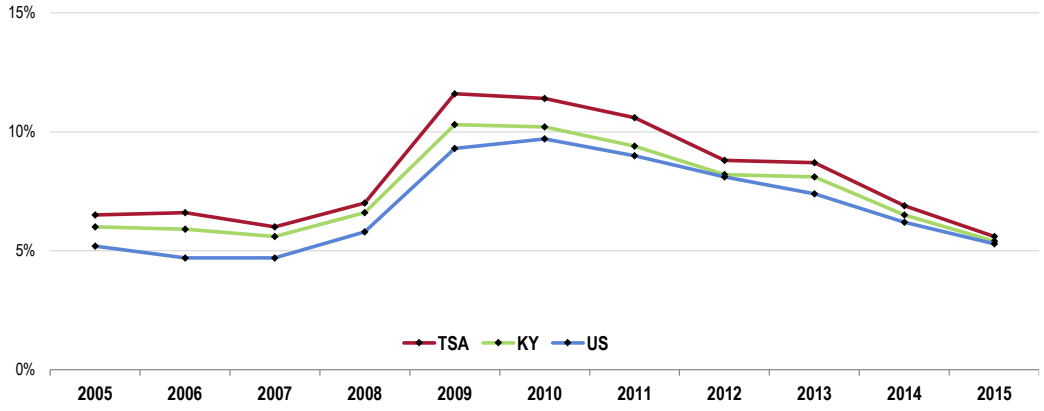
Employment

According to data derived from the US Department of Labor, the unemployment rate in the Total Service Area as of December 2015 was 5.6%.

- Statistically comparable to the statewide unemployment rate.
- Less favorable than the national unemployment rate.
- TREND: Unemployment for Total Service Area has trended downward since 2009, echoing the state and national trends.

Unemployment Rate

(Percent of Non-Institutionalized Population Age 16+ Unemployed, Not Seasonally-Adjusted)



Sources:
- US Department of Labor, Bureau of Labor Statistics.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

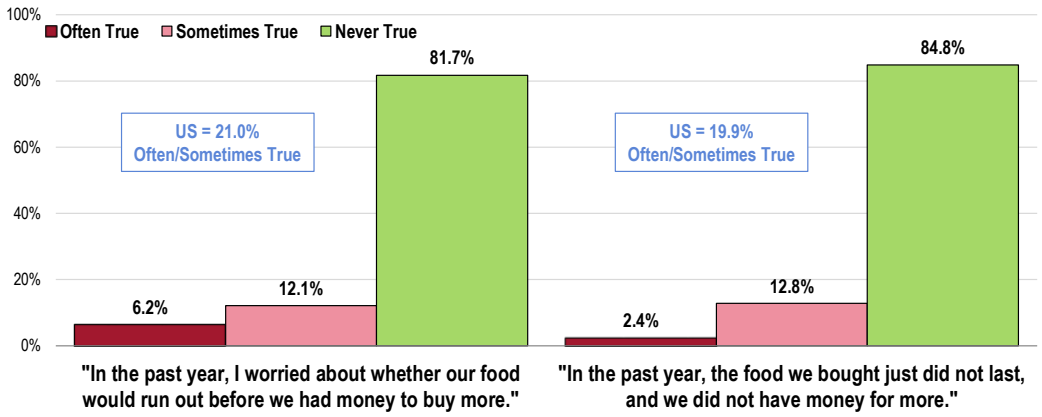
Notes:
- This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

Food Insecurity

In the past year, 18.3% of Total Service Area adults "often" or "sometimes" worried about whether their food would run out before they had money to buy more.

A total of 15.2% report a time in the past year ("often" or "sometimes") when the food they bought just did not last, and they did not have money to get more.

Food Insecurity
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 104-105]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects the total sample of respondents.

NOTE:

Differences noted in the text represent significant differences determined through statistical testing.

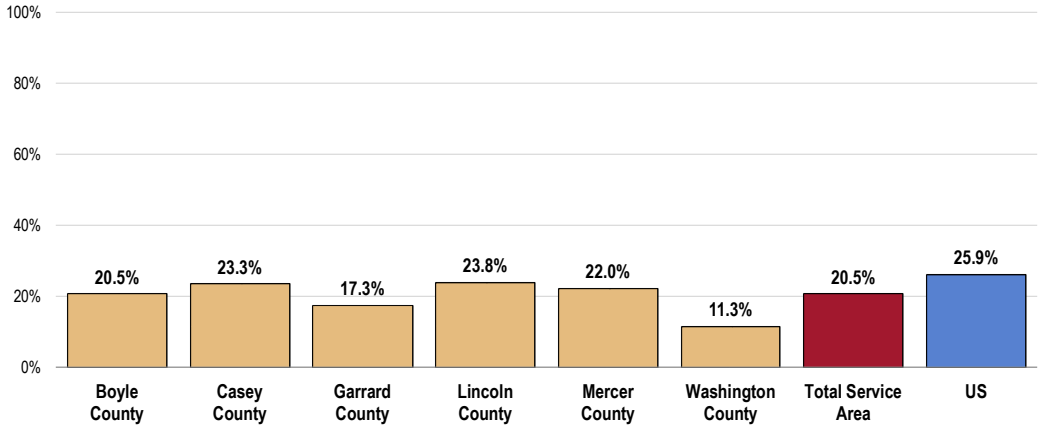
Where sample sizes permit, community-level data are provided.

Trends are measured against baseline data – i.e., the earliest year that data are available or that is presented in this report.

Overall, 20.5% of community residents are determined to be "food insecure," having run out of food in the past year and/or been worried about running out of food.

- More favorable than the US data.
- Favorably low in Washington County.

Food Insecurity



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 169]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

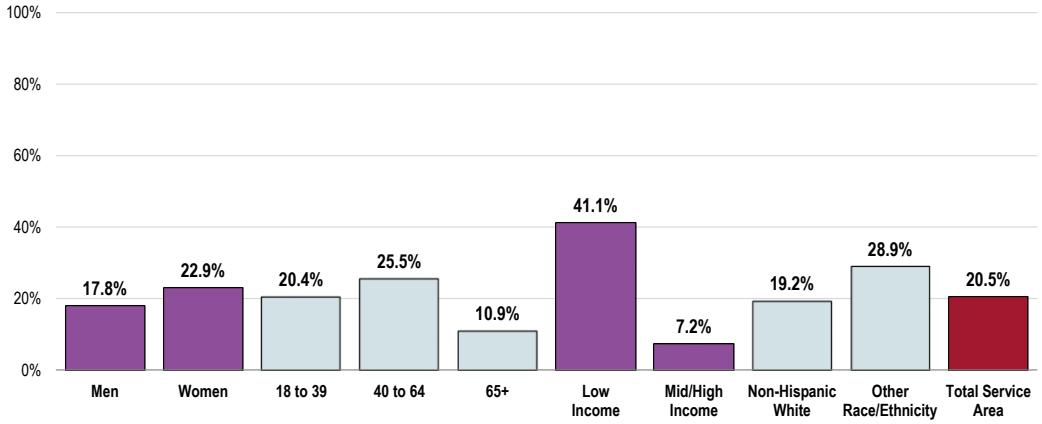
Adults more likely affected by food insecurity include:

- Those under age 65.
- Residents living at lower incomes.
- Other differences within demographic groups, as illustrated in the following chart, are not statistically significant.

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by gender, age groupings, income (based on poverty status), and race/ethnicity.

Food Insecurity

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 169]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

General Health Status

Professional Research Consultants, Inc.

Overall Health Status

Evaluation of Health Status

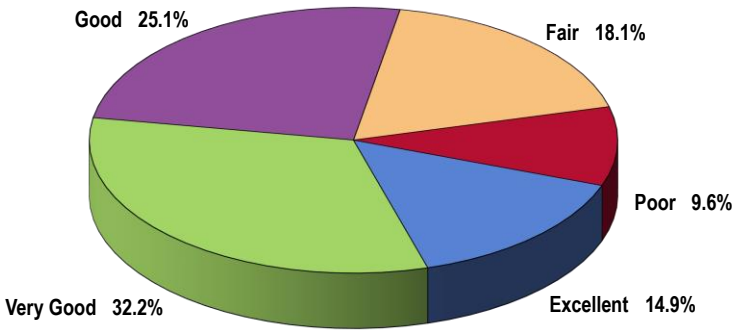
The initial inquiry of the PRC Community Health Survey asked respondents the following:

"Would you say that in general your health is: excellent, very good, good, fair or poor?"

A total of 47.1% of Total Service Area adults rate their overall health as "excellent" or "very good."

- Another 25.1% gave "good" ratings of their overall health.

Self-Reported Health Status
(Total Service Area, 2017)

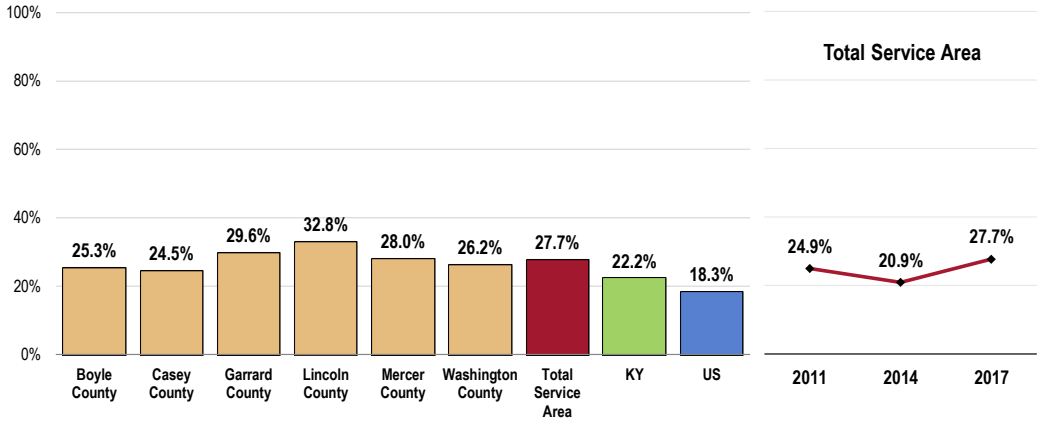


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
Notes: • Asked of all respondents.

However, 27.7% of Total Service Area adults believe that their overall health is "fair" or "poor."

- Above the statewide and national findings.
- Statistically similar by county.
- TREND: No statistically significant change has occurred when comparing "fair/poor" overall health reports to 2011 survey results (but marking a statistically significant increase in low ratings since 2014).

Experience "Fair" or "Poor" Overall Health



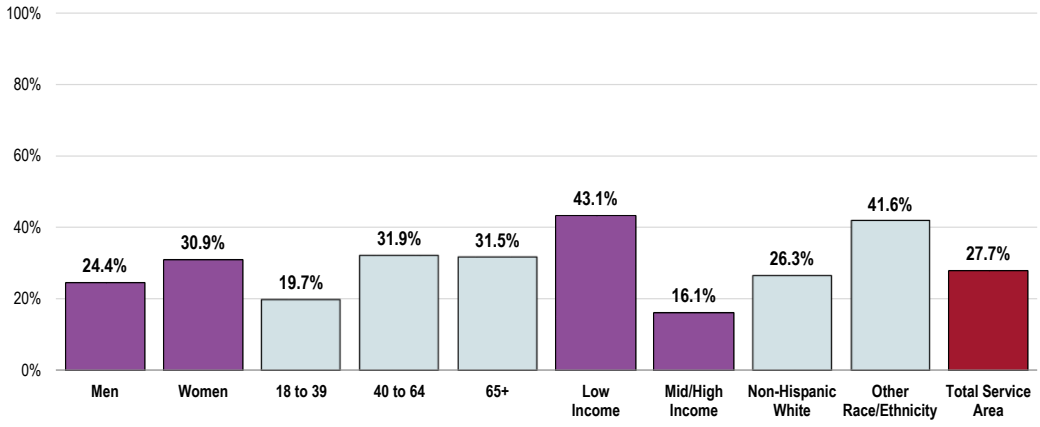
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Adults more likely to report experiencing "fair" or "poor" overall health include:

- Women.
- Residents age 40 and older.
- Residents living at lower incomes.
- Other race/ethnicities.

Experience "Fair" or "Poor" Overall Health
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Activity Limitations

About Disability & Health

An individual can get a disabling impairment or chronic condition at any point in life. Compared with people without disabilities, people with disabilities are more likely to:

- Experience difficulties or delays in getting the health care they need.
- Not have had an annual dental visit.
- Not have had a mammogram in past 2 years.
- Not have had a Pap test within the past 3 years.
- Not engage in fitness activities.
- Use tobacco.
- Be overweight or obese.
- Have high blood pressure.
- Experience symptoms of psychological distress.
- Receive less social-emotional support.
- Have lower employment rates.

There are many social and physical factors that influence the health of people with disabilities. The following three areas for public health action have been identified, using the International Classification of Functioning, Disability, and Health (ICF) and the three World Health Organization (WHO) principles of action for addressing health determinants.

- **Improve the conditions of daily life** by: encouraging communities to be accessible so all can live in, move through, and interact with their environment; encouraging community living; and removing barriers in the environment using both physical universal design concepts and operational policy shifts.
- **Address the inequitable distribution of resources among people with disabilities and those without disabilities** by increasing: appropriate health care for people with disabilities; education and work opportunities; social participation; and access to needed technologies and assistive supports.
- **Expand the knowledge base and raise awareness about determinants of health for people with disabilities** by increasing: the inclusion of people with disabilities in public health data collection efforts across the lifespan; the inclusion of people with disabilities in health promotion activities; and the expansion of disability and health training opportunities for public health and health care professionals.

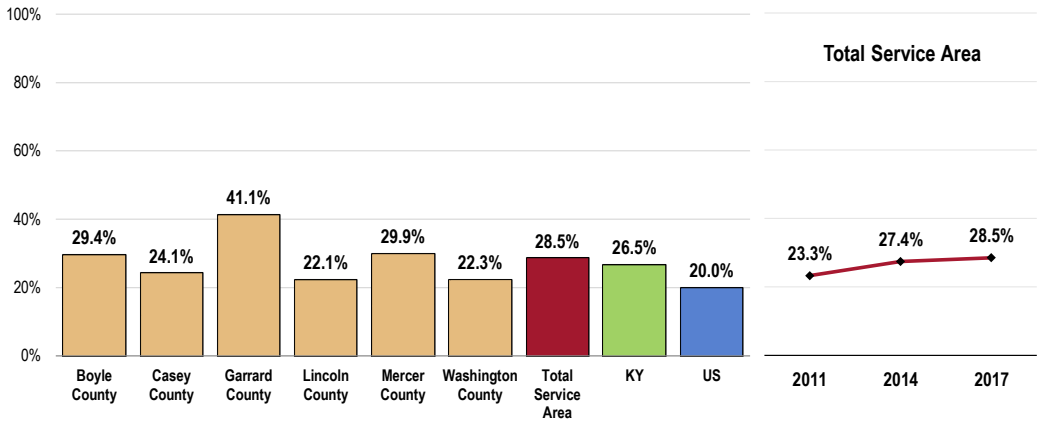
- Healthy People 2020 (www.healthypeople.gov)

A total of 28.5% of Total Service Area adults are limited in some way in some activities due to a physical, mental or emotional problem.

RELATED ISSUE:
See also *Potentially Disabling Conditions* in the **Death, Disease & Chronic Conditions** section of this report.

- Similar to the prevalence statewide.
- Less favorable than the national prevalence.
- Unfavorably high in Garrard County.
- TREND: Marks a statistically significant increase in activity limitations over time.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

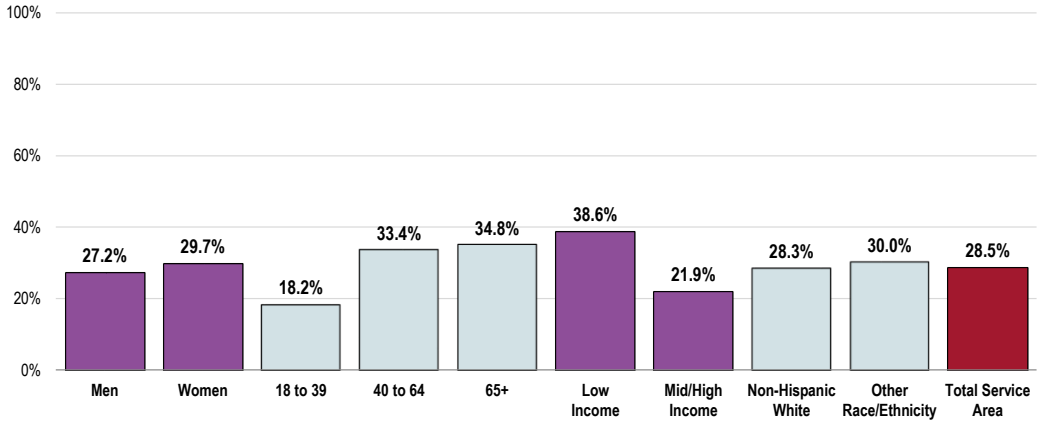
Notes:
- Asked of all respondents.

In looking at responses by key demographic characteristics, these adults are statistically more likely to report some type of activity limitation:

- Adults age 40 and older (note the positive correlation with age).
- Those in households with lower incomes.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]

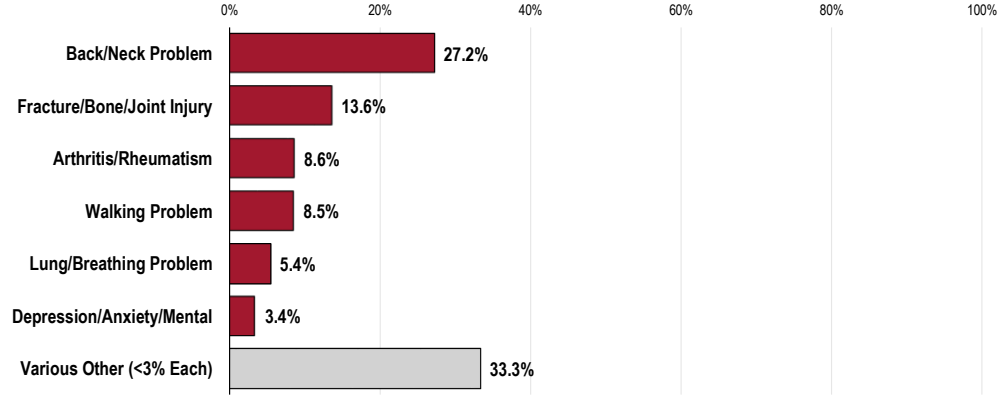
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Among persons reporting activity limitations, these are most often attributed to musculo-skeletal issues, such as back/neck problems, fractures or bone/joint injuries, arthritis/ rheumatism, or difficulty walking.

Other limitations noted with some frequency include those related to lung/breathing problems and mental health (depression, anxiety).

Type of Problem That Limits Activities

(Among Those Reporting Activity Limitations; Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 129]
Notes: ● Asked of those respondents reporting activity limitations.

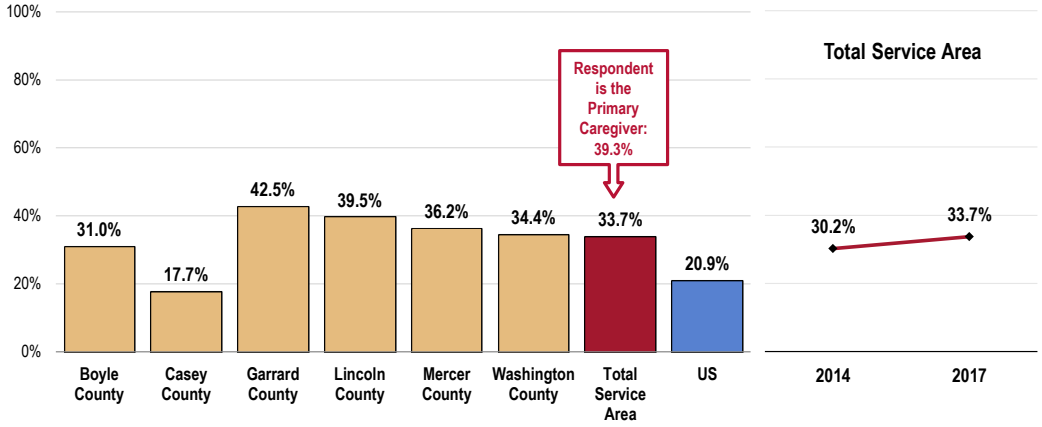
Caregiving

A total of 33.7% of Total Service Area adults currently provide care or assistance to a friend or family member who has a health problem, long-term illness, or disability.

- Much higher than the US prevalence.
- Lowest in Casey County, highest in Garrard County.
- TREND: Statistically unchanged over time.

Of these adults, 39.3% are the ***primary*** caregiver for the individual receiving care.

Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability



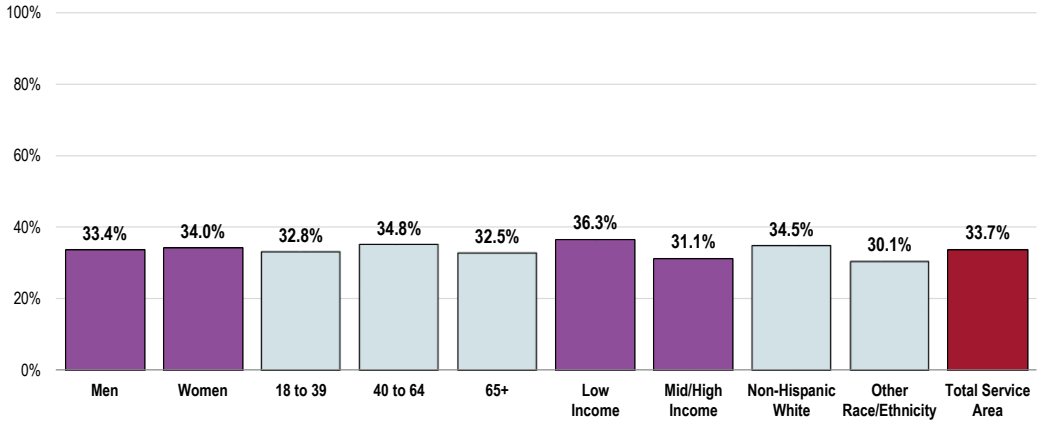
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 130-131]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

- Viewed by demographic characteristics, the findings are statistically similar.

Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 130]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Survey respondents who provide care for a relative or non-family member were further asked to report on the person's age and relationship to the respondent.

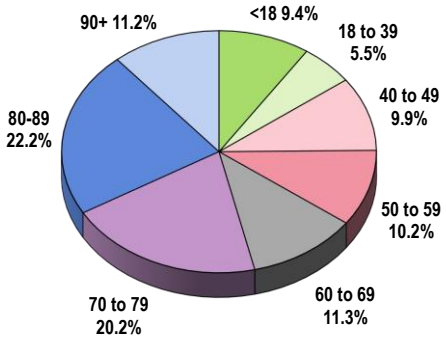
Ages ranged from children under 18 to adults over 90, with over half of the responses (53.6%) for care recipients age 70 and above.

With regard to the relationship to the respondent providing the care, the largest share of responses was by adults caring for their parents (22.9%), followed by care given to non-relatives (19.7%) and spouses (16.3%).

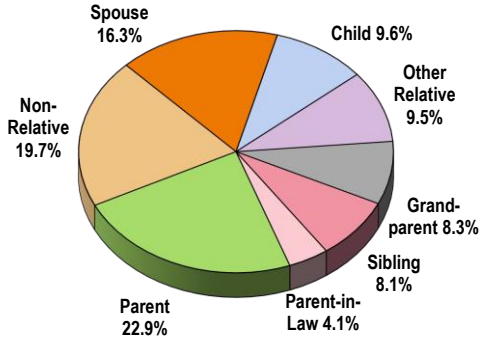
- Other recipients of care mentioned less often included children, grandparents, siblings, in-laws, and other relatives.

Caregiving Recipients

(Among Adults Who Provide Care to Another; TSA, 2017)



Age of Care Recipient



Relationship to Respondent

Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 303-304]
Notes: ● Reflects those respondents who provide care or assistance to another person.

Mental Health

About Mental Health & Mental Disorders

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, or death. Mental illness is the term that refers collectively to all diagnosable mental disorders. Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

The existing model for understanding mental health and mental disorders emphasizes the interaction of social, environmental, and genetic factors throughout the lifespan. In behavioral health, researchers identify: **risk factors**, which predispose individuals to mental illness; and **protective factors**, which protect them from developing mental disorders. Researchers now know that the prevention of mental, emotional, and behavioral (MEB) disorders is inherently interdisciplinary and draws on a variety of different strategies. Over the past 20 years, research on the prevention of mental disorders has progressed. The major areas of progress include evidence that:

- MEB disorders are common and begin early in life.
- The greatest opportunity for prevention is among young people.
- There are multiyear effects of multiple preventive interventions on reducing substance abuse, conduct disorder, antisocial behavior, aggression, and child maltreatment.
- The incidence of depression among pregnant women and adolescents can be reduced.
- School-based violence prevention can reduce the base rate of aggressive problems in an average school by 25 to 33%.
- There are potential indicated preventive interventions for schizophrenia.
- Improving family functioning and positive parenting can have positive outcomes on mental health and can reduce poverty-related risk.
- School-based preventive interventions aimed at improving social and emotional outcomes can also improve academic outcomes.
- Interventions targeting families dealing with adversities, such as parental depression or divorce, can be effective in reducing risk for depression in children and increasing effective parenting.
- Some preventive interventions have benefits that exceed costs, with the available evidence strongest for early childhood interventions.
- Implementation is complex, it is important that interventions be relevant to the target audiences.
- In addition to advancements in the prevention of mental disorders, there continues to be steady progress in treating mental disorders as new drugs and stronger evidence-based outcomes become available.

- Healthy People 2020 (www.healthypeople.gov)

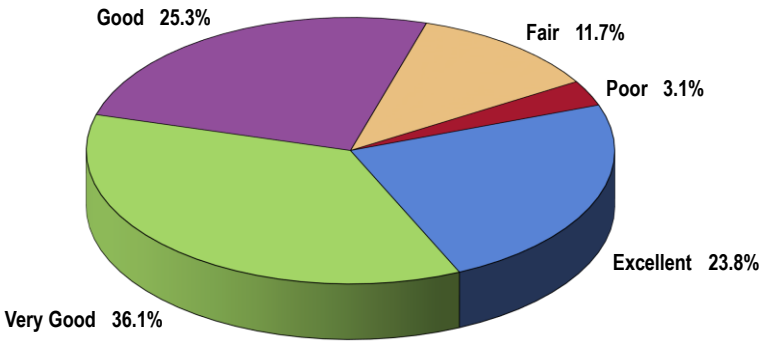
Evaluation of Mental Health Status

"Now thinking about your mental health, which includes stress, depression and problems with emotions, would you say that, in general, your mental health is: excellent, very good, good, fair or poor?"

A total of 59.9% of Total Service Area adults rate their overall mental health as "excellent" or "very good."

- Another 25.3% gave "good" ratings of their own mental health status.

Self-Reported Mental Health Status
(Total Service Area, 2017)

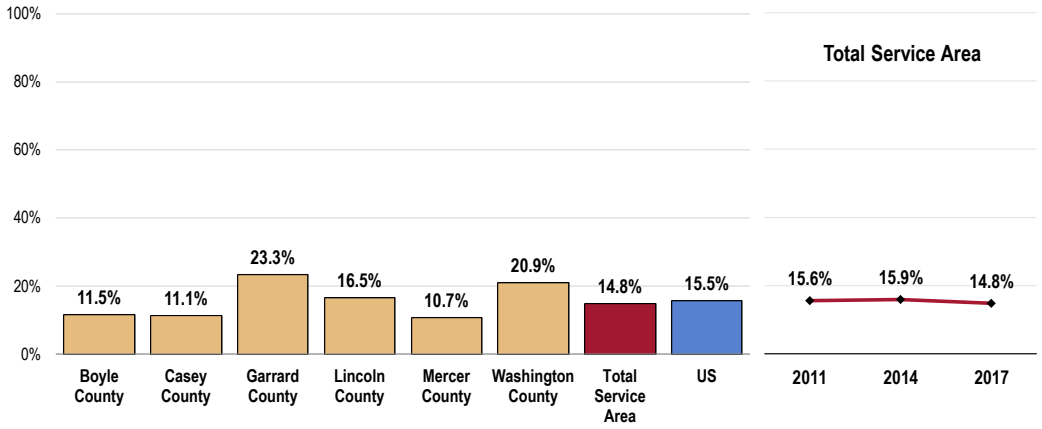


Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 116]
Notes: ● Asked of all respondents.

A total of 14.8% of Total Service Area adults, however, believe that their overall mental health is "fair" or "poor."

- Similar to the "fair/poor" response reported nationally.
- Unfavorably high in Garrard County.
- TREND: Statistically unchanged over time.

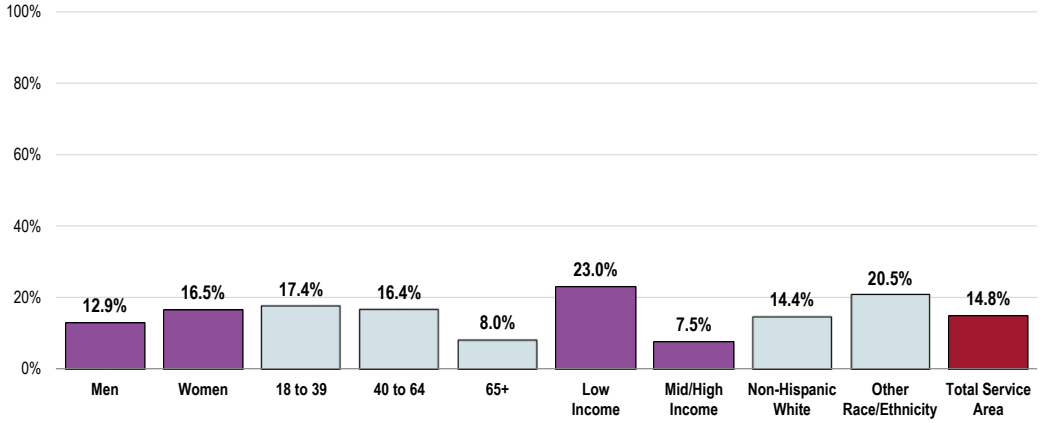
Experience "Fair" or "Poor" Mental Health



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 116]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

- Adults under 65 and low-income residents are much more likely to report experiencing "fair/poor" mental health than their demographic counterparts.

Experience "Fair" or "Poor" Mental Health
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 116]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

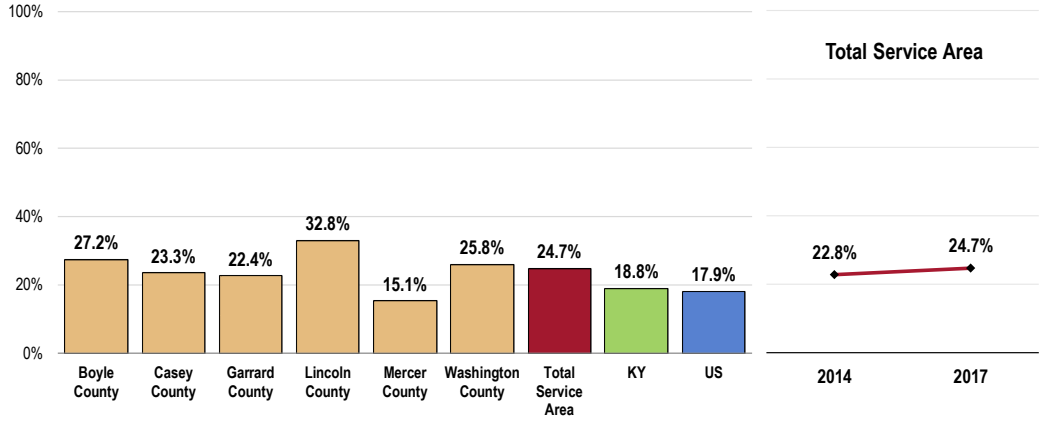
Depression

Diagnosed Depression

A total of 24.7% of Total Service Area adults have been diagnosed by a physician as having a depressive disorder (such as depression, major depression, dysthymia, or minor depression).

- Higher than the state and national figures.
- Unfavorably high in Lincoln County; lowest in Mercer County.
- TREND: Statistically unchanged since 2014.

Have Been Diagnosed With a Depressive Disorder



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 119]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

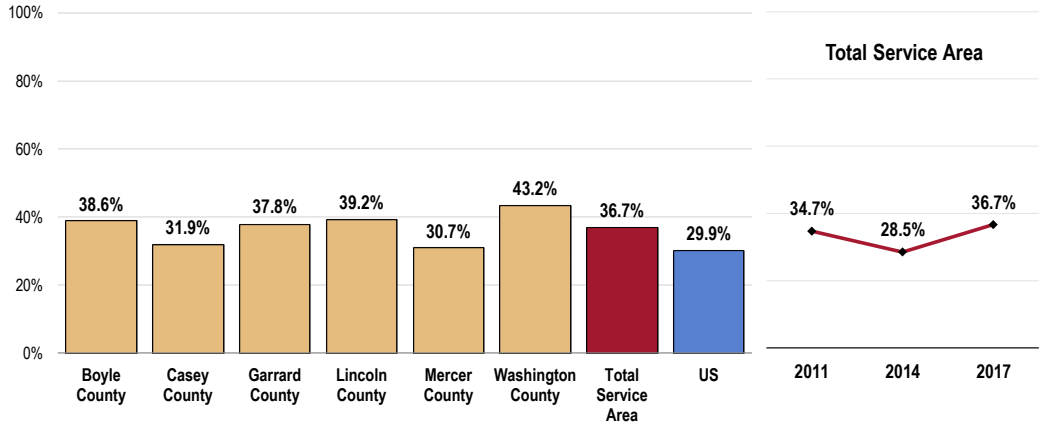
Notes:
- Asked of all respondents.
- Depressive disorders include depression, major depression, dysthymia, or minor depression.

Symptoms of Chronic Depression

A total of 36.7% of Total Service Area adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

- Less favorable than national findings.
- Statistically similar by county.
- TREND: Similar to the prevalence in 2011 but marking a statistically significant increase from 2014 survey findings.

Have Experienced Symptoms of Chronic Depression



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 117]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

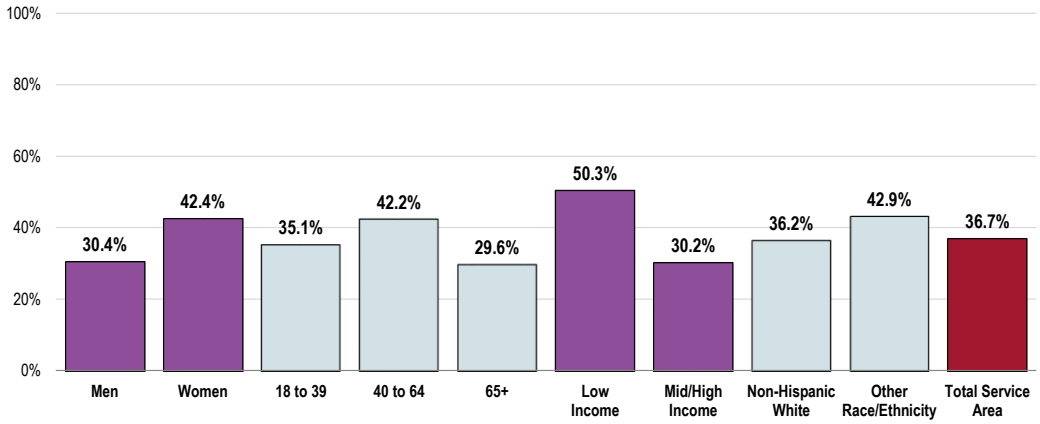
Notes:
- Asked of all respondents.
- Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

Note that the prevalence of chronic depression is notably higher among:

- Women.
- Adults age 40 to 64.
- Adults with lower incomes.

Have Experienced Symptoms of Chronic Depression

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 117]

Notes:
- Asked of all respondents.
- Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Stress

More than 4 in 10 Total Service Area adults consider their typical day to be "not very stressful" (28.8%) or "not at all stressful" (16.3%).

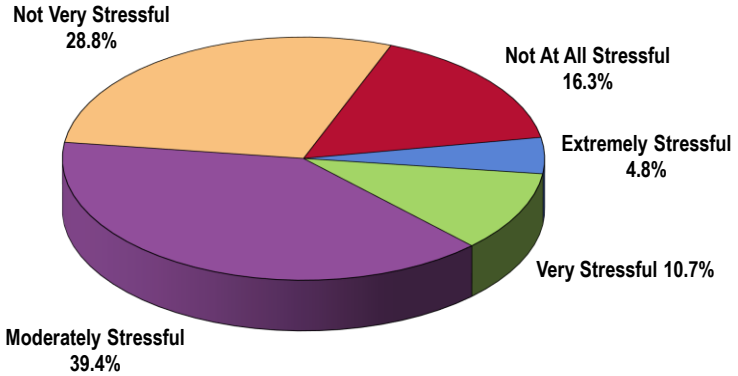
RELATED ISSUE:

See also *Substance Abuse* in the **Modifiable Health Risks** section of this report.

- Another 39.4% of survey respondents characterize a typical day as "moderately stressful."

Perceived Level of Stress On a Typical Day

(Total Service Area, 2017)



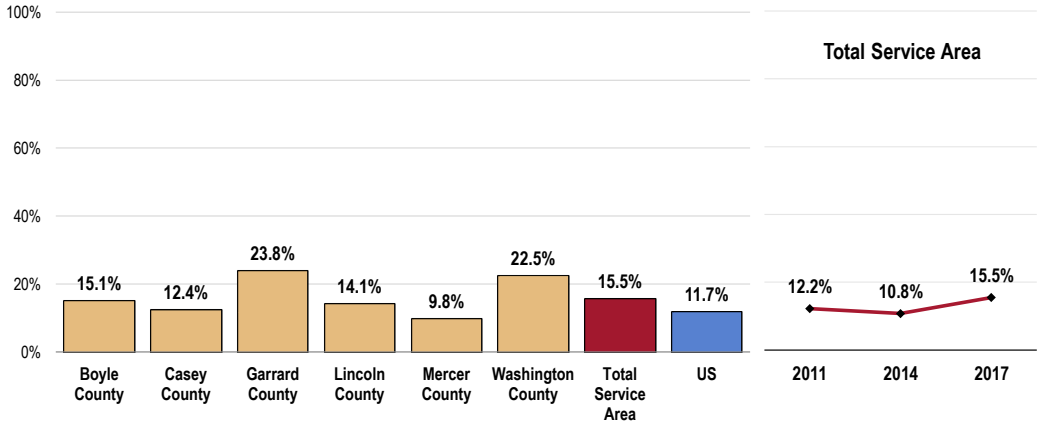
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 118]

Notes:
- Asked of all respondents.

In contrast, 15.5% of Total Service Area adults experience "very" or "extremely" stressful days on a regular basis.

- Less favorable than national findings.
- Lowest in Mercer County; highest in Garrard County.
- TREND: A statistically significant increase from previous survey findings.

Perceive Most Days As "Extremely" or "Very" Stressful



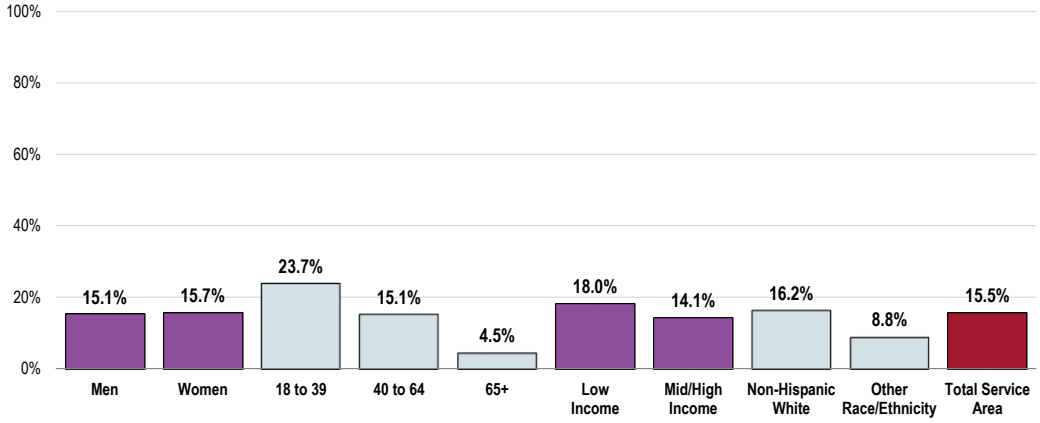
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 118]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

- Note the negative correlation between age and high stress levels in the service area.
- Non-Hispanic Whites are also more likely to report high daily stress levels.

Perceive Most Days as "Extremely" or "Very" Stressful

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 118]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Suicide

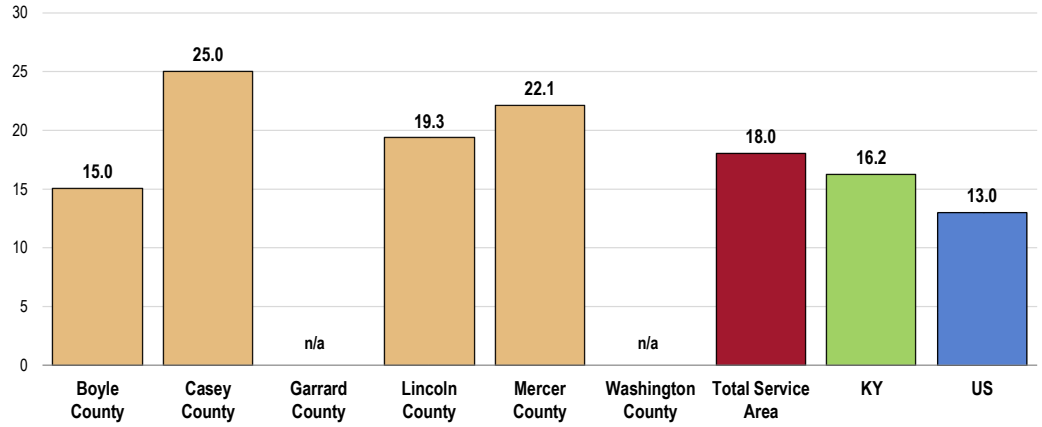
Between 2013 and 2015, there was an annual average age-adjusted suicide rate of 18.0 deaths per 100,000 population in the Total Service Area.

- Higher than the statewide and national rates.
- Fails to satisfy the Healthy People 2020 target of 10.2 or lower.
- Ranging considerably by county (raw counts were too low for calculation in some).

Suicide: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 10.2 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MHMD-1]

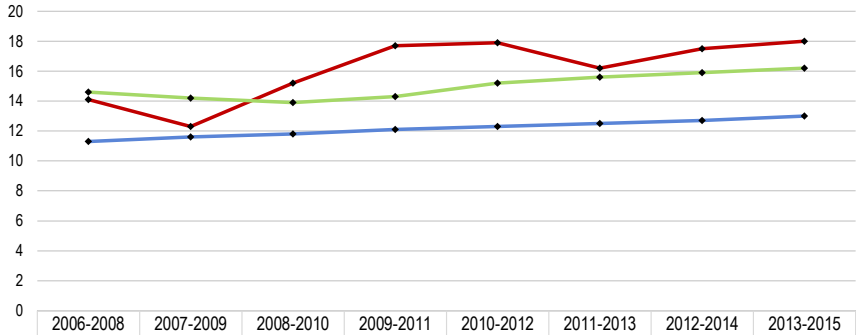
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The area suicide rate has overall trended upward.

Suicide: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 10.2 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	14.1	12.3	15.2	17.7	17.9	16.2	17.5	18.0
KY	14.6	14.2	13.9	14.3	15.2	15.6	15.9	16.2
US	11.3	11.6	11.8	12.1	12.3	12.5	12.7	13.0

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MHMD-1]

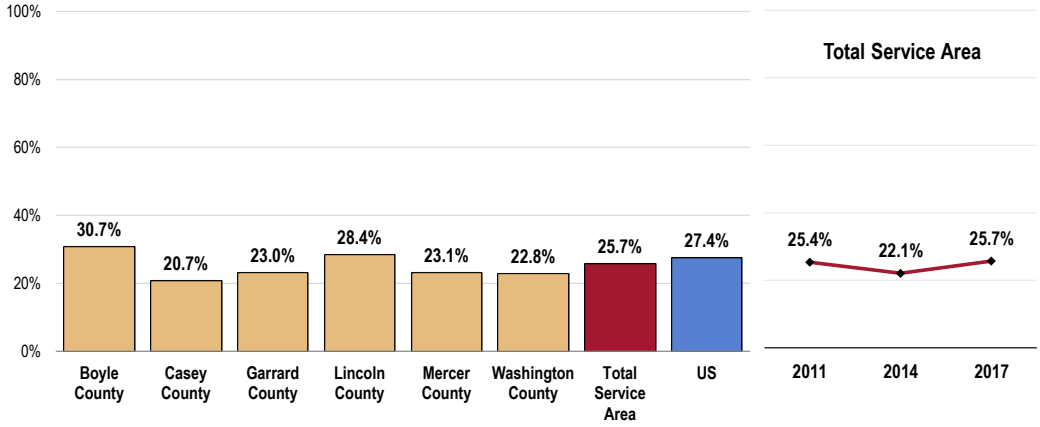
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Mental Health Treatment

A total of 25.7% of Total Service Area adults acknowledge having ever sought professional help for a mental or emotional problem.

- Comparable to national findings.
- Highest in Boyle County.
- TREND: Statistically unchanged over time.

Ever Sought Help for a Mental or Emotional Problem



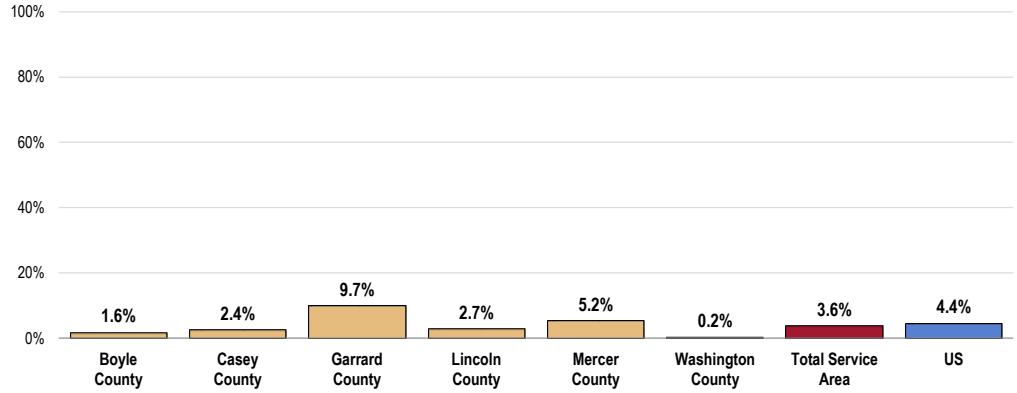
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 121]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Difficulty Accessing Mental Health Services

A total of 3.6% of Total Service Area adults report a time in the past year when they needed mental health services, but were not able to get them.

- Similar to the national findings.
- Unfavorably high in Garrard County; lowest in Boyle and Washington counties.

Unable to Get Mental Health Services When Needed in the Past Year

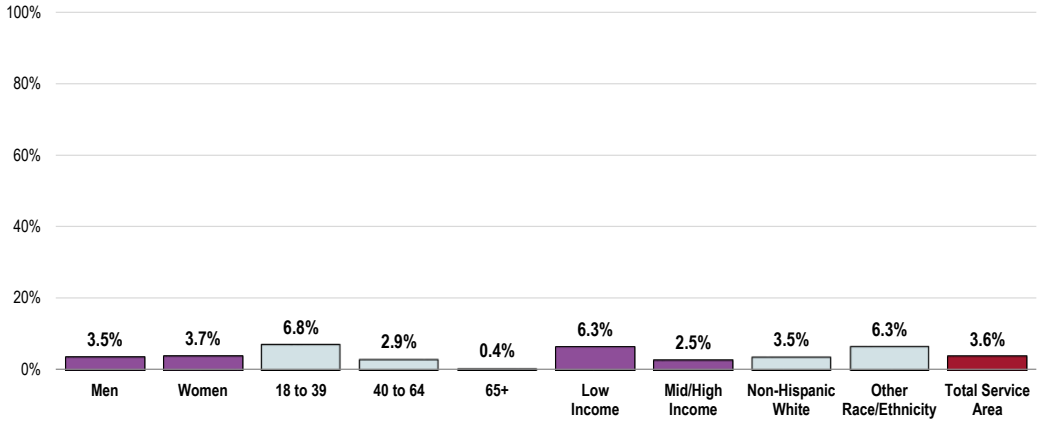


Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 122]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Note that access difficulty is notably more prevalent among:

- Adults under age 65 (note the negative correlation).
- Adults with lower incomes.

Unable to Get Mental Health Services When Needed in the Past Year
(Total Service Area, 2017)



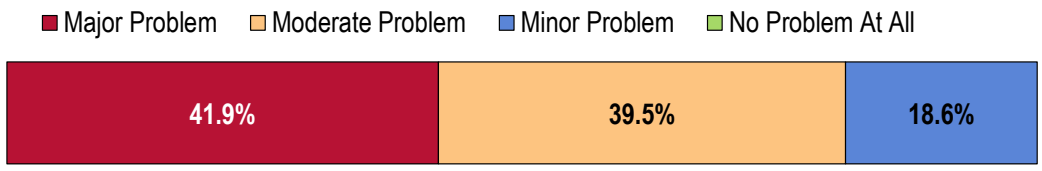
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 122]
Notes: • Asked of all respondents.
• Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Among the 18 persons citing difficulties accessing mental health services in the past year, these are predominantly attributed to **stress** (mentioned by 38.8%), **lack of insurance** (18.8%), and **availability of services** (18.6%). Reasons mentioned less frequently include barriers such as cost of services, insurance affiliation, and location.

Key Informant Input: Mental Health

The greatest share of key informants taking part in an online survey characterized *Mental Health* as a "major problem" in the community.

Perceptions of Mental Health as a Problem in the Community
(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Challenges

Among those rating this issue as a "major problem," the following represent what key informants see as the main challenges for persons with mental illness:

Access to Care/Services

We do not have a clear mental health network. – Community Leader

When families/students agree to receive assistance to address mental health issues/needs, we do not have systems of support in place. Our referrals are always to outside the community agencies. And many times, the facilities are overcrowded or the service provider is not taking new clients. If residential treatment is needed, many of our families are turned away, and families/students go untreated. – Community Leader

No long-term support facility. – Community Leader

Access to extended mental health care. – Community Leader

We are extremely limited in available treatment centers- not only in our region, but in Kentucky. I think there are options in Louisville, Lexington and E-town, but outside of that, I am not aware of any true treatment options for people with mental illness. – Community Leader

Access to services. – Community Leader

There are very limited amount of resources in this area to help with mental illness, especially among school-aged children. – Community Leader

Locally provided mental health counseling no longer available in Mercer County. Bluegrass.org closed their office. – Public Health Representative

Lack of Providers

Lack of affordable, qualified mental health professionals for outpatient and inpatient care. – Public Health Representative

Lack of providers. – Public Health Representative

Access to care, such as a psychiatrist. – Physician

Co-Occurrences

Drug addiction and the break-up of the family unit. – Community Leader

Social-economic well-being, leading to drugs and mental health issues. – Community Leader

Denial/Stigma

Stigma of treatment. No readily available treatment. Misunderstanding about the nature of mental illness. – Community Leader

Prevalence/Incidence

Number of cases I hear about. – Social Services Provider

Death, Disease & Chronic Conditions

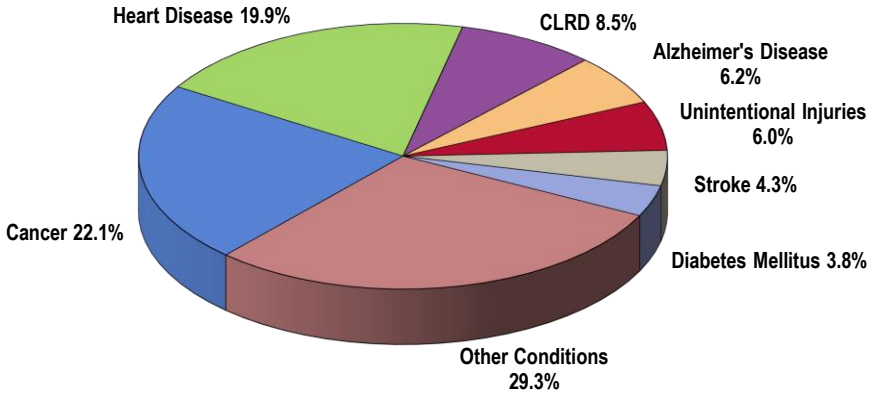
Professional Research Consultants, Inc.

Leading Causes of Death

Distribution of Deaths by Cause

Together, cardiovascular disease (heart disease and stroke) and cancers accounted for nearly one-half of all deaths in the Total Service Area in 2015.

Leading Causes of Death
(Total Service Area, 2015)



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- CLRD is chronic lower respiratory disease.

Age-Adjusted Death Rates for Selected Causes

In order to compare mortality in the region with other localities (in this case, Kentucky and the United States), it is necessary to look at *rates* of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these "age-adjusted" rates provides the most valuable means of gauging mortality against benchmark data, as well as *Healthy People 2020* targets.

For infant mortality data, see *Birth Outcomes & Risks* in the **Births** section of this report.

The following chart outlines 2013–2015 annual average age-adjusted death rates per 100,000 population for selected causes of death in the Total Service Area.

Each of these is discussed in greater detail in subsequent sections of this report.

Age-Adjusted Death Rates for Selected Causes

(2013-2015 Deaths per 100,000 Population)

	Total Service Area	KY	US	HP2020
Malignant Neoplasms (Cancers)	191.1	198.0	161.0	161.4
Diseases of the Heart	180.1	200.6	168.4	156.9*
Chronic Lower Respiratory Disease (CLRD)	68.9	64.2	41.4	n/a
Unintentional Injuries	54.6	60.0	41.0	36.4
Alzheimer's Disease	50.4	32.8	26.1	n/a
Cerebrovascular Disease (Stroke)	37.8	41.4	36.8	34.8
Diabetes Mellitus	26.0	25.2	21.1	20.5*
Falls (65+)	22.4	42.1	59.0	47.0
Drug-Induced	19.3	27.2	15.8	11.3
Pneumonia/Influenza	19.2	19.7	15.4	n/a
Intentional Self-Harm (Suicide)	18.0	16.2	13.0	10.2
Motor Vehicle Deaths	17.5	15.7	10.6	12.4
Kidney Disease	17.2	19.9	13.3	n/a
Firearm-Related	13.2	14.3	10.6	9.3
Cirrhosis/Liver Disease	9.9	11.6	10.5	8.2
Homicide (2006-2015)	3.1	5.0	5.6	5.5

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov.

Note:
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population and coded using ICD-10 codes.
- *The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart; the Diabetes target is adjusted to reflect only diabetes mellitus-coded deaths.

Cardiovascular Disease

About Heart Disease & Stroke

Heart disease is the leading cause of death in the United States, with stroke following as the third leading cause. Together, heart disease and stroke are among the most widespread and costly health problems facing the nation today, accounting for more than $500 billion in healthcare expenditures and related expenses in 2010 alone. Fortunately, they are also among the most preventable.

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity

The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made across the US population in diet and physical activity, control of high blood pressure and cholesterol, smoking cessation, and appropriate aspirin use.

The burden of cardiovascular disease is disproportionately distributed across the population. There are significant disparities in the following based on gender, age, race/ethnicity, geographic area, and socioeconomic status:

- Prevalence of risk factors
- Access to treatment
- Appropriate and timely treatment
- Treatment outcomes
- Mortality

Disease does not occur in isolation, and cardiovascular disease is no exception. Cardiovascular health is significantly influenced by the physical, social, and political environment, including: maternal and child health; access to educational opportunities; availability of healthy foods, physical education, and extracurricular activities in schools; opportunities for physical activity, including access to safe and walkable communities; access to healthy foods; quality of working conditions and worksite health; availability of community support and resources; and access to affordable, quality healthcare.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Heart Disease & Stroke Deaths

Heart Disease Deaths

The greatest share of cardiovascular deaths is attributed to heart disease.

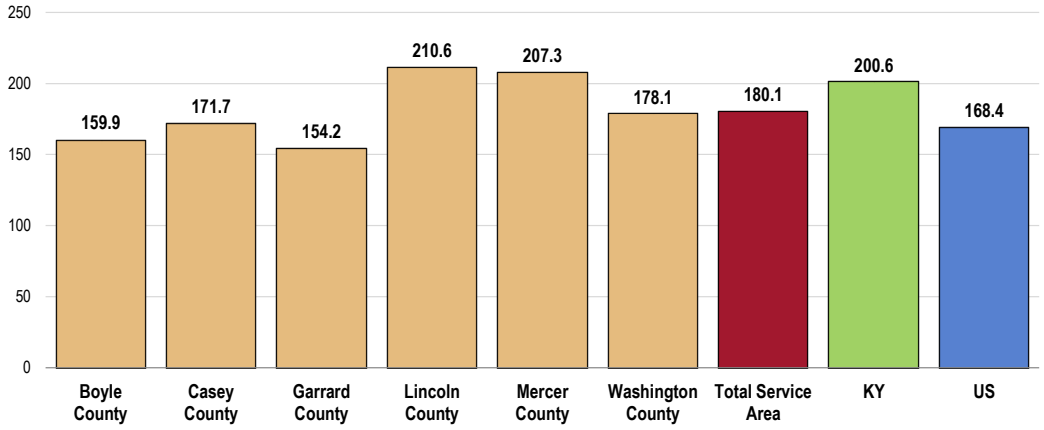
Between 2013 and 2015 there was an annual average age-adjusted heart disease mortality rate of 180.1 deaths per 100,000 population in the Total Service Area.

- Lower than the statewide rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target of 156.9 or lower (as adjusted to account for all diseases of the heart).
- Favorably lower in Boyle and Garrard counties; unfavorably high in Lincoln and Mercer counties.

Heart Disease: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 156.9 or Lower (Adjusted)



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-2]

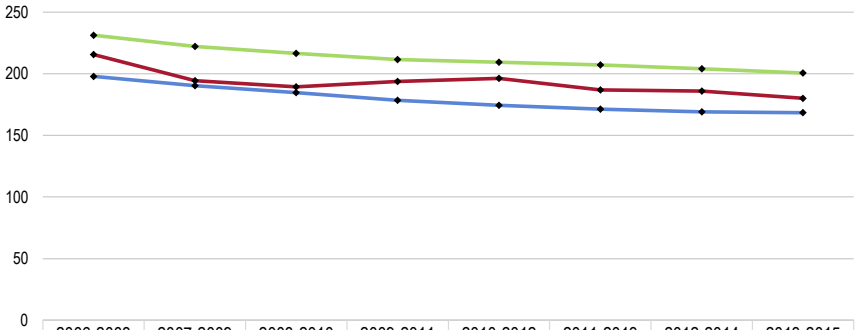
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

- TREND: The heart disease mortality rate has decreased in the Total Service Area, echoing the decreasing trends across Kentucky and the US overall.

Heart Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 156.9 or Lower (Adjusted)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	215.6	194.4	189.3	193.8	196.1	187.0	186.1	180.1
KY	231.3	222.3	216.6	211.5	209.4	207.2	204.0	200.6
US	197.9	190.3	184.7	178.5	174.4	171.3	169.1	168.4

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-2]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

Stroke Deaths

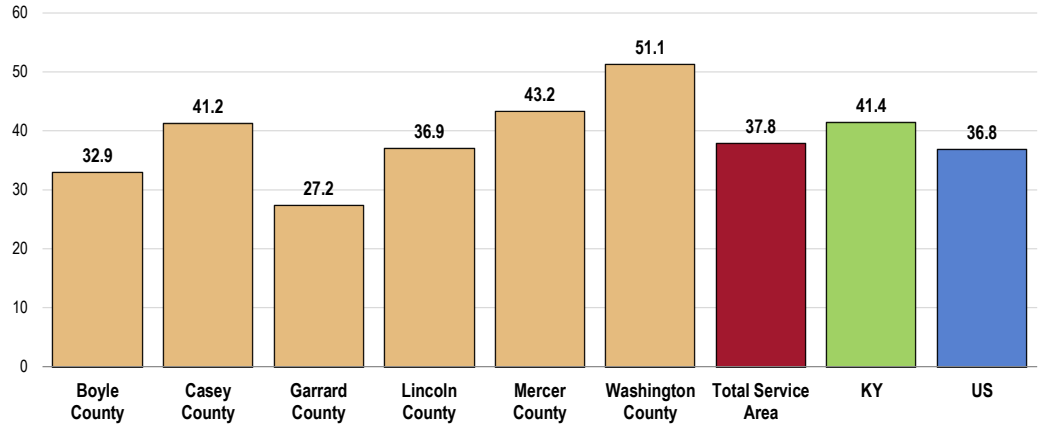
Between 2013 and 2015, there was an annual average age-adjusted stroke mortality rate of 37.8 deaths per 100,000 population in the Total Service Area.

- Lower than the Kentucky rate.
- Comparable to the US figure.
- Higher than the Healthy People 2020 target of 34.8 or lower.
- Unfavorably high in Casey, Mercer, and Washington counties.

Stroke: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 34.8 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-3]

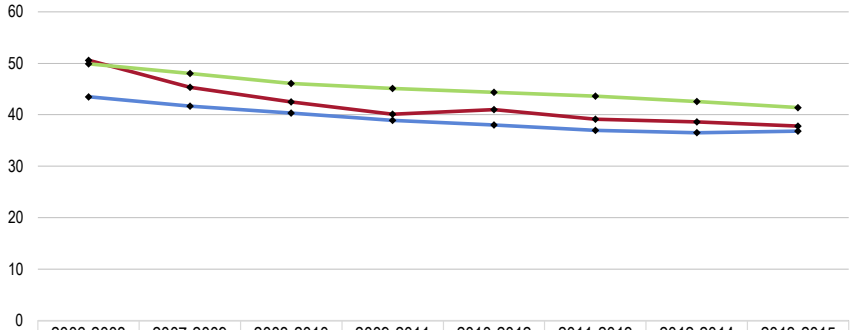
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The stroke rate has declined in recent years, echoing the trends reported statewide and nationally.

Stroke: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 34.8 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	50.6	45.3	42.5	40.1	41.0	39.1	38.6	37.8
KY	49.9	48.0	46.1	45.1	44.4	43.6	42.6	41.4
US	43.5	41.7	40.3	38.9	38.0	37.0	36.5	36.8

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

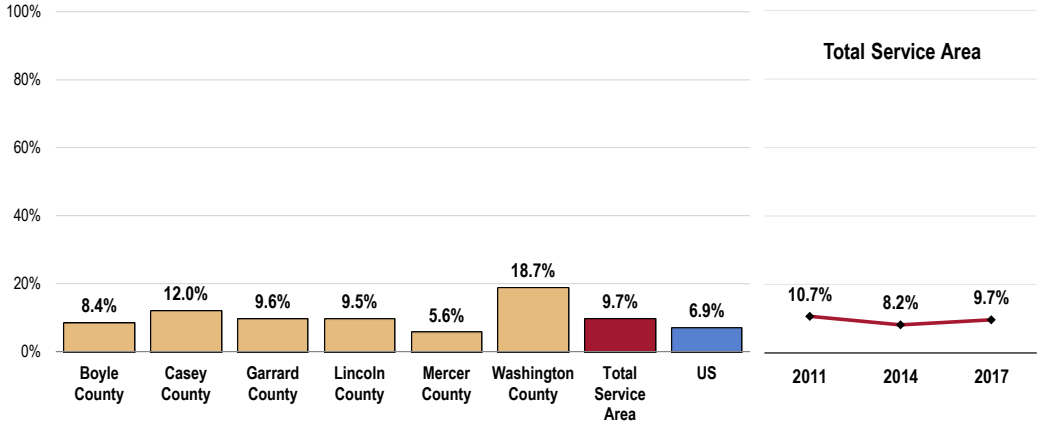
Prevalence of Heart Disease & Stroke

Prevalence of Heart Disease

A total of 9.7% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina or heart attack.

- Higher than the national prevalence.
- Highest in Washington County; lowest in Mercer County.
- TREND: Statistically unchanged over time.

Prevalence of Heart Disease

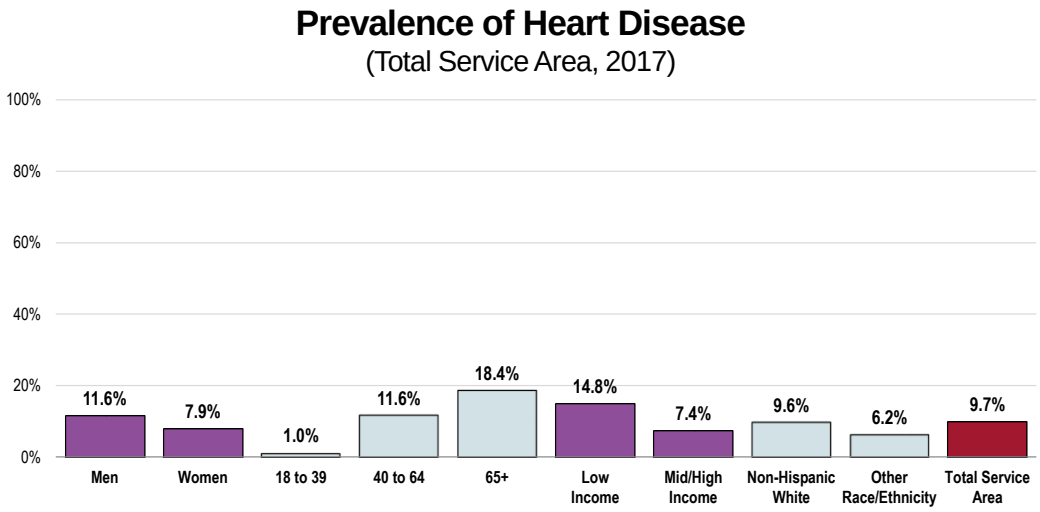


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 146]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina or coronary heart disease.

Adults more likely to have been diagnosed with chronic heart disease include:

- Older adults (positive correlation with age).
- Those in low-income households.



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 146]

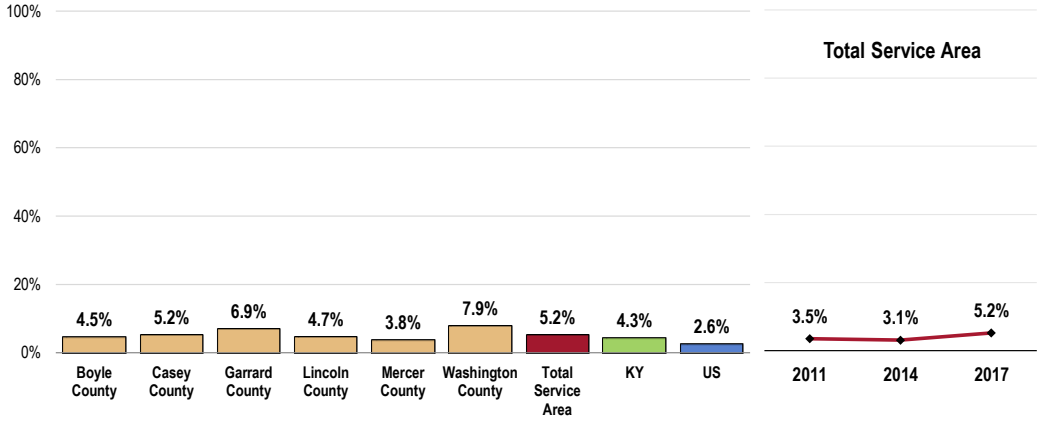
Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina or coronary heart disease.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Prevalence of Stroke

A total of 5.2% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

- Similar to statewide findings.
- Higher than national findings.
- Comparable findings by county.
- TREND: Statistically unchanged over time.

Prevalence of Stroke



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 35]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

Notes:
- Asked of all respondents.

Cardiovascular Risk Factors

About Cardiovascular Risk

Controlling risk factors for heart disease and stroke remains a challenge. High blood pressure and cholesterol are still major contributors to the national epidemic of cardiovascular disease. High blood pressure affects approximately 1 in 3 adults in the United States, and more than half of Americans with high blood pressure do not have it under control. High sodium intake is a known risk factor for high blood pressure and heart disease, yet about 90% of American adults exceed their recommendation for sodium intake.

- Healthy People 2020 (www.healthypeople.gov)

High Blood Pressure

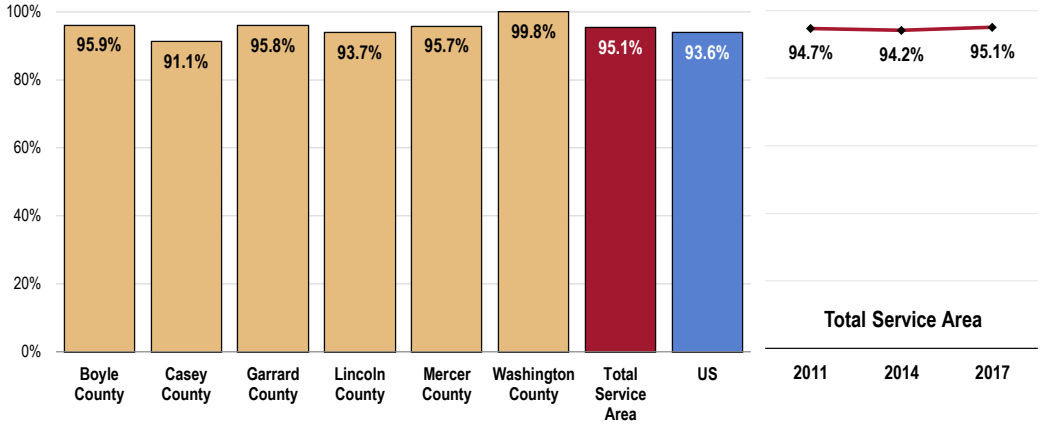
High Blood Pressure Testing

A total of 95.1% of Total Service Area adults have had their blood pressure tested within the past two years.

- Similar to national findings.
- Satisfies the Healthy People 2020 target (92.6% or higher).
- Highest in Washington County.
- TREND: Statistically unchanged over time.

Have Had Blood Pressure Checked in the Past Two Years

Healthy People 2020 Target = 92.6% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 44]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-4]

Notes:
- Asked of all respondents.

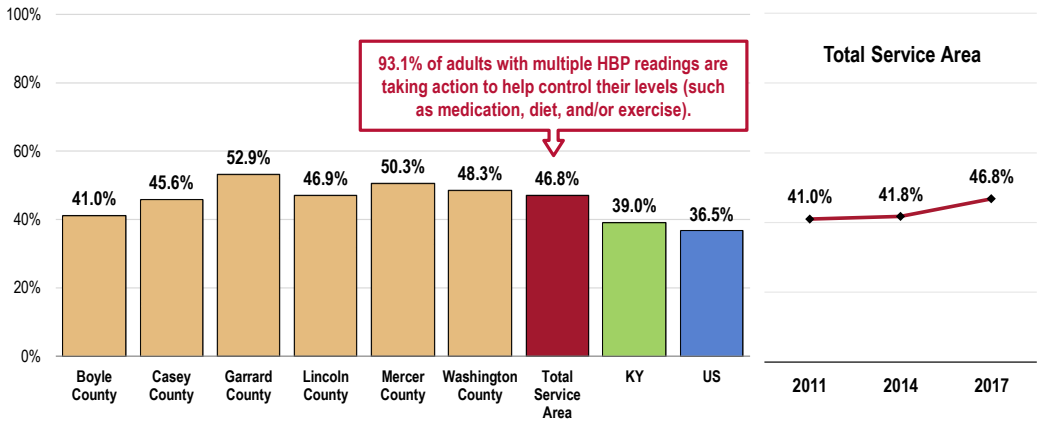
Prevalence of High Blood Pressure

A total of 46.8% of Total Service Area adults have been told at some point that their blood pressure was high.

- Less favorable than the Kentucky and US percentages.
- Far from satisfying the Healthy People 2020 target (26.9% or lower).
- Favorably low in Boyle County.
- TREND: Denotes a statistically significant increase since 2011.
- Among adults with multiple high blood pressure readings, 93.1% are taking action to lower their blood pressure (such as medication, change in diet, and/or exercise).

Prevalence of High Blood Pressure

Healthy People 2020 Target = 26.9% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 43, 147]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-5.1]

Notes:
- Asked of all respondents.

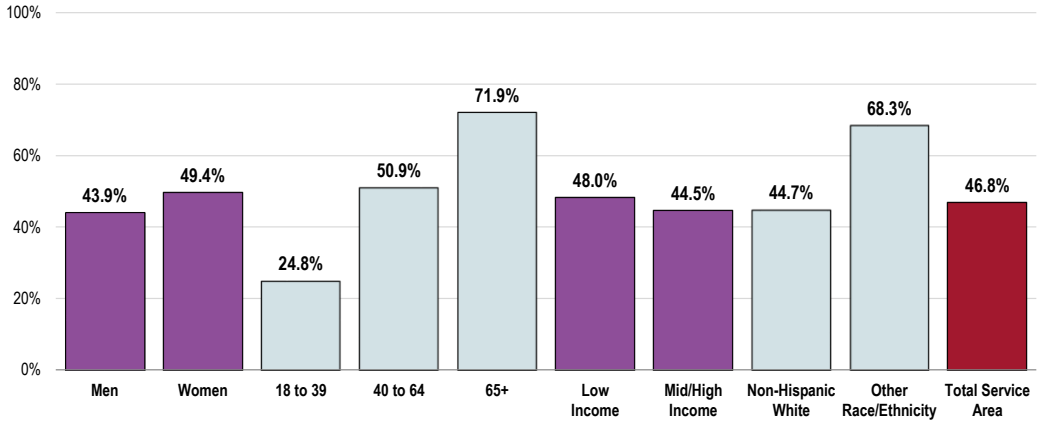
High blood pressure is more prevalent among:

- Adults age 40 and older, and especially those age 65+.
- Other races/ethnicities.

Prevalence of High Blood Pressure

(Total Service Area, 2017)

Healthy People 2020 Target = 26.9% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 147]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-5.1]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

High Blood Cholesterol

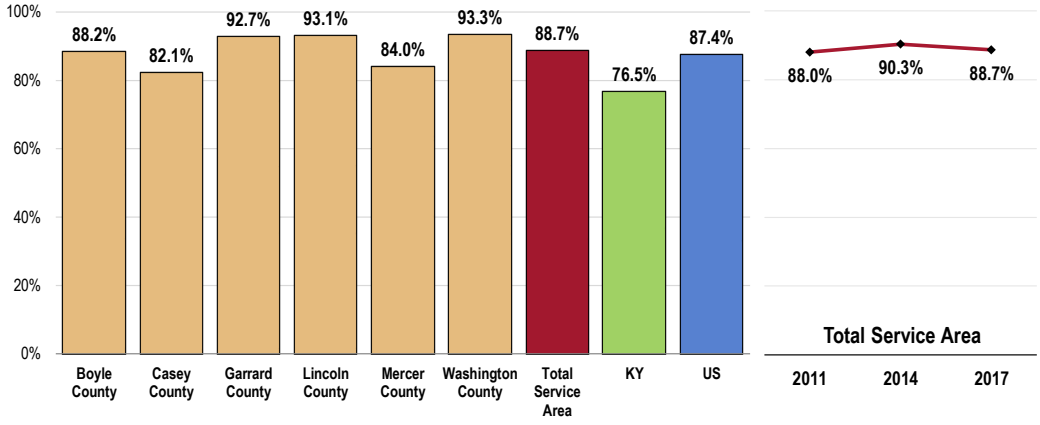
Blood Cholesterol Testing

A total of 88.7% of Total Service Area adults have had their blood cholesterol checked within the past five years.

- Higher than Kentucky findings.
- Comparable to the national findings.
- Satisfies the Healthy People 2020 target (82.1% or higher).
- Statistically highest in Lincoln County.
- TREND: Statistically unchanged over time.

Have Had Blood Cholesterol Levels Checked in the Past Five Years

Healthy People 2020 Target = 82.1% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 47]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-6]

Notes:
- Asked of all respondents.

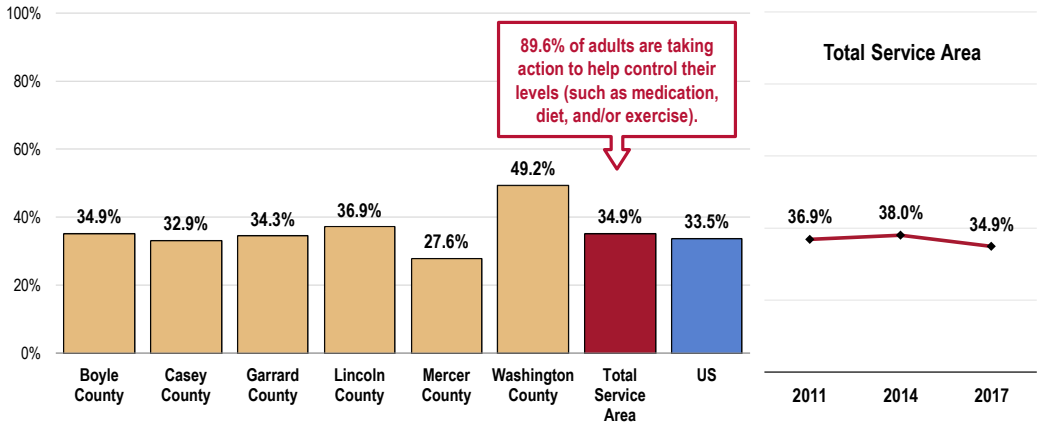
Prevalence of High Blood Cholesterol

A total of 34.9% of adults have been told by a health professional that their cholesterol level was high.

- Similar to the national prevalence.
- Over twice the Healthy People 2020 target (13.5% or lower).
- Unfavorably high in Washington County.
- TREND: Statistically unchanged over time.
- Among adults with high blood cholesterol readings, 89.6% are taking action to lower their numbers (such as medication, change in diet, and/or exercise).

Prevalence of High Blood Cholesterol

Healthy People 2020 Target = 13.5% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 46, 148]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-7]

Notes:
- Asked of all respondents.

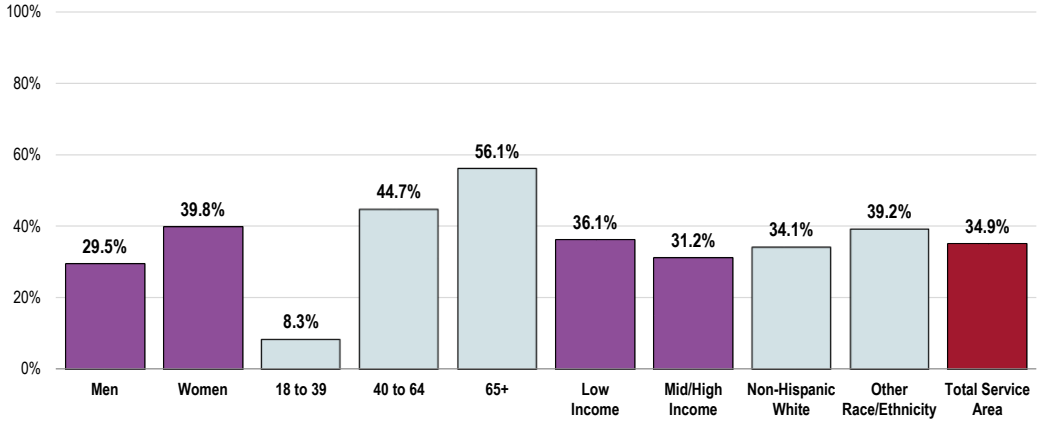
Further note the following:

- Women are more likely than men in the Total Service Area to report high blood cholesterol levels.
- There is a strong positive correlation between age and high blood cholesterol levels.

Prevalence of High Blood Cholesterol

(Total Service Area, 2017)

Healthy People 2020 Target = 13.5% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 148]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-7]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

About Cardiovascular Risk

Individual level risk factors which put people at increased risk for cardiovascular diseases include:

- High Blood Pressure
- High Blood Cholesterol
- Tobacco Use
- Physical Inactivity
- Poor Nutrition
- Overweight/Obesity
- Diabetes

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Three health-related behaviors contribute markedly to cardiovascular disease:

Poor nutrition. People who are overweight have a higher risk for cardiovascular disease. Almost 60% of adults are overweight or obese. To maintain a proper body weight, experts recommend a well-balanced diet which is low in fat and high in fiber, accompanied by regular exercise.

Lack of physical activity. People who are not physically active have twice the risk for heart disease of those who are active. More than half of adults do not achieve recommended levels of physical activity.

Tobacco use. Smokers have twice the risk for heart attack of nonsmokers. Nearly one-fifth of all deaths from cardiovascular disease, or about 190,000 deaths a year nationally, are smoking-related. Every day, more than 3,000 young people become daily smokers in the US

Modifying these behaviors is critical both for preventing and for controlling cardiovascular disease. Other steps that adults who have cardiovascular disease should take to reduce their risk of death and disability include adhering to treatment for high blood pressure and cholesterol, using aspirin as appropriate, and learning the symptoms of heart attack and stroke.

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

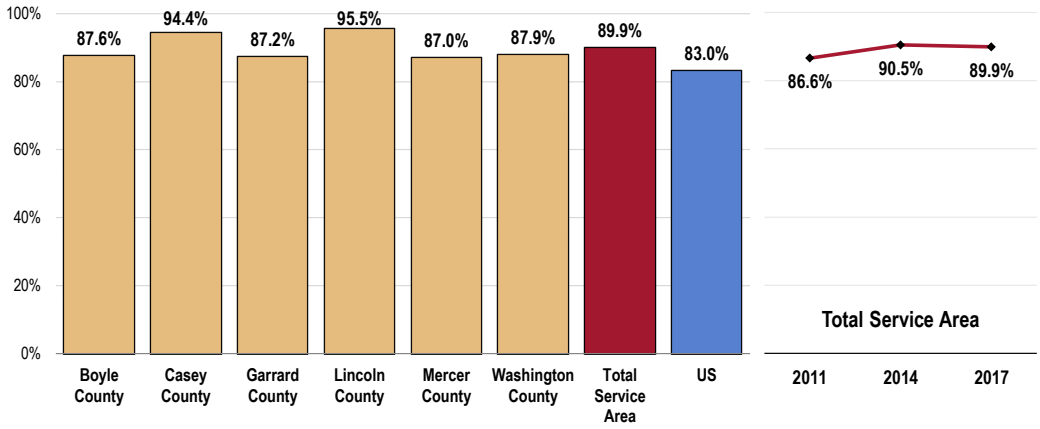
Total Cardiovascular Risk

RELATED ISSUE:
See also Nutrition & Overweight, Physical Activity & Fitness and Tobacco Use in the Modifiable Health Risk section of this report.

A total of 89.9% of Total Service Area adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

- Notably higher than national findings.
- Unfavorably high in Casey and Lincoln counties.
- TREND: Marks a statistically significant increase from the 2011 findings.

Present One or More Cardiovascular Risks or Behaviors



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 149]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

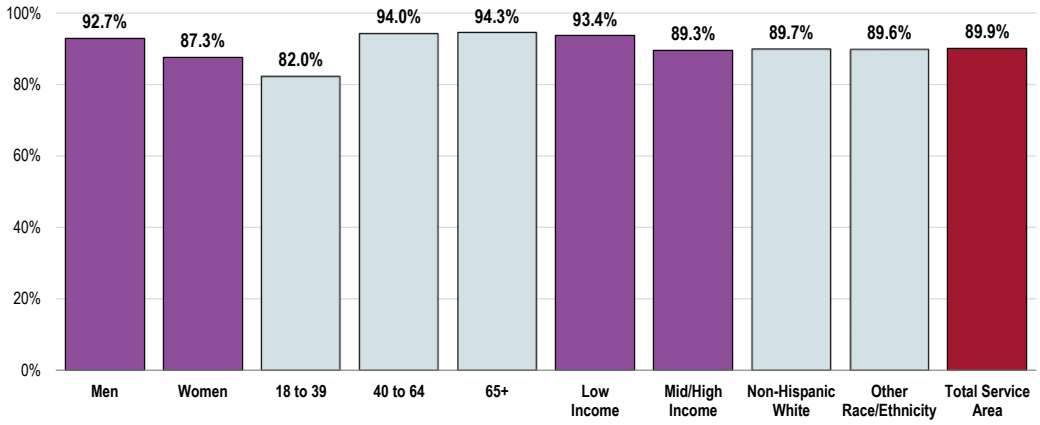
Notes:
- Asked of all respondents.
- Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.

Adults more likely to exhibit cardiovascular risk factors include:

- Men.
- Adults age 40 and older.
- Those in lower-income households.

Present One or More Cardiovascular Risks or Behaviors

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 149]

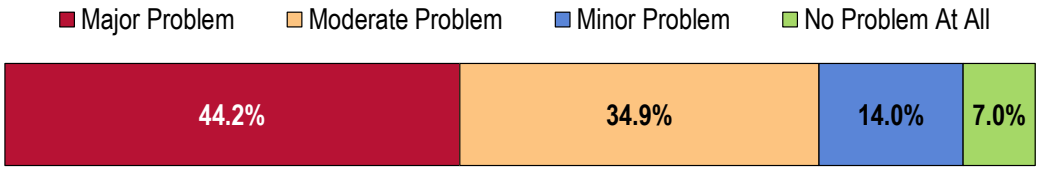
Notes:
- Asked of all respondents.
- Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Key Informant Input: Heart Disease & Stroke

The greatest share of key informants taking part in an online survey characterized *Heart Disease & Stroke* as a "major problem" in the community.

Perceptions of Heart Disease and Stroke as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Lifestyle

Lifestyle is a major contributor to this disease, and folks either do not have the information or refuse to accept it. – Community Leader

Lack of healthy diet and physical activity. – Public Health Representative

Exercise, dietary and smoking habits. And to some degree, stress. – Community Leader

Diet, lack of exercise and genes. – Community Leader

Obesity and drug abuse. – Community Leader

Obesity, poor diet, poor exercise and high blood pressure. – Physician

Prevalence/Incidence

Most of the folks I visit in the hospital are dealing with some form of heart disease and/or stroke. – Social Services Provider

People are having heart attacks and heart-related issues. – Community Leader

We have the best heart doctor in Kentucky at EMRMC. – Community Leader

Many deaths due to these factors. – Community Leader

Large numbers associated with both. – Social Services Provider

Co-Occurrences

Elderly population and tobacco use. – Community Leader

Smoking and diet. – Community Leader

Cancer

About Cancer

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in five years. Yet, cancer remains a leading cause of death in the United States, second only to heart disease.

Many cancers are preventable by reducing risk factors such as: use of tobacco products; physical inactivity and poor nutrition; obesity; and ultraviolet light exposure. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus. In the past decade, overweight and obesity have emerged as new risk factors for developing certain cancers, including colorectal, breast, uterine corpus (endometrial), and kidney cancers. The impact of the current weight trends on cancer incidence will not be fully known for several decades. Continued focus on preventing weight gain will lead to lower rates of cancer and many chronic diseases.

Screening is effective in identifying some types of cancers (see US Preventive Services Task Force [USPSTF] recommendations), including:

- Breast cancer (using mammography)
- Cervical cancer (using Pap tests)
- Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Cancer Deaths

All Cancer Deaths

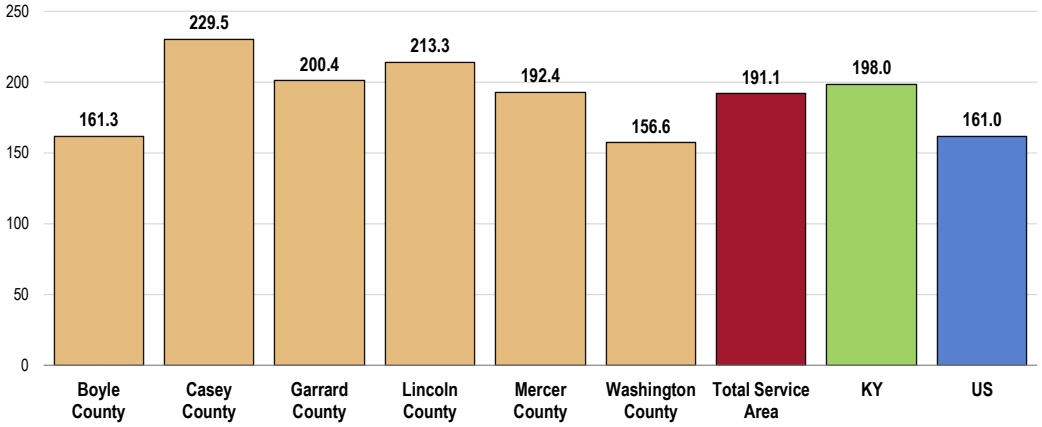
Between 2013 and 2015, there was an annual average age-adjusted cancer mortality rate of 191.1 deaths per 100,000 population in the Total Service Area.

- Similar to the statewide rate.
- Much higher than the national rate.
- Fails to satisfy the Healthy People 2020 target of 161.4 or lower.
- Highest in Casey and Lincoln counties.

Cancer: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 161.4 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-1]

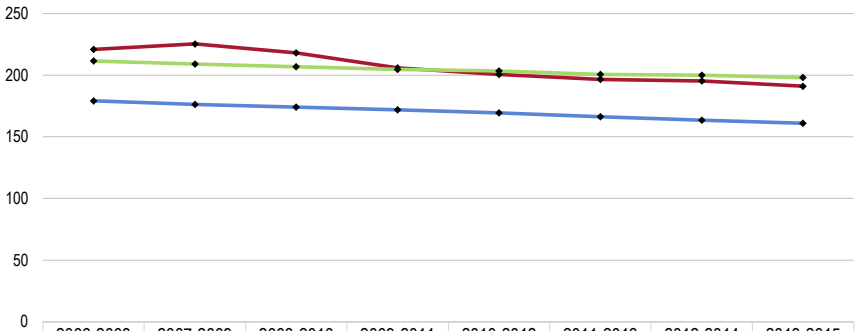
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: Cancer mortality has decreased over the past decade in the Total Service Area; the same trend is apparent both statewide and nationwide.

Cancer: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 161.4 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	220.9	225.4	218.0	205.8	200.7	196.6	195.2	191.1
KY	211.5	209.1	207.0	204.7	203.5	200.5	199.9	198.0
US	179.2	176.4	174.2	171.8	169.4	166.2	163.6	161.0

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Cancer Deaths by Site

Lung cancer is by far the leading cause of cancer deaths in the Total Service Area.

Other leading sites include prostate cancer among men, breast cancer among women, and colorectal cancer (both genders).

As can be seen in the following chart (referencing 2013-2015 annual average age-adjusted death rates):

- The Total Service Area **lung cancer** death rate is similar to the state rate and less favorable than the national rate.
- The Total Service Area **prostate** and **female breast cancer** death rates are both lower than the related state and national rates.
- The Total Service Area **colorectal cancer** death rate is higher than both the state and national rates.

Note that while the Total Service Area prostate and female breast cancer death rates detailed below satisfy the related Healthy People 2020 targets, the lung and colorectal cancer death rates fail to satisfy the 2020 goals.

Age-Adjusted Cancer Death Rates by Site

(2013-2015 Annual Average Deaths per 100,000 Population)

	Total Service Area	KY	US	HP2020
ALL CANCERS	191.1	198.0	161.0	161.4
Lung Cancer	67.9	66.9	42.0	45.5
Female Breast Cancer	19.2	21.0	20.6	20.7
Colorectal Cancer	19.0	17.1	14.4	14.5
Prostate Cancer	16.2	19.0	19.0	21.8

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov

Cancer Incidence

Incidence rates reflect the number of newly diagnosed cases in a given population in a given year, regardless of outcome. Here, these rates are also age-adjusted.

"Incidence rate" or "case rate" is the number of new cases of a disease occurring during a given period of time.

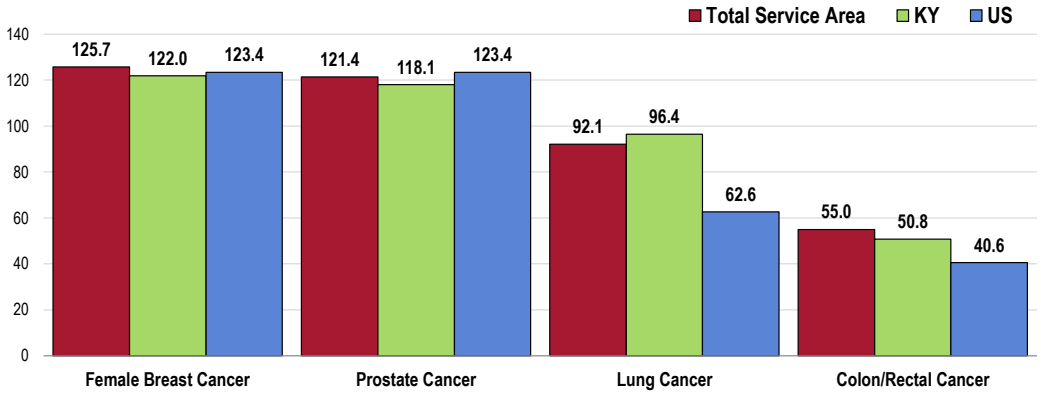
It is usually expressed as cases per 100,000 population per year.

The 2009-2013 Total Service Area annual average age-adjusted lung and colorectal cancer incidence rates are significantly worse than US rates.

The Total Service Area colorectal cancer incidence rate is worse than the state rate for the same years.

Cancer Incidence Rates by Site

(Annual Average Age-Adjusted Incidence per 100,000 Population, 2009–2013)



Sources:
- State Cancer Profiles.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Viewed by county, these report the highest rates for **prostate cancer** incidence:

- Boyle and Washington counties.

With regard to **female breast cancer** incidence, these counties report the highest rates:

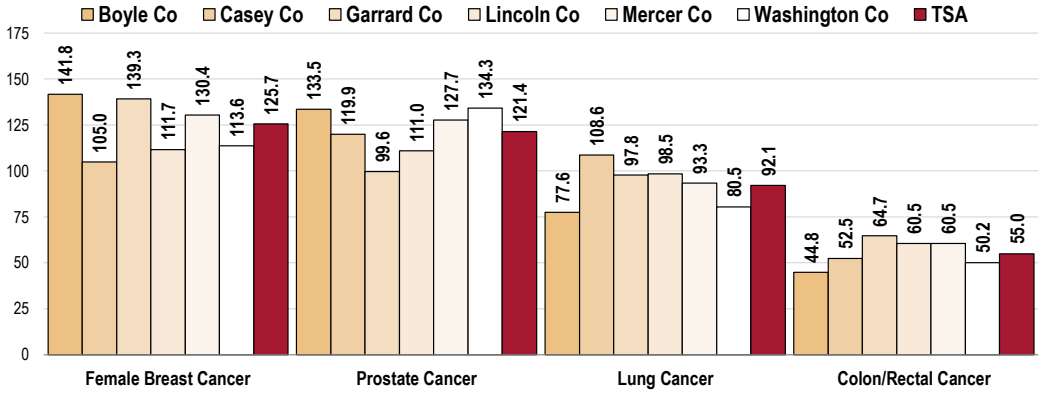
- Boyle, Garrard, and Mercer counties.

Lung cancer incidence is notably higher in Casey County, while **colorectal cancer** incidence rates are unfavorably high in:

- Garrard, Lincoln, and Mercer counties.

Cancer Incidence Rates by Site

(Annual Average Age-Adjusted Incidence per 100,000 Population, 2009–2013)



Sources:
- State Cancer Profiles.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

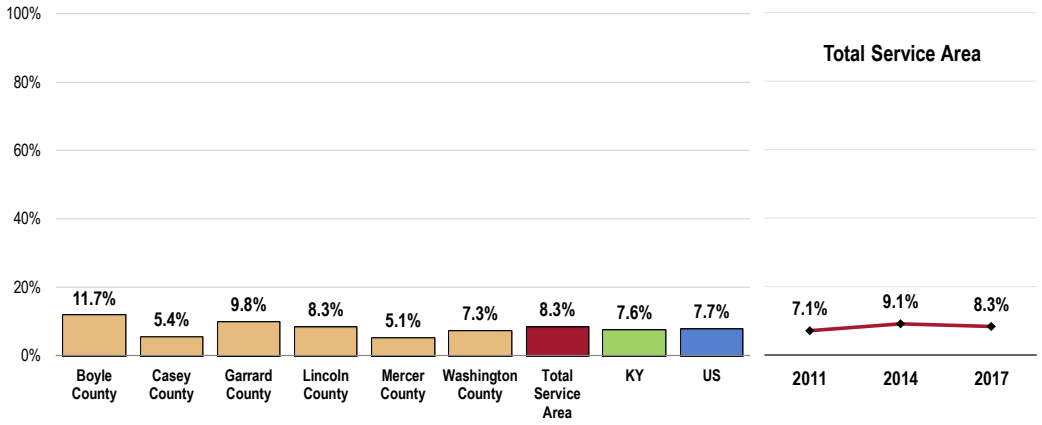
Prevalence of Cancer

Skin Cancer

A total of 8.3% of surveyed Total Service Area adults report having been diagnosed with skin cancer.

- Similar to what is found statewide and nationally.
- Particularly high in Boyle County.
- TREND: The prevalence of skin cancer has remained statistically unchanged over time.

Prevalence of Skin Cancer



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 30]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

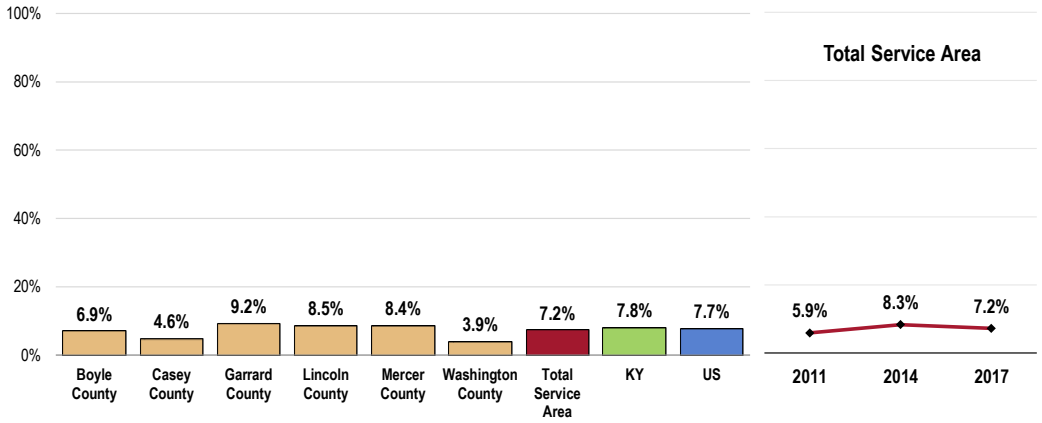
Notes:
- Asked of all respondents.

Other Cancer

A total of 7.2% of adults have been diagnosed with some type of (non-skin) cancer.

- Similar to the statewide and national percentages.
- Similar findings by county.
- TREND: The prevalence of cancer has remained unchanged over time.

Prevalence of Cancer (Other Than Skin Cancer)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 29]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Cancer Risk

RELATED ISSUE:
See also *Nutrition & Overweight*, *Physical Activity & Fitness* and *Tobacco Use* in the **Modifiable Health Risk** section of this report.

About Cancer Risk

Reducing the nation's cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Cancer Screenings

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor's checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to three cancer sites: female breast cancer (mammography); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).

Female Breast Cancer Screening

About Screening for Breast Cancer

The US Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1–2 years for women age 40 and older.

Rationale: The USPSTF found fair evidence that mammography screening every 12–33 months significantly reduces mortality from breast cancer. Evidence is strongest for women age 50–69, the age group generally included in screening trials. For women age 40–49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40–49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50.

The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. The USPSTF concluded that the evidence is also generalizable to women age 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increase along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminish from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. The USPSTF did not find sufficient evidence to specify the optimal screening interval for women age 40–49.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Mammography

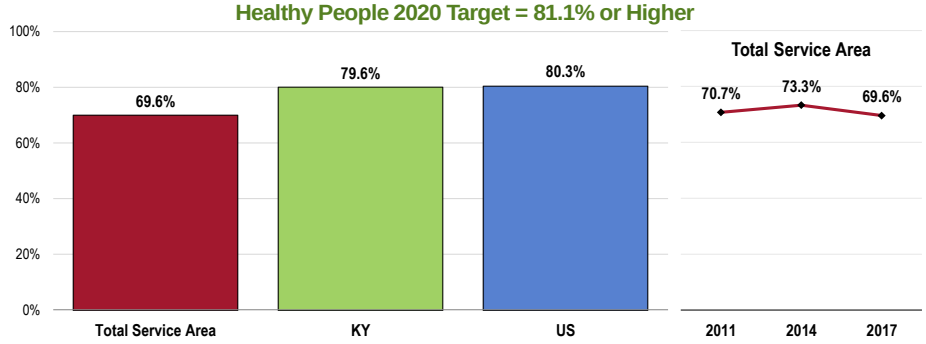
Among women age 50-74, 69.6% have had a mammogram within the past 2 years.

- Lower than state and US findings.
- Fails to satisfy the Healthy People 2020 target (81.1% or higher).
- TREND: Statistically unchanged over time.

Have Had a Mammogram in the Past Two Years

(Among Women Age 50-74)

Healthy People 2020 Target = 81.1% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 151]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-17]

Notes:
- Reflects female respondents 50-74.

Cervical Cancer Screenings

About Screening for Cervical Cancer

The US Preventive Services Task Force (USPSTF) strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix.

Rationale: The USPSTF found good evidence from multiple observational studies that screening with cervical cytology (Pap smears) reduces incidence of and mortality from cervical cancer. Direct evidence to determine the optimal starting and stopping age and interval for screening is limited. Indirect evidence suggests most of the benefit can be obtained by beginning screening within 3 years of onset of sexual activity or age 21 (whichever comes first) and screening at least every 3 years. The USPSTF concludes that the benefits of screening substantially outweigh potential harms.

The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.

Rationale: The USPSTF found limited evidence to determine the benefits of continued screening in women older than 65. The yield of screening is low in previously screened women older than 65 due to the declining incidence of high-grade cervical lesions after middle age. There is fair evidence that screening women older than 65 is associated with an increased risk for potential harms, including false-positive results and invasive procedures. The USPSTF concludes that the potential harms of screening are likely to exceed benefits among older women who have had normal results previously and who are not otherwise at high risk for cervical cancer.

The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease.

Rationale: The USPSTF found fair evidence that the yield of cytologic screening is very low in women after hysterectomy and poor evidence that screening to detect vaginal cancer improves health outcomes. The USPSTF concludes that potential harms of continued screening after hysterectomy are likely to exceed benefits.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Pap Smear Testing

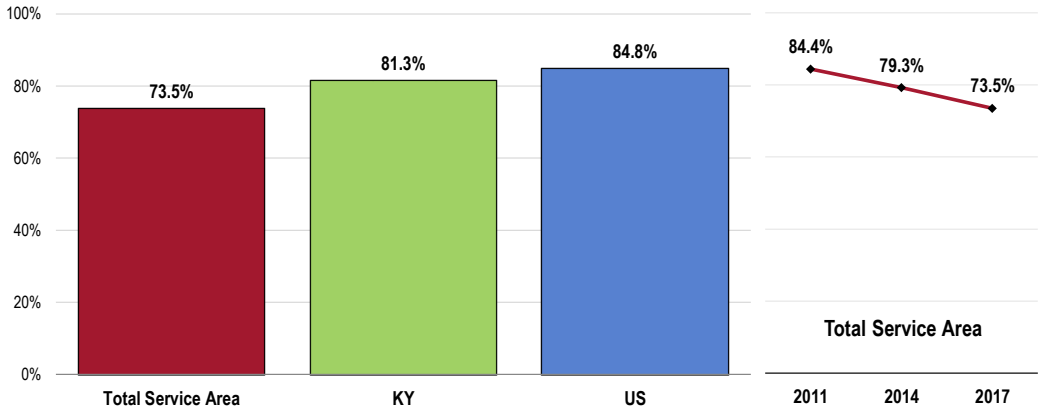
Among Total Service Area women age 21 to 65, 73.5% have had a Pap smear within the past 3 years.

- Lower than state and national rates.
- Fails to satisfy the Healthy People 2020 target (93% or higher).
- TREND: Marks a statistically significant decrease over time.

Have Had a Pap Smear in the Past Three Years

(Among Women Age 21-65)

Healthy People 2020 Target = 93.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 152]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-15]

Notes:
- Reflects female respondents age 21 to 65.

Colorectal Cancer Screenings

About Screening for Colorectal Cancer

The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years.

The evidence is convincing that screening for colorectal cancer with fecal occult blood testing, sigmoidoscopy, or colonoscopy detects early-stage cancer and adenomatous polyps. There is convincing evidence that screening with any of the three recommended tests (FOBT, sigmoidoscopy, colonoscopy) reduces colorectal cancer mortality in adults age 50 to 75 years. Follow-up of positive screening test results requires colonoscopy regardless of the screening test used.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Colorectal Cancer Screening

"Appropriate colorectal cancer screening" includes a fecal occult blood test within the past year and/or a lower endoscopy (sigmoidoscopy or colonoscopy) within the past 10 years.

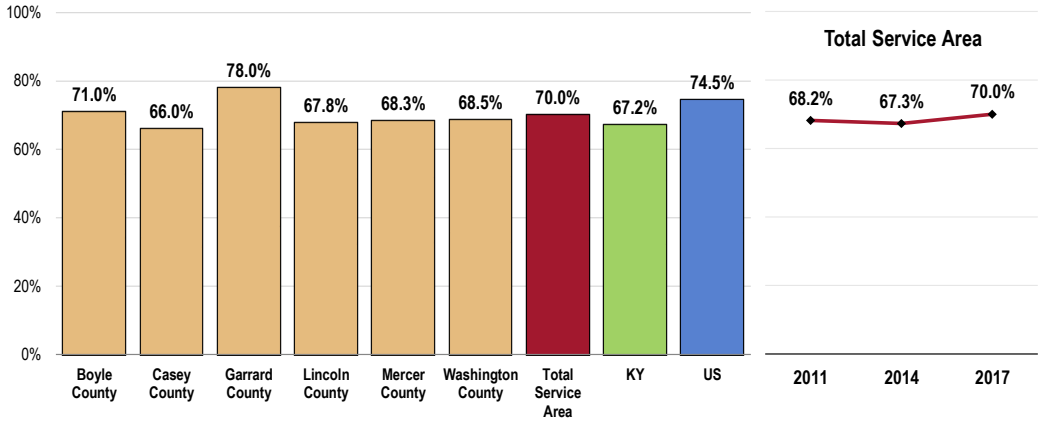
Among adults age 50-75, 70.0% have had an appropriate colorectal cancer screening (fecal occult blood testing within the past year and/or sigmoidoscopy/colonoscopy [lower endoscopy] within the past 10 years).

- Statistically similar to state and national findings.
- Similar to the Healthy People 2020 target (70.5% or higher).
- Statistically similar findings by county.
- TREND: Statistically unchanged over time.

Have Had a Colorectal Cancer Screening

(Among Adults Age 50-75)

Healthy People 2020 Target = 70.5% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 155]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-16]

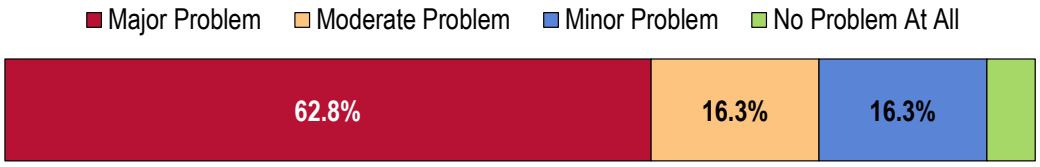
Notes:
- Asked of all respondents age 50 through 75.
- In this case, the term "colorectal screening" refers to adults age 50-75 receiving a FOBT (fecal occult blood test) in the past year and/or a lower endoscopy (sigmoidoscopy/colonoscopy) in the past 10 years.

Key Informant Input: Cancer

The majority of key informants taking part in an online survey characterized *Cancer* as a "major problem" in the community.

Perceptions of Cancer as a Problem in the Community

(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Prevalence/Incidence

> *Cancer cuts across all social, economic and political lines. Everyone in the community has been affected by it at some point. It still has a frightening stigma associated with it, even though there has been quite a bit of progress made in treatment. I recently had a funeral for someone who had cancer, and I'm planning the funeral for a member of the church who just died. The church is providing care for another member who has cancer. It is just an ever-present problem. – Community Leader*
>
> *Seems more and more cancer-related deaths and illness in the community. – Community Leader*

I would be interested to know our cancer diagnosis rate per capita. I would expect for this area that it would be high. We are fortunate to have treatment centers now available in Danville. Still, many are having issues with insurance coverage before necessary tests can be done in order to diagnose and treat cancer. – Community Leader

I know several people who have died from cancer, and I know several people that are currently being treated for cancer. – Community Leader

It touches so many folks. Lots of folks do not realize many forms of cancer are treatable if detected early. – Community Leader

I work in an office of 7 people, and 4 have had cancer. – Community Leader

There is a perception that there is an extremely high rate of cancer in our community, and most every family has been impacted by someone going through cancer treatment or by the loss of a family member. – Community Leader

Maybe because I live in small community, but more and more citizens have been diagnosed with cancer in the past 10 years. Or maybe I'm paying more attention. – Community Leader

Too many people with it here over time. Does it come from the water in Herrington, or the lead buried everywhere? - Community Leader

It appears in every family in one way or another. Advances have been made, but much more needs to be done. – Community Leader

Personally knowing people that have this terrible disease. – Community Leader

Looking at the data for the county. – Public Health Representative

Tobacco Use

The rate of smoking, obesity, and other factors contributing to cancer is highly prevalent in this community. – Community Leader

Cancer is everywhere. A lot is because of smoking. – Community Leader

High smoking rate and poor healthcare screening of our population. – Physician

Genetics and tobacco use. – Community Leader

Tobacco use. – Community Leader

Diagnosis/Treatment

Many cases with what seems to be antiquated methods of treatment. Does not seem to be slowing down. – Social Services Provider

Leading Cause of Death

According to the Lincoln Community Assessment for Year 2014, cancer was the leading cause of death. This data was also referenced in the 2015 Lincoln County Health Department Community Assessment Report. – Public Health Representative

Prevention

Despite its deadliness, people still refuse preventative measures. – Community Leader

Respiratory Disease

About Asthma & COPD

Asthma and chronic obstructive pulmonary disease (COPD) are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health.

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives.

COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.

The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the healthcare system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual healthcare expenditures for asthma alone are estimated at $20.7 billion.

Asthma. The prevalence of asthma has increased since 1980. However, deaths from asthma have decreased since the mid-1990s. The causes of asthma are an active area of research and involve both genetic and environmental factors.

Risk factors for asthma currently being investigated include:

- Having a parent with asthma
- Sensitization to irritants and allergens
- Respiratory infections in childhood
- Overweight

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality exist, in particular for low-income and minority populations. Populations with higher rates of asthma include: children; women (among adults) and boys (among children); African Americans; Puerto Ricans; people living in the Northeast United States; people living below the Federal poverty level; and employees with certain exposures in the workplace.

While there is not a cure for asthma yet, there are diagnoses and treatment guidelines that are aimed at ensuring that all people with asthma live full and active lives.

- Healthy People 2020 (www.healthypeople.gov)

[NOTE: COPD was changed to chronic lower respiratory disease (CLRD) with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.]

Age-Adjusted Respiratory Disease Deaths

Chronic Lower Respiratory Disease Deaths (CLRD)

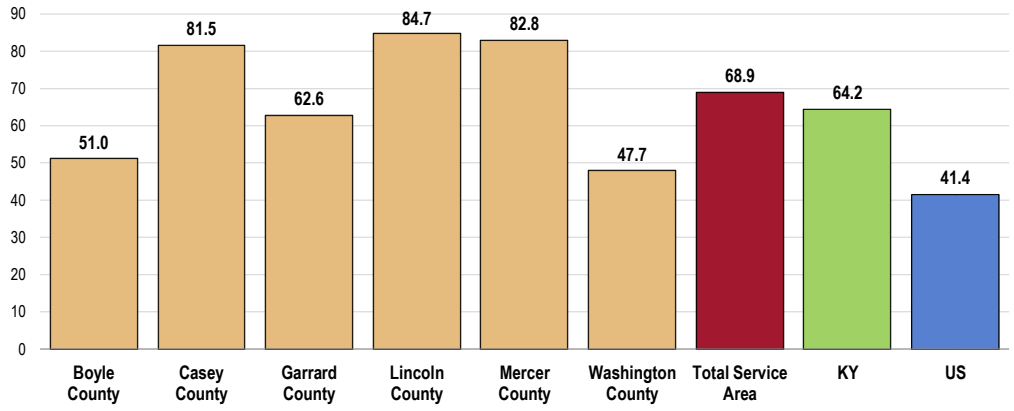
Note: COPD was changed to chronic lower respiratory disease (CLRD) in 1999 with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.

Between 2013 and 2015, there was an annual average age-adjusted CLRD mortality rate of 68.9 deaths per 100,000 population in the Total Service Area.

- Higher than the state rate and especially the national rate.
- Ranging dramatically by county; highest in Casey, Lincoln, and Mercer counties.

CLRD: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)



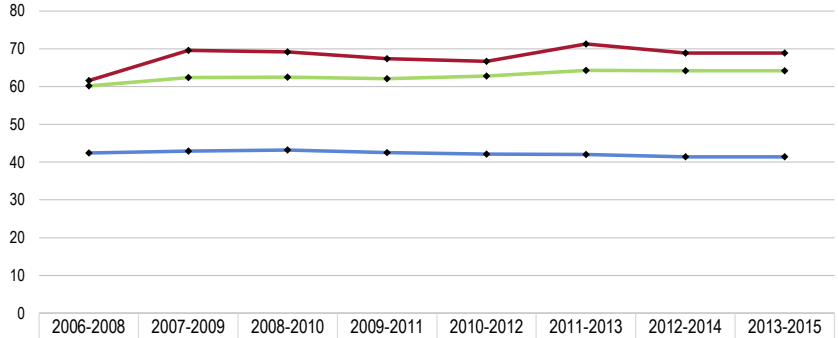
Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- CLRD is chronic lower respiratory disease.

- TREND: Despite fluctuations, CLRD mortality in the Total Service Area has increased over time, mirroring the trend reported statewide (the US was stable).

CLRD: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	61.6	69.6	69.2	67.4	66.7	71.3	68.9	68.9
KY	60.2	62.4	62.5	62.1	62.8	64.3	64.2	64.2
US	42.4	42.9	43.2	42.5	42.1	42.0	41.4	41.4

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- CLRD is chronic lower respiratory disease.

Pneumonia/Influenza Deaths

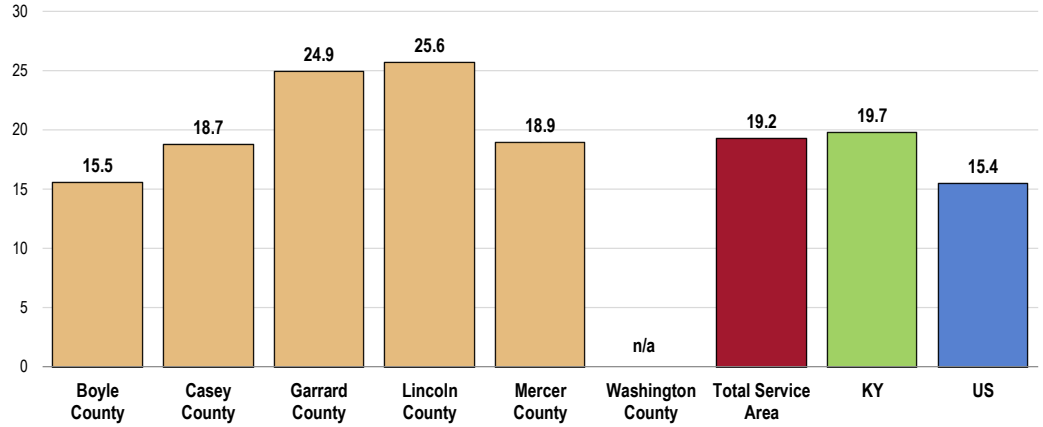
Between 2013 and 2015, the Total Service Area reported an annual average age-adjusted pneumonia influenza mortality rate of 19.2 deaths per 100,000 population.

For prevalence of vaccinations for pneumonia and influenza, see also *Immunization & Infectious Disease*.

- Similar to the Kentucky rate.
- Higher than the US rate.
- Unfavorably high in Garrard and Lincoln counties.

Pneumonia/Influenza: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)



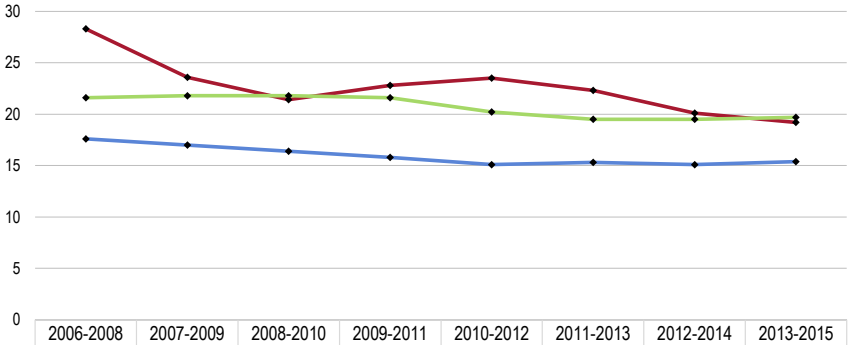
Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: Note the decreasing trends in pneumonia/influenza mortality (more pronounced locally than across Kentucky and the US).

Pneumonia/Influenza: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	28.3	23.6	21.4	22.8	23.5	22.3	20.1	19.2
KY	21.6	21.8	21.8	21.6	20.2	19.5	19.5	19.7
US	17.6	17.0	16.4	15.8	15.1	15.3	15.1	15.4

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

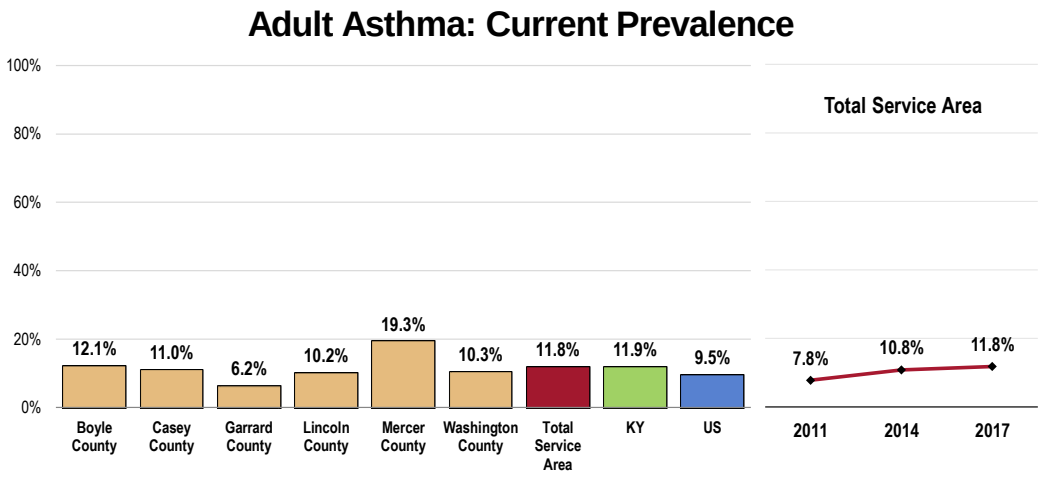
Asthma

Adults

Survey respondents were next asked to indicate whether they suffer from or have been diagnosed with various respiratory conditions, including asthma and COPD.

A total of 11.8% of Total Service Area adults currently suffer from asthma.

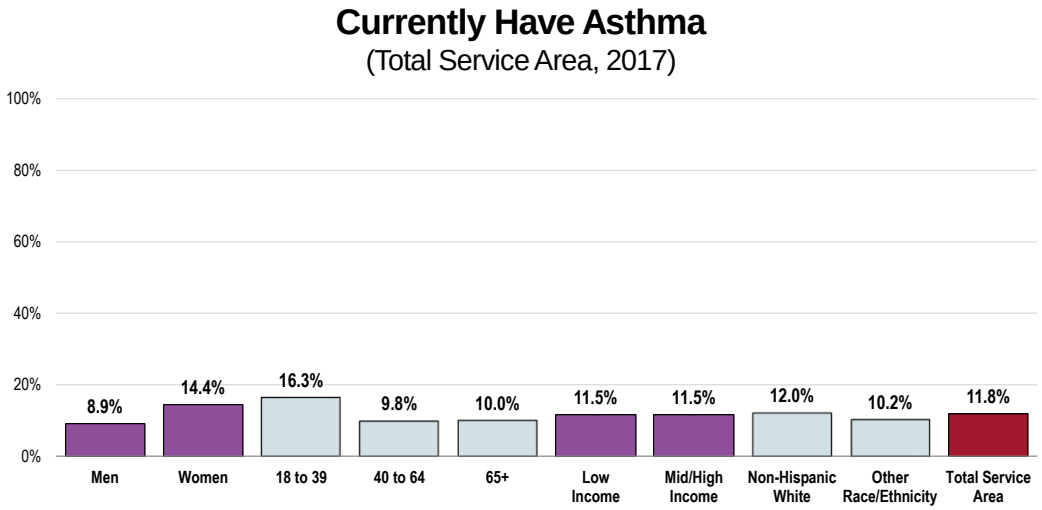
- Similar to the statewide and US percentages.
- Notably higher in Mercer County; lowest in Garrard County.
- TREND: The prevalence has increased significantly since 2011.



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 156]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

Notes:
- Asked of all respondents.
- Includes those who have ever been diagnosed with asthma, and who report that they still have asthma.

- Service area women and young adults are more likely to suffer from asthma.



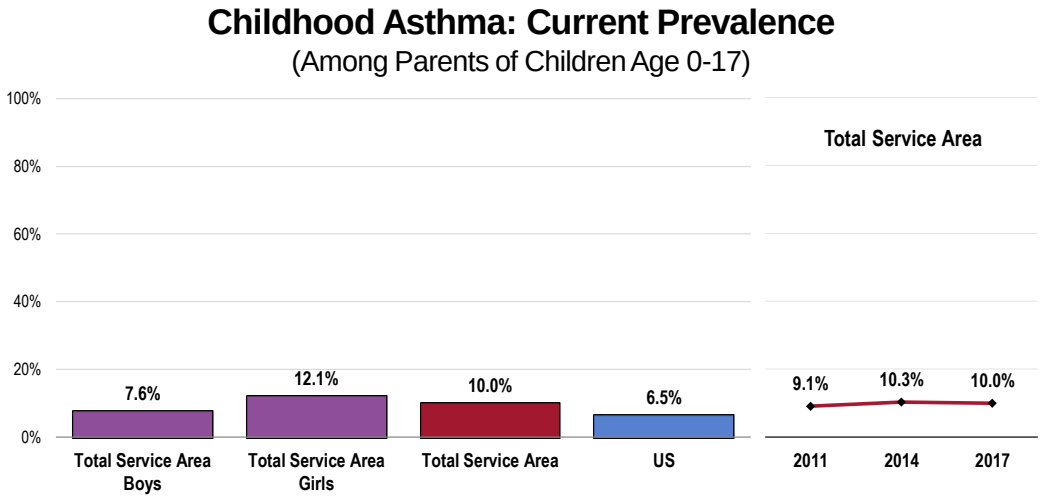
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 156]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Children

Among Total Service Area children under age 18, 10.0% currently have asthma.

- Statistically similar to the US figure.
- TREND: Statistically unchanged over time.
- Viewed by gender, the difference in child's asthma prevalence is not statistically significant.



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 157]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

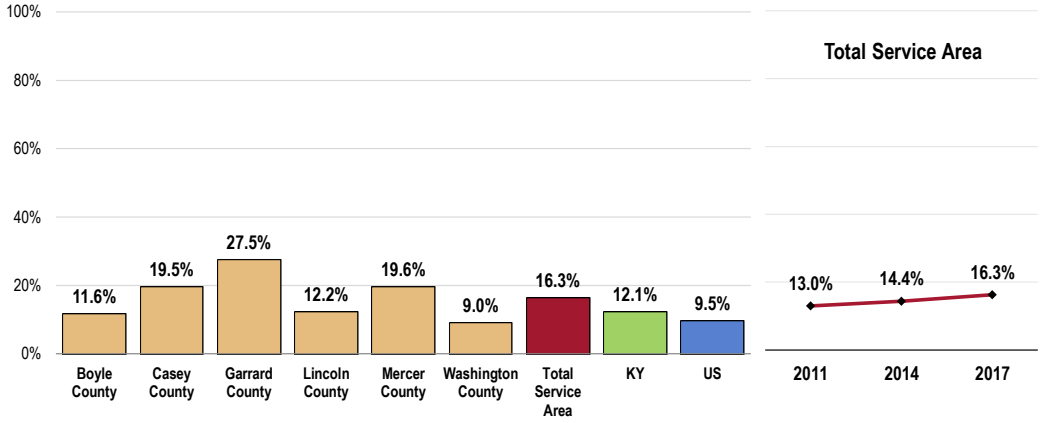
Notes:
- Asked of all respondents with children 0 to 17 in the household.
- Includes children who have ever been diagnosed with asthma, and whom are reported to still have asthma.

Chronic Obstructive Pulmonary Disease (COPD)

A total of 16.3% of Total Service Area adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).

- Worse than the state and national prevalence.
- Unfavorably high in Garrard County.
- TREND: Note the statistically significant increase over time.
- *NOTE: In prior data, this question was asked slightly differently; respondents were asked if they had ever been diagnosed with "chronic lung disease, including bronchitis or emphysema," rather than "COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema" as is asked currently.*

Prevalence of Chronic Obstructive Pulmonary Disease (COPD)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 24]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

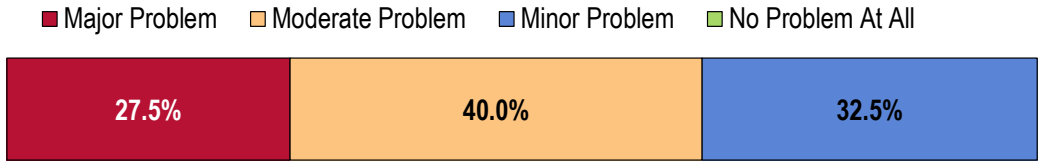
Notes:
- Asked of all respondents.
- Includes those having ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.
- In prior data, the term "chronic lung disease" was used, which also included bronchitis or emphysema.

Key Informant Input: Respiratory Disease

The greatest share of key informants taking part in an online survey characterized *Respiratory Disease* as a "moderate problem" in the community.

Perceptions of Respiratory Diseases as a Problem in the Community

(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Tobacco Use

> *High smoking rate and one of the worst areas in the country for allergens. – Physician*
> *Smoking and secondhand smoke. – Community Leader*
> *Tobacco use. – Community Leader*
> *Too much smoking. – Community Leader*
> *High smoking rate. – Community Leader*

Prevalence/Incidence

> *COPD is prevalent in our clients and staff. – Social Services Provider*
>
> *I see a lot of people with COPD. – Community Leader*

Injury & Violence

About Injury & Violence

Injuries and violence are widespread in society. Both unintentional injuries and those caused by acts of violence are among the top 15 killers for Americans of all ages. Many people accept them as "accidents," "acts of fate," or as "part of life." However, most events resulting in injury, disability, or death are predictable and preventable.

Injuries are the leading cause of death for Americans ages 1 to 44, and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status. More than 180,000 people die from injuries each year, and approximately 1 in 10 sustains a nonfatal injury serious enough to be treated in a hospital emergency department.

Beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to:

- Premature death
- Disability
- Poor mental health
- High medical costs
- Lost productivity

The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities.

Numerous factors can affect the risk of unintentional injury and violence, including individual behaviors, physical environment, access to health services (ranging from pre-hospital and acute care to rehabilitation), and social environment (from parental monitoring and supervision of youth to peer group associations, neighborhoods, and communities).

Interventions addressing these social and physical factors have the potential to prevent unintentional injuries and violence. Efforts to prevent unintentional injury may focus on:

- Modifications of the environment
- Improvements in product safety
- Legislation and enforcement
- Education and behavior change
- Technology and engineering

Efforts to prevent violence may focus on:

- Changing social norms about the acceptability of violence
- Improving problem-solving skills (for example, parenting, conflict resolution, coping)
- Changing policies to address the social and economic conditions that often give rise to violence

- Healthy People 2020 (www.healthypeople.gov)

Unintentional Injury

Age-Adjusted Unintentional Injury Deaths

Between 2013 and 2015, there was an annual average age-adjusted unintentional injury mortality rate of 54.6 deaths per 100,000 population in the Total Service Area.

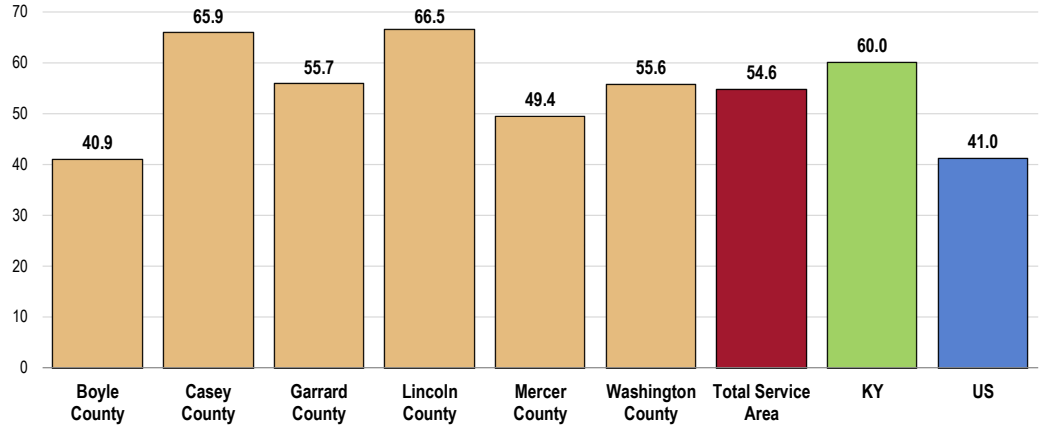
- Better than the Kentucky rate.
- Worse than the national rate.
- Fails to satisfy the Healthy People 2020 target (36.4 or lower).

- Highest in Casey and Lincoln counties.

Unintentional Injuries: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 36.4 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-11]

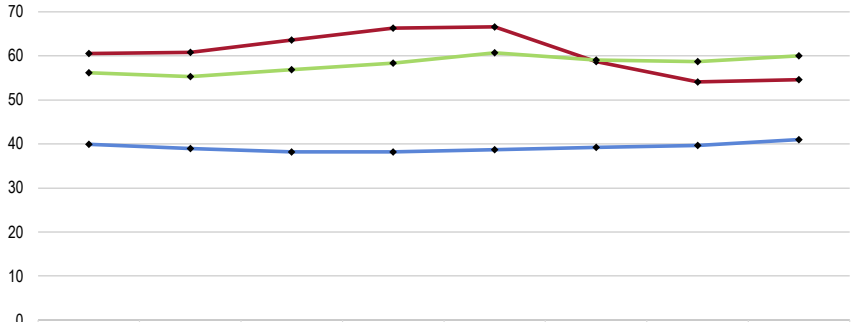
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: Despite fluctuations, there is an overall downward trend in the unintentional injury mortality rate in the Total Service Area, in contrast to the slowly increasing trend reported in Kentucky (the US has been stable).

Unintentional Injuries: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 36.4 or Lower



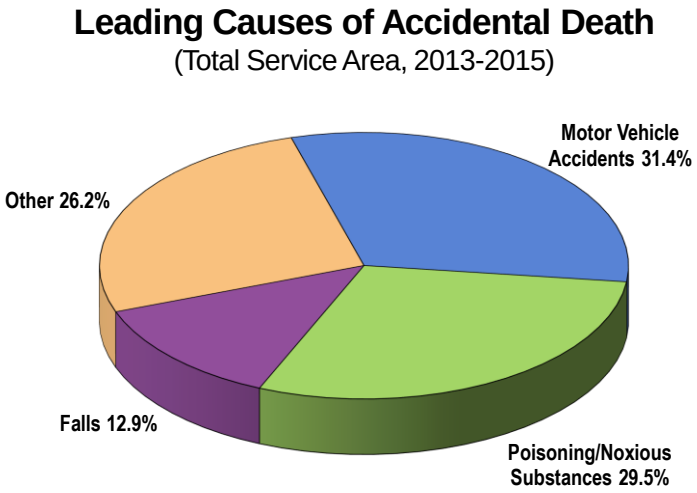
	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	60.5	60.8	63.6	66.3	66.6	58.7	54.1	54.6
KY	56.2	55.3	56.9	58.4	60.7	59.1	58.7	60.0
US	39.9	39.0	38.2	38.2	38.7	39.2	39.7	41.0

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Leading Causes of Accidental Death

Motor vehicle accidents, poisoning (including accidental drug overdose), and falls accounted for most accidental deaths in the Total Service Area between 2013 and 2015.



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).

Selected Injury Deaths

The following chart outlines mortality rates for drug-induced deaths (both intentional and unintentional overdoses), motor vehicle crashes, and falls (among adults age 65 and older).

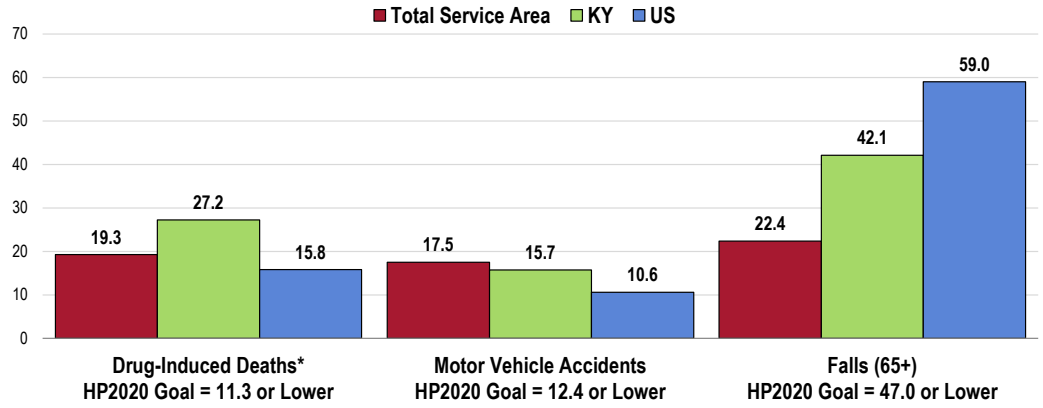
The Total Service Area annual average age-adjusted mortality rates are worse than US rates for:

- Motor vehicle accidents.
- Drug-related deaths.

The Total Service Area mortality rate is worse than the state rate for motor vehicle accidents.

Select Injury Death Rates

(By Cause of Death; Annual Average Deaths per 100,000 Population)



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-13.1, IVP-23.2, SA-12]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- *Drug-induced deaths include both intentional and unintentional drug overdoses.

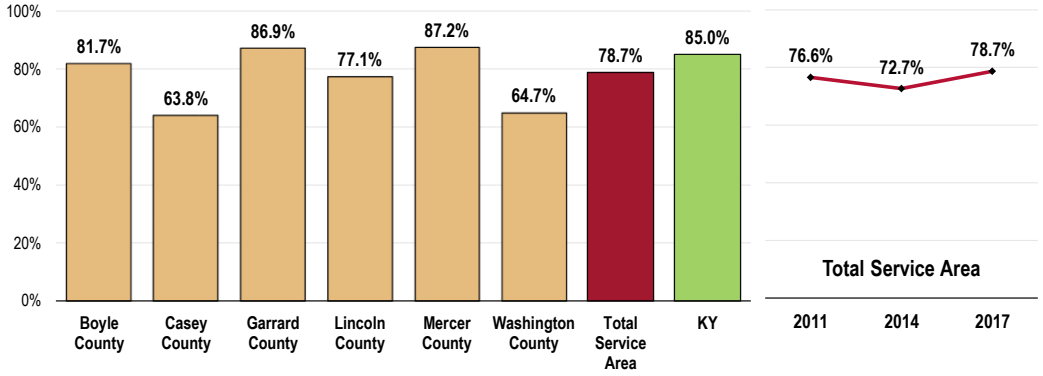
Seat Belts

Most survey respondents (78.7%) report always wearing a seat belt when driving or riding in a vehicle.

- Lower than the Kentucky percentage.
- Fails to satisfy the Healthy People 2020 objective (92% or higher).
- Lowest in Casey and Washington counties.
- TREND: Similar to the 2011 figure but marking a statistically significant increase from 2014 survey findings.

"Always" Wear a Seat Belt When Driving or Riding in a Vehicle

Healthy People 2020 Target = 92.0% or Higher

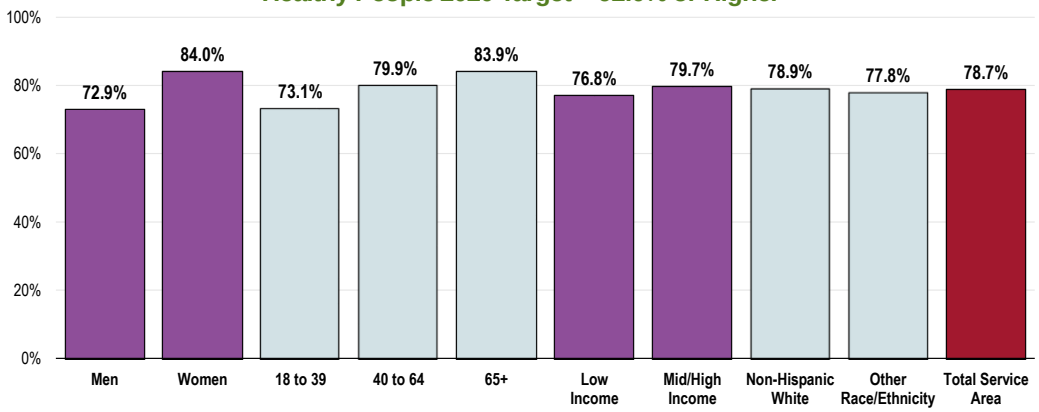


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 301]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-15]

Notes:
- Asked of all respondents.

- Women and adults age 40 and older are more likely to report consistent seat belt usage while driving or riding in a vehicle.

"Always" Wear a Seat Belt When Driving or Riding in a Vehicle
(Total Service Area, 2017)
Healthy People 2020 Target = 92.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 301]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-15]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Falls

Falls

Each year, an estimated one-third of older adults fall, and the likelihood of falling increases substantially with advancing age. In 2005, a total of 15,802 persons age ≥65 years died as a result of injuries from falls.

Falls are the leading cause of fatal and nonfatal injuries for persons aged ≥65 years … in 2006, approximately 1.8 million persons aged ≥65 years (nearly 5% of all persons in that age group) sustained some type of recent fall-related injury. Even when those injuries are minor, they can seriously affect older adults' quality of life by inducing a fear of falling, which can lead to self-imposed activity restrictions, social isolation, and depression.

In addition, fall-related medical treatment places a burden on US healthcare services. In 2000, direct medical costs for fall-related injuries totaled approximately $19 billion. A recent study determined that 31.8% of older adults who sustained a fall-related injury required help with activities of daily living as a result, and among them, 58.5% were expected to require help for at least 6 months.

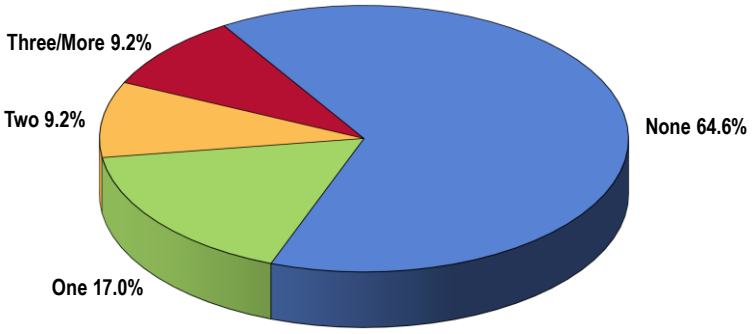
Modifiable fall risk factors include muscle weakness, gait and balance problems, poor vision, use of psychoactive medications, and home hazards. Falls among older adults can be reduced through evidence-based fall-prevention programs that address these modifiable risk factors. Most effective interventions focus on exercise, alone or as part of a multifaceted approach that includes medication management, vision correction, and home modifications.

- Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC

Among surveyed Total Service Area adults age 45 and older, 35.4% fell at least once in the past year, including 9.2% who fell three or more times.

Number of Falls in Past 12 Months

(Among Adults Age 45 and Older; Total Service Area, 2017)



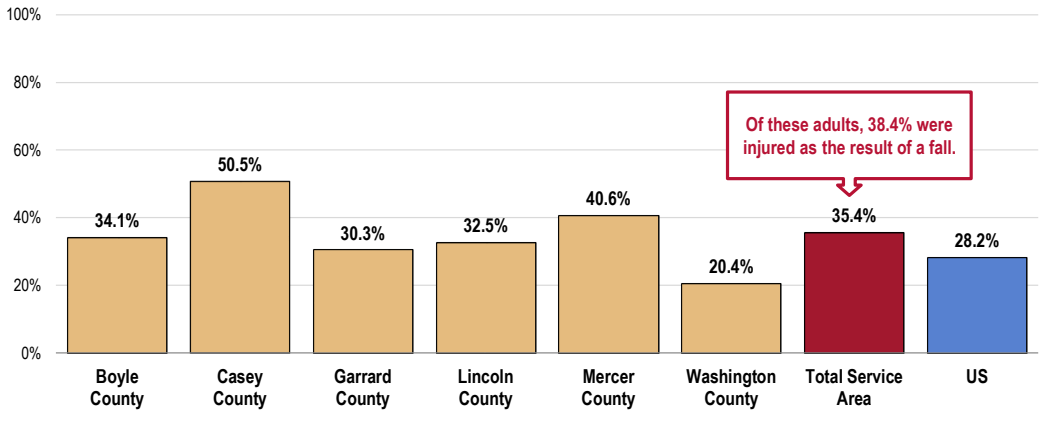
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 125]
Notes: ● Asked of all respondents age 45+.

- The prevalence of adults age 45+ who fell at least once in the past year is higher than the national proportion.
- Highest in Casey County, lowest in Washington County.

Among those who fell in the past year, 38.4% were injured as a result of the fall.

Fell One or More Times in the Past Year

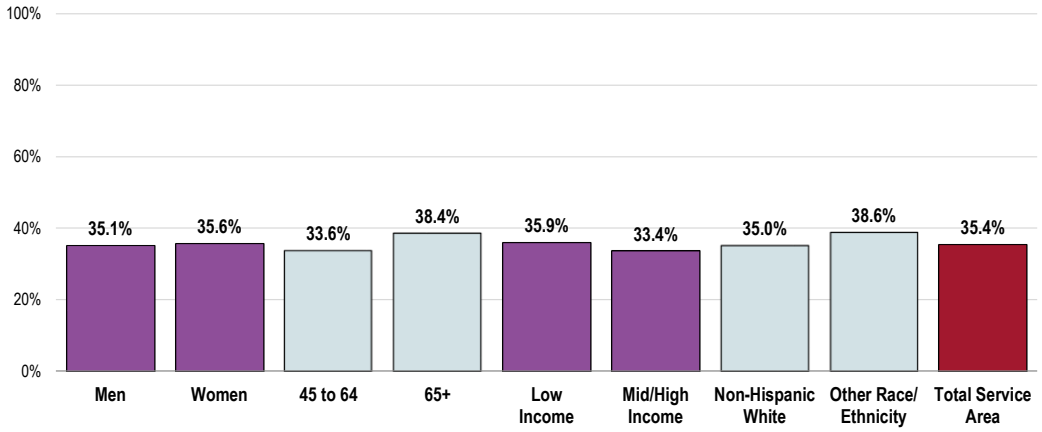
(Among Respondents Age 45 and Older)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 125-126]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of those respondents age 45 and older.

- Viewed by demographics, the percentages are statistically similar.

Fell One or More Times in the Past Year
(Among Respondents Age 45 and Older; Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 125]

Notes:
- Asked of those respondents age 45 and older.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

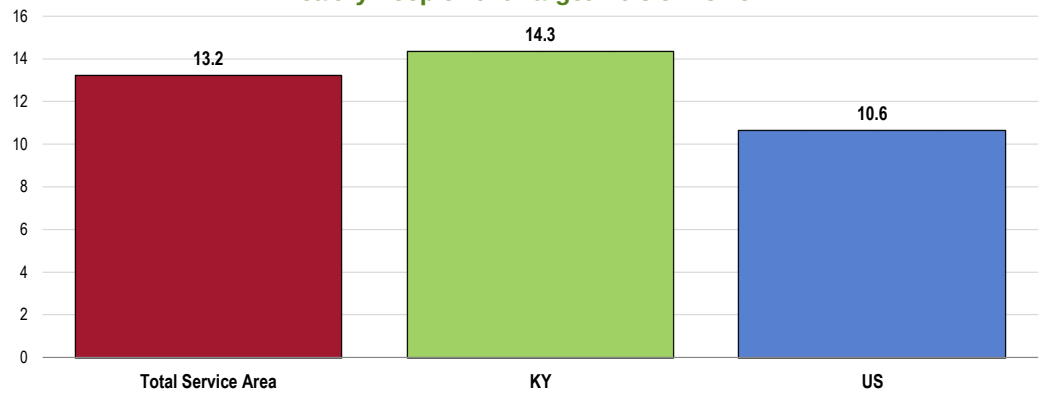
Firearm Safety

Age-Adjusted Firearm-Related Deaths

Between 2013 and 2015, there was an annual average age-adjusted rate of 13.2 deaths per 100,000 population due to firearms in the Total Service Area.

- Better than found statewide.
- Worse than found nationally.
- Fails to satisfy the Healthy People 2020 objective (9.3 or lower).

Firearms-Related Deaths: Age-Adjusted Mortality
(2013-2015 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 9.3 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-30]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Presence of Firearms in Homes

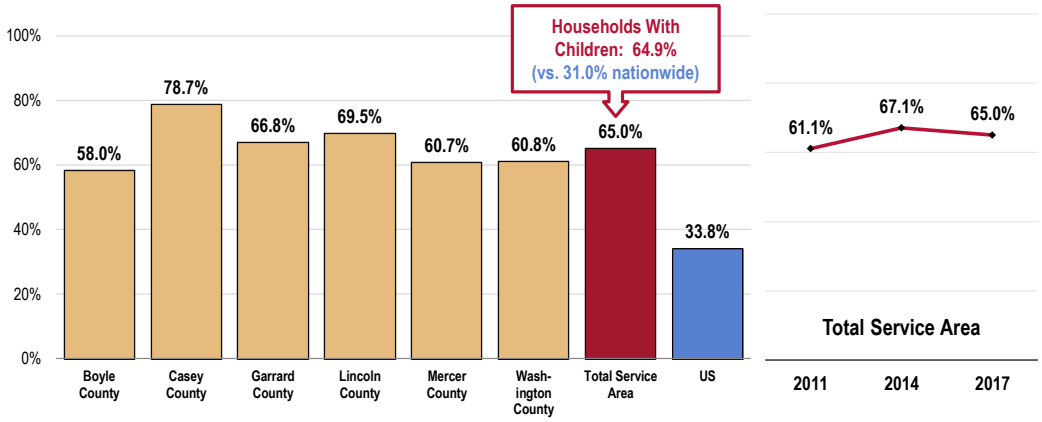
Survey respondents were further asked about the presence of weapons in the home:

"Are there any firearms now kept in or around your home, including those kept in a garage, outdoor storage area, truck, or car? For the purposes of this inquiry, 'firearms' include pistols, shotguns, rifles, and other types of guns, but do NOT include starter pistols, BB guns, or guns that cannot fire."

Overall, nearly 2 in 3 Total Service Area adults (65.0%) have a firearm kept in or around their home.

- Almost twice the national prevalence.
- Higher among adults in Casey County.
- TREND: The prevalence has not changed significantly over time.
- Among Total Service Area households with children, 64.9% have a firearm kept in or around the house (over twice that reported nationally).

Have a Firearm Kept in or Around the Home



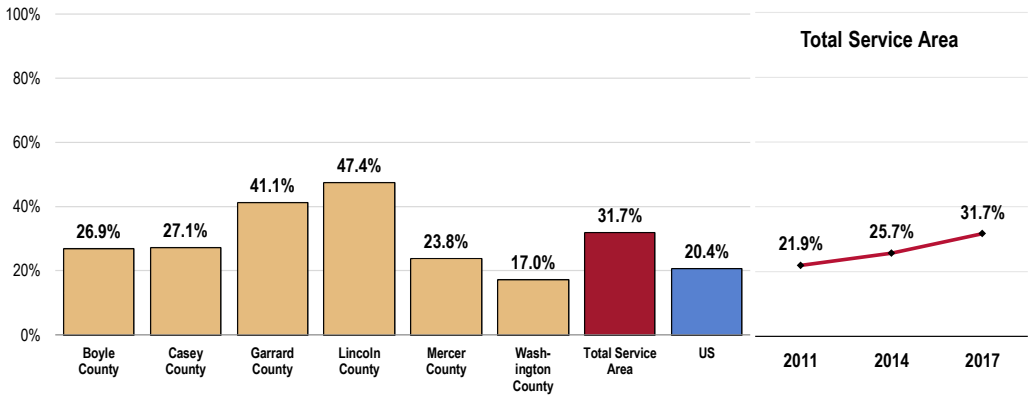
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 51, 159]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.
● In this case, firearms include pistols, shotguns, rifles, and other types of guns; this does not include starter pistols, BB guns, or guns that cannot fire.

Among Total Service Area households with firearms, 31.7% report that there is at least one weapon that is kept unlocked and loaded.

- Well above that found nationally.
- Highest in Lincoln County, lowest in Washington County.
- TREND: Marks a statistically significant increase over time.

Firearms Kept Unlocked, Loaded

(Among Households With Firearms)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 160]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- In this case, firearms include pistols, shotguns, rifles, and other types of guns; this does not include starter pistols, BB guns, or guns that cannot fire.

Intentional Injury (Violence)

Age-Adjusted Homicide Deaths

Between 2006 and 2015, there was an annual average age-adjusted homicide rate of 3.1 deaths per 100,000 population in the Total Service Area.

- More favorable than the rate found statewide and nationally.
- Satisfies the Healthy People 2020 target of 5.5 or lower.

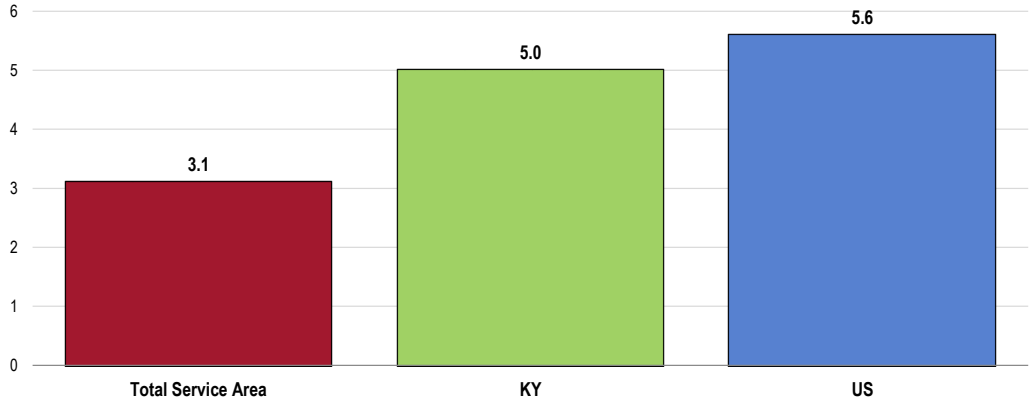
RELATED ISSUE:

See also *Suicide* in the **Mental Health** section of this report.

Homicide: Age-Adjusted Mortality

(2006-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 5.5 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IVP-29]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Violent Crime

Violent Crime Rates

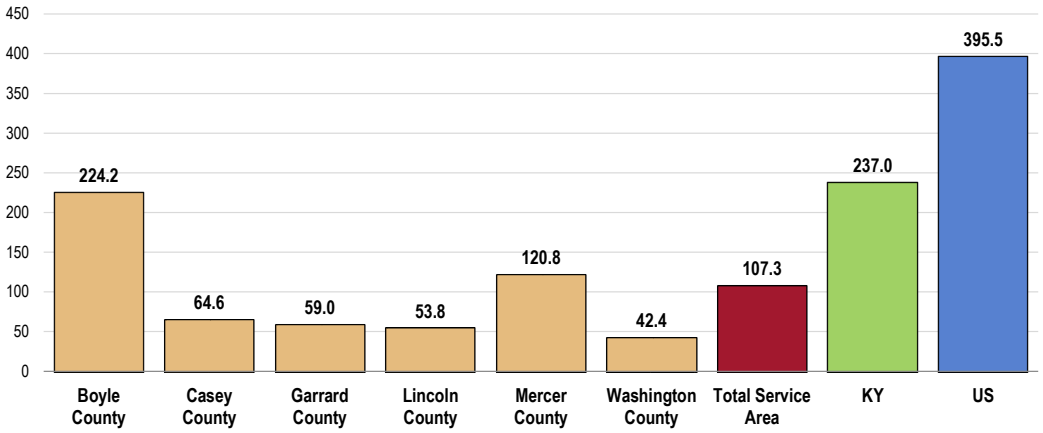
Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.

Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.

Between 2010 and 2012, there were a reported 107.3 violent crimes per 100,000 population in the Total Service Area.

- Well below the state and national rates for the same period.
- Significantly higher in Boyle and Mercer counties.

Violent Crime
(Rate per 100,000 Population, 2010–2012)



Sources:
- Federal Bureau of Investigation, FBI Uniform Crime Reports.
- Retrieved March 2017 from Community Commons at http://www.2010–2012.

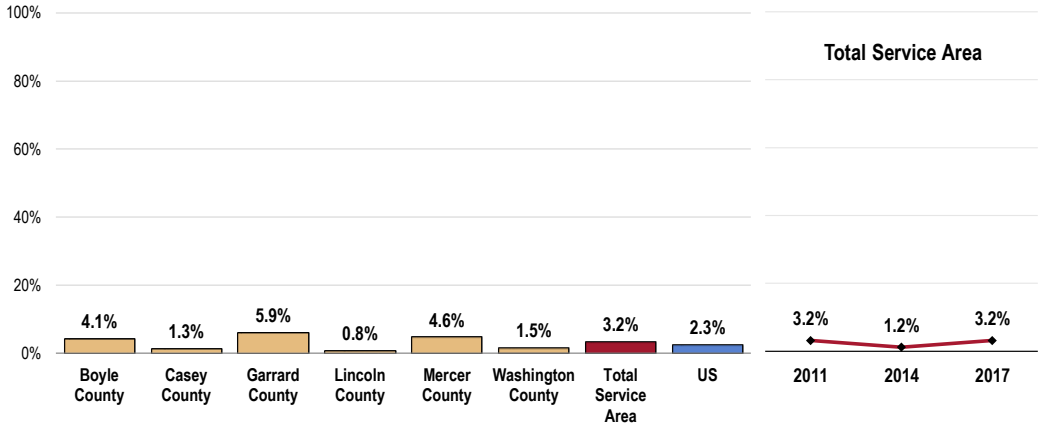
Notes:
- This indicator reports the rate of violent crime offenses reported by the sheriff's office or county police department per 100,000 residents. Violent crime includes homicide, rape, robbery, and aggravated assault. This indicator is relevant because it assesses community safety.
- Participation by law enforcement agencies in the UCR program is voluntary. Sub-state data do not necessarily represent an exhaustive list of crimes due to gaps in reporting. Also, some institutions of higher education have their own police departments, which handle offenses occurring within campus grounds; these offenses are not included in the violent crime statistics, but can be obtained from the Uniform Crime Reports Universities and Colleges data tables.

Community Violence

A total of 3.2% of surveyed Total Service Area adults acknowledge being the victim of a violent crime in the area in the past five years.

- Statistically similar to national findings.
- Favorably low in Lincoln County.
- TREND: Statistically unchanged over time.

Victim of a Violent Crime in the Past Five Years



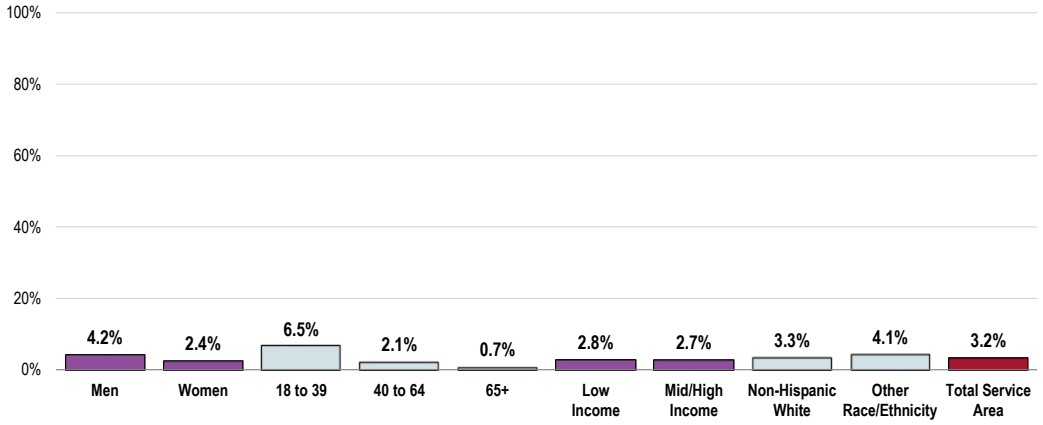
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 49]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

- Note the negative correlation between age and crime victimization in the Total Service Area.

Victim of a Violent Crime in the Past Five Years

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 49]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Intimate Partner Violence

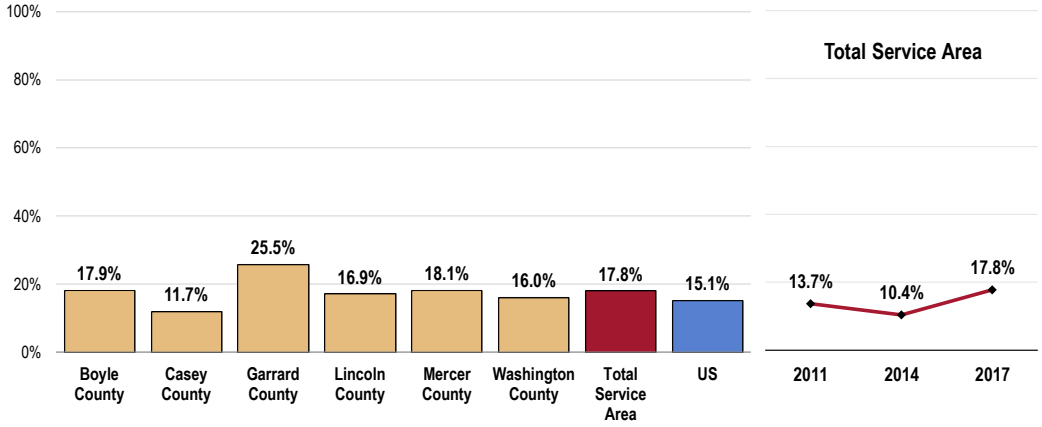
A total of 17.8% of Total Service Area adults acknowledge that they have ever been hit, slapped, pushed, kicked, or otherwise hurt by an intimate partner.

Respondents were told:

"By an intimate partner, I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner."

- Similar to national findings.
- Unfavorably high in Garrard County; lowest in Casey County.
- TREND: Note the statistically significant increase from previous survey findings.

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

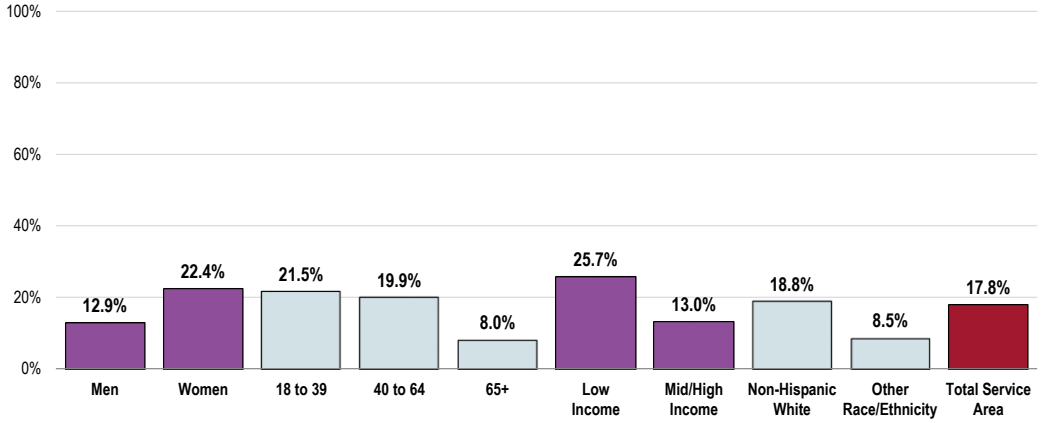
Notes:
- Asked of all respondents.

Reports of intimate partner violence are also notably higher among:

- Women.
- Adults under 65 (negative correlation with age).
- Those with lower incomes.
- Non-Hispanic Whites.

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]

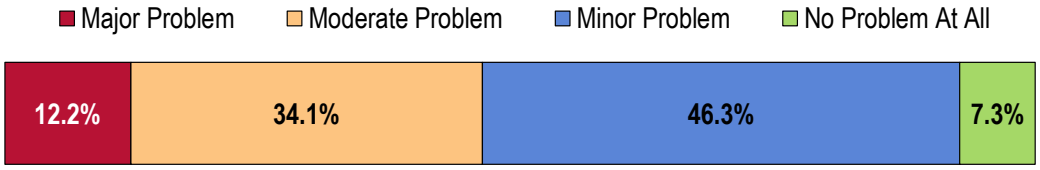
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Key Informant Input: Injury & Violence

The largest share of key informants taking part in an online survey characterized *Injury & Violence* as a "minor problem" in the community.

Perceptions of Injury and Violence as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Alcohol/Drug Use

> *Too much drug abuse, which leads to behavior that results in injury and violence. Remember, alcohol is a drug. – Community Leader*
>
> *Increase in violent crimes due to substance abuse. – Social Services Provider*
>
> *I think it relates to drug use. – Community Leader*

Diabetes

About Diabetes

Diabetes mellitus occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose (sugar) as fuel for the body's cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications. Many forms of diabetes exist; the three common types are Type 1, Type 2, and gestational diabetes. Effective therapy can prevent or delay diabetic complications.

Diabetes mellitus:

- Lowers life expectancy by up to 15 years.
- Increases the risk of heart disease by 2 to 4 times.
- Is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness.

The rate of diabetes mellitus continues to increase both in the United States and throughout the world. Due to the steady rise in the number of persons with diabetes mellitus, and possibly earlier onset of type 2 diabetes mellitus, there is growing concern about the possibility that the increase in the number of persons with diabetes mellitus and the complexity of their care might overwhelm existing healthcare systems.

People from minority populations are more frequently affected by type 2 diabetes. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with type 2 diabetes.

Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Diabetes Deaths

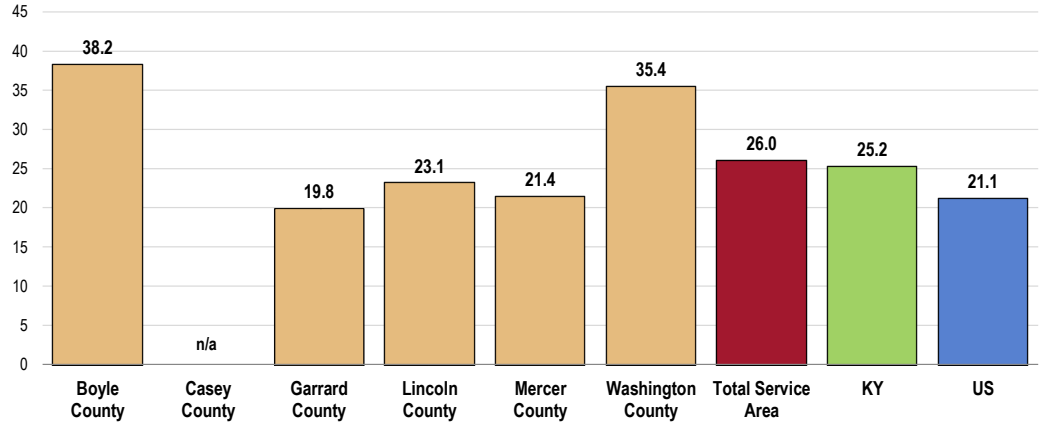
Between 2013 and 2015, there was an annual average age-adjusted diabetes mortality rate of 26.0 deaths per 100,000 population in the Total Service Area.

- Similar to the Kentucky rate.
- Less favorable than that found nationally.
- Fails to satisfy the Healthy People 2020 target (20.5 or lower, adjusted to account for diabetes mellitus-coded deaths).
- Unfavorably high in Boyle and Washington counties.

Diabetes: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 20.5 or Lower (Adjusted)



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective D-3]

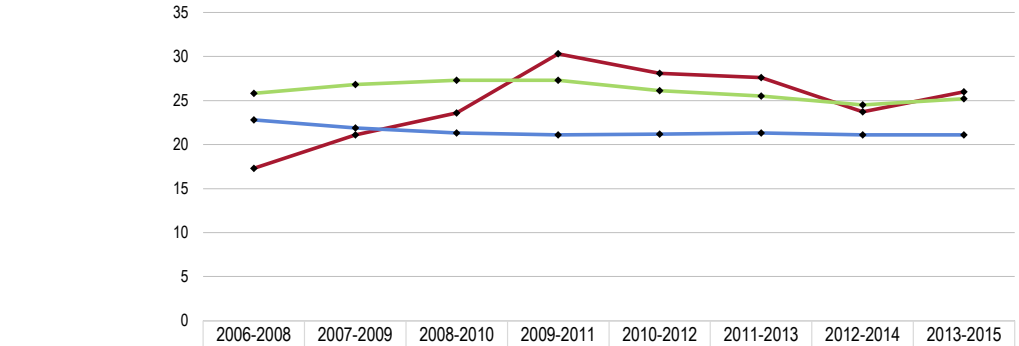
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

- TREND: Although fluctuating, the diabetes mortality rate has increased overall in the Total Service Area. In contrast, slight decreases occurred during this same timeframe across Kentucky and the US.

Diabetes: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 20.5 or Lower (Adjusted)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	17.3	21.1	23.6	30.3	28.1	27.6	23.7	26.0
KY	25.8	26.8	27.3	27.3	26.1	25.5	24.5	25.2
US	22.8	21.9	21.3	21.1	21.2	21.3	21.1	21.1

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective D-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

Prevalence of Diabetes

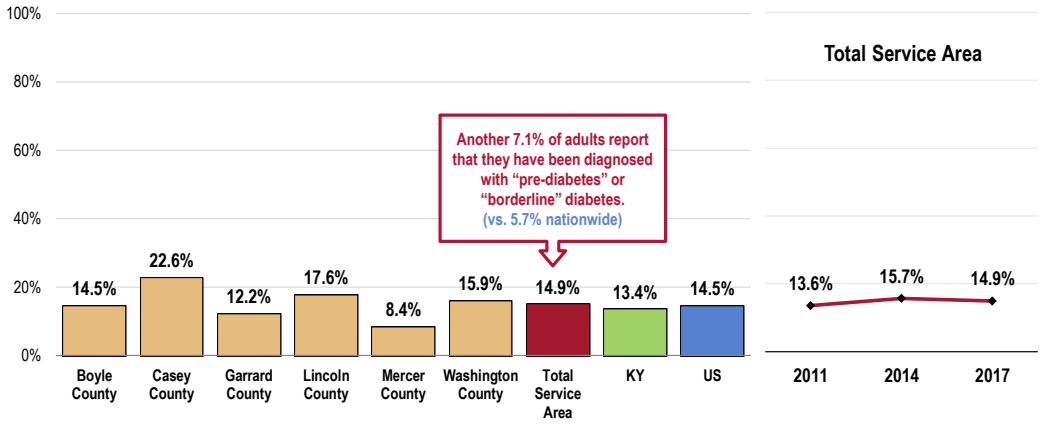
A total of 14.9% of Total Service Area adults report having been diagnosed with diabetes.

- Similar to the statewide and national proportions.
- Highest in Casey County; lowest in Mercer County.
- TREND: Statistically unchanged over time.

In addition to the prevalence of diagnosed diabetes referenced above, another 7.1% of Total Service Area adults report that they have "pre-diabetes" or "borderline diabetes."

- Comparable to the US prevalence.
- Lowest in Boyle County (not shown).

Prevalence of Diabetes

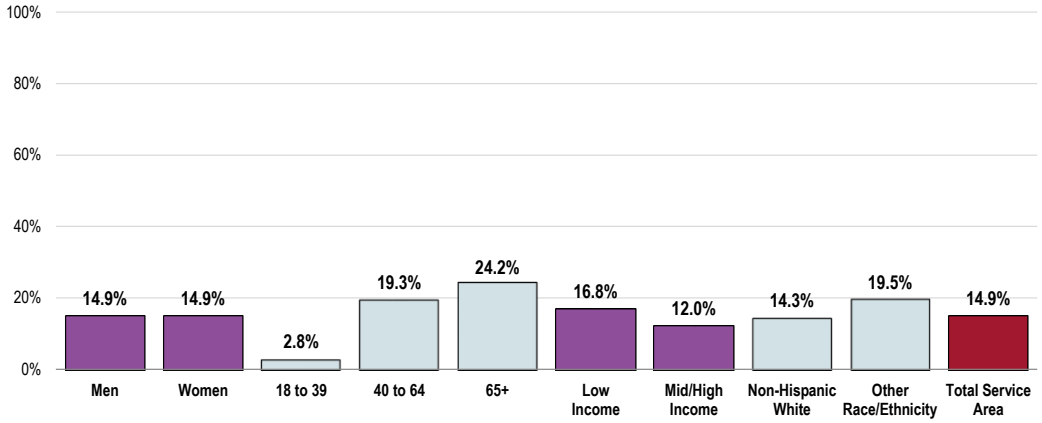


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

Notes:
- Asked of all respondents.

- Note the strong positive correlation between diabetes and age, with 24.2% of seniors with diabetes.

Prevalence of Diabetes
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]

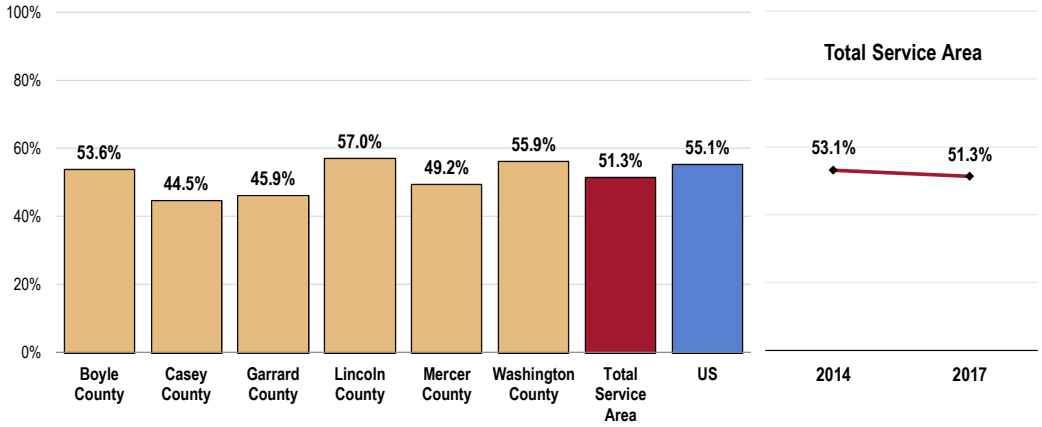
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Excludes gestational diabetes (occurring only during pregnancy).

Diabetes Testing

Of area adults who have <u>not</u> been diagnosed with diabetes, 51.3% report having had their blood sugar level tested within the past three years.

- Similar to the national proportion.
- Statistically similar by county.
- TREND: Statistically unchanged since 2014.

Have Had Blood Sugar Tested in the Past Three Years
(Among Nondiabetics)

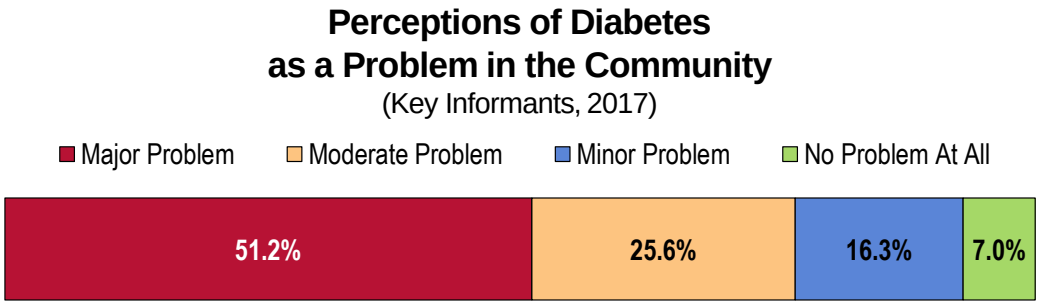


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 39]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of respondents who have not been diagnosed with diabetes.

Key Informant Input: Diabetes

Over half of key informants taking part in an online survey characterized *Diabetes* as a "major problem" in the community.



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Challenges

Among those rating diabetes as a "major problem," the biggest challenges for people with diabetes are seen as:

Lifestyle

Sugary drinks. – Community Leader

Diet and exercise. – Community Leader

Personal care and nutrition. – Social Services Provider

Behavioral changes. – Public Health Representative

Eating out. – Community Leader

Diet control. – Community Leader

Obesity

Kentucky in general has a problem with obesity, which has caused a high rate of diabetes. Diet is probably the biggest problem. – Community Leader

Overweight, poor diet. – Community Leader

Obesity. – Community Leader

Diagnosis/Treatment

Identifying and slowing down its progression. – Community Leader

Tight control of existing disease and poor prevention of developing it. – Physician

Health Education

They are largely uneducated as to how to prevent diabetes and unwilling to accept that for many with diabetes, it is lifestyle-related. – Community Leader

Services available, but people do not take advantage of those services. – Public Health Representative

Insufficient Physical Activity

Lack of exercise. Our community is a walk-friendly community. We have a great walking track at the park, and I wish more would utilize it. – Community Leader

Lack of Specialists

No endocrinologist, and the bulk of nurse practitioners are not well-trained in DM management. – Physician

Prevalence/Incidence

> *Large numbers. – Social Services Provider*

Socioeconomic Factors

> *Low income and lack of education about diet. – Community Leader*

Alzheimer's Disease

About Dementia

Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—to such an extent that it interferes with a person's daily life. Dementia is not a disease itself, but rather a set of symptoms. Memory loss is a common symptom of dementia, although memory loss by itself does not mean a person has dementia. Alzheimer's disease is the most common cause of dementia, accounting for the majority of all diagnosed cases.

Alzheimer's disease is the 6th leading cause of death among adults age 18 years and older. Estimates vary, but experts suggest that up to 5.1 million Americans age 65 years and older have Alzheimer's disease. These numbers are predicted to more than double by 2050 unless more effective ways to treat and prevent Alzheimer's disease are found.

- Healthy People 2020 (www.healthypeople.gov)

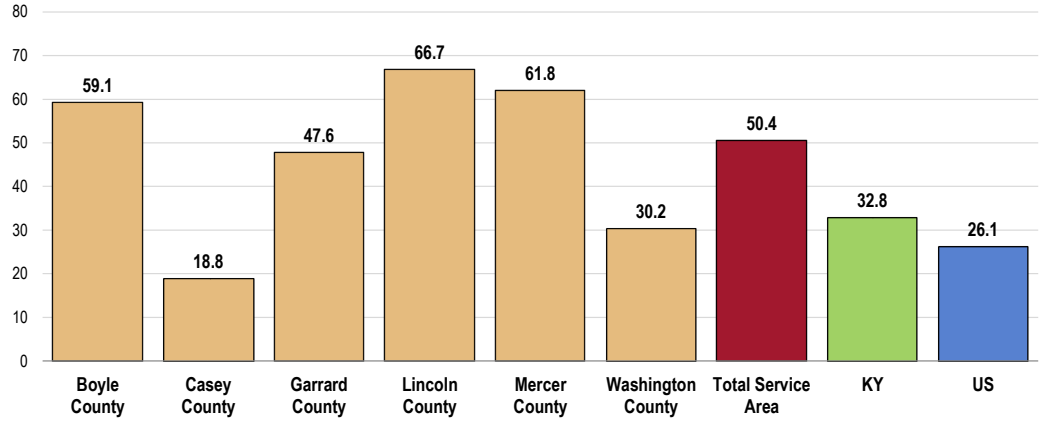
Age-Adjusted Alzheimer's Disease Deaths

Between 2013 and 2015, there was an annual average age-adjusted Alzheimer's disease mortality rate of 50.4 deaths per 100,000 population in the Total Service Area.

- Much higher than the statewide and national rates.
- Rates vary considerably by county and are highest in Boyle, Lincoln, and Mercer counties.

Alzheimer's Disease: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)



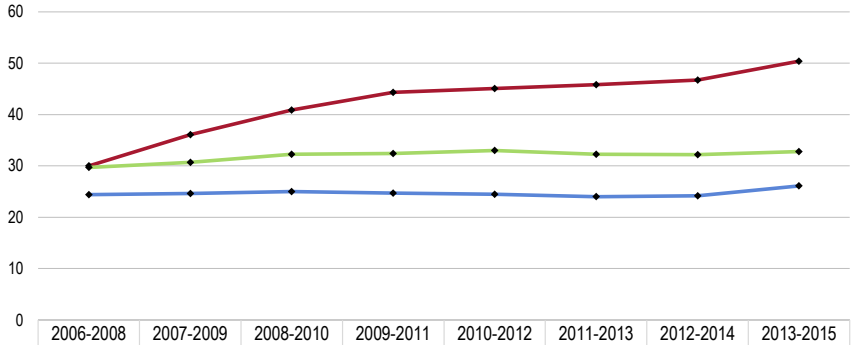
Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The Alzheimer's disease mortality rate trended upward over the past decade in the Total Service Area. Across Kentucky and the US, rates have increased as well, although less significantly.

Alzheimer's Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	30.0	36.1	40.9	44.3	45.1	45.8	46.7	50.4
KY	29.7	30.7	32.3	32.4	33.0	32.3	32.2	32.8
US	24.4	24.6	25.0	24.7	24.5	24.0	24.2	26.1

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

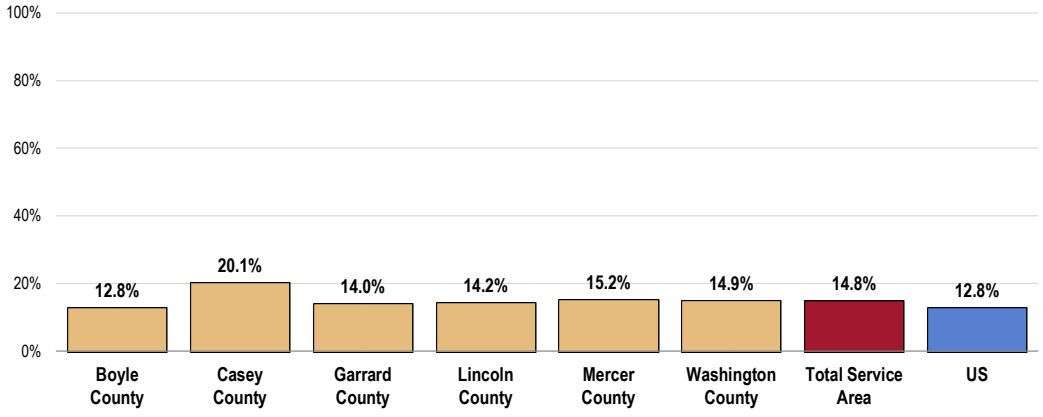
Progressive Confusion/Memory Loss

A total of 14.8% of adults age 45 and older report experiencing confusion or memory loss in the past year that is happening more often or getting worse.

- Comparable to the US prevalence.
- Comparable findings by county among residents age 45+.

Experienced Increasing Confusion/Memory Loss in Past Year

(Among Respondents Age 45 and Older)



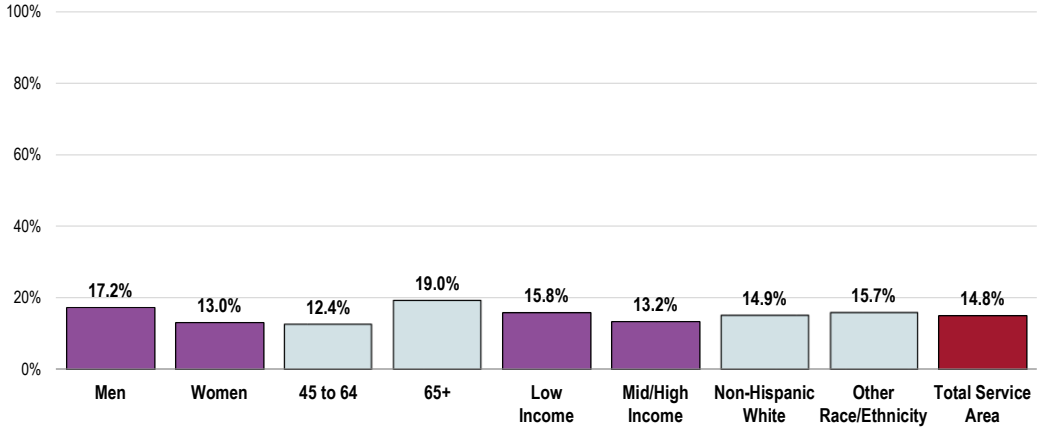
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 127]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of those respondents age 45 and older.

- A higher prevalence of progressive confusion/memory loss is reported among seniors (age 65+).

Experienced Increasing Confusion/Memory Loss in Past Year

(Among Respondents Age 45 and Older; Total Service Area, 2017)



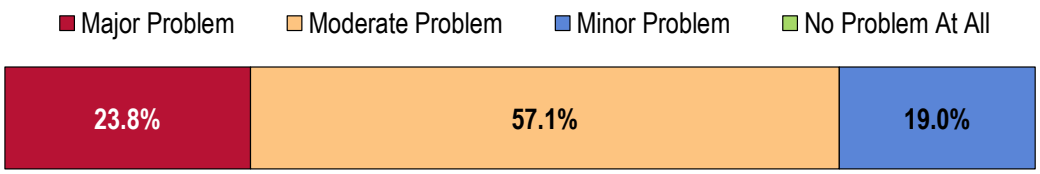
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 127]
Notes: • Asked of those respondents age 45 and older.
• Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Key Informant Input: Dementias, Including Alzheimer's Disease

Key informants taking part in an online survey are most likely to consider *Dementias, Including Alzheimer's Disease* as a "moderate problem" in the community.

Perceptions of Dementia/Alzheimer's Disease as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Aging Population

> *People are living longer. As a result, there is an increased number of people that develop dementia. – Community Leader*
>
> *Our community is aging, and the facility for them is limited. – Community Leader*

> *Elderly population. – Community Leader*
>
> *Because people are living longer and having accidents. – Community Leader*

Prevalence/Incidence

> *Increasing numbers of dementia, with few equipped to treat or advise. – Physician*
>
> *Affects almost every family in some way. – Community Leader*

Access to Care/Services

> *It incapacitates folks and makes them totally dependent on resources that just may not be there. – Community Leader*

Kidney Disease

About Kidney Disease

Chronic kidney disease and end-stage renal disease are significant public health problems in the United States and a major source of suffering and poor quality of life for those afflicted. They are responsible for premature death and exact a high economic price from both the private and public sectors. Nearly 25% of the Medicare budget is used to treat people with chronic kidney disease and end-stage renal disease.

Genetic determinants have a large influence on the development and progression of chronic kidney disease. It is not possible to alter a person's biology and genetic determinants; however, environmental influences and individual behaviors also have a significant influence on the development and progression of chronic kidney disease. As a result, some populations are disproportionately affected. Successful behavior modification is expected to have a positive influence on the disease.

Diabetes is the most common cause of kidney failure. The results of the Diabetes Prevention Program (DPP) funded by the national Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) show that moderate exercise, a healthier diet, and weight reduction can prevent development of type 2 diabetes in persons at risk.

- Healthy People 2020 (www.healthypeople.gov)

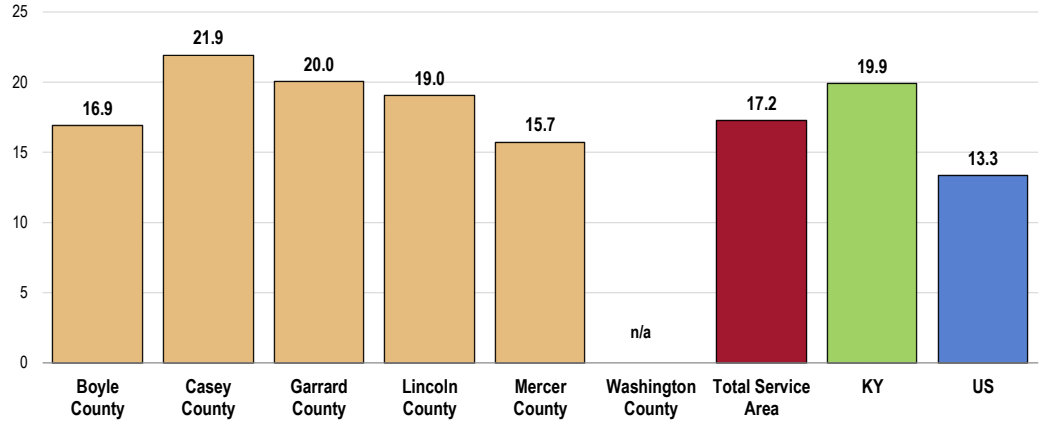
Age-Adjusted Kidney Disease Deaths

Between 2013 and 2015 there was an annual average age-adjusted kidney disease mortality rate of 17.2 deaths per 100,000 population in the Total Service Area.

- Better than the rate found statewide.
- Worse than the national rate.
- Unfavorably high in Casey County; lowest in Boyle and Mercer counties.

Kidney Disease: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)



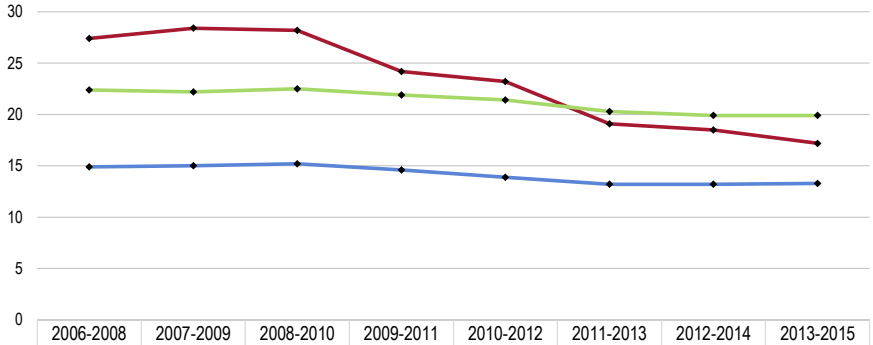
Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The death rate has decreased notably over the past decade in the Total Service Area; note the decreasing trends across Kentucky and the US as well.

Kidney Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	27.4	28.4	28.2	24.2	23.2	19.1	18.5	17.2
KY	22.4	22.2	22.5	21.9	21.4	20.3	19.9	19.9
US	14.9	15.0	15.2	14.6	13.9	13.2	13.2	13.3

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.

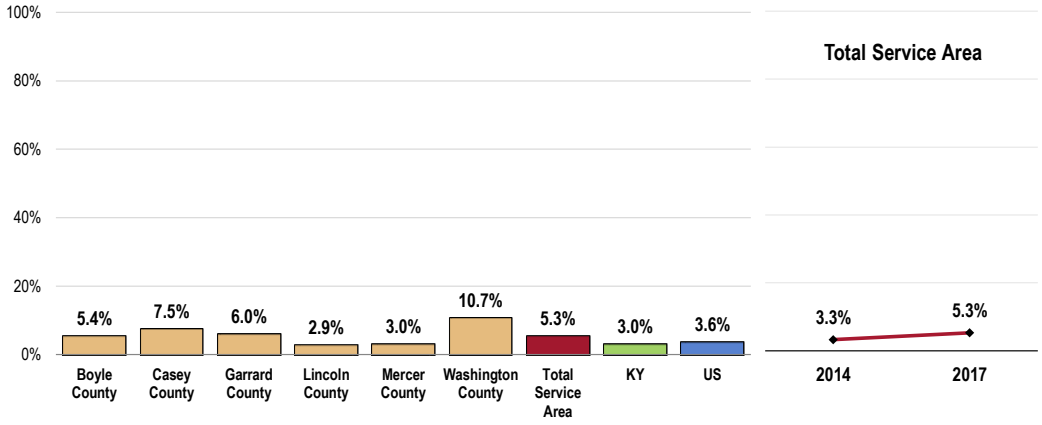
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Prevalence of Kidney Disease

A total of 5.3% of area adults report having been diagnosed with kidney disease.

- Higher than the state proportion.
- Similar to the US figure.
- Statistically similar by county.
- TREND: Marking a statistically significant increase since 2014.

Prevalence of Kidney Disease



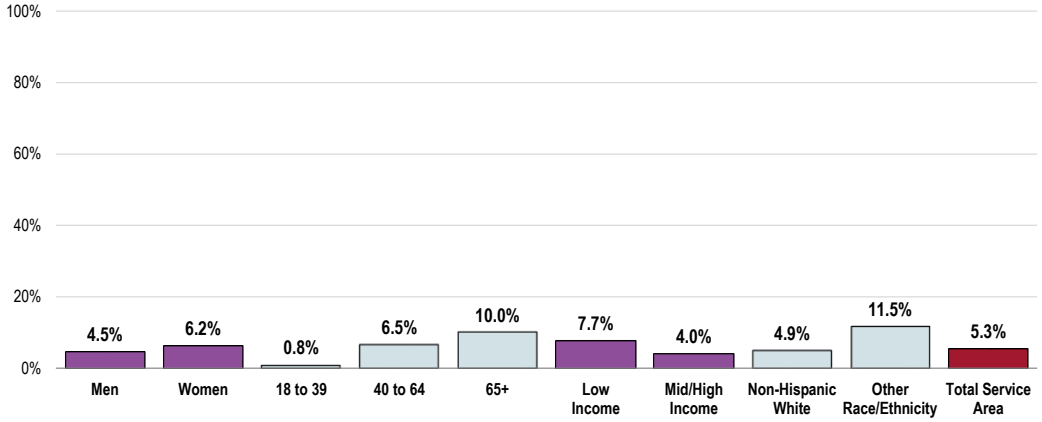
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 32]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

These population samples are more likely to report a prevalence of kidney disease:

- Older residents (note the positive correlation with age).
- Adults in low-income households.

Prevalence of Kidney Disease
(Total Service Area, 2017)



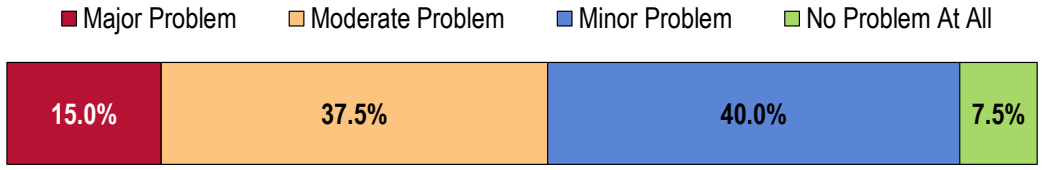
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 32]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Key Informant Input: Kidney Disease

Key informants taking part in an online survey generally characterized *Kidney Disease* as a "minor problem" in the community.

Perceptions of Kidney Disease as a Problem in the Community
(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

Aging Population

> *Elderly population. – Community Leader*

Alcohol/Drug Use

> *Continued drug abuse. – Community Leader*

Comorbidities

> *Obesity, high blood pressure, diabetes. – Physician*

Lack of Specialists

> *I don't know of a specialist in this area. – Community Leader*

Treatment

> *Medications that work through the kidneys. – Community Leader*

Potentially Disabling Conditions

About Arthritis, Osteoporosis & Chronic Back Conditions

There are more than 100 types of arthritis. Arthritis commonly occurs with other chronic conditions, such as diabetes, heart disease, and obesity. Interventions to treat the pain and reduce the functional limitations from arthritis are important, and may also enable people with these other chronic conditions to be more physically active. Arthritis affects 1 in 5 adults and continues to be the most common cause of disability. It costs more than $128 billion per year. All of the human and economic costs are projected to increase over time as the population ages. There are interventions that can reduce arthritis pain and functional limitations, but they remain underused. These include: increased physical activity; self-management education; and weight loss among overweight/obese adults.

Osteoporosis is a disease marked by reduced bone strength leading to an increased risk of fractures (broken bones). In the United States, an estimated 5.3 million people age 50 years and older have osteoporosis. Most of these people are women, but about 0.8 million are men. Just over 34 million more people, including 12 million men, have low bone mass, which puts them at increased risk for developing osteoporosis. Half of all women and as many as 1 in 4 men age 50 years and older will have an osteoporosis-related fracture in their lifetime.

Chronic back pain is common, costly, and potentially disabling. About 80% of Americans experience low back pain in their lifetime. It is estimated that each year:

- 15%-20% of the population develop protracted back pain.
- 2-8% have chronic back pain (pain that lasts more than 3 months).
- 3-4% of the population is temporarily disabled due to back pain.
- 1% of the working-age population is disabled completely and permanently as a result of low back pain.

Americans spend at least $50 billion each year on low back pain. Low back pain is the:

- 2nd leading cause of lost work time (after the common cold).
- 3rd most common reason to undergo a surgical procedure.
- 5th most frequent cause of hospitalization.

Arthritis, osteoporosis, and chronic back conditions all have major effects on quality of life, the ability to work, and basic activities of daily living.

- Healthy People 2020 (www.healthypeople.gov)

Arthritis, Osteoporosis, & Chronic Back Conditions

Nearly half of Total Service Area adults age 50 and older (47.2%) reports suffering from arthritis or rheumatism.

RELATED ISSUE:

See also *Activity Limitations* in the **General Health Status** section of this report.

- Well above that found nationwide.

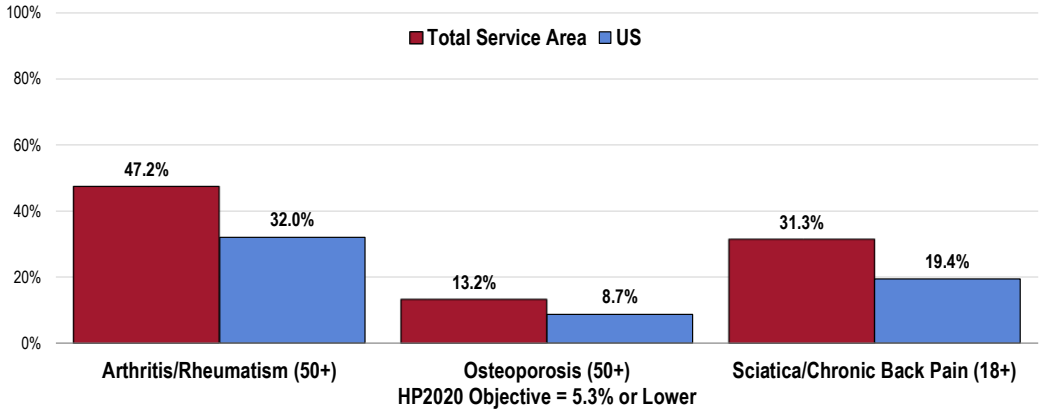
A total of 13.2% Total Service Area adults age 50 and older have osteoporosis.

- Above that found nationwide.
- Fails to satisfy the Healthy People 2020 target of 5.3% or lower.

A total of 31.3% of Total Service Area adults (18 and older) suffer from chronic back pain or sciatica.

- Much higher than that found nationwide.

Prevalence of Potentially Disabling Conditions



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 28, 161-162]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AOCBC-10]

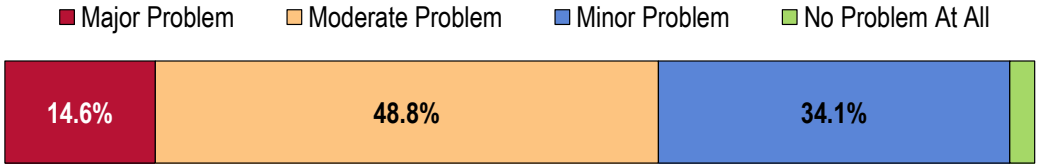
Notes:
- The sciatica indicator reflects the total sample of respondents; the arthritis and osteoporosis columns reflect adults age 50+.

Key Informant Input: Arthritis, Osteoporosis & Chronic Back Conditions

A plurality of key informants taking part in an online survey characterized *Arthritis, Osteoporosis & Chronic Back Conditions* as a "moderate problem" in the community.

Perceptions of Arthritis/Osteoporosis/Back Conditions as a Problem in the Community

(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Prevalence/Incidence

History of patients seeking services, self-report conditions. – Public Health Representative

Lots of people being treated by chiropractors. – Community Leader

Aging Population

An elderly community would have these problems. – Community Leader

Lifestyle

Poor nutrition and exercise with smoking contributes to osteoporosis, and obesity combined with poor exercise increases back problems and arthritis. – Physician

Vision & Hearing Impairment

About Vision

Vision is an essential part of everyday life, influencing how Americans of all ages learn, communicate, work, play, and interact with the world. Yet millions of Americans live with visual impairment, and many more remain at risk for eye disease and preventable eye injury.

The eyes are an important, but often overlooked, part of overall health. Despite the preventable nature of some vision impairments, many people do not receive recommended screenings and exams. A visit to an eye care professional for a comprehensive dilated eye exam can help to detect common vision problems and eye diseases, including diabetic retinopathy, glaucoma, cataract, and age-related macular degeneration.

These common vision problems often have no early warning signs. If a problem is detected, an eye care professional can prescribe corrective eyewear, medicine, or surgery to minimize vision loss and help a person see his or her best.

Healthy vision can help to ensure a healthy and active lifestyle well into a person's later years. Educating and engaging families, communities, and the nation is critical to ensuring that people have the information, resources, and tools needed for good eye health.

- Healthy People 2020 (www.healthypeople.gov)

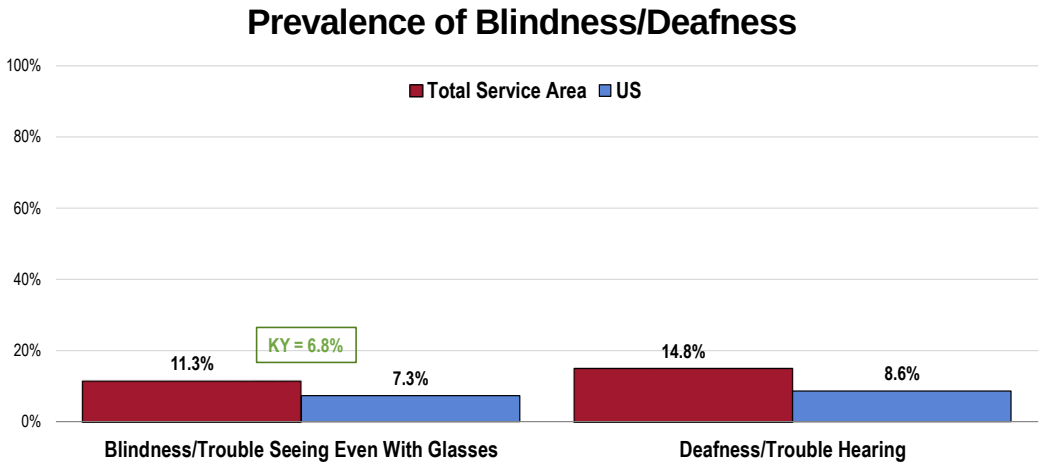
Vision and Hearing Trouble

RELATED ISSUE:

See also *Vision Care* in the **Access to Health Services** section of this report.

A total of 11.3% of Total Service Area adults are blind or have trouble seeing even when wearing corrective lenses, and 14.8% are deaf or have trouble hearing.

- Both prevalences are much higher than state (for blindness) and US norms.



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 25-26]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

Notes:
- Reflects the total sample of respondents.

About Hearing & Other Sensory or Communication Disorders

An impaired ability to communicate with others or maintain good balance can lead many people to feel socially isolated, have unmet health needs, have limited success in school or on the job. Communication and other sensory processes contribute to our overall health and well-being. Protecting these processes is critical, particularly for people whose age, race, ethnicity, gender, occupation, genetic background, or health status places them at increased risk.

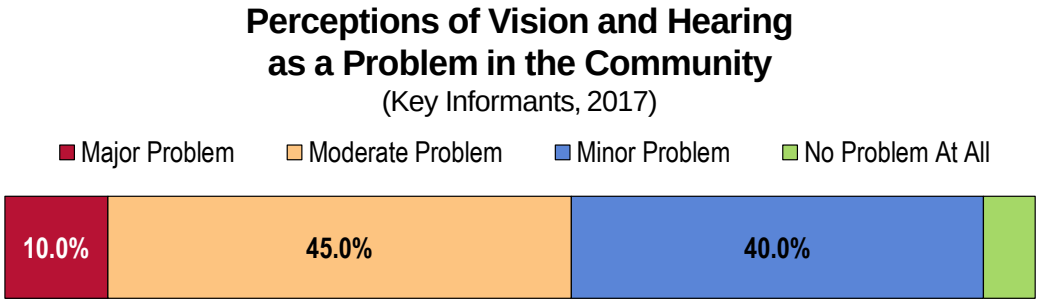
Many factors influence the numbers of Americans who are diagnosed and treated for hearing and other sensory or communication disorders, such a social determinants (social and economic standings, age of diagnosis, cost and stigma of wearing a hearing aid, and unhealthy lifestyle choices). In addition, biological causes of hearing loss and other sensory or communication disorders include: genetics; viral or bacterial infections; sensitivity to certain drugs or medications; injury; and aging.

As the nation's population ages and survival rates for medically fragile infants and for people with severe injuries and acquired diseases improve, the prevalence of sensory and communication disorders is expected to rise.

- Healthy People 2020 (www.healthypeople.gov)

Key Informant Input: Vision & Hearing

Key informants taking part in an online survey most often characterized *Vision & Hearing* as a "moderate problem" in the community.



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Insurance Coverage

> *Adult vision is usually in not covered under insurance plans. – Public Health Representative*

Aging Population

> *Elderly population. – Community Leader*

Infectious Disease

Professional Research Consultants, Inc.

Influenza & Pneumonia Vaccination

About Influenza & Pneumonia

Acute respiratory infections, including pneumonia and influenza, are the 8th leading cause of death in the nation, accounting for 56,000 deaths annually. Pneumonia mortality in children fell by 97% in the last century, but respiratory infectious diseases continue to be leading causes of pediatric hospitalization and outpatient visits in the US. On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. The 2009 H1N1 influenza pandemic caused an estimated 270,000 hospitalizations and 12,270 deaths (1,270 of which were of people younger than age 18) between April 2009 and March 2010.

- Healthy People 2020 (www.healthypeople.gov)

Flu Vaccinations

Among Total Service Area seniors, 55.4% received a flu shot within the past year.

- Below the Kentucky finding.
- Similar to the national finding.
- Fails to satisfy the Healthy People 2020 target (70% or higher).
- TREND: Marks a statistically significant decrease from 2011 survey findings (but similar to the 2014 percentage).

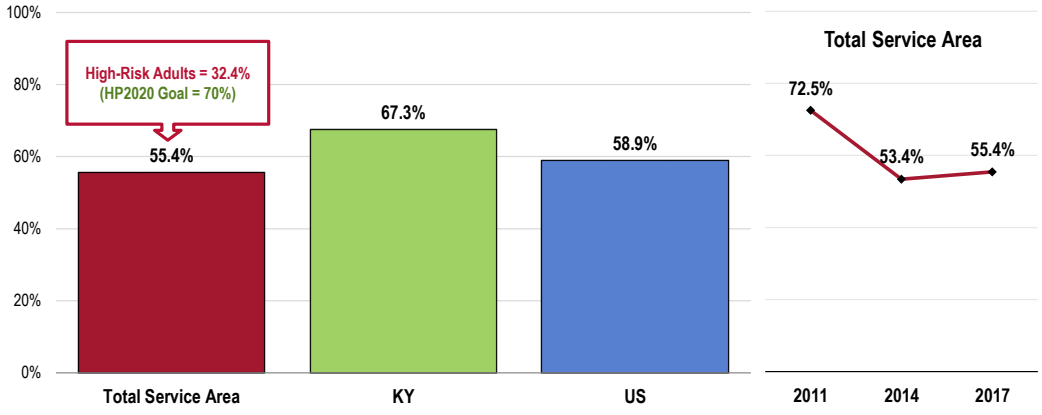
"High-risk" includes adults who report having been diagnosed with heart disease, diabetes or respiratory disease.

A total of 32.4% of high-risk adults age 18 to 64 received a flu vaccination within the past year.

Older Adults: Have Had a Flu Vaccination in the Past Year

(Among Adults Age 65+)

Healthy People 2020 Target = 70.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 163-164]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective IID-12.12]

Notes:
- Reflects respondents 65 and older.
- "High-Risk" includes adults age 18 to 64 who have been diagnosed with heart disease, diabetes or respiratory disease.

Pneumonia Vaccination

Among Total Service Area adults age 65 and older, 70.7% have received a pneumonia vaccination at some point in their lives.

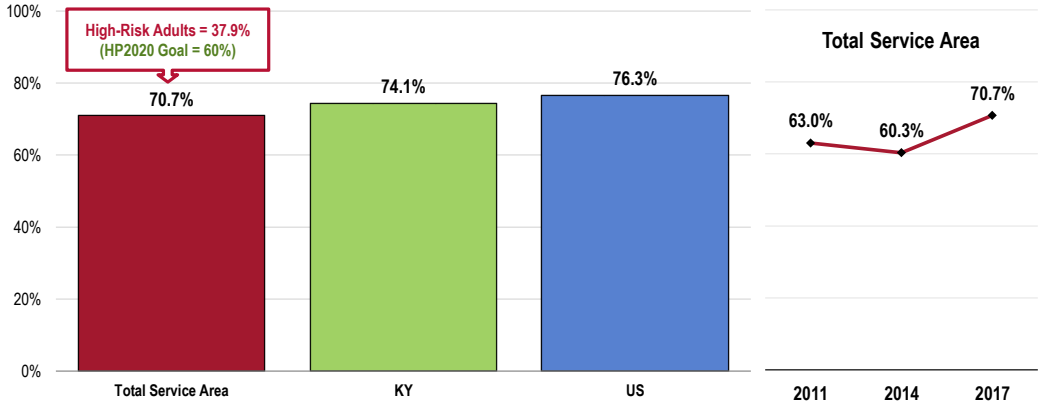
- Comparable to the state and national figures.
- Fails to satisfy the Healthy People 2020 target of 90% or higher.
- TREND: Statistically unchanged from the 2011 survey percentage but marking a statistically significant increase since 2014.

A total of 37.9% of high-risk adults age 18 to 64 have ever received a pneumonia vaccination.

Older Adults: Have Ever Had a Pneumonia Vaccine

(Among Adults Age 65+)

Healthy People 2020 Target = 90.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 165-166]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objectives IID-13.1, IID-13.2]

Notes:
- Reflects respondents 65 and older.
- "High-Risk" includes adults age 18 to 64 who have been diagnosed with heart disease, diabetes or respiratory disease.

HIV

About HIV

The HIV epidemic in the United States continues to be a major public health crisis. An estimated 1.1 million Americans are living with HIV, and 1 in 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new HIV infections each year.

HIV is a preventable disease, and effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drug-using partners. More than 50% of new HIV infections occur as a result of the 21% of people who have HIV but do not know it.

In the era of increasingly effective treatments for HIV, people with HIV are living longer, healthier, and more productive lives. Deaths from HIV infection have greatly declined in the United States since the 1990s. As the number of people living with HIV grows, it will be more important than ever to increase national HIV prevention and healthcare programs.

There are gender, race, and ethnicity disparities in new HIV infections:

- Nearly 75% of new HIV infections occur in men.
- More than half occur in gay and bisexual men, regardless of race or ethnicity.
- 45% of new HIV infections occur in African Americans, 35% in whites, and 17% in Hispanics.

Improving access to quality healthcare for populations disproportionately affected by HIV, such as persons of color and gay and bisexual men, is a fundamental public health strategy for HIV prevention. People getting care for HIV can receive:

- Antiretroviral therapy
- Screening and treatment for other diseases (such as sexually transmitted infections)
- HIV prevention interventions
- Mental health services
- Other health services

As the number of people living with HIV increases and more people become aware of their HIV status, prevention strategies that are targeted specifically for HIV-infected people are becoming more important. Prevention work with people living with HIV focuses on:

- Linking to and staying in treatment.
- Increasing the availability of ongoing HIV prevention interventions.
- Providing prevention services for their partners.

Public perception in the US about the seriousness of the HIV epidemic has declined in recent years. There is evidence that risky behaviors may be increasing among uninfected people, especially gay and bisexual men. Ongoing media and social campaigns for the general public and HIV prevention interventions for uninfected persons who engage in risky behaviors are critical.

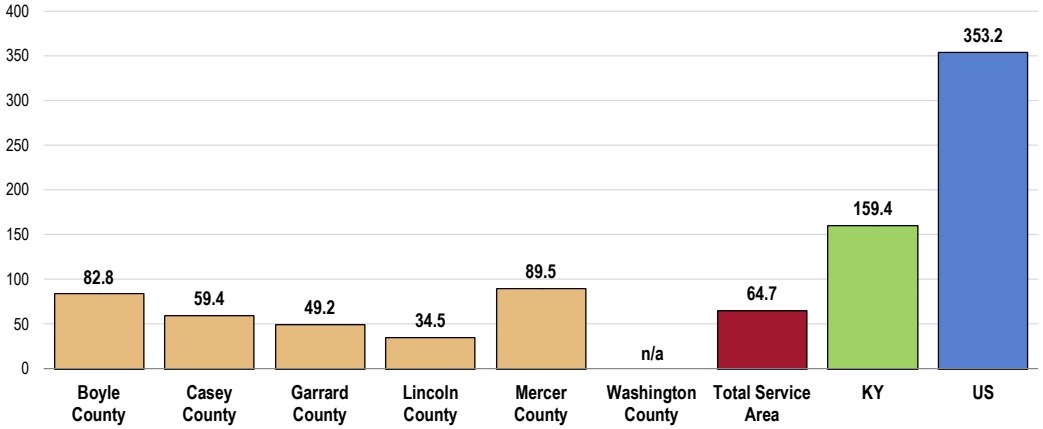
- Healthy People 2020 (www.healthypeople.gov)

HIV Prevalence

In 2013, the area reported a prevalence of 64.7 HIV cases per 100,000 population.

- Well below the statewide and national prevalence rates.
- Highest in Boyle and Mercer counties.

HIV Prevalence
(Prevalence Rate of HIV per 100,000 Population, 2013)



Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

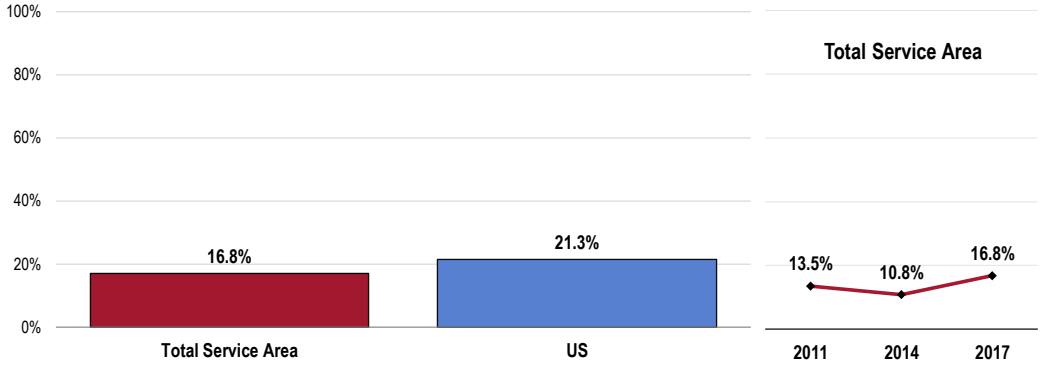
Notes:
- This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.

HIV Testing

Among Total Service Area adults age 18-44, 16.8% report that they have been tested for human immunodeficiency virus (HIV) in the past year.

- Comparable to the proportion found nationwide.
- TREND: Testing has remained stable over time.

Tested for HIV in the Past Year
(Among Adults Age 18-44)



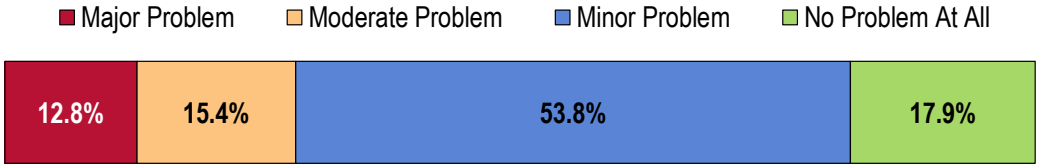
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 167]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects respondents age 18 to 44.

Key Informant Input: HIV/AIDS

Key informants taking part in an online survey most often characterized *HIV/AIDS* as a "minor problem" in the community.

Perceptions of HIV/AIDS as a Problem in the Community
(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Lifestyle

> *It consumes a disproportionate share of the resources once it is diagnosed. It, too, is lifestyle-related. – Community Leader*

Alcohol/Drug Use

> *Drug abuse, unsafe sexual practices. – Community Leader*

Health Education

> *There is not a lot of talk on the subject. – Community Leader*

Lack of Specialists

> *No infectious disease specialist. – Physician*

Sexually Transmitted Diseases

About Sexually Transmitted Diseases

STDs refer to more than 25 infectious organisms that are transmitted primarily through sexual activity. Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as: reproductive health problems; fetal and perinatal health problems; cancer; and facilitation of the sexual transmission of HIV infection.

Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the US. Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. Several factors contribute to the spread of STDs.

Biological Factors. STDs are acquired during unprotected sex with an infected partner. Biological factors that affect the spread of STDs include:

- **Asymptomatic nature of STDs**. The majority of STDs either do not produce any symptoms or signs, or they produce symptoms so mild that they are unnoticed; consequently, many infected persons do not know that they need medical care.
- **Gender disparities**. Women suffer more frequent and more serious STD complications than men do. Among the most serious STD complications are pelvic inflammatory disease, ectopic pregnancy (pregnancy outside of the uterus), infertility, and chronic pelvic pain.
- **Age disparities**. Compared to older adults, sexually active adolescents ages 15 to 19 and young adults ages 20 to 24 are at higher risk for getting STDs.
- **Lag time between infection and complications**. Often, a long interval, sometimes years, occurs between acquiring an STD and recognizing a clinically significant health problem.

Social, Economic and Behavioral Factors. The spread of STDs is directly affected by social, economic, and behavioral factors. Such factors may cause serious obstacles to STD prevention due to their influence on social and sexual networks, access to and provision of care, willingness to seek care, and social norms regarding sex and sexuality. Among certain vulnerable populations, historical experience with segregation and discrimination exacerbates these factors. Social, economic, and behavioral factors that affect the spread of STDs include: racial and ethnic disparities; poverty and marginalization; access to healthcare; substance abuse; sexuality and secrecy (stigma and discomfort discussing sex); and sexual networks (persons “linked” by sequential or concurrent sexual partners).

- Healthy People 2020 (www.healthypeople.gov)

Chlamydia & Gonorrhea

In 2014, the chlamydia incidence rate in the Total Service Area was 354.6 cases per 100,000 population.

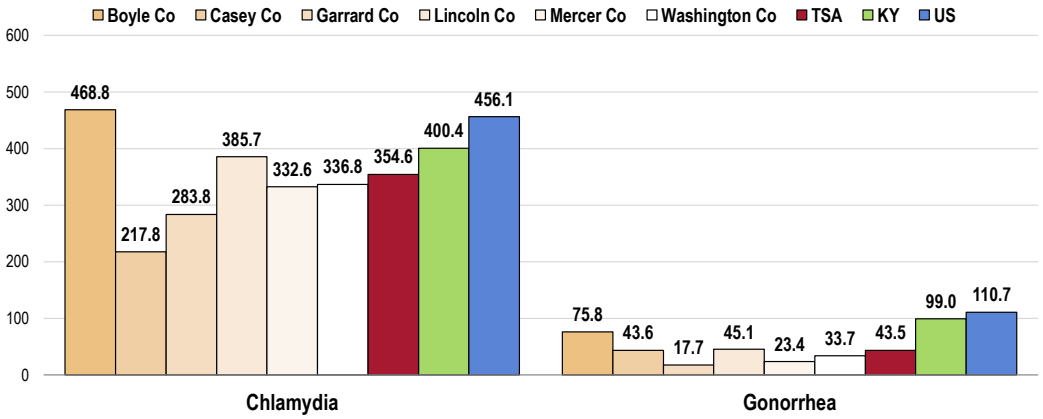
- Notably lower than the state and US incidence rates.
- Unfavorably high in Boyle and Lincoln counties.

The Total Service Area gonorrhea incidence rate in 2014 was 43.5 cases per 100,000 population.

- Notably lower than the Kentucky and US incidence rates.
- Unfavorably high in Boyle, Casey, and Lincoln counties.

Chlamydia & Gonorrhea Incidence

(Incidence Rate per 100,000 Population, 2014)



Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

Safe Sexual Practices

Among unmarried Total Service Area adults under the age of 65, the majority cites having one (37.3%) or no (46.7%) sexual partners in the past 12 months. However, 11.2% report three or more sexual partners in the past year.

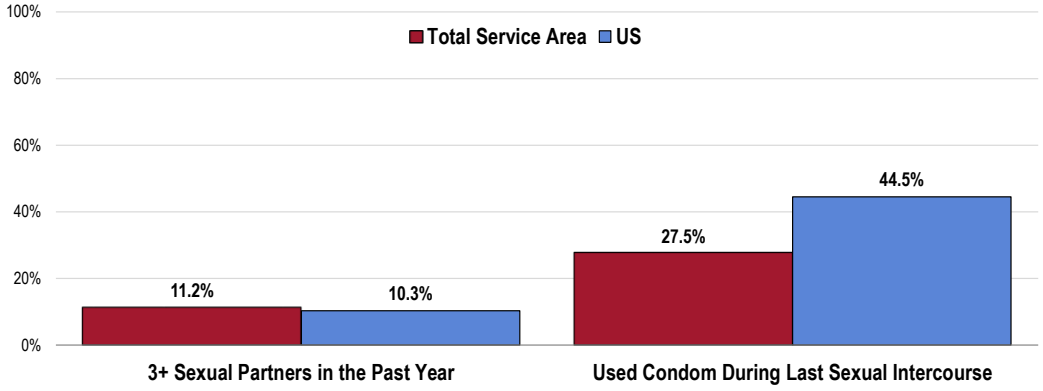
- Comparable to that reported nationally.

A total of 27.5% of unmarried Total Service Area adults age 18 to 64 report that a condom was used during their last sexual intercourse.

- Well below the national findings.

Sexual Risk

(Unmarried Adults Age 18-64)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 97-98]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

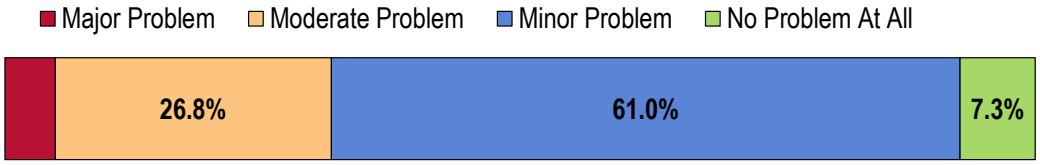
Notes:
- Reflects unmarried respondents under the age of 65.

Key Informant Input: Sexually Transmitted Diseases

A plurality of key informants taking part in an online survey characterized *Sexually Transmitted Diseases* as a "minor problem" in the community.

Perceptions of Sexually Transmitted Diseases as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Denial/Stigma

> *Reluctance to get proper treatment. Reluctance to reveal possible sources of infections. – Community Leader*

Prevalence/Incidence

> *Diagnosis of sexually transmitted diseases. – Public Health Representative*

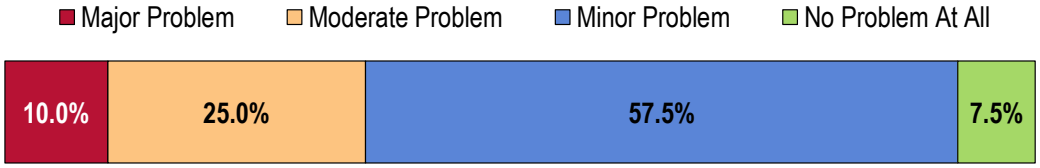
Immunization & Infectious Diseases

Key Informant Input: Immunization & Infectious Diseases

Key informants taking part in an online survey most often characterized *Immunization & Infectious Diseases* as a "minor problem" in the community.

Perceptions of Immunization and Infectious Diseases as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Health Education

> *Infectious diseases are a problem, due to behavior and individuals not adhering to education. – Public Health Representative*
>
> *I am not sure the community is ready if an outbreak of an infectious disease were to occur. – Community Leader*

Lack of Specialists

> *No infectious disease specialist. – Physician*

Births

Professional Research Consultants, Inc.

Birth Outcomes & Risks

Low-Weight Births

Low birthweight babies, those who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth, are much more prone to illness and neonatal death than are babies of normal birthweight.

Largely a result of receiving poor or inadequate prenatal care, many low-weight births and the consequent health problems are preventable.

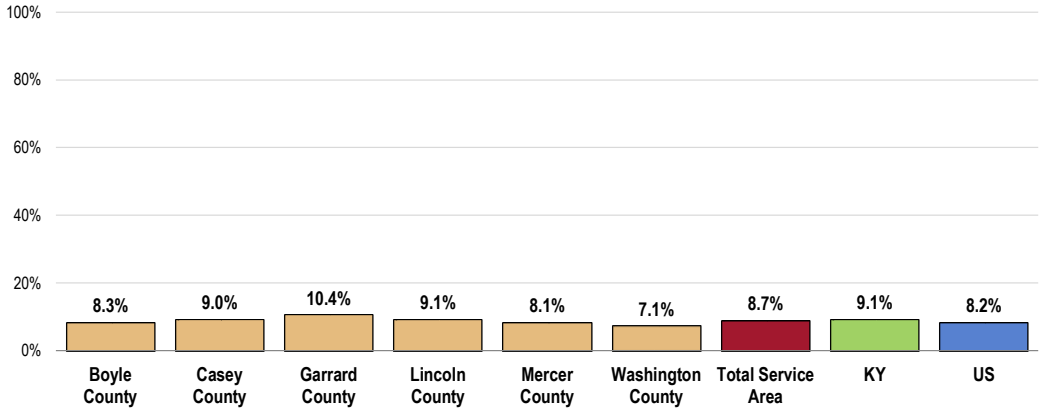
A total of 8.7% of 2006-2012 Total Service Area births were low-weight.

- Similar to the Kentucky proportion.
- Worse than the national proportion.
- Fails to satisfy the Healthy People 2020 target (7.8% or lower).
- Highest in Garrard County; lowest in Mercer and Washington counties.

Low-Weight Births

(Percent of Live Births, 2006–2012)

Healthy People 2020 Target = 7.8% or Lower



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System. Accessed using CDC WONDER.
- Retrieved March 2017 from Community Commons at http://www.chna.org.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MICH-8.1]

Note:
- This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

Infant Mortality

Between 2013 and 2015, there was an annual average of 8.4 infant deaths per 1,000 live births.

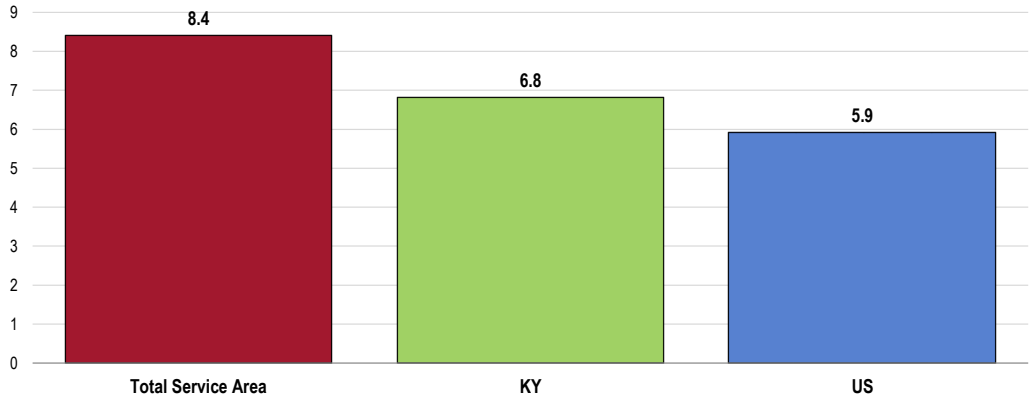
- Worse than the Kentucky and US rates.
- Fails to satisfy the Healthy People 2020 target of 6.0 per 1,000 live births.

Infant mortality rates reflect deaths of children less than one year old per 1,000 live births.

Infant Mortality Rate

(Annual Average Infant Deaths per 1,000 Live Births, 2013–2015)

Healthy People 2020 Target = 6.0 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- Retrieved March 2017 from Community Commons at http://www.chna.org.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MICH-1.3]

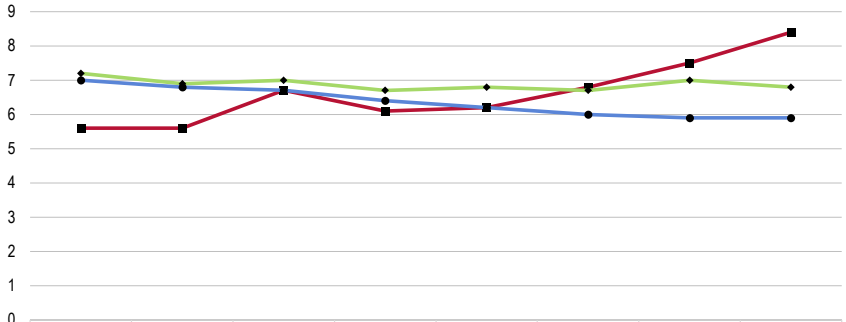
Notes:
- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.

- TREND: The Total Service Area infant mortality rate has increased in recent years, in contrast to the decreasing trends reported in Kentucky and the US overall.

Infant Mortality Rate

(Annual Average Infant Deaths per 1,000 Live Births)

Healthy People 2020 Target = 6.0 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	5.6	5.6	6.7	6.1	6.2	6.8	7.5	8.4
KY	7.2	6.9	7.0	6.7	6.8	6.7	7.0	6.8
US	7.0	6.8	6.7	6.4	6.2	6.0	5.9	5.9

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- Centers for Disease Control and Prevention, National Center for Health Statistics.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MICH-1.3]

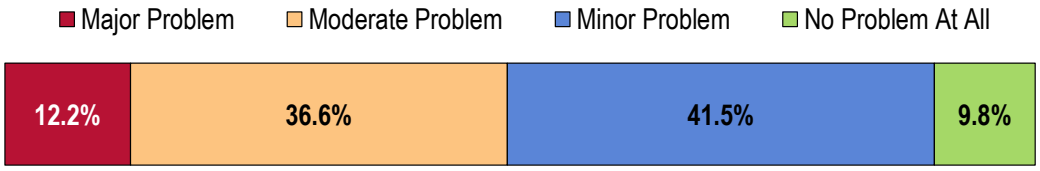
Notes:
- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.

Key Informant Input: Infant & Child Health

Key informants taking part in an online survey generally characterized *Infant & Child Health* as a "minor problem" in the community.

Perceptions of Infant and Child Health as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Poverty

> *A vulnerable population, whose caregivers are typically the least able to pay for health care. – Community Leader*
>
> *Poverty, lack of affordable medical assistance. – Community Leader*

Family Planning

Births to Teen Mothers

About Teen Births

The negative outcomes associated with unintended pregnancies are compounded for adolescents. Teen mothers:

- Are less likely to graduate from high school or attain a GED by the time they reach age 30.
- Earn an average of approximately $3,500 less per year, when compared with those who delay childbearing.
- Receive nearly twice as much Federal aid for nearly twice as long.

Similarly, early fatherhood is associated with lower educational attainment and lower income. Children of teen parents are more likely to have lower cognitive attainment and exhibit more behavior problems. Sons of teen mothers are more likely to be incarcerated, and daughters are more likely to become adolescent mothers.

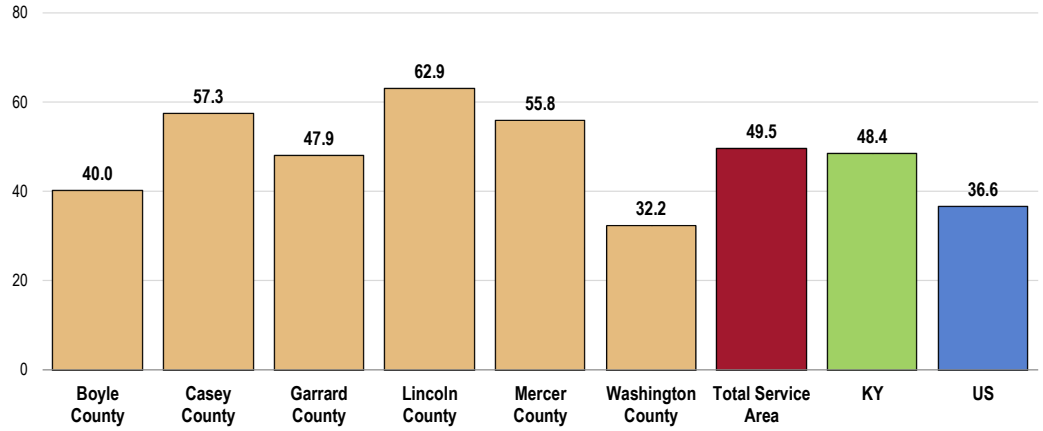
- Healthy People 2020 (www.healthypeople.gov)

Between 2006 and 2012, there was an annual average of 49.5 births to women age 15-19 per 1,000 population in that age group.

- Comparable to the Kentucky proportion.
- Higher than the national proportion.
- Highest in Casey, Lincoln, and Mercer counties.

Teen Birth Rate

(Births to Women Age 15-19 Per 1,000 Female Population Age 15-19, 2006–2012)



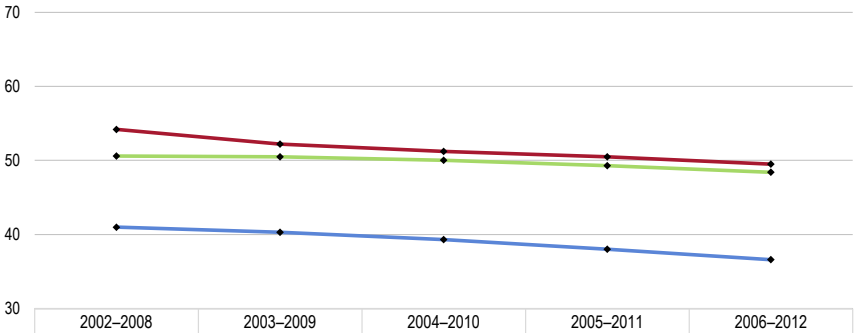
Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System. Accessed using CDC WONDER.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the rate of total births to women under the age of 15 - 19 per 1,000 female population age 15 - 19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

- TREND: The teen birth rate has decreased over time in the Total Service Area, in keeping with state and national trends.

Teen Birth Rate

(Births to Women Age 15-19 Per 1,000 Female Population Age 15-19)



	2002–2008	2003–2009	2004–2010	2005–2011	2006–2012
Total Service Area	54.2	52.2	51.2	50.5	49.5
KY	50.6	50.5	50.0	49.3	48.4
US	41.0	40.3	39.3	38.0	36.6

Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System. Accessed using CDC WONDER.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

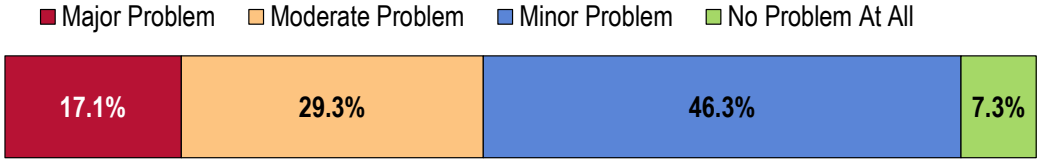
Notes:
- This indicator reports the rate of total births to women under the age of 15-19 per 1,000 female population age 15-19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

Key Informant Input: Family Planning

Key informants taking part in an online survey largely characterized *Family Planning* as a "minor problem" in the community.

Perceptions of Family Planning as a Problem in the Community

(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Socioeconomic Status

> *I see and hear about too many families on some form of public assistance and are in the court systems. This tells me people aren't taking care of their families. – Community Leader*
>
> *Children being born into poverty. – Community Leader*

Access to Care/Services

> *No Planned Parenthood clinics, very little school participation. – Community Leader*

Lack of Providers

> *Few doctors in the area. – Public Health Representative*

Modifiable Health Risks

Professional Research Consultants, Inc.

Actual Causes of Death

About Contributors to Mortality

A 1999 study (an update to a landmark 1993 study), estimated that as many as 40% of premature deaths in the United States are attributed to behavioral factors. This study found that behavior patterns represent the single-most prominent domain of influence over health prospects in the United States. The daily choices we make with respect to diet, physical activity, and sex; the substance abuse and addictions to which we fall prey; our approach to safety; and our coping strategies in confronting stress are all important determinants of health.

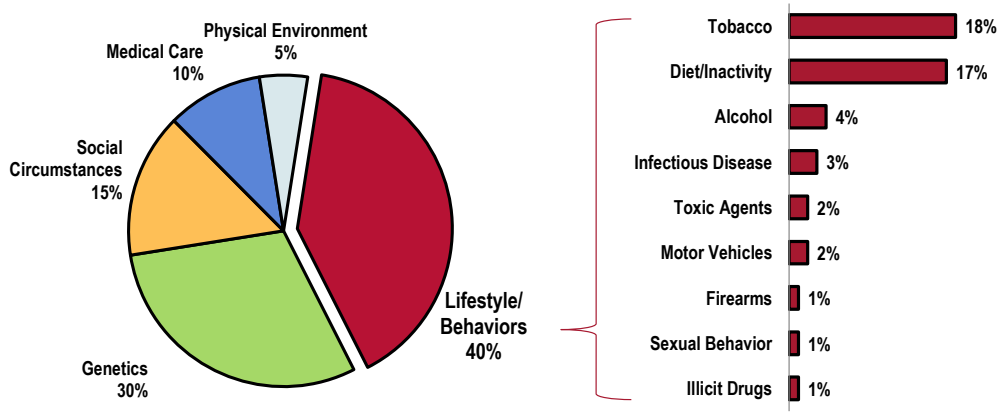
The most prominent contributors to mortality in the United States in 2000 were **tobacco** (an estimated 435,000 deaths), **diet and activity** patterns (400,000), **alcohol** (85,000), **microbial agents** (75,000), **toxic agents** (55,000), **motor vehicles** (43,000), **firearms** (29,000), **sexual behavior** (20,000), and **illicit use of drugs** (17,000). Socioeconomic status and access to medical care are also important contributors, but difficult to quantify independent of the other factors cited. Because the studies reviewed used different approaches to derive estimates, the stated numbers should be viewed as first approximations.

These analyses show that smoking remains the leading cause of mortality. However, poor diet and physical inactivity may soon overtake tobacco as the leading cause of death. These findings, along with escalating healthcare costs and aging population, argue persuasively that the need to establish a more preventive orientation in the US healthcare and public health systems has become more urgent.

- Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, Phd, MSc; Julie L. Gerberding, MD, MPH. "Actual Causes of Death in the United States." JAMA, 291(2004):1238-1245.

While causes of death are typically described as the diseases or injuries immediately precipitating the end of life, a few important studies have shown that the actual causes of premature death (reflecting underlying risk factors) are often preventable.

Factors Contributing to Premature Deaths in the United States



Sources: ● "The Case For More Active Policy Attention to Health Promotion"; (McGinnis, Williams-Russo, Knickman) Health Affairs. Vol. 32. No. 2. March/April 2002."Actual Causes of Death in the United States": (Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, PhD, MSc; Julie L. Gerberding, MD, MPH.) JAMA. 291 (2000) 1238-1245.

Nutrition

About Healthful Diet & Healthy Weight

Strong science exists supporting the health benefits of eating a healthful diet and maintaining a healthy body weight. Efforts to change diet and weight should address individual behaviors, as well as the policies and environments that support these behaviors in settings such as schools, worksites, healthcare organizations, and communities.

The goal of promoting healthful diets and healthy weight encompasses increasing household food security and eliminating hunger.

Americans with a healthful diet:

- Consume a variety of nutrient-dense foods within and across the food groups, especially whole grains, fruits, vegetables, low-fat or fat-free milk or milk products, and lean meats and other protein sources.
- Limit the intake of saturated and trans fats, cholesterol, added sugars, sodium (salt), and alcohol.
- Limit caloric intake to meet caloric needs.

Diet and body weight are related to health status. Good nutrition is important to the growth and development of children. A healthful diet also helps Americans reduce their risks for many health conditions, including: overweight and obesity; malnutrition; iron-deficiency anemia; heart disease; high blood pressure; dyslipidemia (poor lipid profiles); type 2 diabetes; osteoporosis; oral disease; constipation; diverticular disease; and some cancers.

Diet reflects the variety of foods and beverages consumed over time and in settings such as worksites, schools, restaurants, and the home. Interventions to support a healthier diet can help ensure that:

- Individuals have the knowledge and skills to make healthier choices.
- Healthier options are available and affordable.

Social Determinants of Diet. Demographic characteristics of those with a more healthful diet vary with the nutrient or food studied. However, most Americans need to improve some aspect of their diet.

Social factors thought to influence diet include:

- Knowledge and attitudes
- Skills
- Social support
- Societal and cultural norms
- Food and agricultural policies
- Food assistance programs
- Economic price systems

Physical Determinants of Diet. Access to and availability of healthier foods can help people follow healthful diets. For example, better access to retail venues that sell healthier options may have a positive impact on a person's diet; these venues may be less available in low-income or rural neighborhoods.

The places where people eat appear to influence their diet. For example, foods eaten away from home often have more calories and are of lower nutritional quality than foods prepared at home.

Marketing also influences people's—particularly children's—food choices.

- Healthy People 2020 (www.healthypeople.gov)

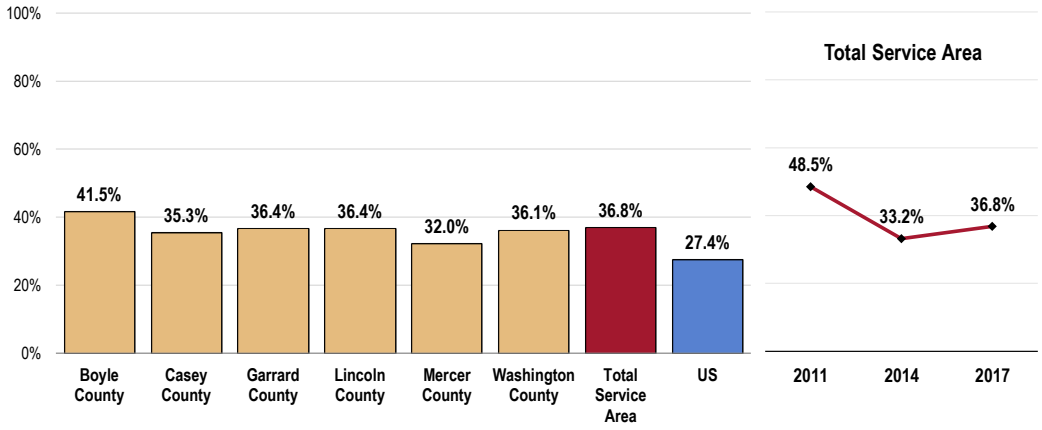
Daily Recommendation of Fruits/Vegetables

A total of 36.8% of Total Service Area adults report eating five or more servings of fruits and/or vegetables per day.

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods and drinks they consumed on the day prior to the interview.

- Higher than national findings.
- Highest in Boyle County.
- TREND: Fruit/vegetable consumption decreased significantly since 2011 (although the prevalence is similar to 2014 survey findings).

Consume Five or More Servings of Fruits/Vegetables Per Day



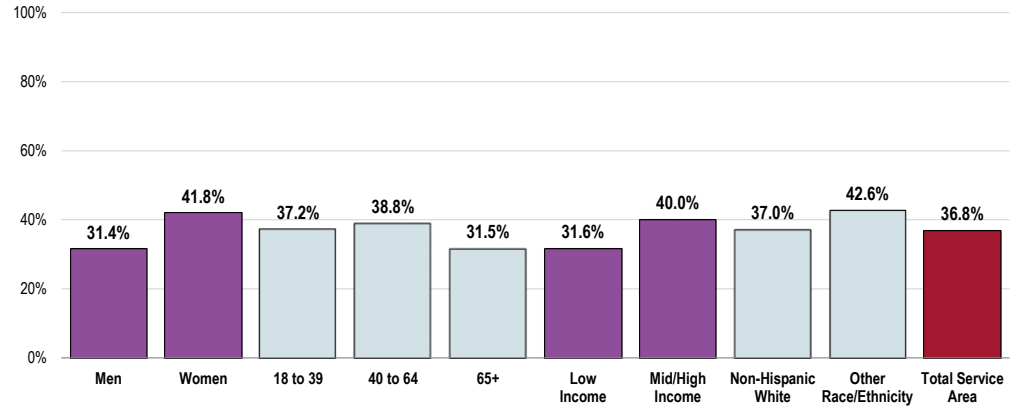
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 168]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- For this issue, respondents were asked to recall their food intake on the previous day.

- Area men are less likely to get the recommended servings of daily fruits/vegetables, as are low-income adults.

Consume Five or More Servings of Fruits/Vegetables Per Day

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 168]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- For this issue, respondents were asked to recall their food intake on the previous day.

Access to Fresh Produce

Difficulty Accessing Fresh Produce

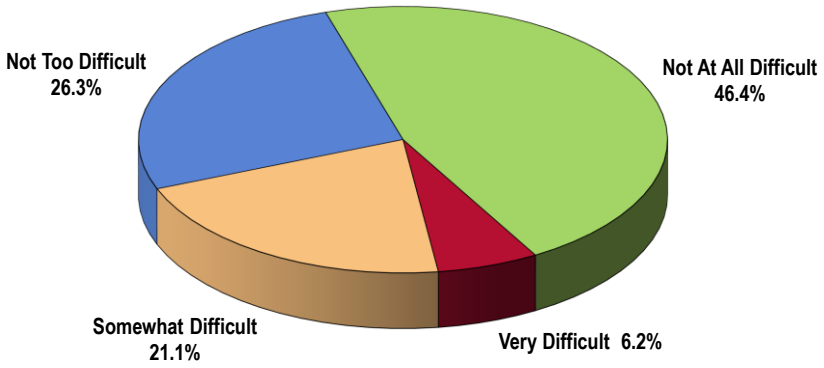
While most report little or no difficulty, 27.3% of Total Service Area adults find it "very" or "somewhat" difficult to access affordable, fresh fruits and vegetables.

Respondents were asked:

"How difficult is it for you to buy fresh produce like fruits and vegetables at a price you can afford? Would you say: Very Difficult, Somewhat Difficult, Not Too Difficult, or Not At All Difficult?"

Level of Difficulty Finding Fresh Produce at an Affordable Price

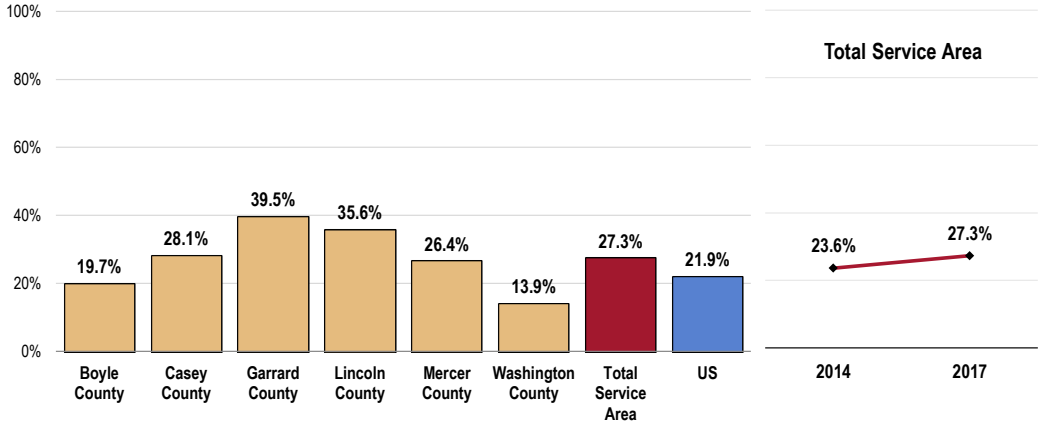
(Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 103]
Notes: ● Asked of all respondents.

- The prevalence is higher than national findings.
- Highest in Garrard and Lincoln counties.
- TREND: Has not changed significantly since 2014.

Find It "Very" or "Somewhat" Difficult to Buy Affordable Fresh Produce

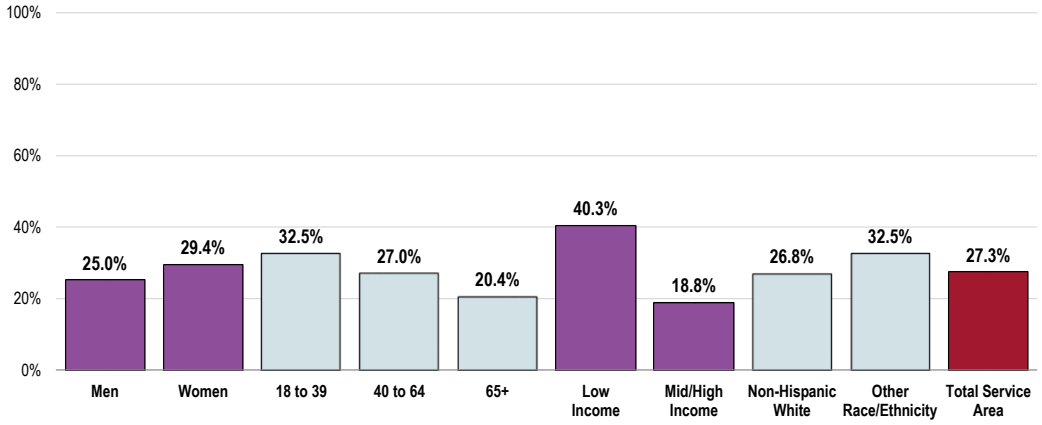


Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 103]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Those more likely to report difficulty getting fresh fruits and vegetables include:

- Younger residents (negative correlation with age).
- Adults in low-income households.

Find It "Very" or "Somewhat" Difficult to Buy Affordable Fresh Produce
(Total Service Area, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 103]
Notes: • Asked of all respondents.
• Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Low Food Access (Food Deserts)

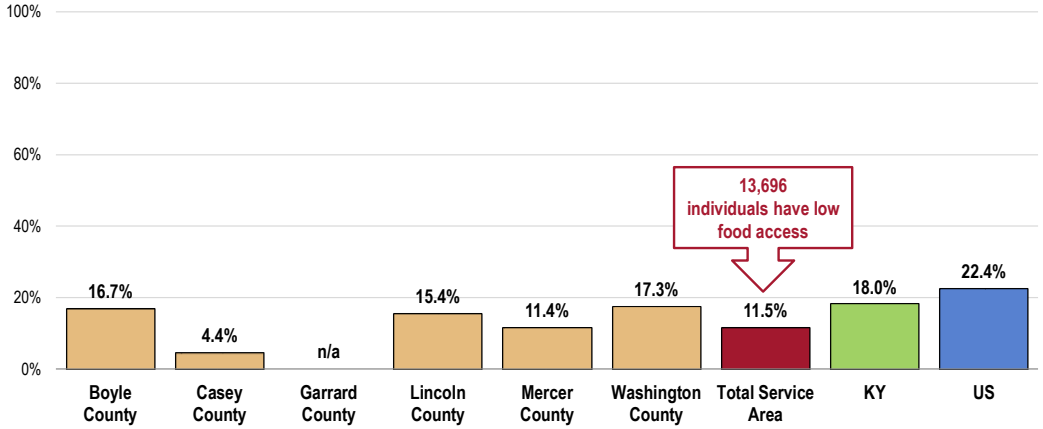
A food desert is defined as a low-income area where a significant number or share of residents is far from a supermarket, where "far" is more than 1 mile in urban areas and more than 10 miles in rural areas.

US Department of Agriculture data show that 11.5% of the Total Service Area population (representing nearly 13,700 residents) have low food access or live in a "food desert," meaning that they do not live near a supermarket or large grocery store.

- More favorable than statewide and national findings.
- Highest in Boyle and Washington counties.

Population With Low Food Access

(Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2015)

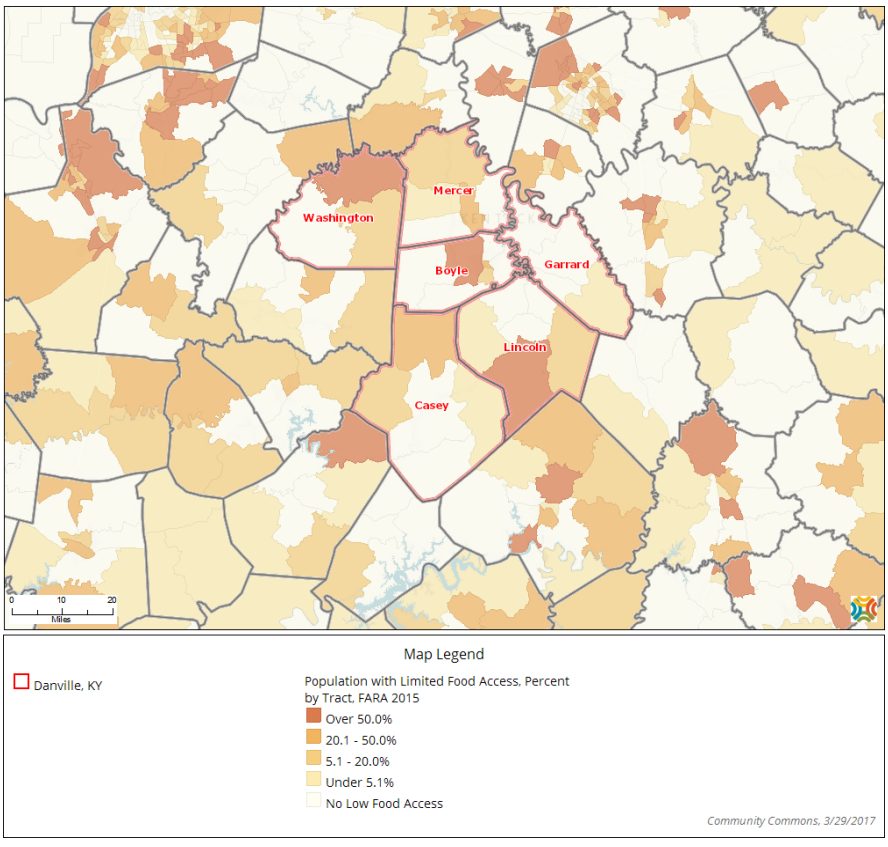


Sources:
- US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas (FARA).
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as low-income areas where a significant number or share of residents is far from a supermarket, where "far" is more than 1 mile in urban areas and more than 10 miles in rural areas. This indicator is relevant because it highlights populations and geographies facing food insecurity.

- The following map provides an illustration of food deserts by census tract.

Population with Limited Food Access, Percent by Tract, FARA 2015



Physical Activity

About Physical Activity

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of: early death; coronary heart disease; stroke; high blood pressure; type 2 diabetes; breast and colon cancer; falls; and depression. Among children and adolescents, physical activity can: improve bone health; improve cardiorespiratory and muscular fitness; decrease levels of body fat; and reduce symptoms of depression. For people who are inactive, even small increases in physical activity are associated with health benefits.

Personal, social, economic, and environmental factors all play a role in physical activity levels among youth, adults, and older adults. Understanding the barriers to and facilitators of physical activity is important to ensure the effectiveness of interventions and other actions to improve levels of physical activity.

Factors **positively** associated with adult physical activity include: postsecondary education; higher income; enjoyment of exercise; expectation of benefits; belief in ability to exercise (self-efficacy); history of activity in adulthood; social support from peers, family, or spouse; access to and satisfaction with facilities; enjoyable scenery; and safe neighborhoods.

Factors **negatively** associated with adult physical activity include: advancing age; low income; lack of time; low motivation; rural residency; perception of great effort needed for exercise; overweight or obesity; perception of poor health; and being disabled. Older adults may have additional factors that keep them from being physically active, including lack of social support, lack of transportation to facilities, fear of injury, and cost of programs.

Among children ages 4 to 12, the following factors have a positive association with physical activity: gender (boys); belief in ability to be active (self-efficacy); and parental support.

Among adolescents ages 13 to 18, the following factors have a positive association with physical activity: parental education; gender (boys); personal goals; physical education/school sports; belief in ability to be active (self-efficacy); and support of friends and family.

Environmental influences positively associated with physical activity among children and adolescents include:

- Presence of sidewalks
- Having a destination/walking to a particular place
- Access to public transportation
- Low traffic density
- Access to neighborhood or school play area and/or recreational equipment

People with disabilities may be less likely to participate in physical activity due to physical, emotional, and psychological barriers. Barriers may include the inaccessibility of facilities and the lack of staff trained in working with people with disabilities.

- Healthy People 2020 (www.healthypeople.gov)

Leisure-Time Physical Activity

Leisure-time physical activity includes any physical activities or exercises (such as running, calisthenics, golf, gardening, walking, etc.) which take place outside of one's line of work.

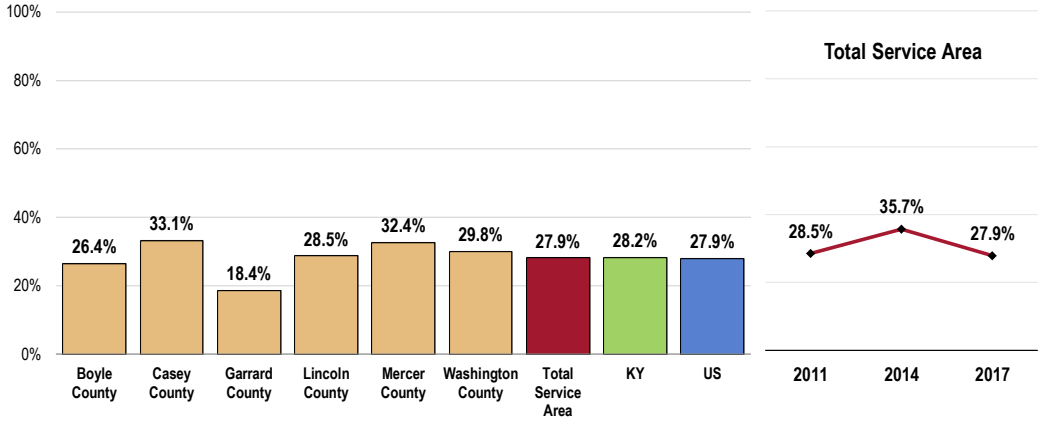
A total of 27.9% of Total Service Area adults report no leisure-time physical activity in the past month.

- Comparable to state and national findings.
- Satisfies the Healthy People 2020 target (32.6% or lower).

- Favorably low in Garrard County.
- TREND: Statistically unchanged from 2011 survey findings but marking a statistically significant decrease since 2014.

No Leisure-Time Physical Activity in the Past Month

Healthy People 2020 Target = 32.6% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 106]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective PA-1]

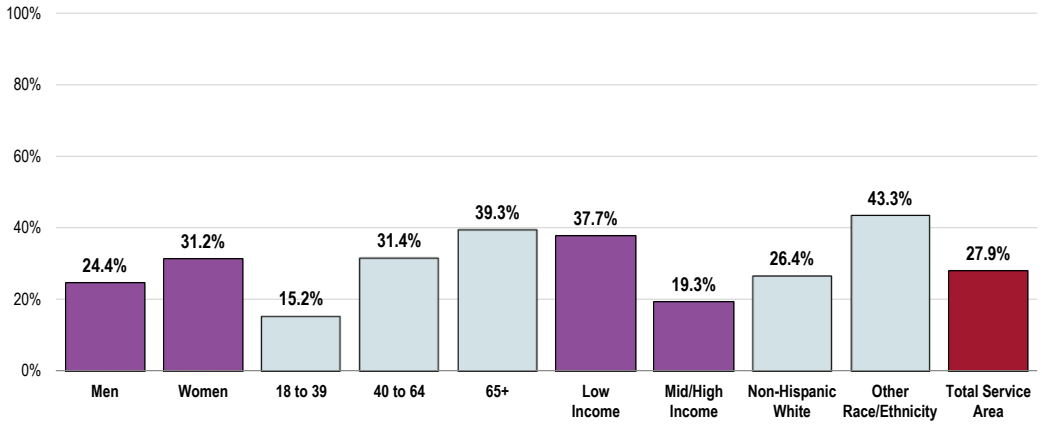
Notes:
- Asked of all respondents.

- Lack of leisure-time physical activity in the area is higher among women, older adults, lower-income residents, and Other races/ethnicities.

No Leisure-Time Physical Activity in the Past Month

(Total Service Area, 2017)

Healthy People 2020 Target = 32.6% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 106]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective PA-1]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Activity Levels

Adults

Recommended Levels of Physical Activity

Adults should do 2 hours and 30 minutes a week of moderate-intensity (such as walking), or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity **aerobic** physical activity (such as jogging), or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. The guidelines also recommend that adults do **muscle-strengthening** activities, such as push-ups, sit-ups, or activities using resistance bands or weights. These activities should involve all major muscle groups and be done on two or more days per week.

The report finds that nationwide nearly 50 percent of adults are getting the recommended amounts of aerobic activity and about 30 percent are engaging in the recommended muscle-strengthening activity.

- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. www.cdc.gov/physicalactivity
- Learn more about CDC's efforts to promote walking by visiting http://www.cdc.gov/vitalsigns/walking.

Aerobic & Strengthening Physical Activity

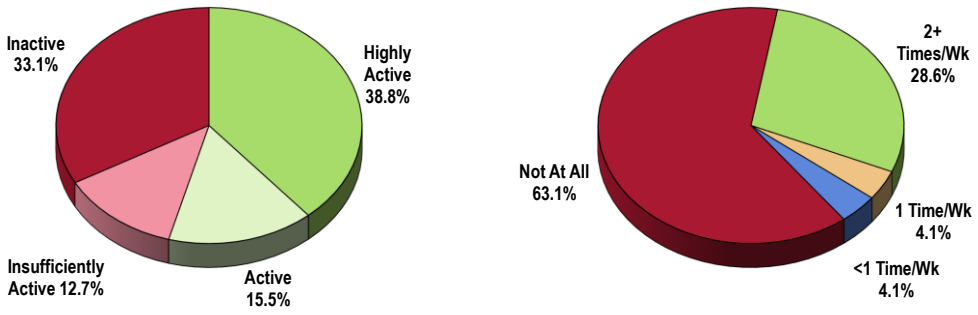
Survey respondents were asked about the types of physical activities they engaged in during the past month, as well as the frequency and duration of these activities.

- "Inactive" includes those reporting no aerobic physical activity in the past month.
- "Insufficiently active" includes those with the equivalent of 1-150 minutes of aerobic physical activity per week.
- "Active" includes those with 150-300 minutes of weekly aerobic physical activity.
- "Highly active" includes those with >300 minutes of weekly aerobic physical activity.

Based on reported physical activity intensity, frequency and duration over the past month, 45.8% of Total Service Area adults are found to be "insufficiently active" or "inactive."

A total of 63.1% of Total Service Area adults do not participate in any types of physical activities or exercises to strengthen their muscles.

Participation in Physical Activities
(Total Service Area, 2017)



Aerobic Activity | **Strengthening Activity**

Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 113, 173]
Notes: ● Reflects the total sample of respondents.
● In this case, "inactive" aerobic activity represents those adults participating in no aerobic activity in the past week; "insufficiently active" reflects those respondents with 1–149 minutes of aerobic activity in the past week; "active" adults are those with 150–300 minutes of aerobic activity per week; and "highly active" adults participate in 301+ minutes of aerobic activity weekly.

Recommended Levels of Physical Activity

"Meeting physical activity recommendations" includes adequate levels of both aerobic and strengthening activity:

Aerobic activity is at least 150 minutes per week of light to moderate activity or 75 minutes per week of vigorous physical activity or an equivalent combination of both; and

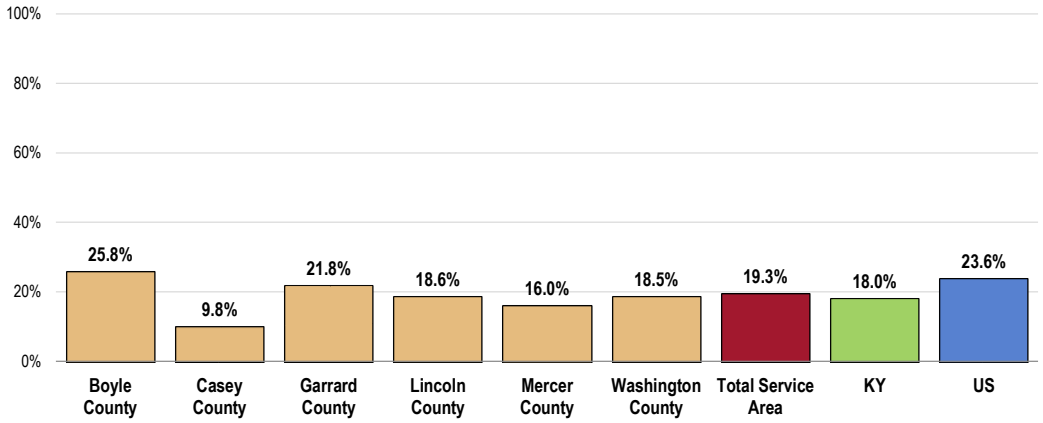
Strengthening activity is at least 2 sessions per week of exercise designed to strengthen muscles.

A total of 19.3% of Total Service Area adults regularly participate in adequate levels of both aerobic and strengthening activities (meeting physical activity recommendations).

- Comparable to state findings.
- Lower than the US figure.
- Similar to the Healthy People 2020 target (20.1% or higher).
- Highest in Boyle County; lowest in Casey County.

Meets Physical Activity Recommendations

Healthy People 2020 Target = 20.1% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 174]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective PA-2.4]

Notes:
- Asked of all respondents.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity *and* report doing physical activities specifically designed to strengthen muscles at least twice per week.

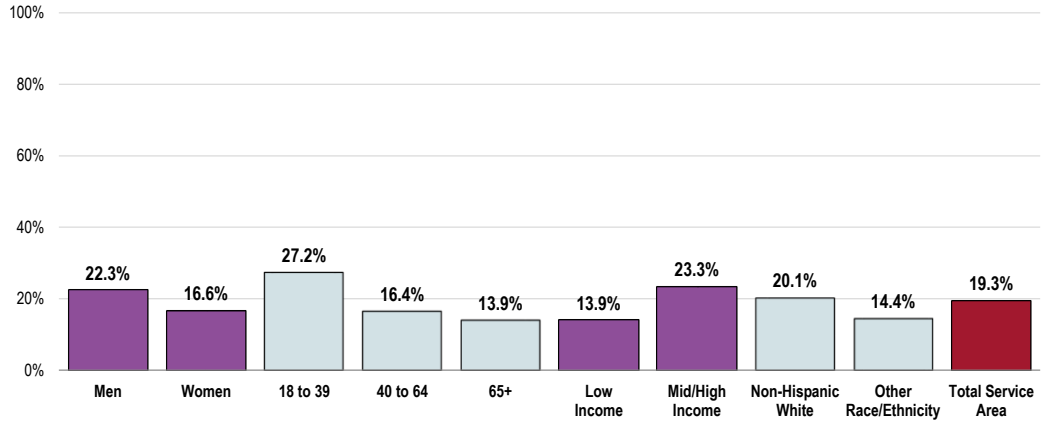
Community members less likely to meet physical activity recommendations include:

- Women.
- Seniors (65+).
- Adults in low-income households.

Meets Physical Activity Recommendations

(Total Service Area, 2017)

Healthy People 2020 Target = 20.1% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 174]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective PA-2.4]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity *and* report doing physical activities specifically designed to strengthen muscles at least twice per week.

Children

Recommended Levels of Physical Activity

Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day.

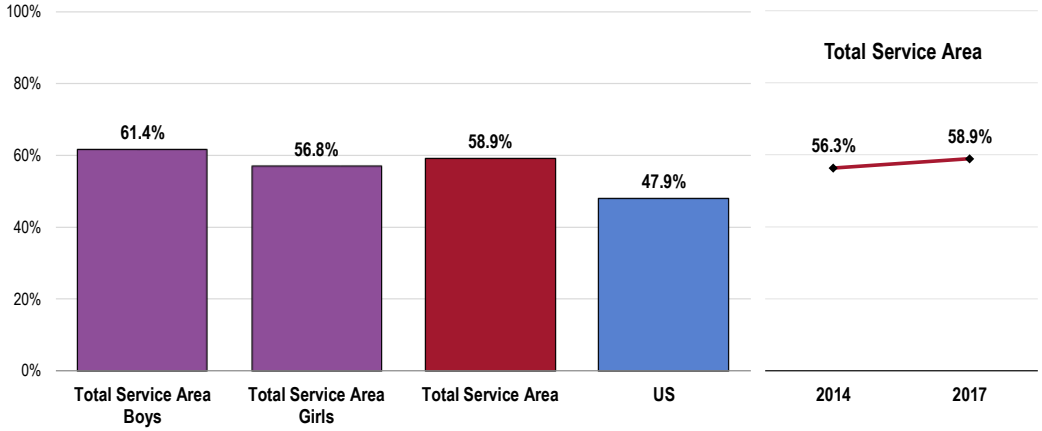
- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. www.cdc.gov/physicalactivity

Among Total Service Area children age 2 to 17, 58.9% are reported to have had 60 minutes of physical activity on <u>each</u> of the seven days preceding the interview (1+ hours per day).

- More favorable than found nationally.
- Statistically similar findings by child's gender.
- TREND: Statistically unchanged from the 2014 survey findings.

Child Is Physically Active for One or More Hours per Day

(Among Children Age 2-17)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 142]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children age 2-17 at home.
- Includes children reported to have one or more hours of physical activity on each of the seven days preceding the survey.

Access to Physical Activity

In 2014, there were 7.6 recreation/fitness facilities for every 100,000 population in the Total Service Area.

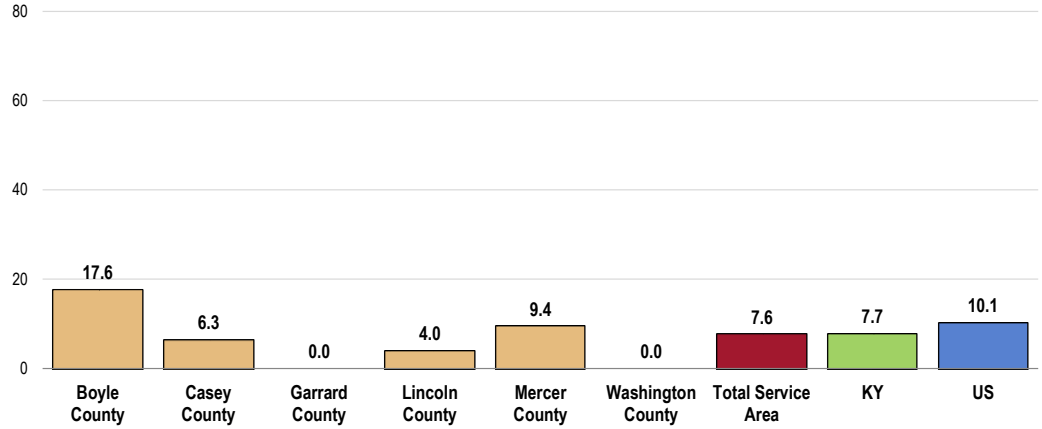
- Similar to the statewide proportion.
- Below what is found nationally.
- None in Garrard and Washington counties; low in Lincoln County as well.

Here, recreation/fitness facilities include establishments engaged in operating facilities which offer "exercise and other active physical fitness conditioning or recreational sports activities."

Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools.

Population With Recreation & Fitness Facility Access

(Number of Recreation & Fitness Facilities per 100,000 Population, 2014)



Sources:
- US Census Bureau, County Business Patterns. Additional data analysis by CARES.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- Recreation and fitness facilities are defined by North American Industry Classification System (NAICS) Code 713940 , which include *Establishments engaged in operating facilities which offer "exercise and other active physical fitness conditioning or recreational sports activities". Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools.* This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

Weight Status

About Overweight & Obesity

Because weight is influenced by energy (calories) consumed and expended, interventions to improve weight can support changes in diet or physical activity. They can help change individuals' knowledge and skills, reduce exposure to foods low in nutritional value and high in calories, or increase opportunities for physical activity. Interventions can help prevent unhealthy weight gain or facilitate weight loss among obese people. They can be delivered in multiple settings, including healthcare settings, worksites, or schools.

The social and physical factors affecting diet and physical activity (see Physical Activity topic area) may also have an impact on weight. Obesity is a problem throughout the population. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. Among children and adolescents, the prevalence of obesity is highest among older and Mexican American children and non-Hispanic black girls. The association of income with obesity varies by age, gender, and race/ethnicity.

- Healthy People 2020 (www.healthypeople.gov)

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m^2). To estimate BMI using pounds and inches, use: [weight (pounds)/height squared ($inches^2$)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m^2 and obesity as a BMI ≥30 kg/m^2. The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m^2. The increase in mortality, however, tends to be modest until a BMI of 30 kg/m^2 is reached. For persons with a BMI ≥30 kg/m^2, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m^2.

- Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Adult Weight Status

Classification of Overweight and Obesity by BMI	BMI (kg/m^2)
Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥30.0

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Overweight Status

A total of 73.9% of Total Service Area adults are overweight.

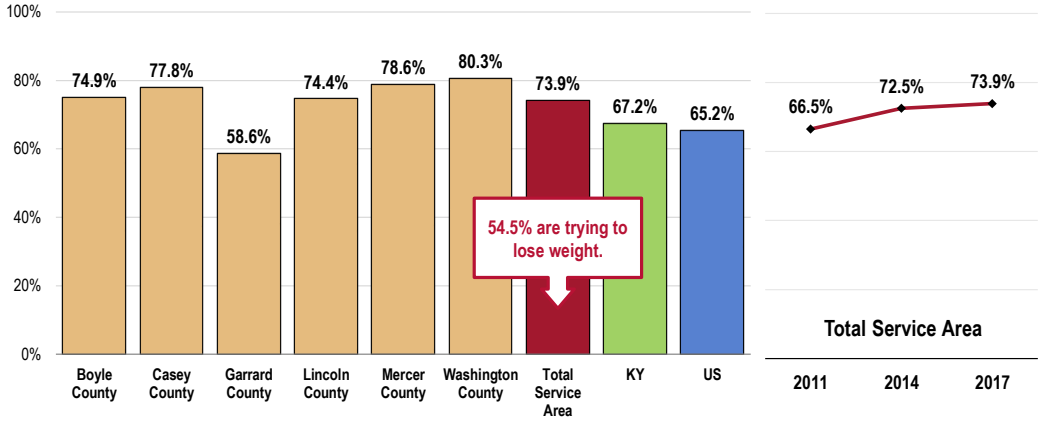
Here, "overweight" includes those respondents with a BMI value ≥25.

- Well above the state and national figures.
- Favorably low in Garrard County.
- TREND: Marks a statistically significant increase over time.

Note that 54.5% of overweight adults are currently trying to lose weight.

Prevalence of Total Overweight

(Percent of Adults With a Body Mass Index of 25.0 or Higher)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 176-177]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

Further, 39.2% of Total Service Area adults are obese.

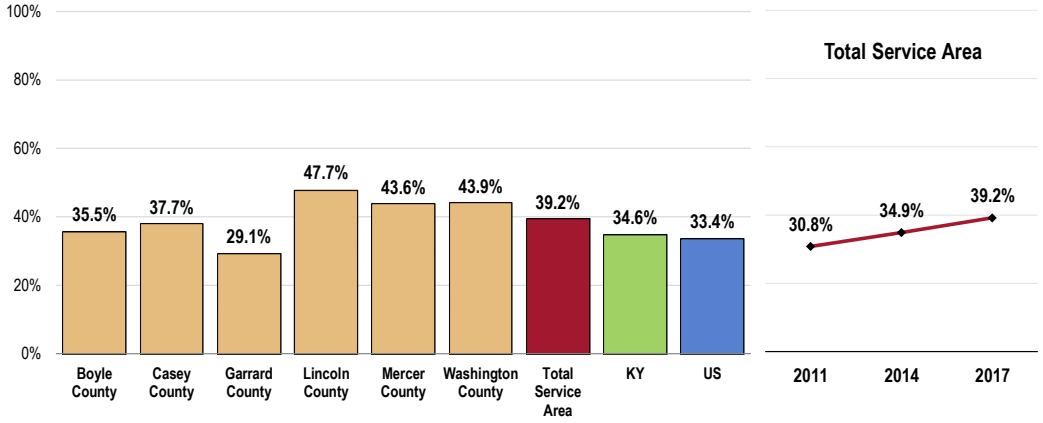
"Obese" (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥30.

- Worse than Kentucky and US findings.
- Fails to satisfy the Healthy People 2020 target (30.5% or lower).
- Favorably low in Garrard County.
- TREND: Denotes a statistically significant increase in obesity over time.

Prevalence of Obesity

(Percent of Adults With a Body Mass Index of 30.0 or Higher)

Healthy People 2020 Target = 30.5% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 176]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective NWS-9]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.

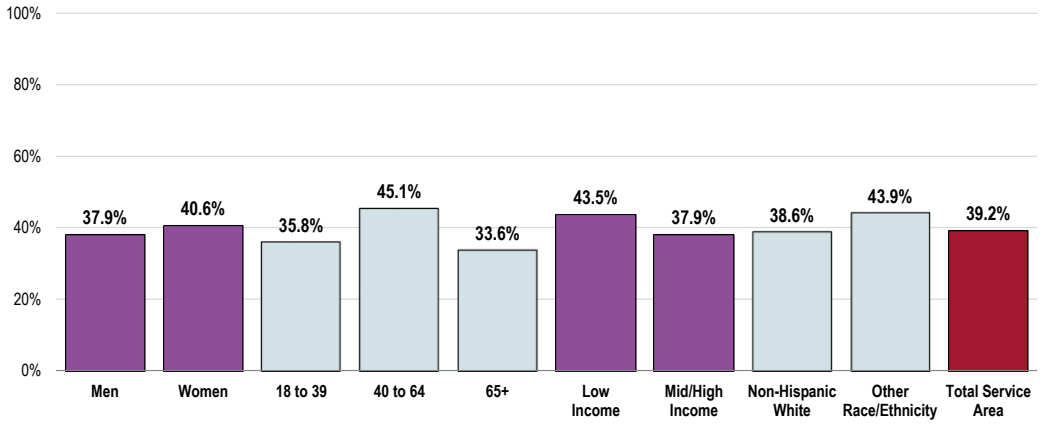
Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

- Obesity is notably more prevalent among residents between the ages of 40 and 64.

Prevalence of Obesity

(Percent of Adults With a BMI of 30.0 or Higher; Total Service Area, 2017)

Healthy People 2020 Target = 30.5% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 176]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective NWS-9]

Notes:
- Based on reported heights and weights, asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

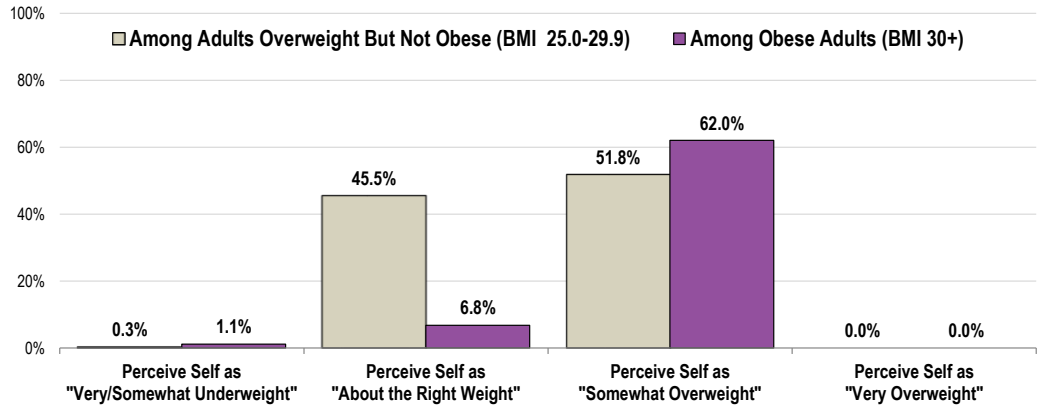
Actual vs. Perceived Body Weight

A total of 6.8% of obese adults and 45.5% of overweight (but not obese) adults feel that their current weight is "about right."

- 51.8% of overweight (but not obese) adults see themselves as "somewhat overweight," as do 62.0% of obese respondents.
- Note that no respondents consider themselves to be "very overweight."

Actual vs. Perceived Weight Status

(Among Overweight/Obese Adults Based on BMI; Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 302]
Notes: ● BMI is based on reported heights and weights, asked of all respondents.
● The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

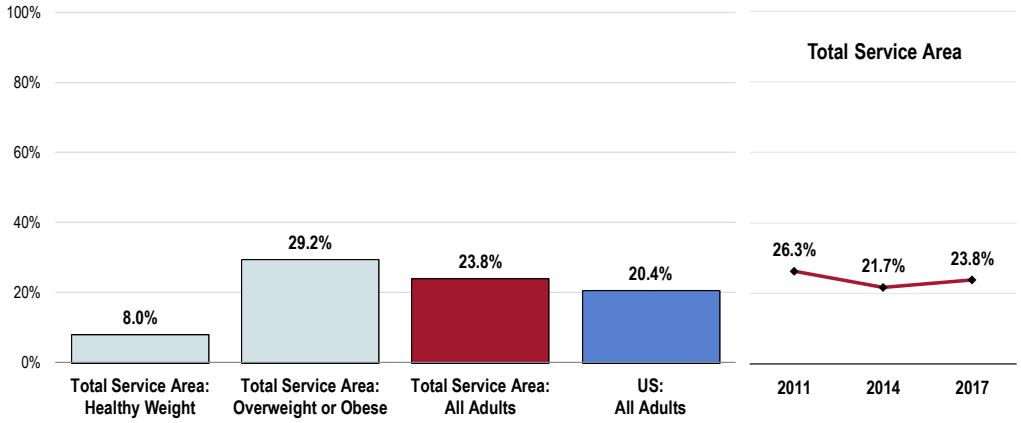
Health Advice

A total of 23.8% of adults have been given advice about their weight by a doctor, nurse or other health professional in the past year.

- Statistically similar to the national findings.
- TREND: Statistically unchanged over time.
- Note that 29.2% of overweight/obese adults have been given advice about their weight by a health professional in the past year (while 7 in 10 have not).

Have Received Advice About Weight in the Past Year From a Physician, Nurse, or Other Health Professional

(By Weight Classification)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 115, 178-179]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Relationship of Overweight With Other Health Issues

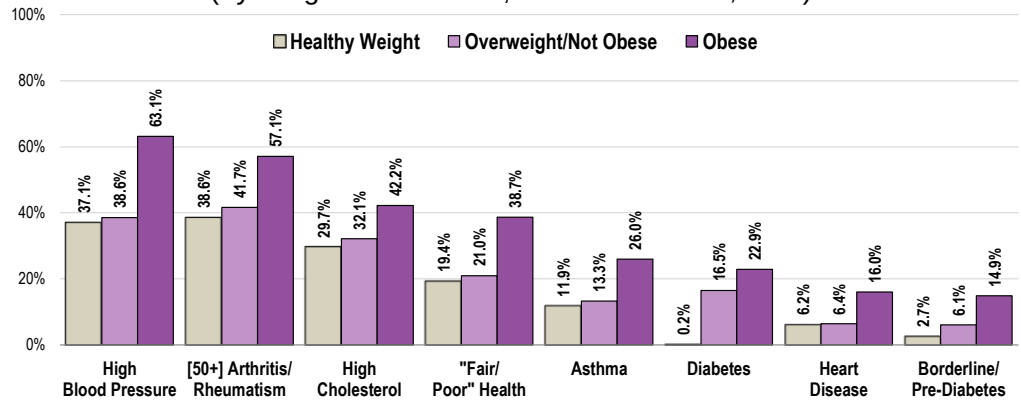
Overweight/obese adults are more likely to report a number of adverse health conditions:

The correlation between overweight and various health issues cannot be disputed.

- High blood pressure.
- Arthritis/rheumatism (age 50+).
- High cholesterol.
- "Fair" or "poor" physical health.
- Asthma.
- Diabetes and borderline/pre-diabetes.
- Heart disease.

Relationship of Overweight With Other Health Issues

(By Weight Classification; Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 5, 36, 38, 40, 146-148, 161]
Notes: ● Based on reported heights and weights, asked of all respondents.

Children's Weight Status

About Weight Status in Children & Teens

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age.

BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight <5th percentile
- Healthy Weight ≥5th and <85th percentile
- Overweight ≥85th and <95th percentile
- Obese ≥95th percentile

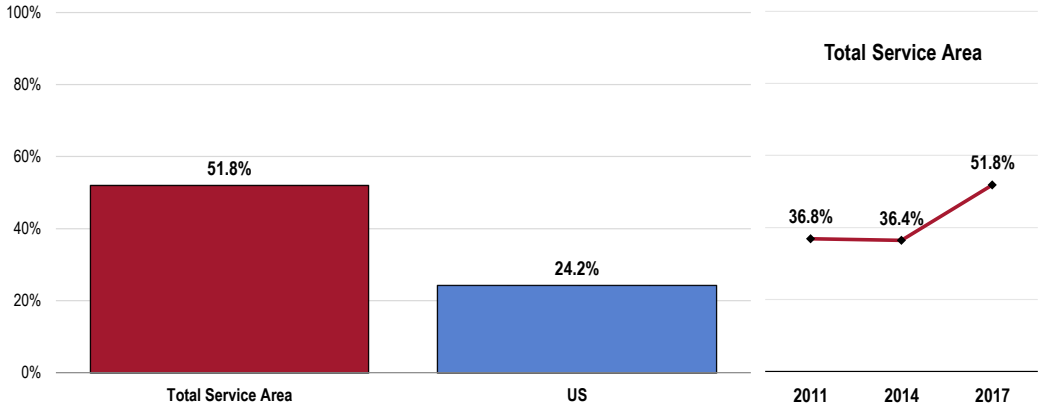
- Centers for Disease Control and Prevention

Based on the heights/weights reported by surveyed parents, 51.8% of Total Service Area children age 5 to 17 are overweight or obese (≥85th percentile).

- Twice the percentage found nationally.
- TREND: Denotes a statistically significant increase from previous survey findings.

Child Total Overweight Prevalence

(Children Age 5-17 Who Are Overweight/Obese; BMI in the 85th Percentile or Higher)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 180]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children age 5-17 at home.
- Overweight among children is determined by children's Body Mass Index status at or above the 85th percentile of US growth charts by gender and age.

Further, 30.2% of area children age 5 to 17 are obese (≥95th percentile).

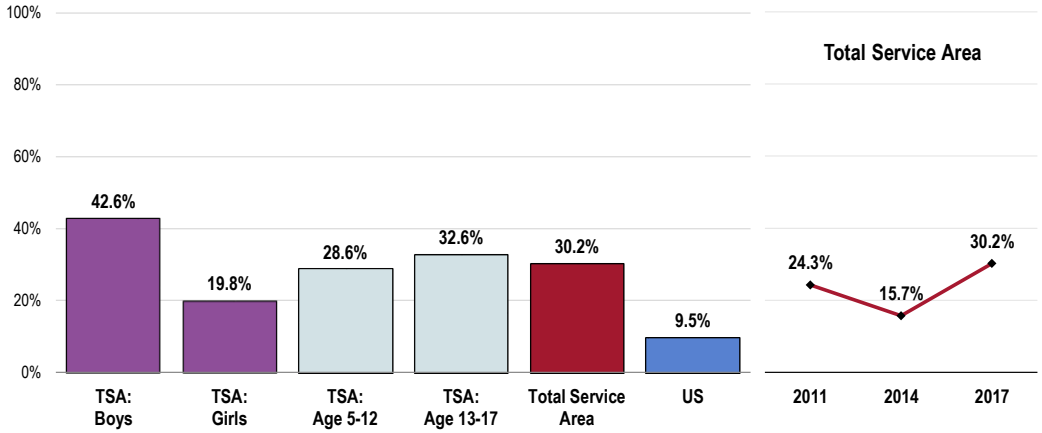
- Three times the national percentage.
- Twice the Healthy People 2020 target (14.5% or lower for children age 2-19).
- TREND: Statistically unchanged from 2011 survey findings but marking a significant increase since 2014.

- The obesity prevalence is similar by child's age but statistically higher among Total Service Area boys age 5-17 when compared with girls in this age group.

Child Obesity Prevalence

(Children Age 5-17 Who Are Obese; BMI in the 95th Percentile or Higher)

Healthy People 2020 Target = 14.5% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 180]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective NWS-10.4]

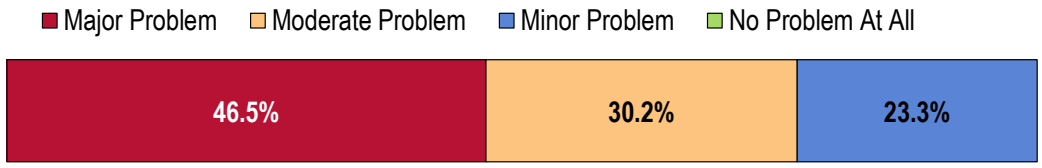
Notes:
- Asked of all respondents with children age 5-17 at home.
- Obesity among children is determined by children's Body Mass Index status equal to or above the 95th percentile of US growth charts by gender and age.

Key Informant Input: Nutrition, Physical Activity & Weight

Key informants taking part in an online survey most often characterized *Nutrition, Physical Activity & Weight* as a "major problem" in the community.

Perceptions of Nutrition, Physical Activity, and Weight as a Problem in the Community

(Key Informants, 2017)



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Lifestyle

> *Sedentary lifestyle, lack of physical education, cheap high sugar and fat foods. – Community Leader*
>
> *Routine health maintenance, supported by regular physician visits and regular exercise and diet programs. – Physician*

Most of our clients come in with health issues related to improper nutrition and/or lack of physical activity, and most are overweight. – Social Services Provider

Sugary drinks. – Community Leader

Sedentary lifestyles, lack of exercise, abundance of fast and unhealthy food. – Community Leader

Fast food and overeating. – Community Leader

Access to Healthy Foods

Finding fresh product, lack of desire, cultural. – Community Leader

Behavioral changes. Individuals cannot afford to eat healthy, due to the cost of food items. Lack of motivation to exercise. – Public Health Representative

Low-income families not being able to afford the healthier foods selections. Parents allowing children to watch more TV and play video games. Not encouraging them to exercise. – Community Leader

Healthy food is costly and time-consuming. It is much easier to pick up fast food, and it's also cheaper. Not enough places to offer free physical activities. – Community Leader

Obesity

Kentucky has a high rate of obesity, which results in lots of medical issues. Poor people cannot always afford healthy food. Food low in nutritional value, high in sodium, high in fat content, are often cheaper than fresh foods. – Community Leader

Generally speaking, everybody is overweight to some degree. It seems like the fast food vendors want to "supersize" their dinners, and we and our kids are the ones being "supersized". – Community Leader

Increase in obesity. – Social Services Provider

Child obesity. More and more affordable fast food establishments. – Community Leader

Built Environment

Lack of sidewalks or safe places to ride bikes. Anderson Dean Park not within safe walking distance or safe cycling distance. – Public Health Representative

Access to Care/Services

Work schedules conflict with support group schedules. – Community Leader

Health Education

Ignorance of the relationship among nutrition, physical activity and weight issues. – Community Leader

Substance Abuse

About Substance Abuse

Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include:

- Teenage pregnancy
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Other sexually transmitted diseases (STDs)
- Domestic violence
- Child abuse
- Motor vehicle crashes
- Physical fights
- Crime
- Homicide
- Suicide

Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Social attitudes and political and legal responses to the consumption of alcohol and illicit drugs make substance abuse one of the most complex public health issues. In addition to the considerable health implications, substance abuse has been a flash-point in the criminal justice system and a major focal point in discussions about social values: people argue over whether substance abuse is a disease with genetic and biological foundations or a matter of personal choice.

Advances in research have led to the development of evidence-based strategies to effectively address substance abuse. Improvements in brain-imaging technologies and the development of medications that assist in treatment have gradually shifted the research community's perspective on substance abuse. There is now a deeper understanding of substance abuse as a disorder that develops in adolescence and, for some individuals, will develop into a chronic illness that will require lifelong monitoring and care.

Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific social and cultural settings.

A stronger emphasis on evaluation has expanded evidence-based practices for drug and alcohol treatment. Improvements have focused on the development of better clinical interventions through research and increasing the skills and qualifications of treatment providers.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Cirrhosis/Liver Disease Deaths

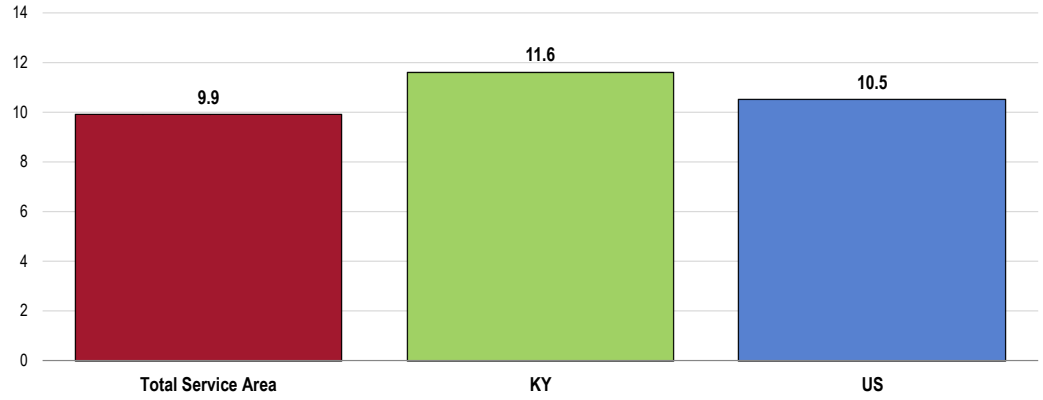
Between 2013 and 2015, Total Service Area reported an annual average age-adjusted cirrhosis/liver disease mortality rate of 9.9 deaths per 100,000 population.

- Better than the statewide and national rates.
- Fails to satisfy the Healthy People 2020 target (8.2 or lower).

Cirrhosis/Liver Disease: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 8.2 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-11]

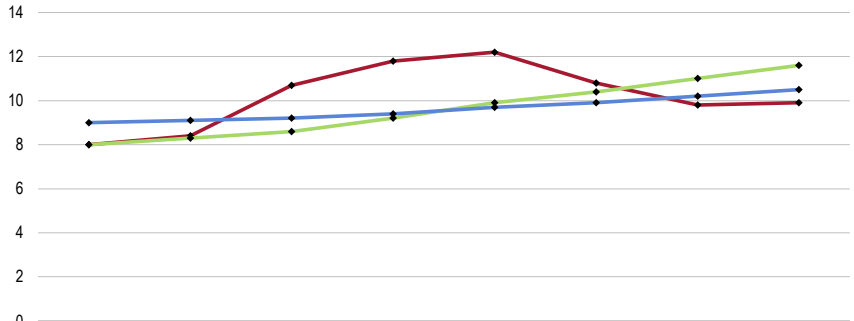
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The mortality rate has fluctuated widely in the region, increasing from the baseline rate. Statewide and nationwide, rates have increased over time.

Cirrhosis/Liver Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 8.2 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	8.0	8.4	10.7	11.8	12.2	10.8	9.8	9.9
KY	8.0	8.3	8.6	9.2	9.9	10.4	11.0	11.6
US	9.0	9.1	9.2	9.4	9.7	9.9	10.2	10.5

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Alcohol Use

Excessive Drinking

"**Excessive drinking**" includes heavy **and/or** binge drinkers:

- **Heavy drinkers** include men reporting 2+ alcoholic drinks per day or women reporting 1+ alcoholic drink per day in the month preceding the interview.
- **Binge drinkers** include men reporting 5+ alcoholic drinks or women reporting 4+ alcoholic drinks on any single occasion during the past month.

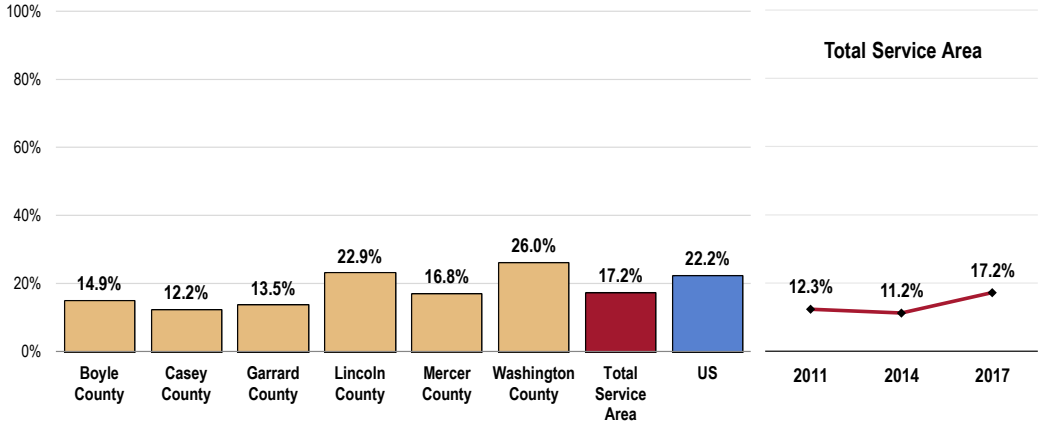
RELATED ISSUE:
See also *Stress* in the **Mental Health** section of this report.

A total of 17.2% of area adults are excessive drinkers (heavy and/or binge drinkers).

- Lower than the national proportion.
- Satisfies the Healthy People 2020 target (25.4% or lower).
- Unfavorably high in Washington County.
- TREND: Denotes a statistically significant increase over time.

Excessive Drinkers

Healthy People 2020 Target = 25.4% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 189]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-15]

Notes:
- Asked of all respondents.
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

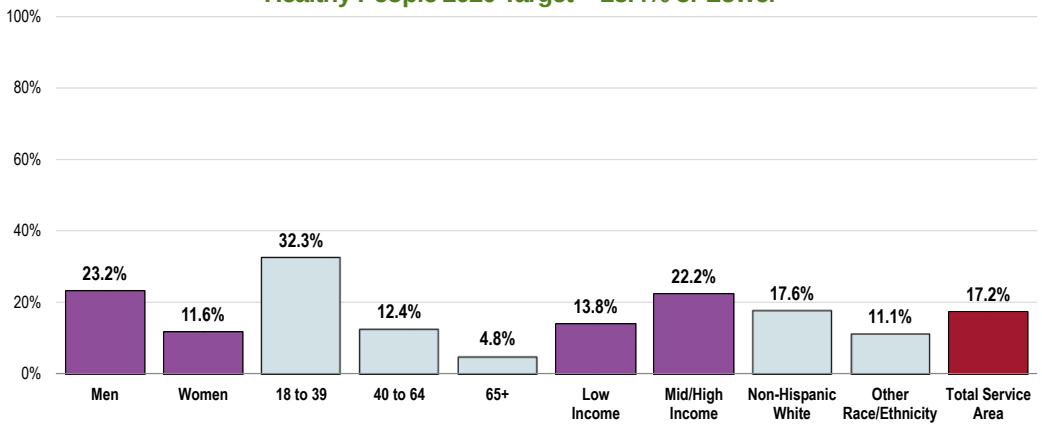
These population segments are more likely to report excessive drinking:

- Men.
- Younger adults (negative correlation with age).
- Those in upper-income households.

Excessive Drinkers

(Total Service Area, 2017)

Healthy People 2020 Target = 25.4% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 189]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-15]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "NH White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

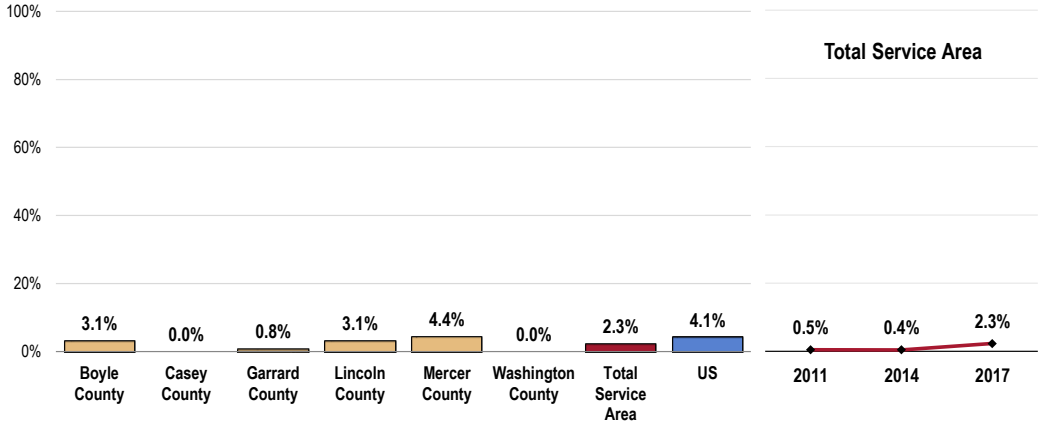
Drinking & Driving

A total of 2.3% of Total Service Area adults acknowledge having driven a vehicle in the past month after they had perhaps too much to drink.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that the actual incidence of drinking and driving in the community is likely higher.

- Lower than the national findings.
- No respondents reported drinking and driving in Casey and Washington counties.
- TREND: The drinking and driving prevalence has increased significantly from previous survey findings.

Have Driven in the Past Month After Perhaps Having Too Much to Drink



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 66]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Age-Adjusted Drug-Induced Deaths

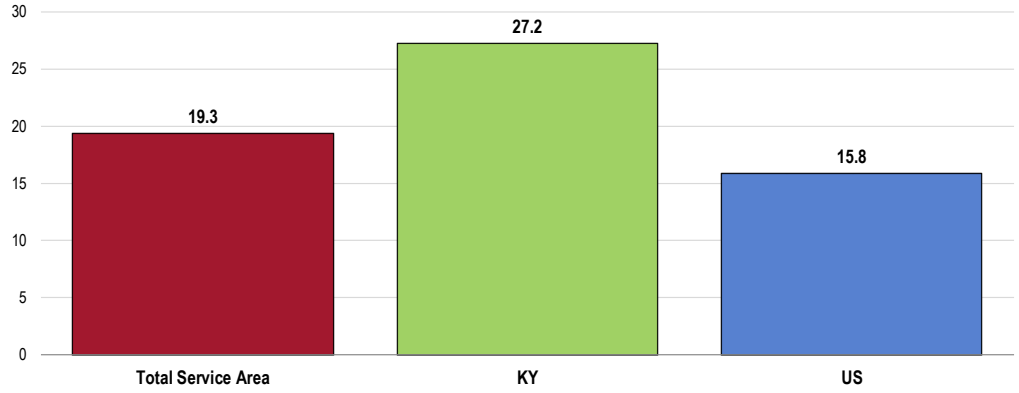
Between 2013 and 2015, there was an annual average age-adjusted drug-induced mortality rate of 19.3 deaths per 100,000 population in the Total Service Area.

- Below the statewide rate.
- Above the national rate.
- Fails to satisfy the Healthy People 2020 target (11.3 or lower).

Drug-Induced Deaths: Age-Adjusted Mortality

(2013-2015 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 11.3 or Lower



Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-12]

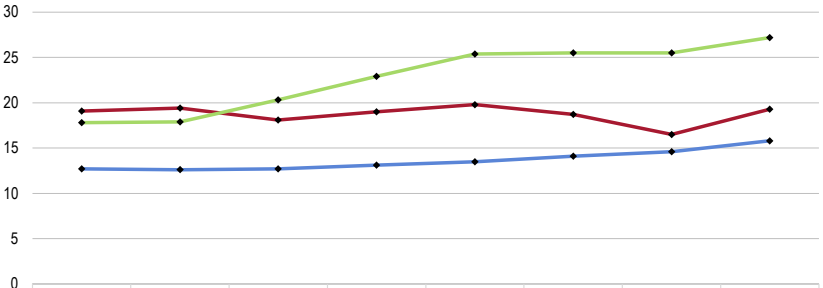
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The mortality rate has fluctuated widely in the region, showing no clear trend. Statewide and nationwide, rates have increased over time.

Drug-Induced Deaths: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 11.3 or Lower



	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Total Service Area	19.1	19.4	18.1	19.0	19.8	18.7	16.5	19.3
KY	17.8	17.9	20.3	22.9	25.4	25.5	25.5	27.2
US	12.7	12.6	12.7	13.1	13.5	14.1	14.6	15.8

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted March 2017.
- UD Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-12].

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Illicit Drug Use

A total of 1.9% of Total Service Area adults acknowledge using an illicit drug in the past month.

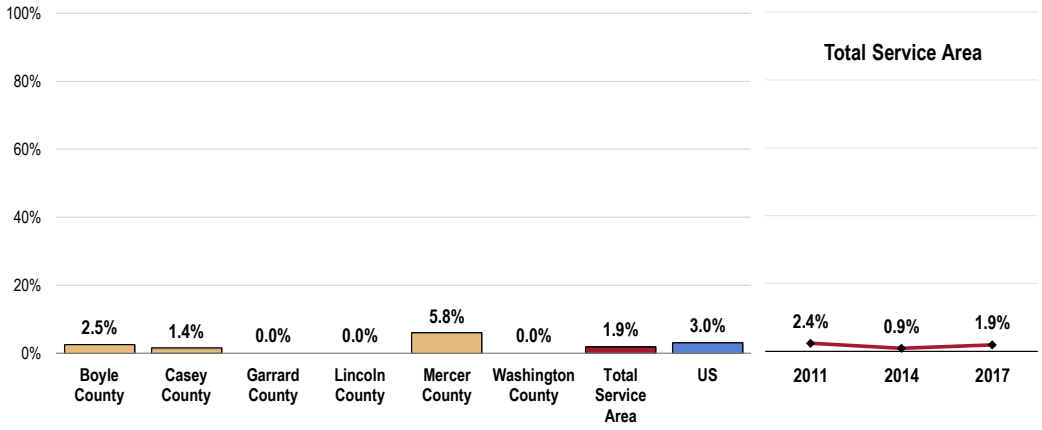
For the purposes of this survey, "illicit drug use" includes use of illegal substances or of prescription drugs taken without a physician's order.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illicit drug use in the community is likely higher.

- Similar to the proportion found nationally.
- Easily satisfies the Healthy People 2020 target of 7.1% or lower.
- Unfavorably high in Mercer County.
- TREND: Statistically unchanged over time.

Illicit Drug Use in the Past Month

Healthy People 2020 Target = 7.1% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 67]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-13.3]

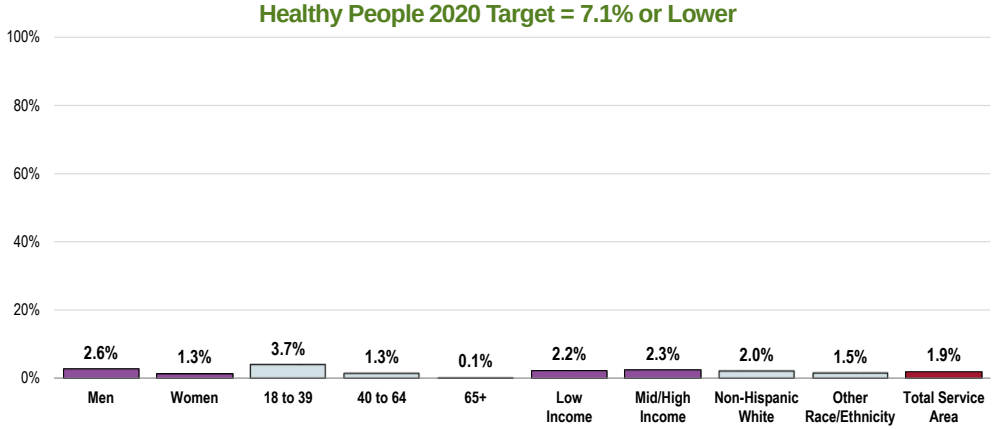
Notes:
- Asked of all respondents.

- Note the negative correlation between age and illicit drug use in the service area.

Illicit Drug Use in the Past Month

(Total Service Area, 2017)

Healthy People 2020 Target = 7.1% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 67]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-13.3]

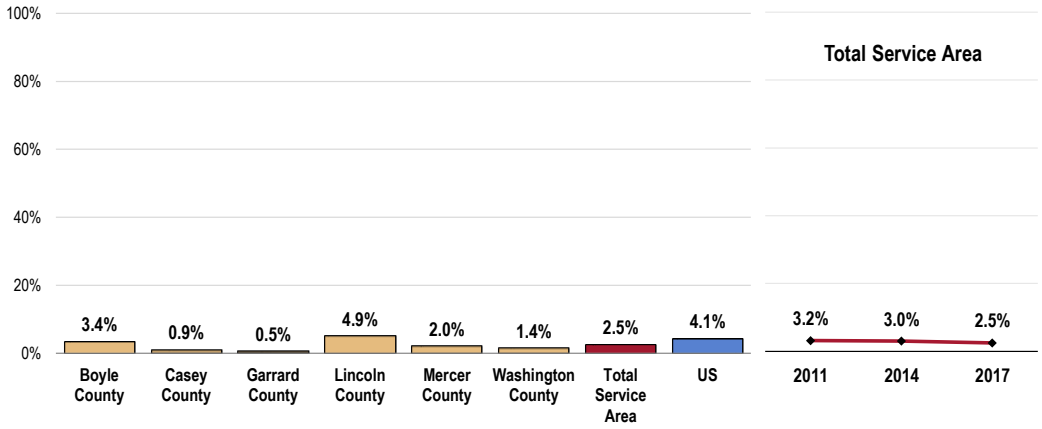
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "NH White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Alcohol & Drug Treatment

A total of 2.5% of Total Service Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Lower than national findings.
- Lowest in Garrard County.
- TREND: Statistically unchanged over time.

Have Ever Sought Professional Help for an Alcohol/Drug-Related Problem



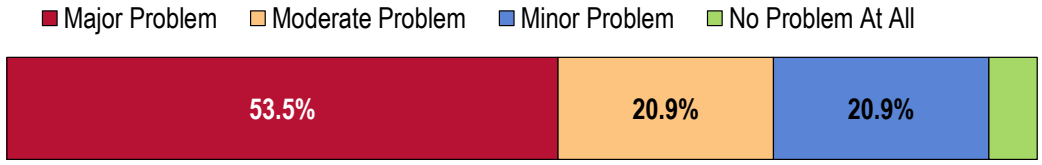
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 68]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Key Informant Input: Substance Abuse

The greatest share of key informants taking part in an online survey characterized *Substance Abuse* as a "major problem" in the community.

Perceptions of Substance Abuse as a Problem in the Community

(Key Informants, 2017)



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Barriers to Treatment

Among those rating this issue as a "major problem," the greatest barriers to accessing substance abuse treatment are viewed as:

Access to Care/Services

We have few- if any- options for treating substance abuse. And the growing number of addicts makes the demand for comprehensive substance abuse even greater! Jail does not equal treatment. This is a rampant problem in all of Kentucky. Funding is also an issue. If you can get someone into a program, who will pay for it? Few are covered by insurance. – Community Leader

I don't know that there are any barriers in receiving substance abuse (drug addiction) treatment in this community. There are drug court programs, rehab centers, hospitals and other medical facilities in each of the counties in the community, and the drug problem only seems to be getting worse. I'm not sure if removing barriers to health care is the answer to drug addiction or substance abuse. – Community Leader

No centralized programs. Lack of governmental funding for rehab issues. – Community Leader

Very few treatment centers are available. – Community Leader

No local treatment programs. No halfway house to support those out of rehab. – Public Health Representative

We need a treatment center, which would cost a lot of money for both the facility and the staff. Plus, it would have to be affordable. – Community Leader

We currently have a substance abuse facility in my community that is successful with the graduation rate. – Community Leader

No facilities/treatment centers. – Community Leader

Lack of treatment centers. – Public Health Representative

Facilities for rehabilitation. – Community Leader

Long-term care. – Community Leader

Prevalence/Incidence

Drugs are a major problem in this community. I am not sure we have the knowledge or support to combat it effectively. – Community Leader

We have an alarming number of clients who show the signs of substance abuse. – Social Services Provider

Increased numbers in death and overdose. – Social Services Provider

Many overdoses. – Community Leader

Affordable Care/Services

Lack of programs that are affordable and local. – Physician

I'm not sure there are any barriers for addicts that truly want to seek help for their addictions. Maybe the cost of the program would be a barrier to some. – Community Leader

Lack of affordable outpatient and inpatient services. – Public Health Representative

Access to Drugs/Alcohol

Far too many drugs in this area. – Community Leader

Ease and privacy in a small community. – Physician

Denial/Stigma

Programs are available. There needs to be an individual desire to seek help. – Community Leader

Too many folks tolerate in the early stages. Reluctant to hold loved one accountable. – Community Leader

Lack of Funding

Lack of funds. – Community Leader

Funds, understanding, volunteers and law enforcement. – Community Leader

Health Education

> *Knowing who to go to and fear of cost. – Community Leader*

Socioeconomic Status

> *Social-economic well-being, leading to drugs and mental health issues. – Community Leader*

Most Problematic Substances

Key informants (who rated this as a "major problem") clearly identified **heroin/other opioids** as the most problematic substance abused in the community, followed by **methamphetamine/other amphetamines** and **alcohol**.

Problematic Substances

	Most Problematic	Second-Most Problematic	Third-Most Problematic	**Total Mentions**
Heroin or Other Opioids	70.0%	10.0%	10.0%	**18**
Methamphetamines or Other Amphetamines	0.0%	55.0%	15.0%	**14**
Alcohol	15.0%	10.0%	30.0%	**11**
Prescription Medications	0.0%	15.0%	10.0%	**5**
Marijuana	0.0%	5.0%	20.0%	**5**
Cocaine or Crack	5.0%	5.0%	5.0%	**3**
Synthetic Drugs (e.g. Bath Salts, K2/Spice)	10.0%	0.0%	0.0%	**2**
Hallucinogens or Dissociative Drugs (e.g. Ketamine, PCP, LSD, DXM)	0.0%	0.0%	5.0%	**1**
Over-The-Counter Medications	0.0%	0.0%	5.0%	**1**

Tobacco Use

About Tobacco Use

Tobacco use is the single most preventable cause of death and disease in the United States. Scientific knowledge about the health effects of tobacco use has increased greatly since the first Surgeon General's report on tobacco was released in 1964.

Tobacco use causes:

- Cancer
- Heart disease
- Lung diseases (including emphysema, bronchitis, and chronic airway obstruction)
- Premature birth, low birth weight, stillbirth, and infant death

There is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children, including: severe asthma attacks; respiratory infections; ear infections; and sudden infant death syndrome (SIDS).

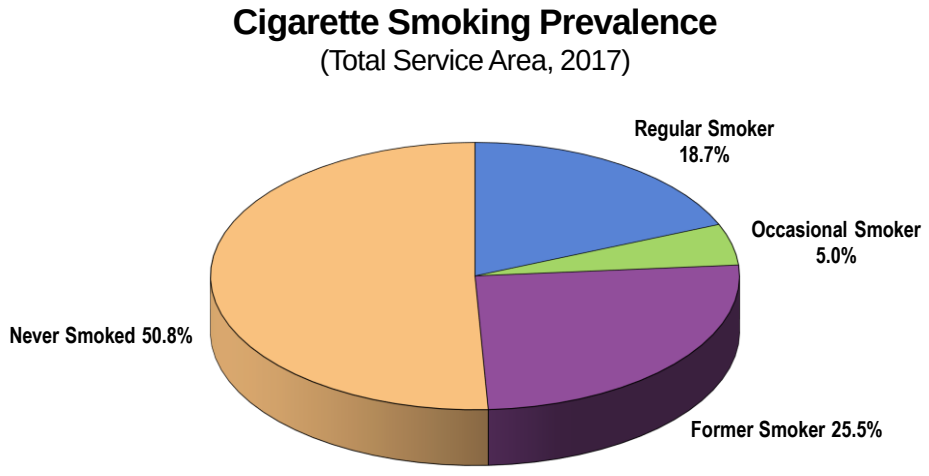
Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontitis, and tooth loss. Cigar use causes cancer of the larynx, mouth, esophagus, and lung.

- Healthy People 2020 (www.healthypeople.gov)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 23.7% of Total Service Area adults currently smoke cigarettes, either regularly (18.7% every day) or occasionally (5.0% on some days).



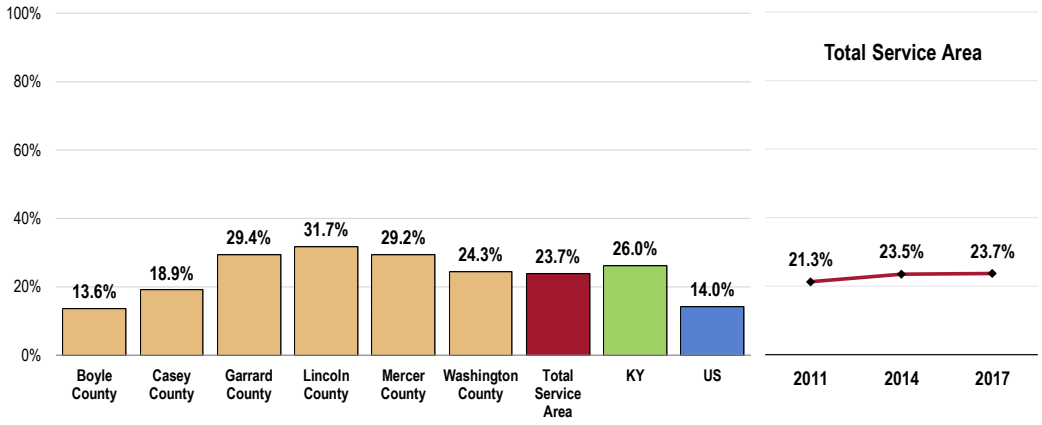
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 181]
Notes: • Asked of all respondents.

- Similar to statewide findings.
- Higher than national findings.
- Nearly twice the Healthy People 2020 target (12% or lower).

- Highest in Lincoln County; lowest in Boyle County.
- TREND: The percentage is statistically unchanged over time.

Current Smokers

Healthy People 2020 Target = 12.0% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 181]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective TU-1.1]

Notes:
- Asked of all respondents.
- Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).

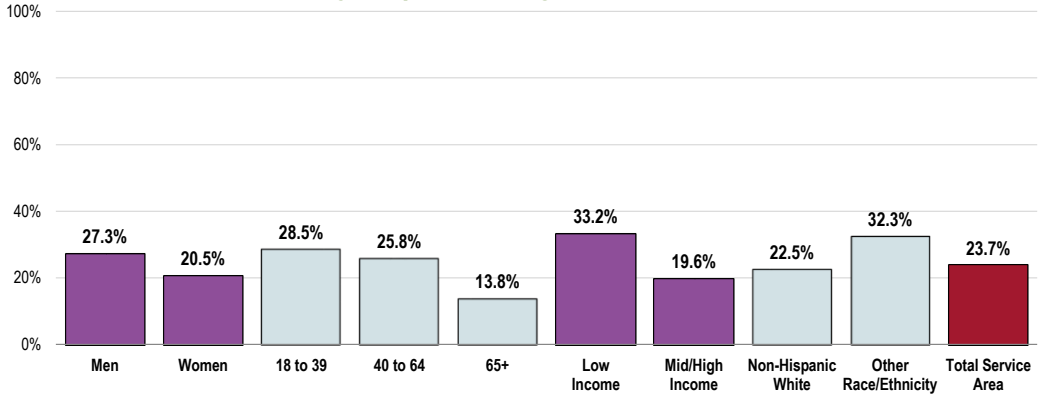
Cigarette smoking is more prevalent among:

- Men.
- Adults under 65 (negative correlation with age).
- Lower-income residents.

Current Smokers

(Total Service Area, 2017)

Healthy People 2020 Target = 12.0% or Lower



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 181]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective TU-1.1]

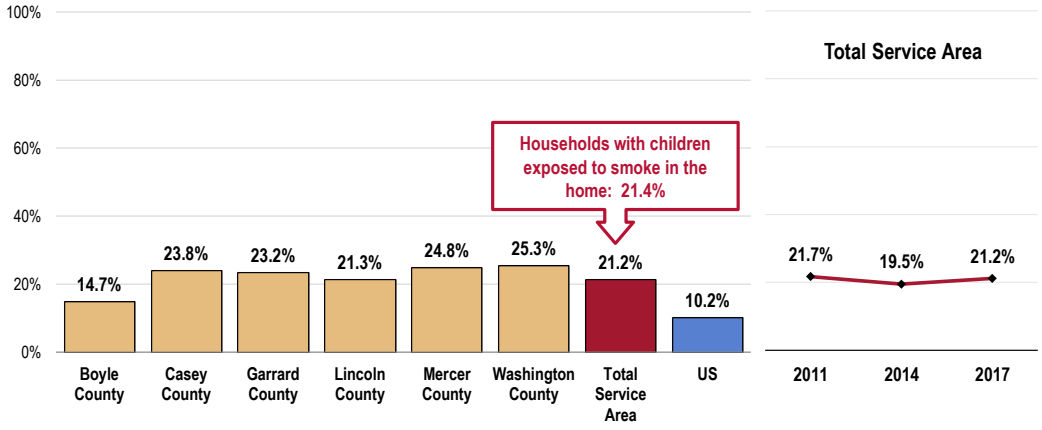
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Includes regular and occasion smokers (every day and some days).

Environmental Tobacco Smoke

A total of 21.2% of Total Service Area adults (including smokers and nonsmokers) report that a member of their household has smoked cigarettes in the home an average of 4+ times per week over the past month.

- Twice the national figure.
- Favorably low in Boyle County.
- TREND: Statistically unchanged over time.
- Note that 21.4% of area children are exposed to cigarette smoke at home.

Member of Household Smokes at Home



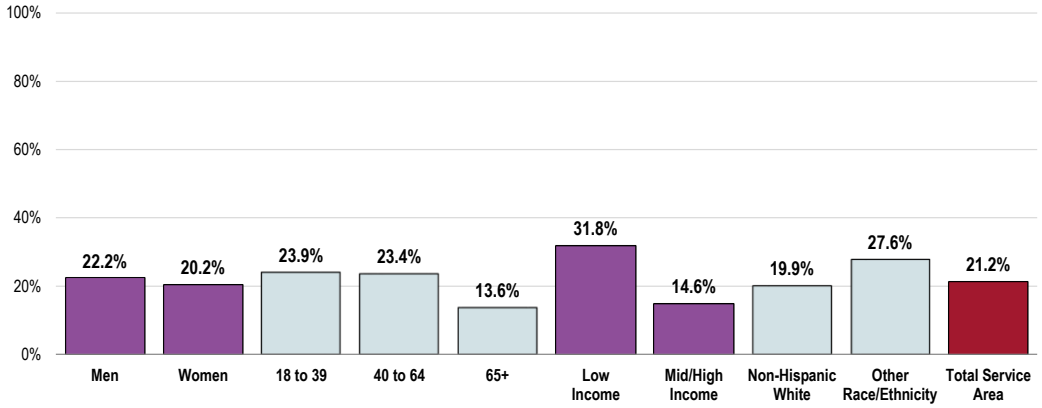
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 58, 184]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

- Notably higher among adults under 65 and residents with lower incomes.

Member of Household Smokes At Home

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 58]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

Smoking Cessation

About Reducing Tobacco Use

Preventing tobacco use and helping tobacco users quit can improve the health and quality of life for Americans of all ages. People who stop smoking greatly reduce their risk of disease and premature death. Benefits are greater for people who stop at earlier ages, but quitting tobacco use is beneficial at any age.

Many factors influence tobacco use, disease, and mortality. Risk factors include race/ethnicity, age, education, and socioeconomic status. Significant disparities in tobacco use exist geographically; such disparities typically result from differences among states in smoke-free protections, tobacco prices, and program funding for tobacco prevention.

- Healthy People 2020 (www.healthypeople.gov)

Smoking Cessation Attempts

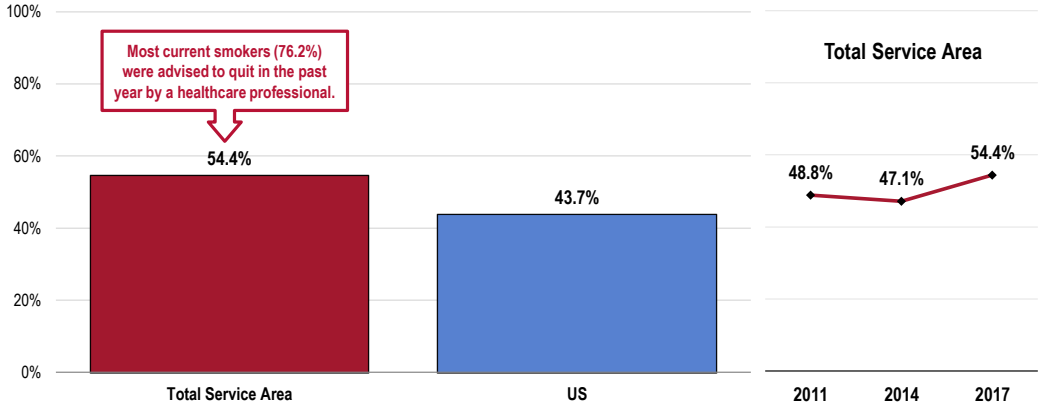
Over half of regular smokers (54.4%) went without smoking for one day or longer in the past year because they were trying to quit smoking.

- Statistically similar to the national percentage.
- Fails to satisfy the Healthy People 2020 target (80% or higher).
- TREND: Statistically unchanged over time.
- Most current smokers (76.2%) have been advised by a healthcare professional in the past year to quit smoking.

Have Stopped Smoking for One Day or Longer in the Past Year in an Attempt to Quit Smoking

(Among Everyday Smokers)

Healthy People 2020 Target = 80.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 56-57]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective TU-4.1]

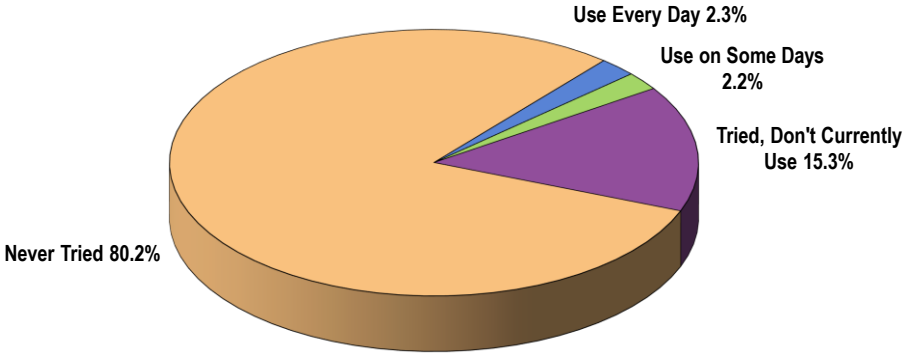
Notes:
- Asked of respondents who smoke cigarettes every day.

Other Tobacco Use

Electronic Cigarettes

A total of 4.5% of Total Service Area adults currently use electronic cigarettes ("e-cigarettes"), either regularly (2.3% every day) or occasionally (2.2% on some days).

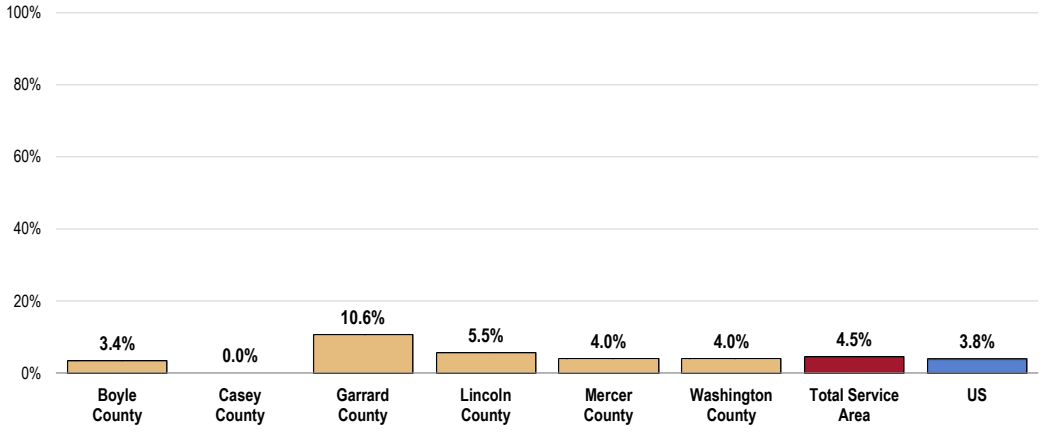
Electronic Cigarette Use
(Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]
Notes: ● Asked of all respondents.

- Similar to national findings.
- Unfavorably high in Garrard County; no one reported use in Casey County.

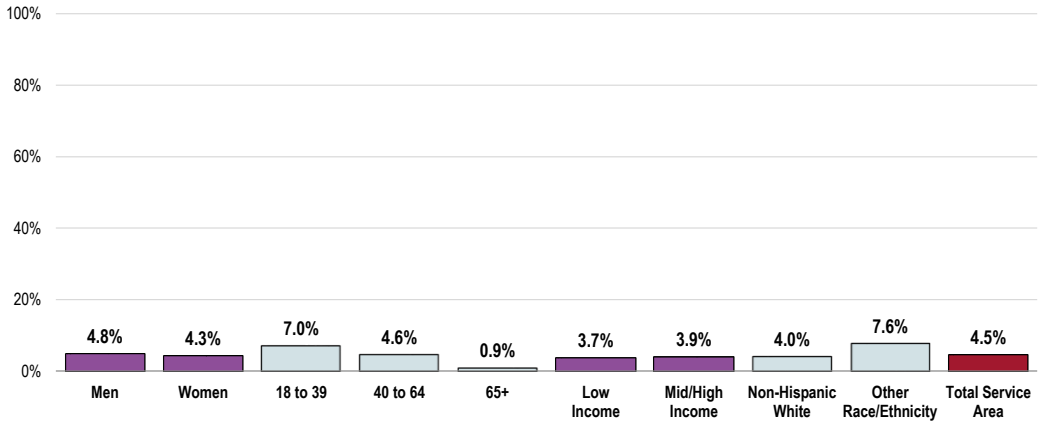
Currently Use Electronic Cigarettes
(Every Day or on Some Days)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.
● Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

- Electronic cigarette use in the Total Service Area is more prevalent among young adults (negative correlation with age).

Currently Use Electronic Cigarettes
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

Cigars & Smokeless Tobacco

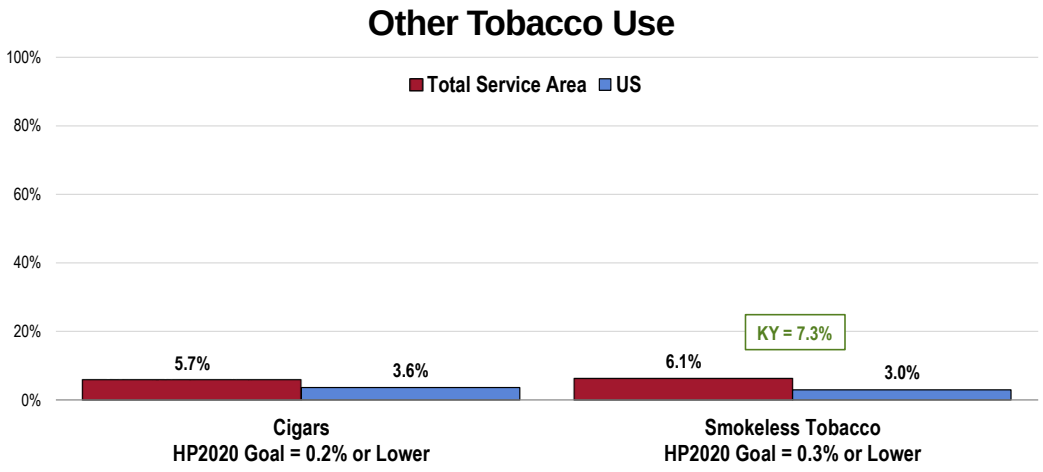
A total of 5.7% of Total Service Area adults use cigars every day or on some days.

- Higher than the national percentage.
- Far from satisfying the Healthy People 2020 target (0.2% or lower).
- TREND: Statistically unchanged over time (not shown).

Examples of smokeless tobacco include chewing tobacco, snuff, or "snus."

A total of 6.1% of Total Service Area adults use some type of smokeless tobacco every day or on some days.

- Comparable to the state percentage.
- Twice the national prevalence.
- Far from satisfying the Healthy People 2020 target (0.3% or lower).
- TREND: Statistically unchanged over time (not shown).

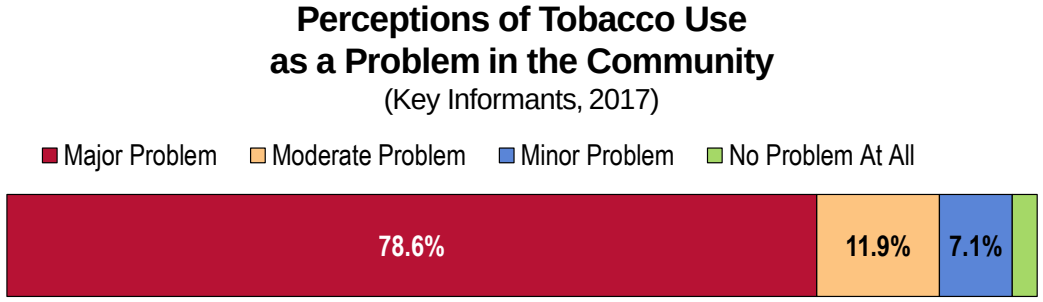


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 59-60]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objectives TU-1.2, TU-1.3]

Notes:
- Reflects the total sample of respondents.
- Smokeless tobacco includes chewing tobacco or snuff.

Key Informant Input: Tobacco Use

Most key informants taking part in an online survey characterized *Tobacco Use* as a "major problem" in the community.



Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Prevalence/Incidence

Although the production of tobacco has decreased in my community, it does not seem that the number of smokers have decreased. I see more and more young adults smoking. – Community Leader

Despite all the warnings and lectures, the use of tobacco is still rampant in my community. Being counties that were large producers, changing this will take some time. – Community Leader

Most of our clients and a good number of our staff smoke. – Social Services Provider

High rate of use and poorly utilized cessation programs. – Physician

Tobacco is a socialization norm in Garrard County, just like it is in many other counties. – Community Leader

Rural tobacco growing area. – Community Leader

Comorbidities

Continued use of tobacco products by all age groups contributes to high level of cancer in Kentucky. – Public Health Representative

Cancer and other related diseases continue to increase. – Community Leader

Cancer-causing product. – Community Leader

Tobacco-related diseases. – Public Health Representative

It causes cancer and COPD. – Community Leader

E-Cigarettes/Vaping

Smoking is on the decline, but still far too many youth are turning to smokeless and this is not a better option. – Community Leader

Use among young people. Vaping. – Social Services Provider

Too much tobacco tolerance, especially smokeless tobacco. Smokeless is not harmless. – Community Leader

Societal Norms

This is the south, and breaking that habit is difficult. – Community Leader

It is accepted. Cultural, kids start at a young age. Tobacco is a major money crop in the area. Problem is it leads to many other major health issues. – Community Leader

Access to Health Services

Professional Research Consultants, Inc.

Health Insurance Coverage

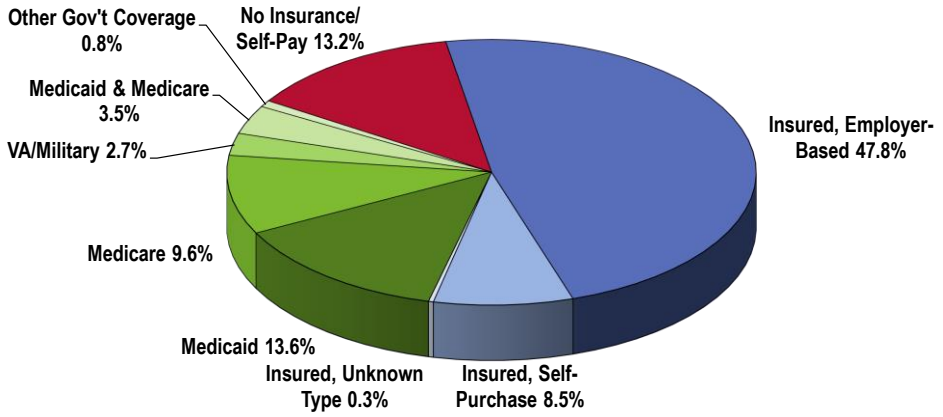
Type of Healthcare Coverage

Survey respondents were asked a series of questions to determine their healthcare insurance coverage, if any, from either private or government-sponsored sources.

A total of 56.6% of Total Service Area adults age 18 to 64 report having healthcare coverage through private insurance. Another 30.2% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Healthcare Insurance Coverage

(Among Adults Age 18-64; Total Service Area, 2017)



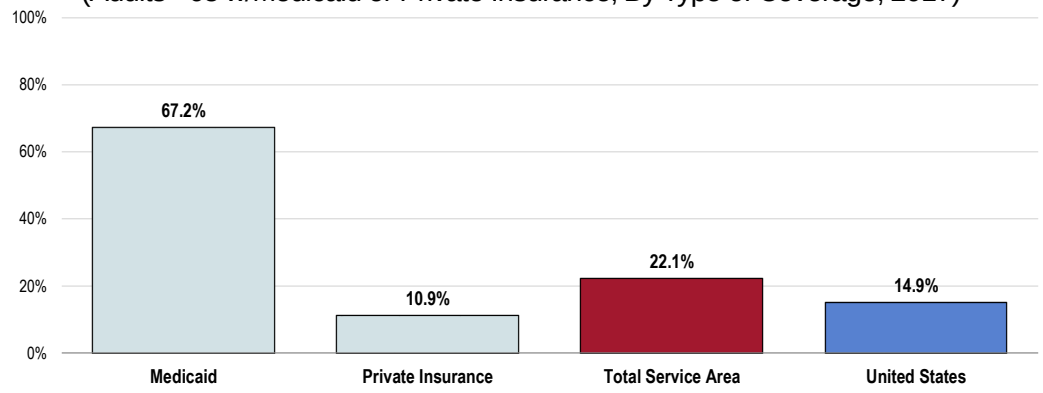
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 190]
Notes: ● Reflects respondents age 18 to 64.

A total of 22.1% of residents under 65 with private coverage or Medicaid secured their coverage under the Affordable Care Act (ACA), otherwise known as "Kynect" (Kentucky Health Benefit Exchange) or "Obamacare."

- Higher than the national finding.
- Note the 67.2% of affirmative responses among adults with Medicaid compared with privately insured individuals (10.9%).

Insurance Was Secured Under Affordable Care Act ("Kynect/Obamacare")

(Adults <65 w/Medicaid or Private Insurance, By Type of Coverage; 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 84]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents under 65 with private insurance or Medicaid.

Lack of Health Insurance Coverage

Among adults 18 to 64, 13.2% have no insurance coverage for healthcare expenses.

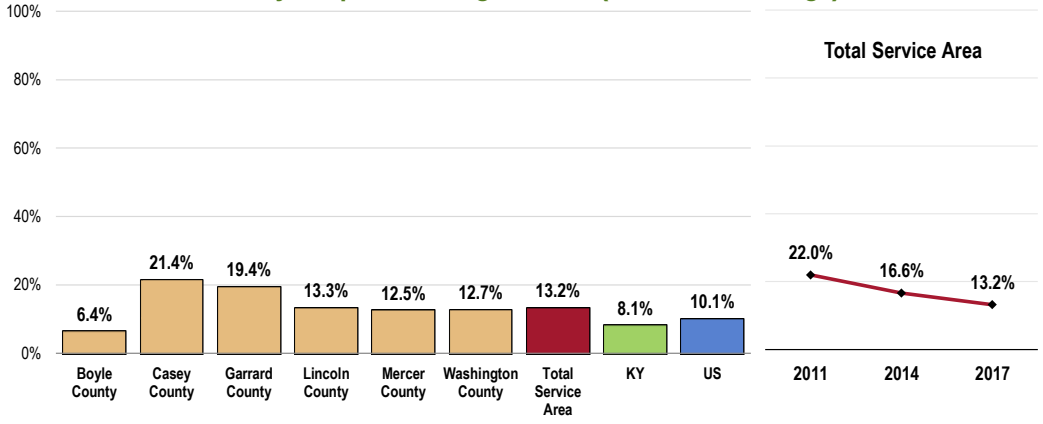
Here, lack of health insurance coverage reflects respondents age 18 to 64 (thus, excluding the Medicare population) who have no type of insurance coverage for healthcare services – neither private insurance nor government-sponsored plans (e.g., Medicaid).

- Higher than the state finding.
- Similar to the national finding.
- The Healthy People 2020 target is universal coverage (0% uninsured).
- Lack of coverage is favorably low in Boyle County.
- TREND: Note the statistically significant decrease over time.

Lack of Healthcare Insurance Coverage

(Among Adults Age 18-64)

Healthy People 2020 Target = 0.0% (Universal Coverage)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 190]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-1]

Notes:
- Asked of all respondents under the age of 65.

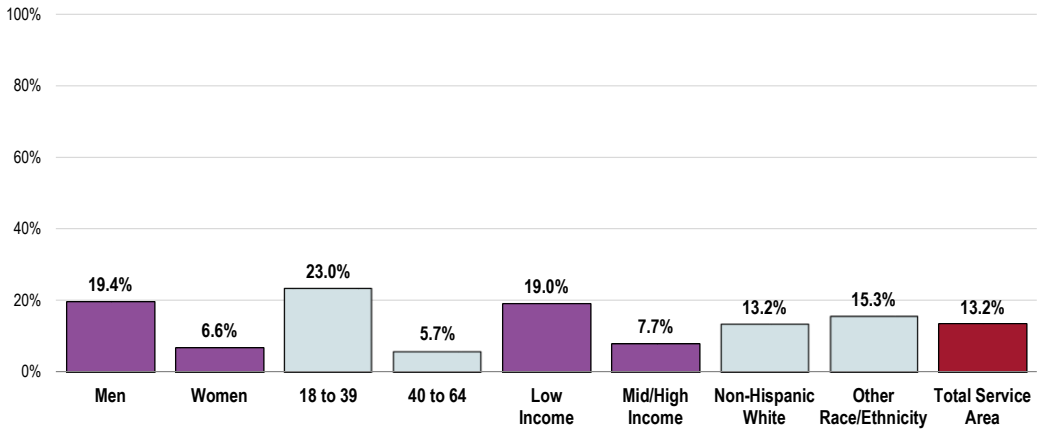
The following population segments are much more likely to be without healthcare insurance coverage:

- Men.
- Young adults.
- Residents living at lower incomes.

Lack of Healthcare Insurance Coverage

(Among Adults Age 18-64; Total Service Area, 2017)

Healthy People 2020 Target = 0.0% (Universal Coverage)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 190]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-1]

Notes:
- Asked of all respondents under the age of 65.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Difficulties Accessing Healthcare

About Access to Healthcare

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. It impacts: overall physical, social, and mental health status; prevention of disease and disability; detection and treatment of health conditions; quality of life; preventable death; and life expectancy.

Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires three distinct steps: 1) Gaining entry into the health care system; 2) Accessing a health care location where needed services are provided; and 3) Finding a health care provider with whom the patient can communicate and trust.

- Healthy People 2020 (www.healthypeople.gov)

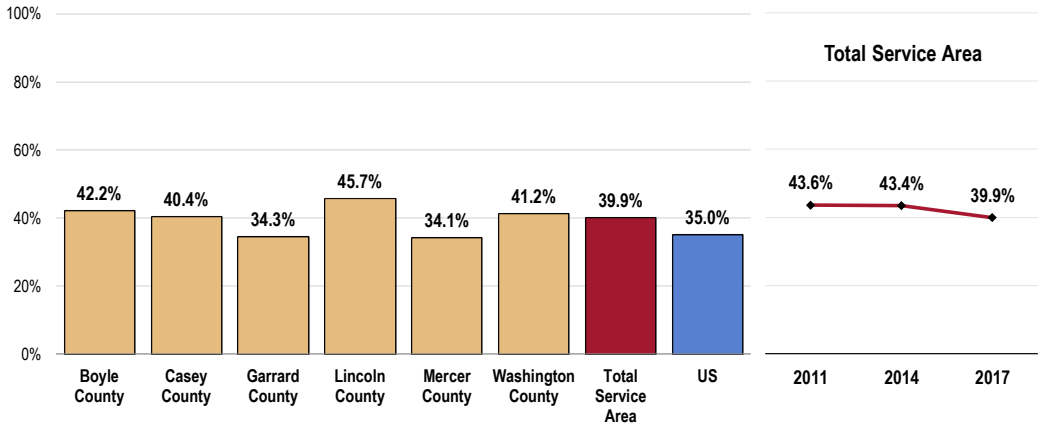
Difficulties Accessing Services

This indicator reflects the percentage of the total population experiencing problems accessing healthcare in the past year, regardless of whether they needed or sought care.

A total of 39.9% of Total Service Area adults report some type of difficulty or delay in obtaining healthcare services in the past year.

- Less favorable than national findings.
- Statistically similar by county.
- TREND: Statistically similar to the previous percentages.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 194]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

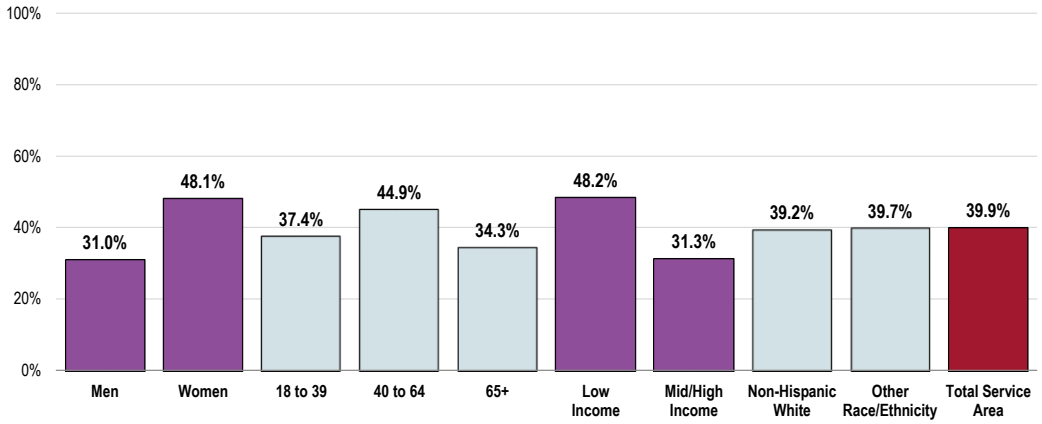
Notes:
- Asked of all respondents.
- Represents the percentage of respondents experiencing one or more barriers to accessing healthcare in the past 12 months.

These adults more often report difficulties accessing healthcare services:

- Women.
- Adults age 40 to 64.
- Lower-income residents.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 194]

Notes:
- Asked of all respondents.
- Represents the percentage of respondents experiencing one or more barriers to accessing healthcare in the past 12 months.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Barriers to Healthcare Access

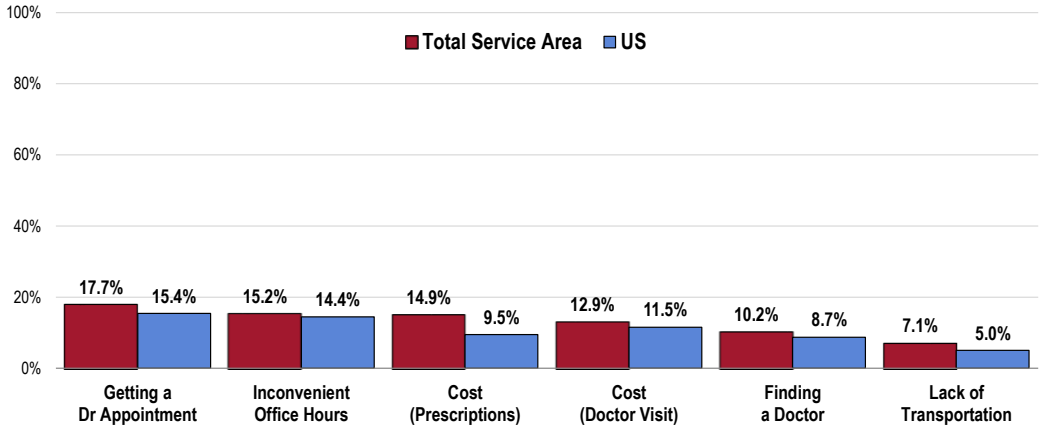
To better understand healthcare access barriers, survey participants were asked whether any of seven types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year.

Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.

Of the tested barriers, difficulty getting an appointment impacted the greatest share of area adults (17.7% had difficulty getting a medical appointment in the past year).

- The proportion of Total Service Area adults impacted was statistically comparable to that found nationwide for each of the tested barriers, with the exception of **cost of prescription medication** (the area fared worse than the US).

Barriers to Access Have Prevented Medical Care in the Past Year



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 7-11]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

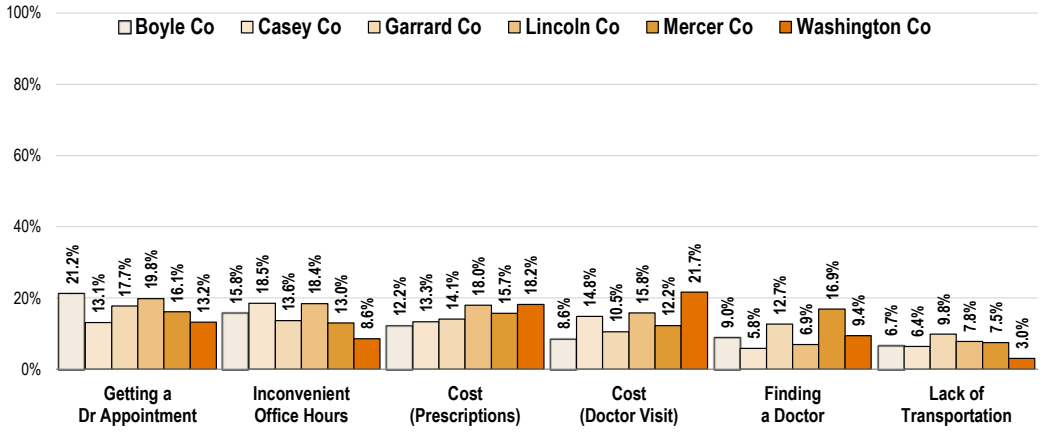
Viewed by county, note the following positive findings:

- Boyle County reported a favorably low proportion of residents affected by cost of a physician visit.
- Washington County residents were least likely to report being impacted by the barriers of transportation or inconvenient office hours.

On the other hand, note these negative findings:

- Mercer County respondents reported an unfavorably high prevalence of difficulty finding a physician in the past year.
- Washington County adults were most likely to report that cost of a physician visit prevented their care in the past year.

Barriers to Access Have Prevented Medical Care in the Past Year
(By County; 2017)



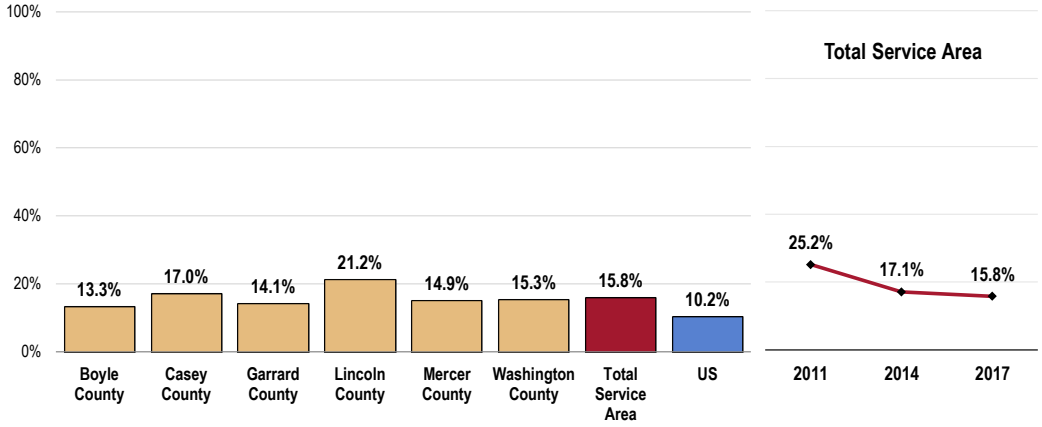
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 7-11]
Notes: • Asked of all respondents.

Prescriptions

Among all Total Service Area adults, 15.8% skipped or reduced medication doses in the past year in order to stretch a prescription and save money.

- Higher than national findings.
- Similar findings by county.
- TREND: Denotes a statistically significant decrease from 2011 survey findings (but similar to 2014 findings).

Skipped or Reduced Prescription Doses in Order to Stretch Prescriptions and Save Money



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 14]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

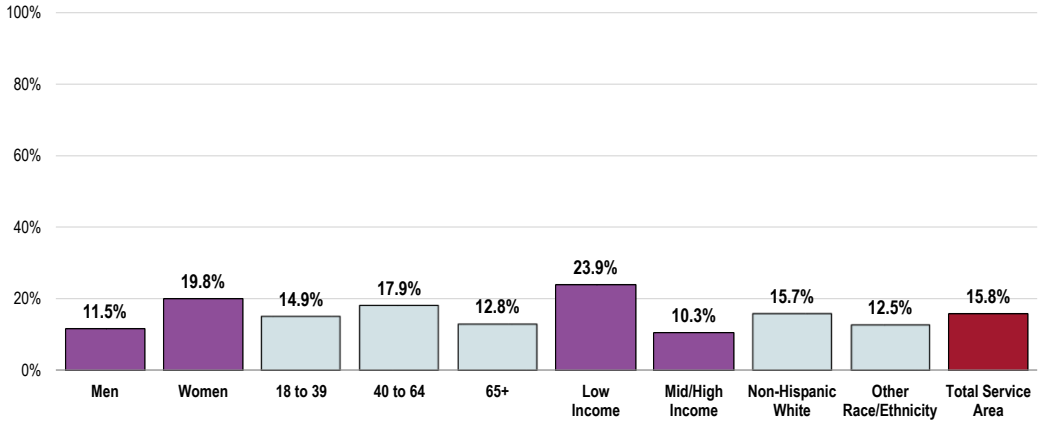
Notes:
- Asked of all respondents.

Adults more likely to have skipped or reduced their prescription doses include:

- Women.
- Respondents with lower incomes.

Skipped or Reduced Prescription Doses in Order to Stretch Prescriptions and Save Money

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 14]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Accessing Healthcare for Children

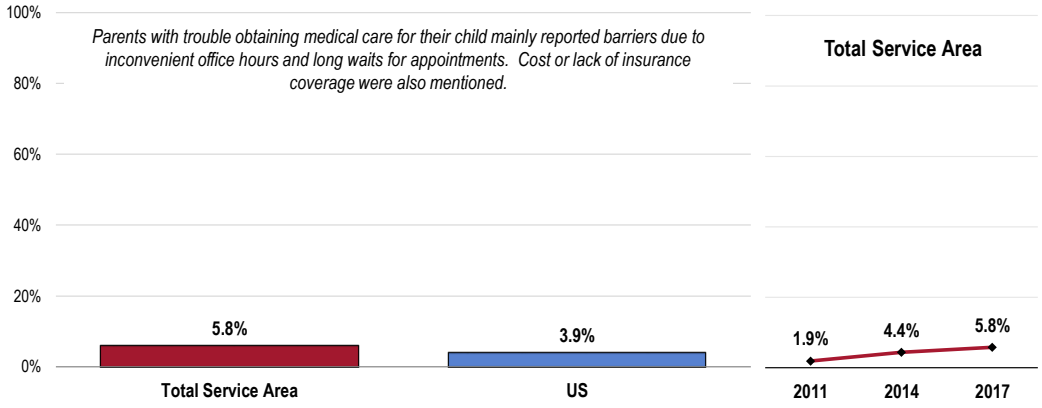
A total of 5.8% of parents say there was a time in the past year when they needed medical care for their child but were unable to get it.

Surveyed parents were also asked if, within the past year, they experienced any trouble receiving medical care for a randomly-selected child in their household.

- Statistically similar to what is reported nationwide.
- TREND: Marks a statistically significant increase over time.

Had Trouble Obtaining Medical Care for Child in the Past Year

(Among Parents of Children 0-17)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 136-137]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents with children 0 to 17 in the household.

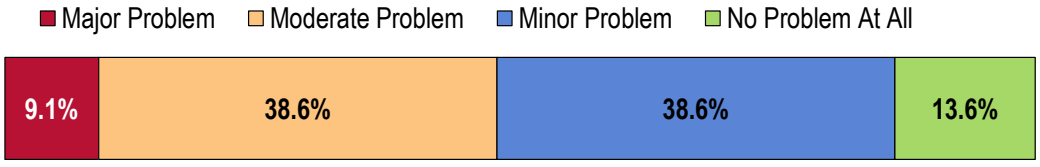
Among the parents experiencing difficulties, the majority cited **inconvenient office hours** and **long waits for appointments** as the primary reasons; others cited cost or lack of insurance coverage.

Key Informant Input: Access to Healthcare Services

Key informants taking part in an online survey were equally likely to characterize *Access to Healthcare Services* as a "moderate" or "minor" problem in the community.

Perceptions of Access to Healthcare Services as a Problem in the Community

(Key Informants, 2017)



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Access to Care/Services

> *Limited access to primary care. – Physician*
>
> *Need for more diagnostic facilities. – Community Leader*
>
> *Primary care. – Physician*

Affordable Care/Services

> *The cost of adequate health care is formidable to many folks. Even those with insurance are reluctant to engage for fear of what the insurance company may refuse to pay. Also, folks do not readily understand what health care they need. – Community Leader*
>
> *Affordable. – Community Leader*

Vulnerable Populations

> *Assisted living, transition living and residential options for adults with disabilities. – Community Leader*

Type of Care Most Difficult to Access

Key informants (who rated this as a "major problem") most often identified **substance abuse treatment** as the most difficult to access in the community.

Medical Care Difficult to Access Locally

	Most Difficult to Access	Second-Most Difficult to Access	Third-Most Difficult to Access	**Total Mentions**
Substance Abuse Treatment	100.0%	33.3%	33.3%	**5**
Mental Health Care	0.0%	33.3%	33.3%	**2**
Pain Management	0.0%	33.3%	0.0%	**1**
Elder Care	0.0%	0.0%	33.3%	**1**

Health Literacy

Understanding Health Information

Written & Spoken Information

Respondents were read:

"You can find written health information on the internet, in newspapers and magazines, on medications, at the doctor's office, in clinics, and many other places.

How often is health information **written** in a way that is easy for you to understand?

How often is health information **spoken** in a way that is easy for you to understand?"

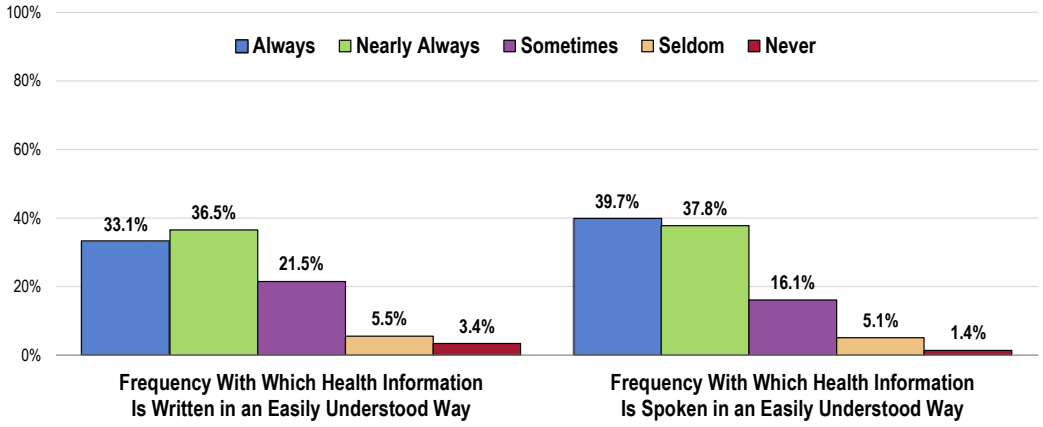
When asked about the frequency with which health information is written in an easily understood way, 69.6% of Total Service Area adults said "always" or "nearly always."

- On the other hand, 30.4% of Total Service Area adults consider **written** health information to be difficult to understand, including 3.4% who gave "never" reports.

When asked about spoken health information, 77.5% stated that this is "always" or "nearly always" easy for them to understand.

- On the other hand, 22.6% of Total Service Area adults consider **spoken** health information to be difficult to understand, including 1.4% who gave "never" reports.

Understanding Health Information
(Total Service Area, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 87, 89]
Notes: • Asked of all respondents.

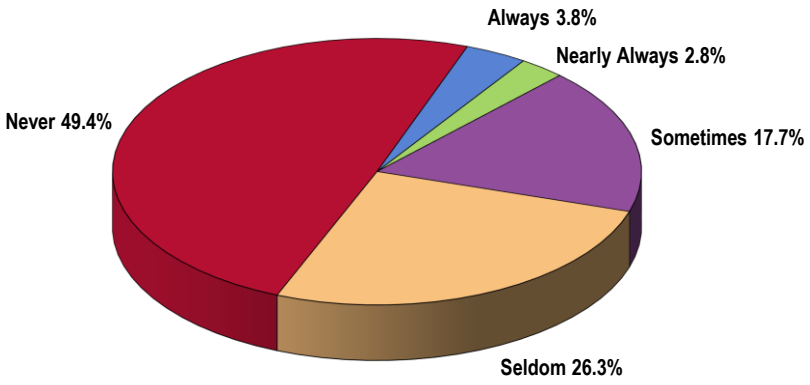
Help Reading Health Information

A total of 75.7% of Total Service Area adults report "seldom" or "never" needing help reading health information.

- Another 17.7% of community adults "sometimes" need someone to help them read health information.
- Note that 6.6% of residents "always" or "nearly always" need help reading health information.

Frequency of Needing Someone to Help Read Health Information

(Total Service Area, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 88]
Notes: • Asked of all respondents.

Completing Health Forms

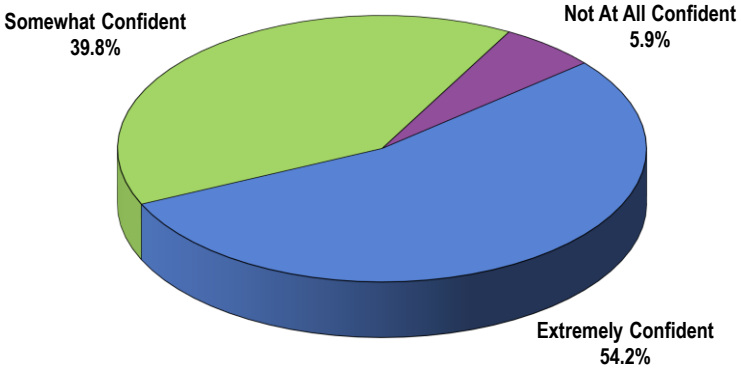
Asked to describe their confidence in filling out health forms, most survey respondents are "extremely confident" (54.2%).

Examples of health forms include insurance forms, questionnaires, doctor's office forms, and other forms related to health and healthcare.

- Another 39.8% of community adults are "somewhat confident" in their own ability to fill out health forms.
- However, 5.9% of respondents gave "not at all confident" ratings.

Self-Perceived Confidence in Ability to Fill Out Health Forms

(Total Service Area, 2017)



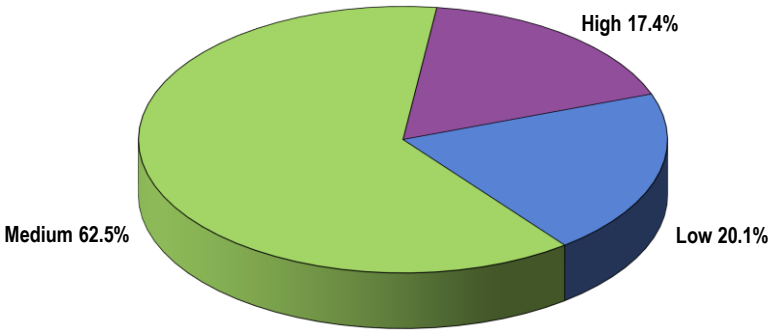
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 90]
Notes: • Asked of all respondents.
• In this case, health forms include insurance forms, questionnaires, doctor's office forms, and other forms related to health and healthcare.

Population With Low Health Literacy

Low health literacy is defined as those respondents who "seldom/never" find written or spoken health information easy to understand, and/or who "always/ nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

Among Total Service Area survey respondents, 17.4% are considered to be of high health literacy, while 62.5% have medium health literacy, and the remaining 20.1% are considered to be of low health literacy.

Level of Health Literacy
(Total Service Area, 2017)

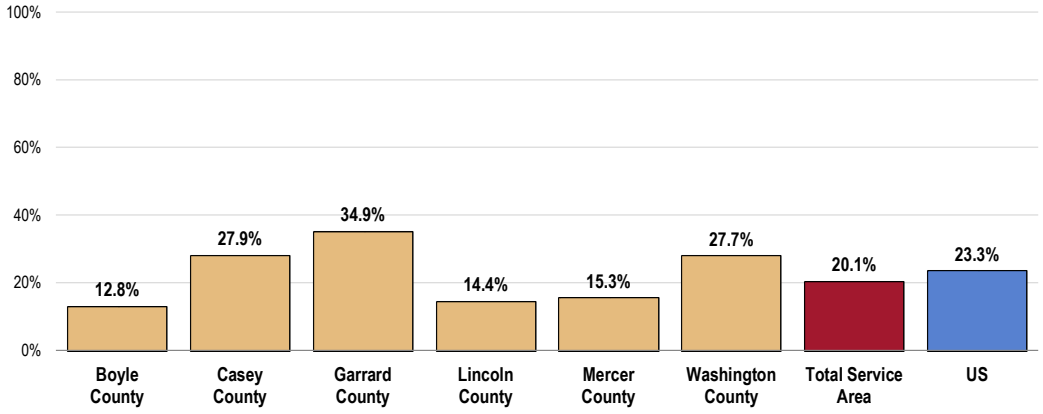


Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]

Notes:
- Asked of all respondents.
- Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

- The prevalence of Total Service Area adults with low levels of health literacy is comparable to the national average.
- The percentage varies considerably by county: highest in Garrard County, lowest in Boyle County.

Low Health Literacy



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

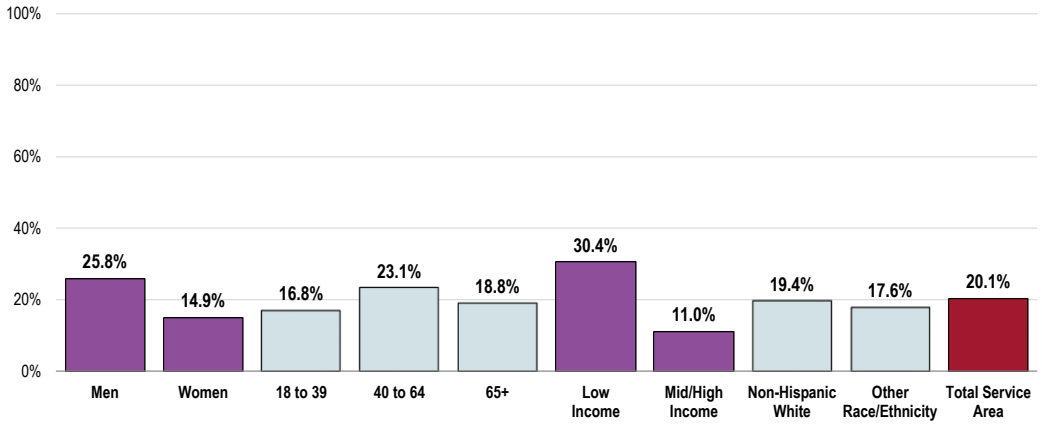
Notes:
- Asked of all respondents.
- Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

These local adults are more likely to have low health literacy levels:

- Men.
- Adults age 40 to 64.
- Low-income residents.

Low Health Literacy

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

Primary Care Services

About Primary Care

Improving health care services depends in part on ensuring that people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs. Having a primary care provider (PCP) as the usual source of care is especially important. PCPs can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a usual PCP is associated with:

- Greater patient trust in the provider
- Good patient-provider communication
- Increased likelihood that patients will receive appropriate care

Improving health care services includes increasing access to and use of evidence-based preventive services. Clinical preventive services are services that: **prevent** illness by detecting early warning signs or symptoms before they develop into a disease (primary prevention); or **detect** a disease at an earlier, and often more treatable, stage (secondary prevention).

- Healthy People 2020 (www.healthypeople.gov)

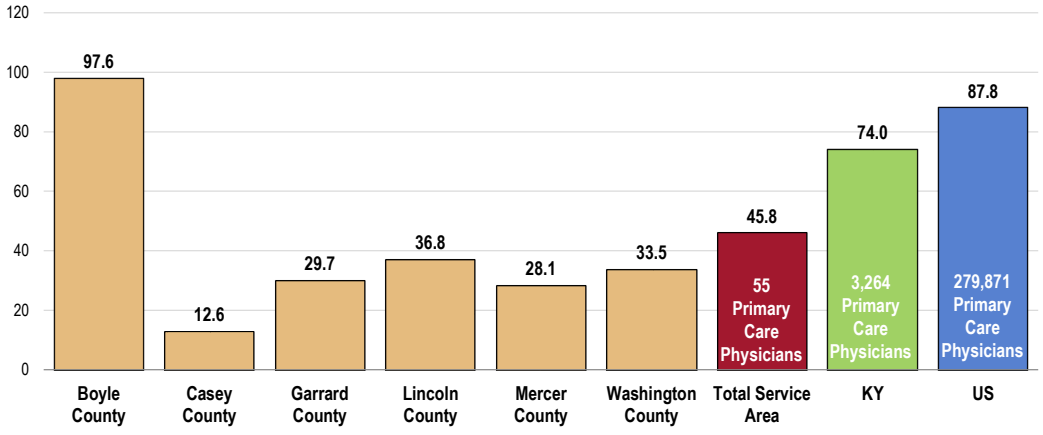
Access to Primary Care

In the Total Service Area in 2014, there were 55 primary care physicians, translating to a rate of 45.8 primary care physicians per 100,000 population.

- Well below the primary care physician-to-population ratios found statewide and nationally.
- Note the wide disparity in access to primary care when viewed by county.

Access to Primary Care

(Number of Primary Care Physicians per 100,000 Population, 2014)



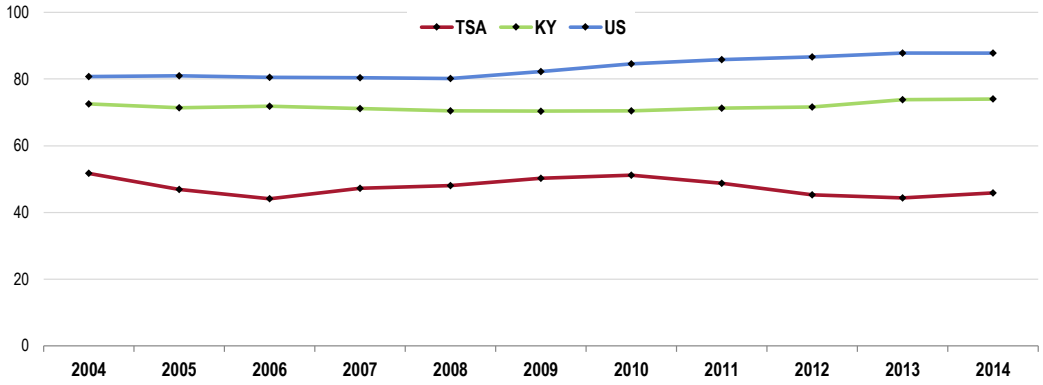
Sources:
- US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

- TREND: Access to primary care (in terms of the ratio of primary care physicians to population) has decreased over the past decade in the Total Service Area.

Trends in Access to Primary Care

(Number of Primary Care Physicians per 100,000 Population)



Sources:
- US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
- Retrieved March 2017 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.
- These figures represent all primary care physicians practicing patient care, including hospital residents. In counties with teaching hospitals, this figure may differ from the rate reported in the previous chart.

Specific Source of Ongoing Care

A total of 78.7% of Total Service Area adults were determined to have a specific source of ongoing medical care.

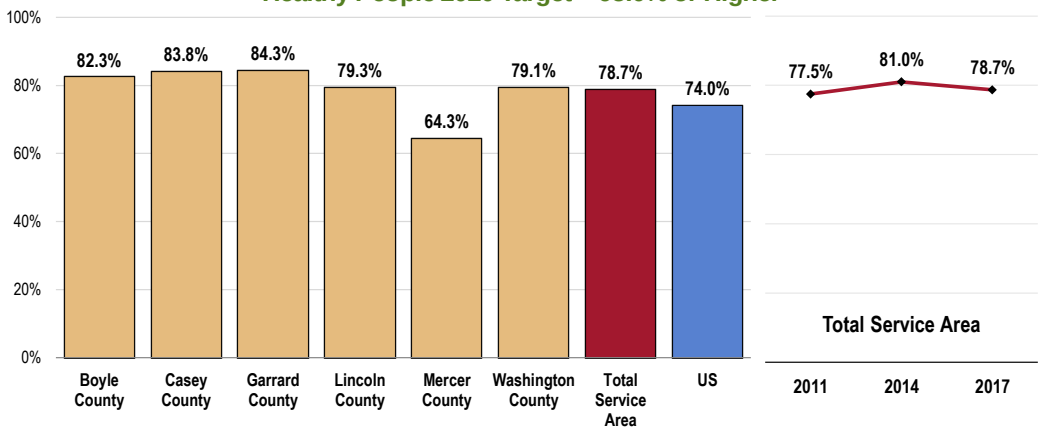
Having a specific source of ongoing care includes having a doctor's office, clinic, urgent care center, walk-in clinic, health center facility, hospital outpatient clinic, HMO or prepaid group, military/VA clinic, or some other kind of place to go if one is sick or needs advice about his or her health. This resource is crucial to the concept of "patient-centered medical homes" (PCMH).

A hospital emergency room is not considered a specific source of ongoing care in this instance.

- More favorable than national findings.
- Fails to satisfy the Healthy People 2020 objective (95% or higher).
- Unfavorably low in Mercer County.
- TREND: Statistically unchanged over time.

Have a Specific Source of Ongoing Medical Care

Healthy People 2020 Target = 95.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 191]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-5.1]

Notes:
- Asked of all respondents.

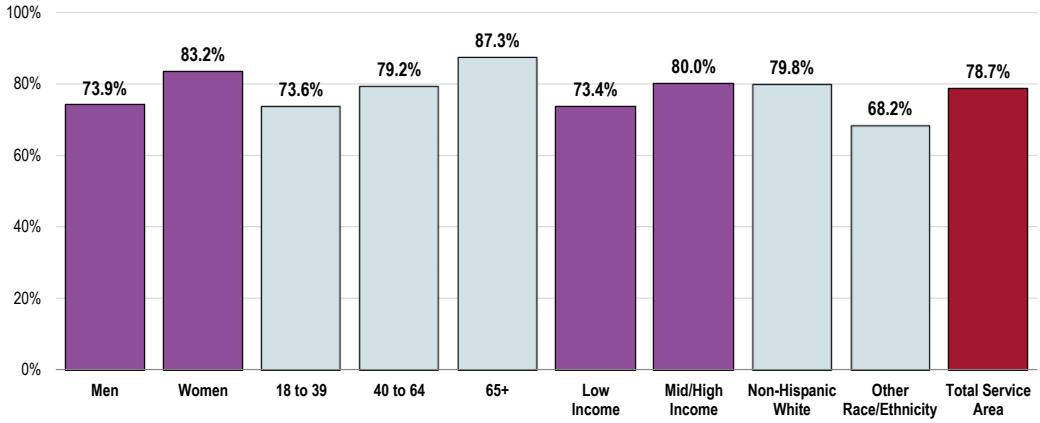
When viewed by demographic characteristics, the following population segments are less likely to have a specific source of care:

- Men.
- Young adults (positive correlation with age).
- Lower-income adults.

Have a Specific Source of Ongoing Medical Care

(Total Service Area, 2017)

Healthy People 2020 Target = 95.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 191-193]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-5.1]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

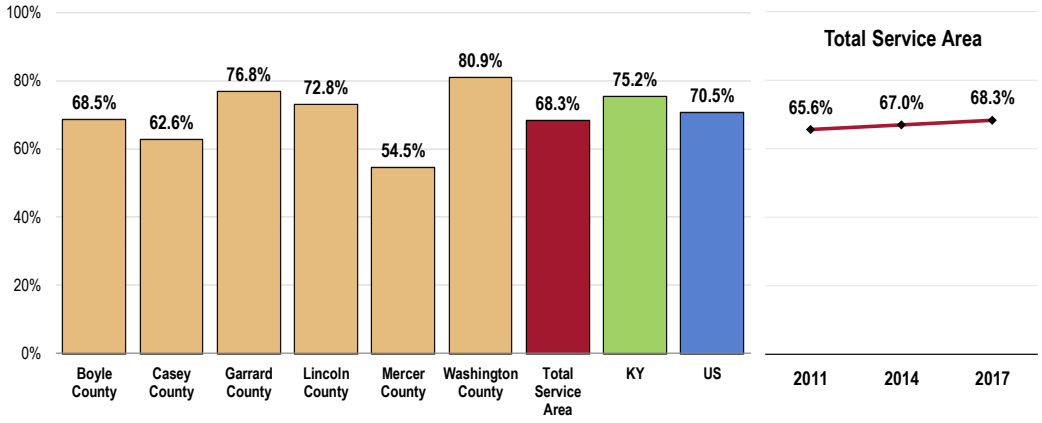
Utilization of Primary Care Services

Adults

Just over 2 in 3 adults (68.3%) visited a physician for a routine checkup in the past year.

- Lower than the state percentage.
- Comparable to national findings.
- Highest in Garrard and Washington counties; lowest in Mercer County.
- TREND: Statistically unchanged over time.

Have Visited a Physician for a Checkup in the Past Year



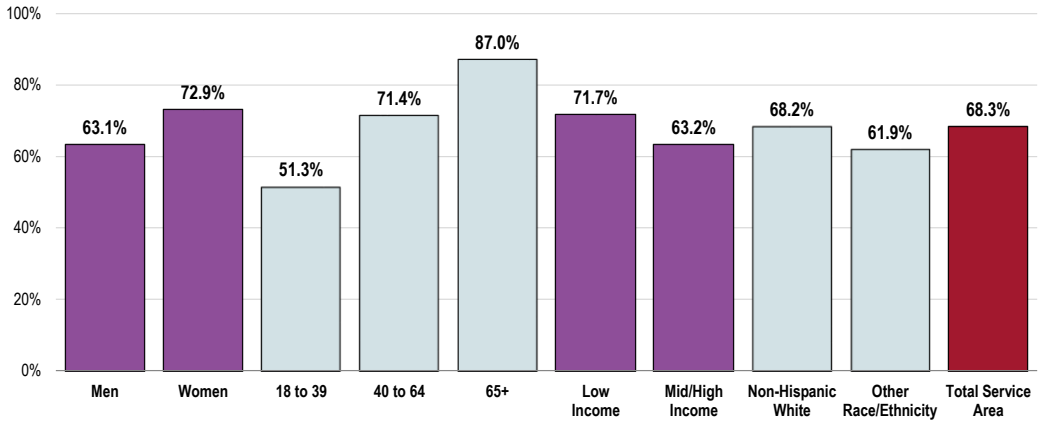
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 18]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 KY data.
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

These adults are less likely to have received routine care in the past year:

- Men.
- Young adults (positive correlation with age).
- Those in upper-income households.

Have Visited a Physician for a Checkup in the Past Year
(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 18]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

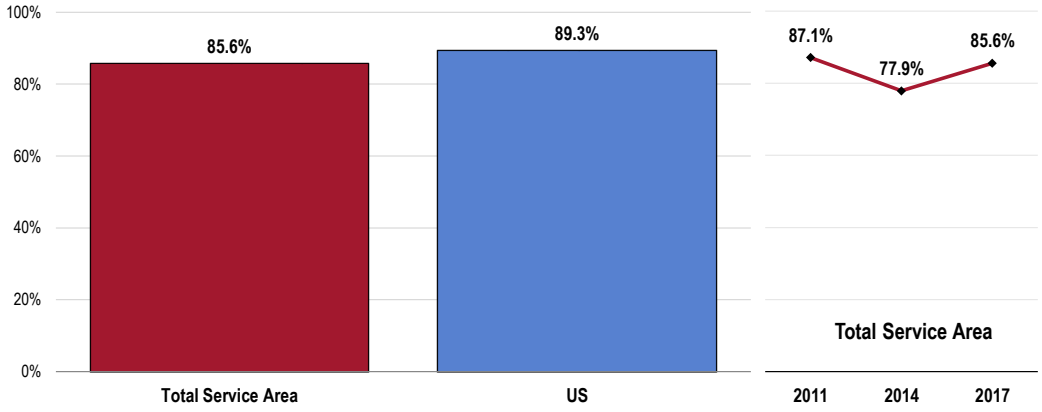
Children

Among surveyed parents, 85.6% report that their child has had a routine checkup in the past year.

- Similar to national findings.
- TREND: Statistically similar to 2011 findings but marking a significant increase since 2014.

Child Has Visited a Physician for a Routine Checkup in the Past Year

(Among Parents of Children 0-17)



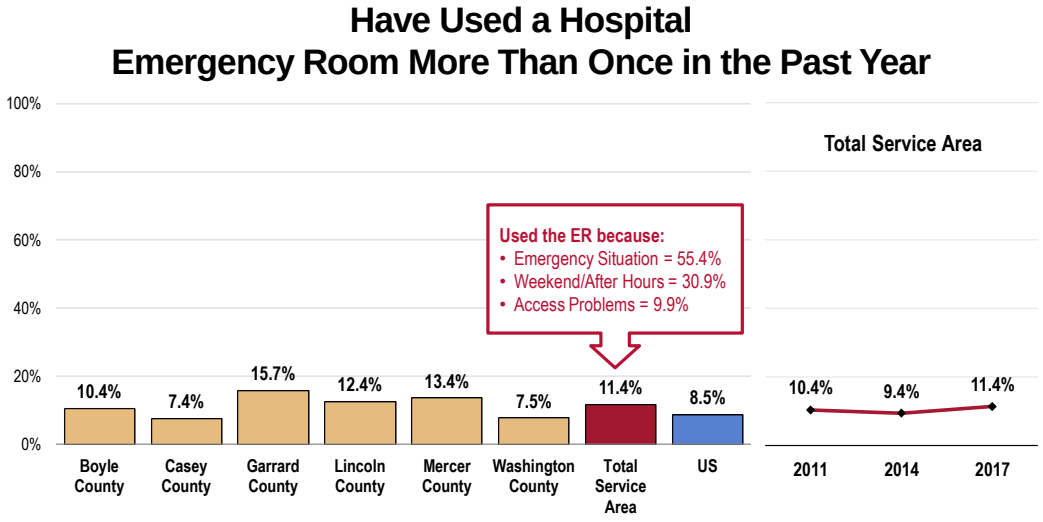
Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 138]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children 0 to 17 in the household.

Emergency Room Utilization

A total of 11.4% of Total Service Area adults have gone to a hospital emergency room more than once in the past year about their own health.

- Higher than national findings.
- Statistically comparable findings by county.
- TREND: Statistically unchanged over time.



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 22-23]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

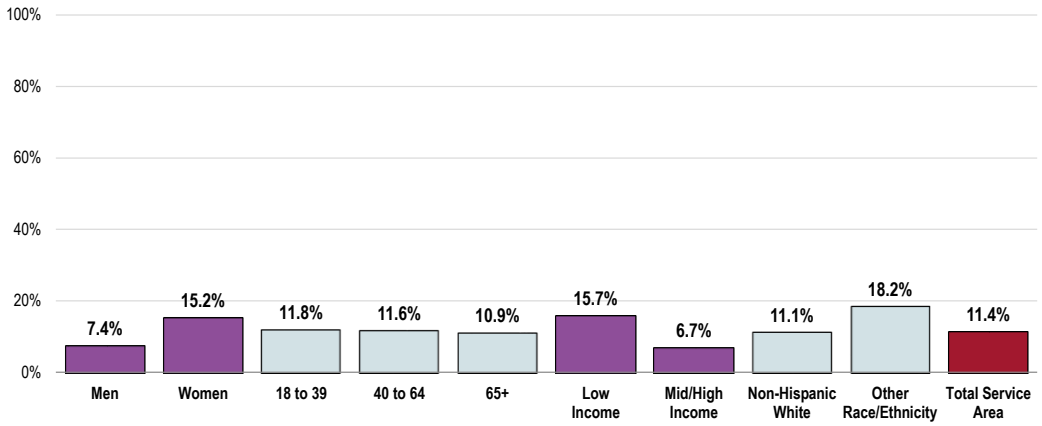
Of those using a hospital ER, 55.4% say this was due to an **emergency or life-threatening situation**, while 30.9% indicated that the visit was during **after-hours or on the weekend**. A total of 9.9% cited **difficulties accessing primary care** for various reasons.

These population segments are more likely to have used an ER for their medical care more than once in the past year:

- Women.
- Adults in low-income households.

Have Used a Hospital Emergency Room More Than Once in the Past Year

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 22]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Oral Health

About Oral Health

Oral health is essential to overall health. Good oral health improves a person's ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. However, oral diseases, from cavities to oral cancer, cause pain and disability for many Americans. Good self-care, such as brushing with fluoride toothpaste, daily flossing, and professional treatment, is key to good oral health. Health behaviors that can lead to poor oral health include: **tobacco use; excessive alcohol use;** and **poor dietary choices**.

The significant improvement in the oral health of Americans over the past 50 years is a public health success story. Most of the gains are a result of effective prevention and treatment efforts. One major success is community water fluoridation, which now benefits about 7 out of 10 Americans who get water through public water systems. However, some Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have greater rates of oral diseases. A person's ability to access oral healthcare is associated with factors such as education level, income, race, and ethnicity.

Barriers that can limit a person's use of preventive interventions and treatments include: limited access to and availability of dental services; lack of awareness of the need for care; cost; and fear of dental procedures.

There are also social determinants that affect oral health. In general, people with lower levels of education and income, and people from specific racial/ethnic groups, have higher rates of disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Potential strategies to address these issues include:

- Implementing and evaluating activities that have an impact on health behavior.
- Promoting interventions to reduce tooth decay, such as dental sealants and fluoride use.
- Evaluating and improving methods of monitoring oral diseases and conditions.
- Increasing the capacity of State dental health programs to provide preventive oral health services.
- Increasing the number of community health centers with an oral health component.

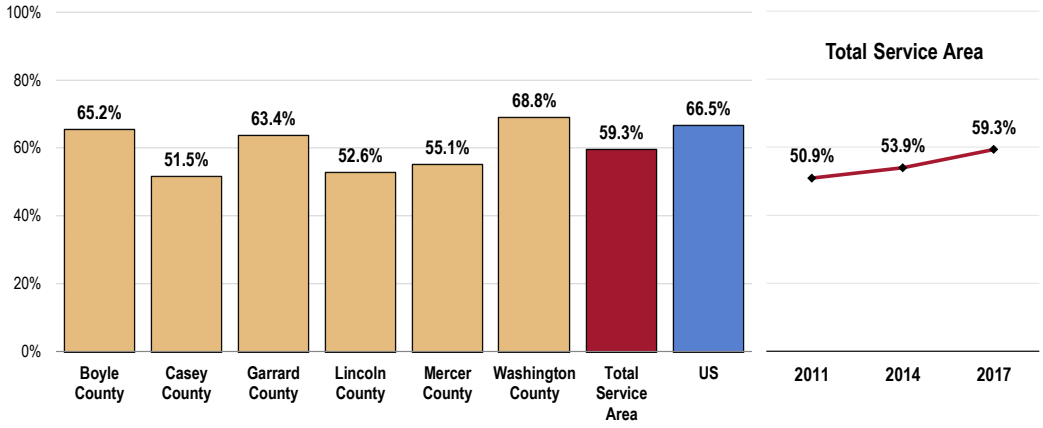
- Healthy People 2020 (www.healthypeople.gov)

Dental Insurance

Nearly 6 in 10 Total Service Area adults (59.3%) have dental insurance that covers all or part of their dental care costs.

- Lower than the national findings.
- Favorably high in Boyle and Washington counties.
- TREND: Marks a statistically significant increase over time.

Have Insurance Coverage That Pays All or Part of Dental Care Costs



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 21]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

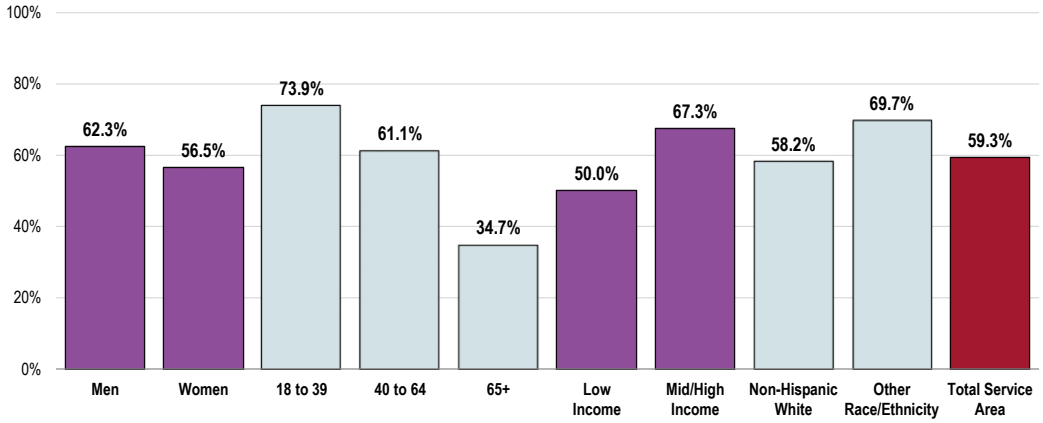
Notes:
- Asked of all respondents.

These adults are less likely to be covered by dental insurance:

- Seniors (negative correlation with age).
- Adults in low-income households.

Have Insurance Coverage That Pays All or Part of Dental Care Costs

(Total Service Area, 2017)



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 21]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Dental Care

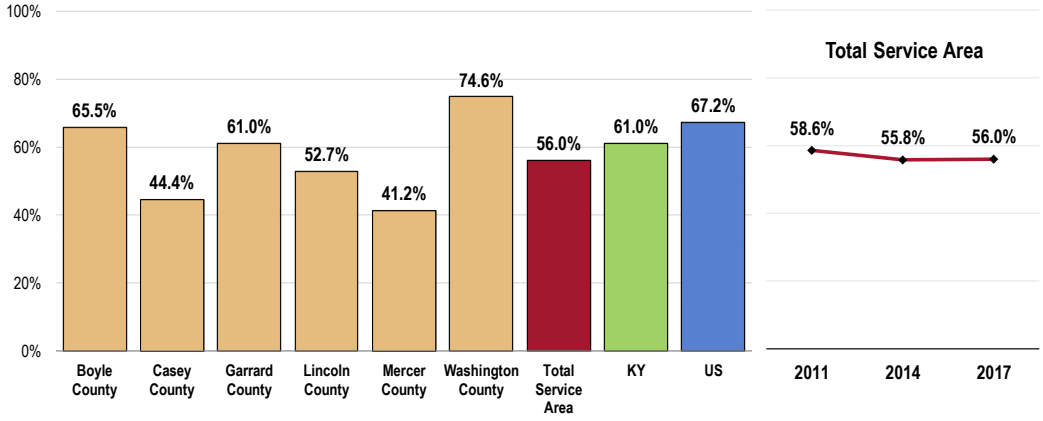
Adults

A total of 56.0% of Total Service Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- Less favorable than state and national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- Unfavorably low in Casey and Mercer counties.
- TREND: Statistically unchanged over time.

Have Visited a Dentist or Dental Clinic Within the Past Year

Healthy People 2020 Target = 49.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective OH-7]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 KY data.

Notes:
- Asked of all respondents.

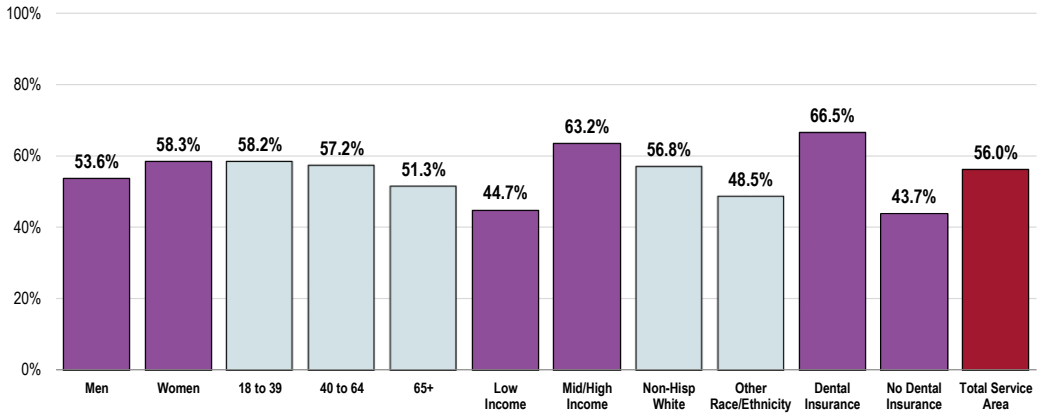
Note the following:

- Persons living in the higher income categories report much higher utilization of oral health services (low-income adults fail to satisfy the Healthy People 2020 target).
- As might be expected, persons without dental insurance report much lower utilization of oral health services than those with dental coverage.

Have Visited a Dentist or Dental Clinic Within the Past Year

(Total Service Area, 2017)

Healthy People 2020 Target = 49.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective OH-7]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Children

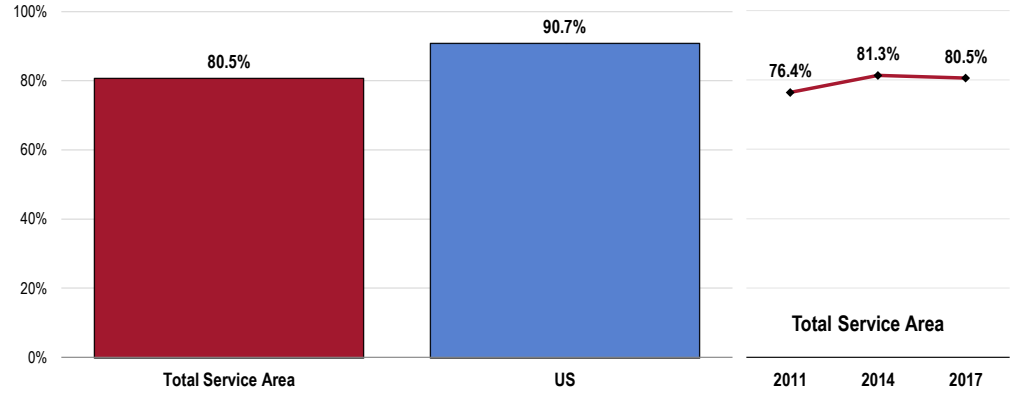
A total of 80.5% of parents report that their child (age 2 to 17) has been to a dentist or dental clinic within the past year.

- Lower than national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- TREND: Statistically unchanged over time.

Child Has Visited a Dentist or Dental Clinic Within the Past Year

(Among Parents of Children Age 2-17)

Healthy People 2020 Target = 49.0% or Higher



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 141]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective OH-7]

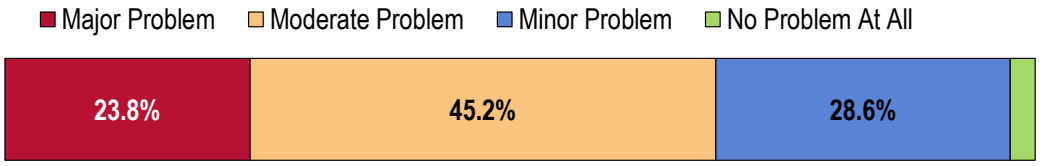
Notes:
- Asked of all respondents with children age 2 through 17.

Key Informant Input: Oral Health

Key informants taking part in an online survey more often characterized *Oral Health* as a "moderate problem" in the community.

Perceptions of Oral Health as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

Affordable Care/Services

Oral health is a major problem among adults, due to insurance coverage. – Public Health Representative

Dental work is costly, and in most uninsured residents, it is not a priority. The use of illegal drugs is a major factor to the dental issues in the area. – Community Leader

Prevention/Treatment

Most of our clients lack proper dental hygiene and are missing most of their adult teeth in their middle age. – Social Services Provider

Poor routine dental care and poor routine visits with oral hygiene professionals. – Physician

Prevalence/Incidence

Many people have bad or missing teeth. – Community Leader

Lack of Providers

No local dentist treats children with medical cards. – Public Health Representative

Behavioral Risks

Sugary drinks, tobacco use. – Community Leader

Vision Care

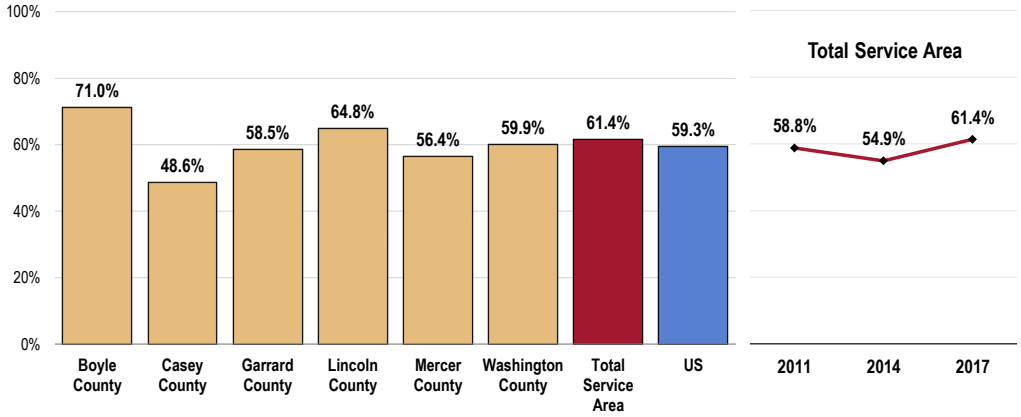
RELATED ISSUE:

See also Vision & Hearing in the **Death, Disease & Chronic Conditions** section of this report.

A total of 61.4% of Total Service Area residents had an eye exam in the past two years during which their pupils were dilated.

- Statistically comparable to national findings.
- Highest in Boyle County; lowest in Casey County.
- TREND: Statistically unchanged over time.

Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated

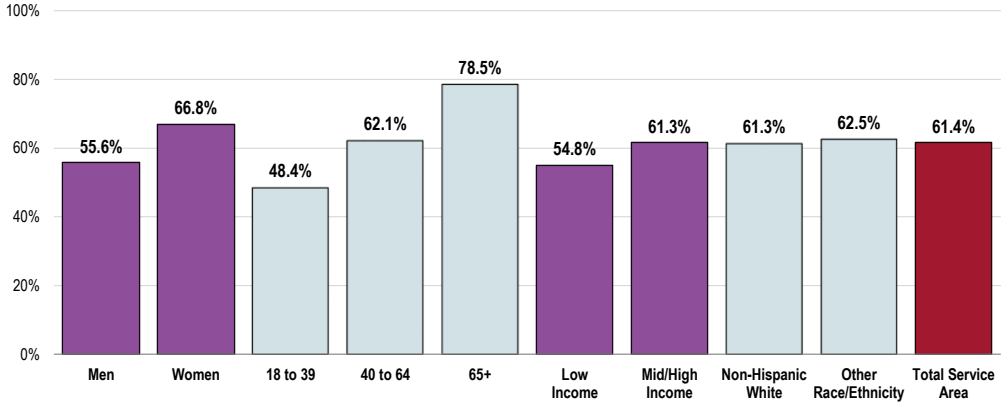


Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 19]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

- Recent vision care in the Total Service Area is more often reported among women; note also the positive correlation between age and recent eye exams.

Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated

(Total Service Area, 2017)



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 19]
Notes: ● Asked of all respondents.
● Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
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Local Resources

Professional Research Consultants, Inc.

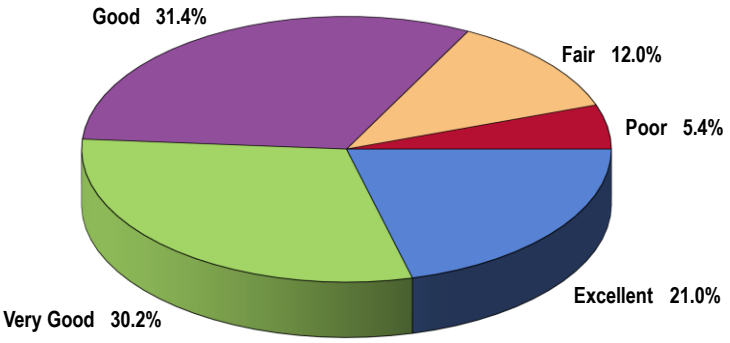
Perceptions of Local Healthcare Services

Just over half of Total Service Area adults (51.2%) rates the overall healthcare services available in their community as "excellent" or "very good."

- Another 31.4% gave "good" ratings.

Rating of Overall Healthcare Services Available in the Community

(Total Service Area, 2017)

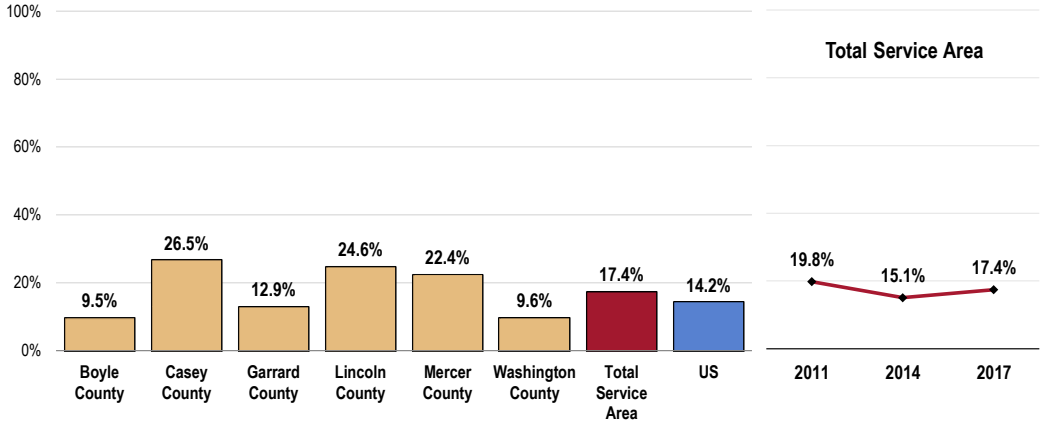


Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]
Notes: ● Asked of all respondents.

However, 17.4% of residents characterize local healthcare services as "fair" or "poor."

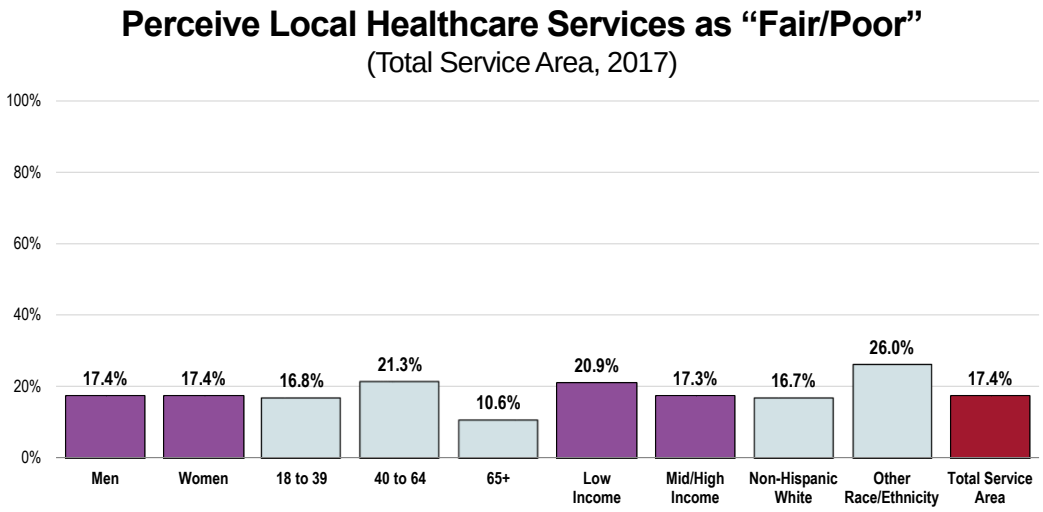
- Similar to that reported nationally.
- Unfavorably high in Casey and Lincoln counties.
- TREND: Statistically unchanged over time.

Perceive Local Healthcare Services as "Fair/Poor"



Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]
● 2015 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.

- Adults under age 65 are more critical of local healthcare services.



Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]

Notes:
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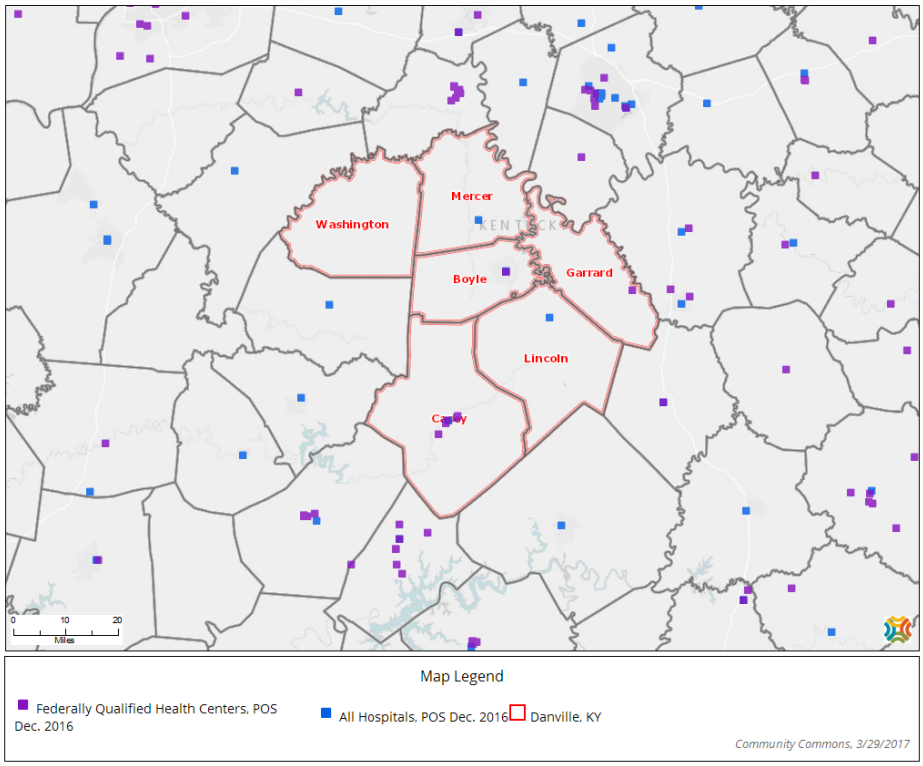
Healthcare Resources & Facilities

Hospitals & Federally Qualified Health Centers (FQHCs)

The following map details the hospitals and Federally Qualified Health Centers (FQHCs) within the Total Service Area as of late 2016.

Hospitals and Federally Qualified Health Centers, POS Dec. 2016

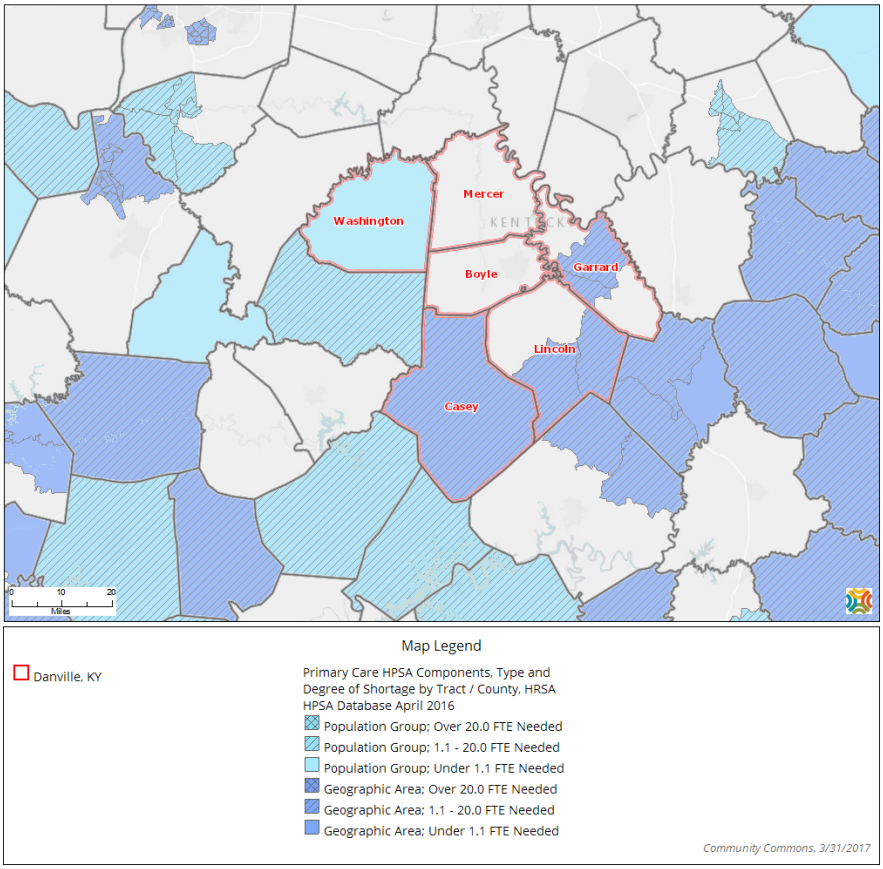


Health Professional Shortage Areas (HPSAs)

A "health professional shortage area" (HPSA) is defined as having a shortage of primary medical care, dental or mental health professionals.

The following map illustrates those areas within the Total Service Area that have been designated by the US Department of Health and Human Services as a health professional shortage area (HPSA).

Population Living in a HPSA, Percent, HRSA HPSA Database April 2016



Resources Available to Address the Significant Health Needs

The following represent potential measures and resources (such as programs, organizations, and facilities in the community) identified by key informants as available to address the significant health needs identified in this report. This list only reflects input from participants in the Online Key Informant Survey and should not be considered to be exhaustive nor an all-inclusive list of available resources.

Access to Healthcare Services

- *Ephraim McDowell Regional Medical Center*
- *Garrard EMT and Ambulance Service*
- *Garrard Health Department*
- *Lancaster Police Department*
- *State Human Resources Department*

Arthritis, Osteoporosis & Chronic Back Conditions

- *Doctor's Offices*
- *Elderly Transportation System*
- *Health First Chiropractic*
- *Lincoln County Health Department*
- *McDowell Wellness Center*
- *Ortho Spine Center*
- *Pharmacy*

Cancer

- *American Cancer Program*
- *Breast and Women's Health Center*
- *Cancer Center*
- *Commonwealth Cancer*
- *Danville Cancer Center*
- *Danville/Boyle County Health Department*
- *Diagnostic Equipment*
- *Doctor's Offices*
- *Ephraim McDowell Cancer Center*
- *Ephraim McDowell Regional Medical Center*
- *Garrard Extension Office*
- *Get Going Garrard Program*
- *Health Department*
- *Health Fairs*
- *Hospice*
- *Hospice of the Bluegrass*
- *Kentucky Cancer Colon Screening Program*
- *Kentucky Cancer Program*
- *Kentucky Women's Cancer Screening Program*
- *Lincoln County Breast and Cervical Cancer Coalition*
- *Preventative Screenings*
- *Relay for Life*
- *School System*
- *The Presbyterian Church*

Chronic Kidney Disease

- *Dialysis Center*
- *Doctor's Offices*
- *Ephraim McDowell Regional Medical Center*

Dementias, Including Alzheimer's Disease

- *Adult Day Care*
- *Alzheimer's Research*
- *Doctor's Offices*
- *Ephraim McDowell Health*
- *Ephraim McDowell Regional Medical Center*
- *Mental Health Services*
- *Morning Pointe*
- *Nursing Home*
- *Senior Citizens Center*

Diabetes

- *Adult Day Care*
- *Bluegrass Clinic Diabetes Education Program*
- *Children and Family Resources*
- *Dialysis Center*
- *Doctor's Offices*
- *Ephraim McDowell Regional Medical Center*
- *Fitness Centers/Gyms*
- *Health Department*

- *Health Fairs*
- *Hope Clinic*
- *James B. Haggin Memorial Hospital*
- *Lancaster Life Center*
- *Lincoln County Health Department*
- *McDowell Wellness Center*
- *Mercer County Health Department*
- *Parks and Recreation*
- *School System*
- *University of Kentucky Extension Office*
- *Weight Clinic*
- *Wellness Centers*

Family Planning

- *Church*
- *Danville/Boyle County Health Department*
- *Family Members*
- *Garrard Health Department*
- *Health Department*
- *School System*

Hearing & Vision

- *Adult Day Care*
- *Lincoln County Judge Executive Office*
- *Lincoln County Lion's Club*
- *School System*

Heart Disease & Stroke

- *Cardiovascular Institute*
- *Doctor's Offices*
- *Ephraim McDowell Regional Medical Center*
- *Fitness Centers/Gyms*
- *Health Department*
- *Health Fairs*
- *Hospital*
- *Lancaster Life Center*
- *Lincoln County Extension Office*
- *Lincoln County Health Department*
- *School System*
- *Stanford/Lincoln County Get Healthy Committee*
- *Wellness Centers*

HIV/AIDS

- *Ephraim McDowell Regional Medical Center*
- *Health Department*

Immunization & Infectious Diseases

- *Health Department*
- *Doctor's Offices*
- *Ephraim McDowell Fort Logan Hospital*
- *Ephraim McDowell Health*
- *Lincoln County Health Department*
- *Lincoln County School District*

Infant & Child Health

- *Ephraim McDowell Regional Medical Center*
- *Health Department*
- *Social Services Agencies*

Injury & Violence

- *Bluegrass.org*
- *Health Department*
- *Hospital*
- *Kentucky Agency for Substance Abuse Policy*

Mental Health

- *Bluegrass.org*
- *Bluegrass/Lincoln County*
- *Communicare*
- *EMT Response Units*
- *Ephraim Adult Inpatient Short Term Unit*
- *Ephraim McDowell Health*
- *Ephraim McDowell Regional Medical Center*
- *Mental Health Services*
- *Police Department*
- *School System*

Nutrition, Physical Activity & Weight

- *24 Hour Fitness*
- *Adult Day Care*
- *Anderson-Dean Park*
- *Bunny Davis Center*
- *Community Action*
- *Doctor's Offices*
- *Ephraim McDowell Regional Medical Center*
- *Fitness Centers/Gyms*
- *Fitness Edge*
- *Grocery Stores*
- *Health Department*
- *Hospital*
- *Lincoln County Extension Office*
- *Lincoln County Health Department*
- *Locally Grown Produce*
- *McDowell Fitness Center*
- *McDowell Wellness Center*

- *Parks and Recreation*
- *Planet Fitness*
- *School System*
- *Shaker Village*
- *Stanford/Lincoln County Get Healthy Committee*
- *University of Kentucky Extension Office*
- *Weight Watchers*
- *Wellness Centers*
- *YMCA*
- *Zumba*

Oral Health

- *Dentist's Offices*
- *Doctor's Offices*
- *Health Department*
- *Jessamine County Health Department*
- *Lincoln County Oral Health Coalition*
- *Mercer County Health Department*
- *University of Kentucky Dental Bus*

Respiratory Diseases

- *Bunny Davis Center*
- *Doctor's Offices*
- *Health Department*
- *Millennium Park*
- *Planet Fitness*
- *Respiratory Therapy*
- *School System*
- *Smoking Cessation Program*
- *Wellness Centers*

Sexually Transmitted Diseases

- *Department for Public Health*
- *Doctor's Offices*
- *Ephraim McDowell Fort Logan Hospital*
- *Lincoln County Health Department*
- *Urgent Care Center*

Substance Abuse

- *Alcoholics Anonymous/Narcotics Anonymous*
- *AAA*
- *After School Kids*
- *Bluegrass.org*
- *Bluegrass/Lincoln County*
- *Boyle County Detention Center Intensive Outpatient Program*
- *Casey County Drug Court*
- *Casey County Health Department*
- *Casey County Hospital*
- *Circle of Hope*
- *Doctor's Offices*
- *Ephraim McDowell Health*
- *Ephraim McDowell Regional Medical Center*
- *Health Department*
- *Hope Network*
- *Hope Over Heroin*
- *Isaiah House*
- *Kentucky Agency on Substance Abuse Policy*
- *Liberty Ranch Rehab Center*
- *Lincoln County Health Department*
- *Mental Health Services*
- *Mercer County Health Department*
- *Police Department*
- *Recovery Roadhouse*
- *School System*
- *SelfRefind*
- *Shepherd's House*
- *The Shepherd House*

Tobacco Use

- *Boyle County Health Department*
- *Cigarette Addiction Counseling*
- *Doctor's Offices*
- *Ephraim McDowell Health*
- *Ephraim McDowell Regional Medical Center*
- *Health Department*
- *Lincoln County Health Department*
- *Lincoln County Teens Against Tobacco Use*
- *Pharmacy*
- *Private Employers*
- *Quit Smoking Hypnosis*
- *School System*
- *Smoking Cessation Program*

Appendix

Professional Research Consultants, Inc.

Evaluation of Past Activities

As a result of the 2014 CHNA, several priority health issues were identified by EMH community services in collaboration with key stakeholders. Collaboration with community health departments, extension offices, and churches have allowed for a goal to be met regarding screening for modifiable lifestyle factors related to cardiovascular disease as well as education and referral as needed. There were a total of 16,120 screening tests completed in 2015-2016. These tests include but are not limited to total cholesterol/HDL ratio, blood sugar, stroke risk screening utilizing the American Stroke Risk Association Risk Score Card, heart risk screening utilizing the Heart Risk Score Card, blood pressure, and BMI. Of the 16,120 tests, 47% were out of range and those participants were referred for abnormal or at risk results. Lifestyle education and education regarding early heart attack care (EHAC), and signs and symptoms of a heart attack was provided or distributed by a Registered Nurse. Trends from the current CHNA show no significant change in trend line from 2014 survey to current related to percent of heart disease. As a result of a Healthy People: Health Communities Research Study, individuals' lab results were screened every six months for three years to determine individual stroke risk. Registered Nurse consultation was incorporated immediately after, to establish goals and lifestyle changes. As a result of the study, an improvement in high density lipoprotein was observed. Decreasing trend lines in total cholesterol, low density lipoprotein, triglycerides, and the red score on the stroke risk scorecard was documented.

Cancer was another priority chosen post review of the 2014 CHNA. The impact of actions taken since last reporting period shows no significant change in colorectal screening; however, the overall age adjusted death rate of cancer showed an improvement in trend line for the service area. As part of the annual screening process, 386 colorectal screening kits were distributed and all results were provided back to the participant and their primary care provider. Screening for skin damage was conducted at several locations and education regarding sunscreen usage to school age groups as well as adults was provided. In collaboration with the county Parks and Recreation department, 4H camps, athletic events, stock yards, lumber yards, and extension offices, 374 individuals were screened for sun damage and or skin cancer risk. A local primary care provider and the Commonwealth Cancer Center acted as partners for providing diagnosis, treatment, referral, and support groups. The trend line from the 2014 CHNA to current showed no significant change in rate of skin cancer.

Access to health services was a priority issue identified. EMH goal was to improve health care access for primary care and specialty care in the region by augmenting the services already available. Recruitment efforts in 2015-2016 revealed EMH assisted five private practices to secure providers to the community. Those provider specialties included OB/GYN, General Surgery, Orthopedics, Podiatry, and Family Practice. In addition to the private practices, thirteen providers were secured to the service area and included Neurology, Internal Medicine, Pulmonology, Family Practice, Intensivist, Cardiology and Urology.