Executive Report

2018 Community Health Needs Assessment

Alleghany, Bath, and Highland Counties, Virginia

Prepared for:
Bath Community Hospital

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2018-1189-02

Professional Research Consultants, Inc.

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Introduction

Project Overview

Project Goals

This Community Health Needs Assessment is a systematic approach to determining the health status, behaviors, and needs of residents in the service area of Bath Community Hospital. 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.

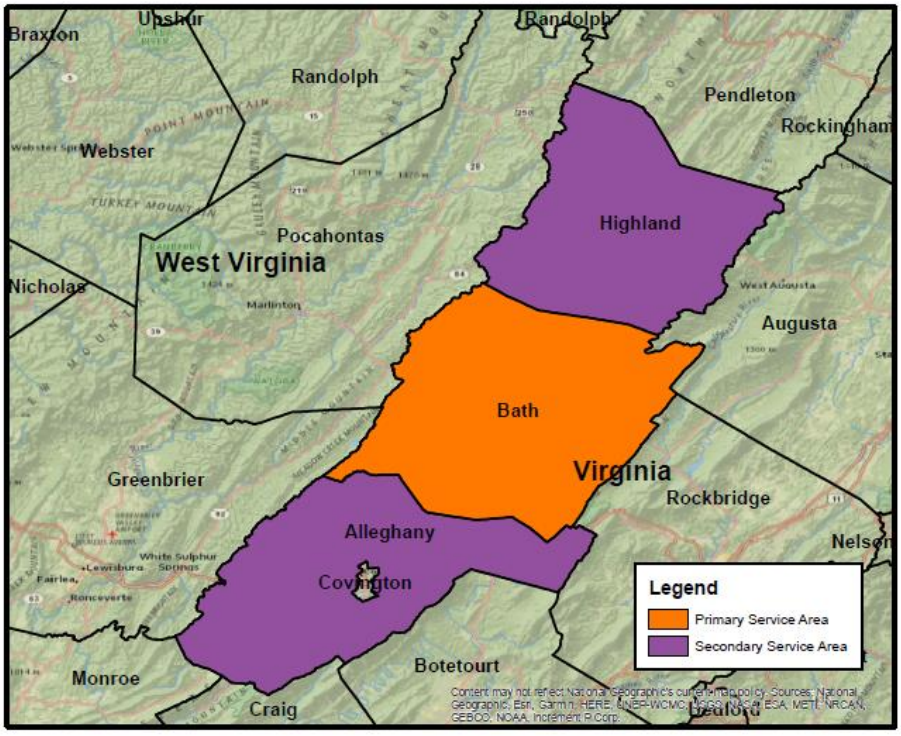
This assessment was conducted on behalf of Bath Community Hospital by Professional Research Consultants, Inc. (PRC). PRC is a nationally-recognized healthcare consulting firm with extensive experience conducting Community Health Needs Assessments in hundreds of communities across the United States since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

Methodology

This assessment incorporates data from both quantitative and qualitative sources. Quantitative data input includes secondary research (vital statistics and other existing health-related data) that allows for comparison to benchmark data at the state and national levels. Qualitative data input includes primary research gathered through the Online Key Informant Survey.

Community Defined for This Assessment

The study area for this effort (referred to as the “Total Service Area” in this report) includes three Virginia counties: Bath County (the hospital’s Primary Service Area) and the combined Alleghany and Highland counties (Secondary Service Area). This community definition, determined based on the areas of residence of most recent patients of Bath Community Hospital, is illustrated in the following map.



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 implemented as part of this process. A list of recommended participants was provided by Bath Community Hospital; this list included names and contact information for physicians, public health representatives, other health professionals, 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, 52 community stakeholders took part in the Online Key Informant Survey, as outlined in the following table:

Online Key Informant Survey Participation		
Key Informant Type	**Number Invited**	**Number Participating**
Physicians	3	2
Public Health Representatives	3	3
Other Health Providers	16	12
Social Services Providers	3	3
Nurse Practitioners	5	1
Other Community Leaders	75	31

Final participation included representatives of the organizations outlined below.

- Alleghany County Public Schools
- Alleghany County School Board
- Alleghany County Supervisor
- Alleghany Highlands Chamber of Commerce and Tourism
- Alleghany Highlands Community Services Board
- Alleghany/Covington DSS
- Alleghany/Covington Health Department
- Bath Community Hospital
- Bath Community Physicians Group
- Bath County Chamber of Commerce
- Bath County Health Department
- Board of Supervisors
- City of Covington
- Highland County Public Schools
- Highland Medical Center
- Rockbridge Area Community Services Board

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

Minority/medically underserved populations represented:

> *African-American, cancer patients, children, chronically ill, disabled children, elderly, Hispanics, low education level, low income, Medicare/Medicaid, mentally ill, patients requiring surgery, rural, Russian, unemployed/underemployed*

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 better be 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: The Online Key Informant Survey was designed to gather input regarding participants' opinions and perceptions of the health needs of the residents in the area. Thus, these findings are based on perceptions, not facts.

Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was also consulted to complement the research quality of this Community Health Needs Assessment. Data for the 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
- ESRI ArcGIS Map Gallery
- National Cancer Institute, State Cancer Profiles
- OpenStreetMap (OSM)
- 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

Note that data are not available for all counties for all measures (see footnotes for charts throughout this report).

Determining Significance

Differences noted in this report represent those determined to be significant. For the purpose of this report, “significance” of secondary data indicators (which do not carry sampling error but might be subject to reporting error) 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.

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 a great number of 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 (2017)	See Report Page(s)
Part V Section B Line 3a *A definition of the community served by the hospital facility*	6
Part V Section B Line 3b *Demographics of the community*	23
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*	110
Part V Section B Line 3d *How data was obtained*	6
Part V Section B Line 3e *The significant health needs of the community*	12
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*	12
Part V Section B Line 3h *The process for consulting with persons representing the community's interests*	7
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)*	Pending 114

Summary of Findings

Identified 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; 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 Health Services	• Lack of Health Insurance • Primary Care Physician Ratio
Cancer	• Cancer Incidence ○ Including Lung and Colorectal Cancers
Diabetes	• Diabetes ranked as a top concern in the Online Key Informant Survey.
Heart Disease & Stroke	• Heart Disease Deaths • Stroke Deaths • Prevalence of High Blood Pressure
Infant Health & Family Planning	• Teen Births
Injury & Violence	• Unintentional Injury Deaths
Nutrition, Physical Activity, & Weight	• Obesity [Adults] • Leisure-Time Physical Activity • Nutrition, Physical Activity, & Weight ranked as a top concern in the Online Key Informant Survey.
Respiratory Diseases	• Chronic Lower Respiratory Disease (CLRD) Deaths
Substance Abuse	• Substance Abuse ranked as a top concern in the Online Key Informant Survey.
Tobacco Use	• Cigarette Smoking Prevalence

Community Feedback on Prioritization of Health Needs

On November 16, 2018, community stakeholders (representing a cross-section of community-based agencies and organizations) were invited to attend a webinar outlining the significant health issues (see Areas of Opportunity above) identified through this Community Health Needs Assessment (CHNA). Professional Research Consultants, Inc. (PRC) conducted the presentation and responded to any questions.

Following the webinar, attendees were emailed a link to participate in an online prioritization survey. Key informants who were unable to attend the webinar were also invited to participate after viewing a recording of the data presentation. In order to assign priority to the identified health needs (i.e., Areas of Opportunity), participants in the online survey 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?

  Ratings were entered on a scale of 1 (not very prevalent at all, with only minimal health consequences) to 10 (extremely prevalent, with very serious health consequences).

- **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. Ratings were entered on a scale of 1 (no ability to impact) to 10 (great ability to impact).

Individuals' ratings for each criteria were averaged for each tested health issue, and then these composite criteria scores were averaged to produce an overall score. This process yielded the following prioritized list of community health needs:

1. **Substance Abuse**
2. **Access to Healthcare Services**
3. **Nutrition, Physical Activity & Weight**
4. **Heart Disease & Stroke**
5. **Cancer**
6. **Diabetes**
7. **Tobacco Use**
8. **Respiratory Diseases**
9. **Infant Health & Family Planning**
10. **Injury & Violence**

Hospital Implementation Strategy

Bath Community Hospital will use the information from this Community Health Needs Assessment to develop an Implementation Strategy to address the significant health needs in the community. While the hospital will likely not implement strategies for all of the health issues listed above, the results of this prioritization exercise will be used to inform the development of the hospital's action plan to guide community health improvement efforts in the coming years.

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.

Secondary Data Tables: Comparisons With Benchmark Data

The following tables provide an overview of secondary data indicators in the Total Service Area. These data are grouped to correspond with the Topic Areas presented in Healthy People 2020 and the areas addressed in the Online Key Informant Survey.

Reading the Summary Tables

In the following charts, Total Service Area results are shown in the larger, blue column.

The green columns [to the left of the Total Service Area column] provide comparisons between the Primary and Secondary service areas, identifying differences for each as "better than" (), "worse than" (), or "similar to" () the opposing area.

The columns to the right of the Total Service Area column provide comparisons between local data and any available state and national findings, and Healthy People 2020 targets. Symbols indicate whether Total Service Area compares favorably (), unfavorably (), or comparably () to these external data.

Blank table cells signify that data are not available or are not reliable for that area and/or for that indicator. Note also that, for some indicators where county-level data are missing, the Total Service Area value might represent data from only one or two of the counties represented.

Social Determinants	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Linguistically Isolated Population (Percent)	0.0	0.2	0.1	2.8	4.5	
Population in Poverty (Percent)	8.4	17.6	15.7	11.4	15.1	
Population Below 200% FPL (Percent)	33.4	36.0	35.5	26.6	33.6	
Children Below 200% FPL (Percent)	45.1	44.1	44.3	33.7	43.3	
No High School Diploma (Age 25+, Percent)	12.7	15.6	15.0	11.4	13.0	
Unemployment Rate (Age 16+, Percent)	3.5	4.4	4.2	3.3	4.1	
	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

Overall Health	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Fair/Poor Overall Health (Percent)		16.1	16.1*	13.5	15.7	
	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.		*TSA data are incomplete.	better	similar	worse

Access to Health Services	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Uninsured (% Adults 18-64)	12.1	12.5	12.4	11.8	12.1	
Uninsured (% Children 0-17)	6.3	5.3	5.5	4.9	4.7	
Primary Care Doctors per 100,000	43.8	55.3	53.0	86.0	87.8	
	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

Cancer	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Cancer (Age-Adjusted Death Rate)	154.4	143.1	145.4	160.7	160.9	160.6
Mammogram in the Past 2 Years (Women 67-69, Percent)	70.8	56.6	61.7	64.0	63.1	
Prostate Cancer Incidence per 100,000		73.6	73.6*	107.6	114.8	
Female Breast Cancer Incidence per 100,000	132.4	126.5	128.1	126.9	123.5	
Lung Cancer Incidence per 100,000	56.5	66.2	63.8	60.4	61.2	
Colorectal Cancer Incidence per 100,000	45.7	45.5	45.6	36.7	39.8	
	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.		*TSA data are incomplete.	better	similar	worse

Diabetes	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Prevalence of Diabetes (Percent)	8.1	8.2	8.2	8.9	9.2	
				better	similar	worse

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.

Family Planning	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Teen Births per 1,000 (Age 15-19)		44.6	32.5*	29.5	36.6	
			*TSA data are incomplete.	better	similar	worse

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.

Heart Disease & Stroke	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Diseases of the Heart (Age-Adjusted Death Rate)	246.6	206.0	215.1	155.3	168.2	156.9
Stroke (Age-Adjusted Death Rate)		39.7	39.7*	38.5	36.9	33.8
Told Have High Cholesterol (Percent)		33.9	33.9*	37.5	38.5	
Told Have High Blood Pressure (Percent)		39.2	39.2*	27.7	28.2	
			*TSA data are incomplete.	better	similar	worse

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.

HIV	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
HIV Prevalence per 100,000	121.5	92.8	99.3	314.5	353.2	

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

Injury & Violence Prevention	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Unintentional Injury (Age-Adjusted Death Rate)		64.6	64.6*	37.7	41.9	36.0
Violent Crime per 100,000	28.7	111.7	95.0	195.9	379.7	

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.

*TSA data are incomplete.

better | similar | worse

Maternal, Infant & Child Health	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Low Birthweight Births (Percent)		8.5	6.9*	8.3	8.2	7.8
Infant Death Rate		5.5	4.7*	7.1	6.5	6.0

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.

*TSA data are incomplete.

better | similar | worse

Nutrition, Physical Activity & Weight	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	vs. US	vs. HP2020
Population With Low Food Access (Percent)	22.2	15.6	16.9	20.4	22.4	
Prevalence of Obesity (BMI 30+)	28.9	32.7	31.9	27.0	27.5	30.5
No Leisure-Time Physical Activity (Percent)	24.3	24.0	24.0	21.0	21.8	32.6
	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

Oral Health	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	vs. US	vs. HP2020
Dental Visit in Past Year (Percent)	100.0	85.2	88.3	75.6	69.8	49.0
	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	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	vs. US	vs. HP2020
CLRD (Age-Adjusted Death Rate)	50.2	57.6	55.9	36.2	41.3	
Asthma Prevalence (Percent)		4.6	4.6*	13.2	13.4	
	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.		*TSA data are incomplete .	better	similar	worse

Sexually Transmitted Diseases	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Gonorrhea Incidence per 100,000	65.0	5.4	17.4	99.9	110.7	
Chlamydia Incidence per 100,000	216.6	266.7	256.6	435.8	456.1	
				better	similar	worse

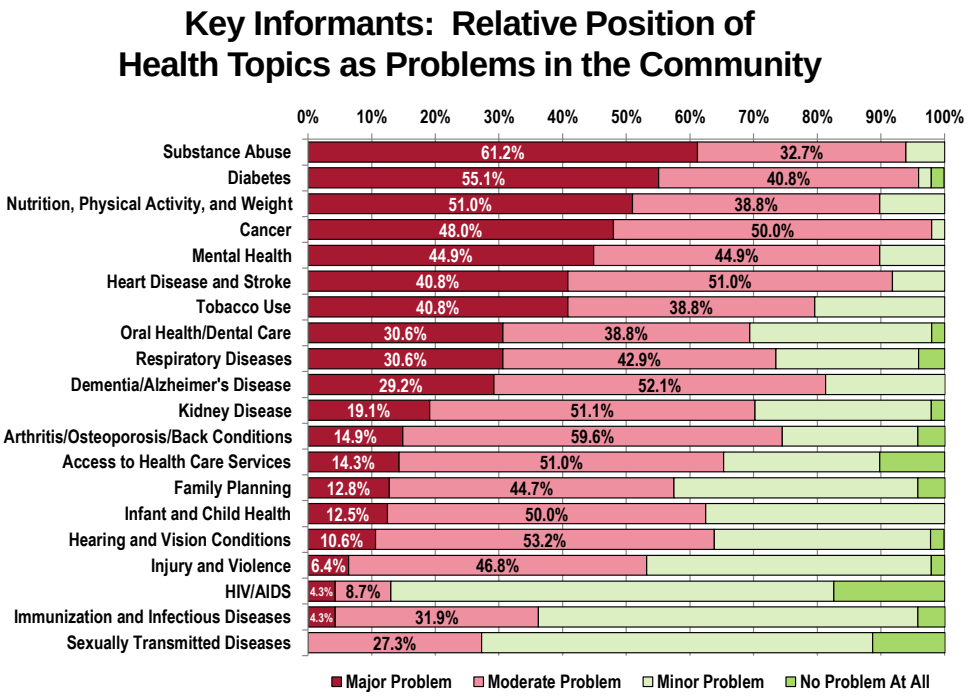
Note: In the green section, each subarea is compared against all other areas combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

Tobacco Use	Disparity by Service Area: Primary Service Area	Disparity by Service Area: Secondary Service Area	Total Service Area	Total Service Area vs. Benchmarks: vs. VA	Total Service Area vs. Benchmarks: vs. US	Total Service Area vs. Benchmarks: vs. HP2020
Current Smoker (Percent)		30.2	30.2*	17.6	18.1	12.0
			*TSA data are incomplete.	better	similar	worse

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.

Key Informant Rankings

Through the Online Key Informant Survey, community stakeholders were presented with 20 health topics and asked to rate each as a “major problem,” a “moderate problem,” a “minor problem,” or “not a problem at all” in their own community. In reviewing “major problem” responses, the following were ranked as top concerns for the Total Service Area: substance abuse, diabetes, and nutrition/physical activity/weight.



Community Description

Professional Research Consultants, Inc.

Population Characteristics

Total Population

The three-county service area of Bath Community Hospital, the focus of this Community Health Needs Assessment, encompasses 1,389.78 square miles and houses a total population of 22,707 residents, according to latest census estimates.

Total Population
(Estimated Population, 2012-2016)

	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Primary Service Area	4,558	529.16	8.61
Secondary Service Area	18,149	860.62	21.09
Total Service Area	22,707	1,389.78	16.34
Virginia	8,310,301	39,481.77	210.48
United States	318,558,162	3,532,068.58	90.19

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Population Change 2000-2010

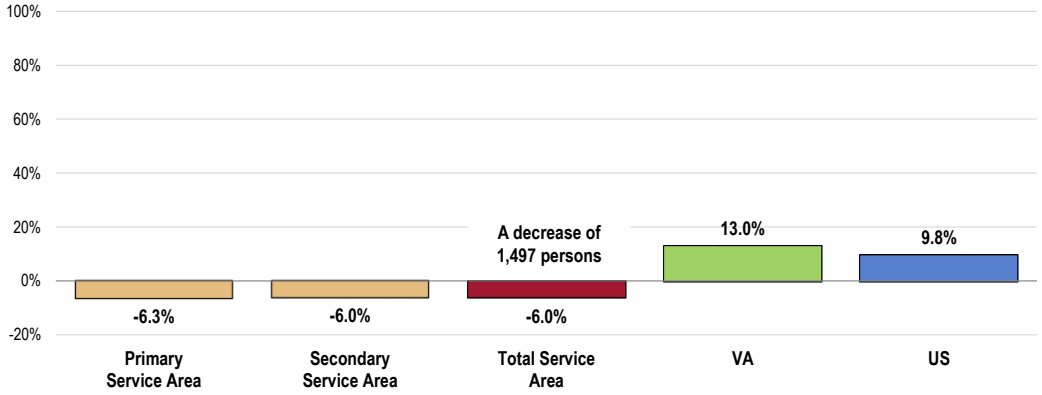
A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

Between the 2000 and 2010 US Censuses, the population of the Total Service Area decreased by 1,497 persons, or 6.0%.

- In contrast, both the Virginia and US populations increased during this time.
- Similar decreases in population between the Primary and Secondary Service Area.

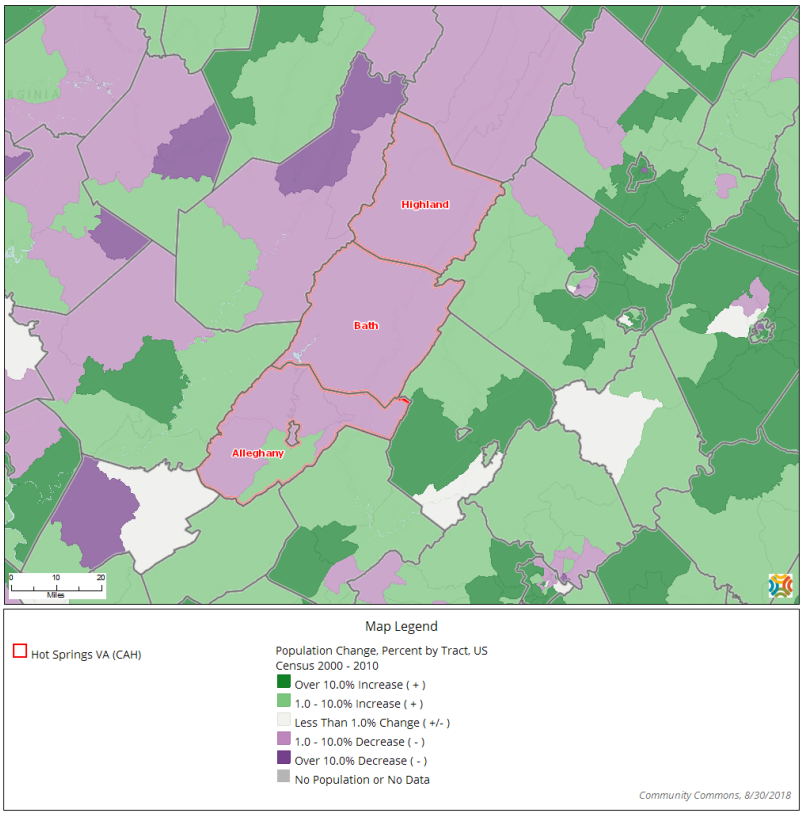
Change in Total Population

(Percentage Change Between 2000 and 2010)



Sources:
- Retrieved August 2018 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.



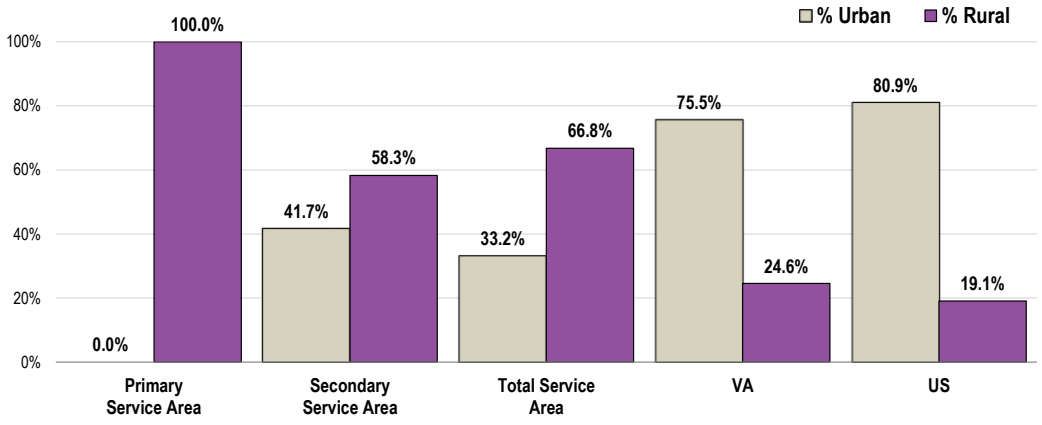
Urban/Rural Population

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 66.8% of the population living in communities designated as rural.

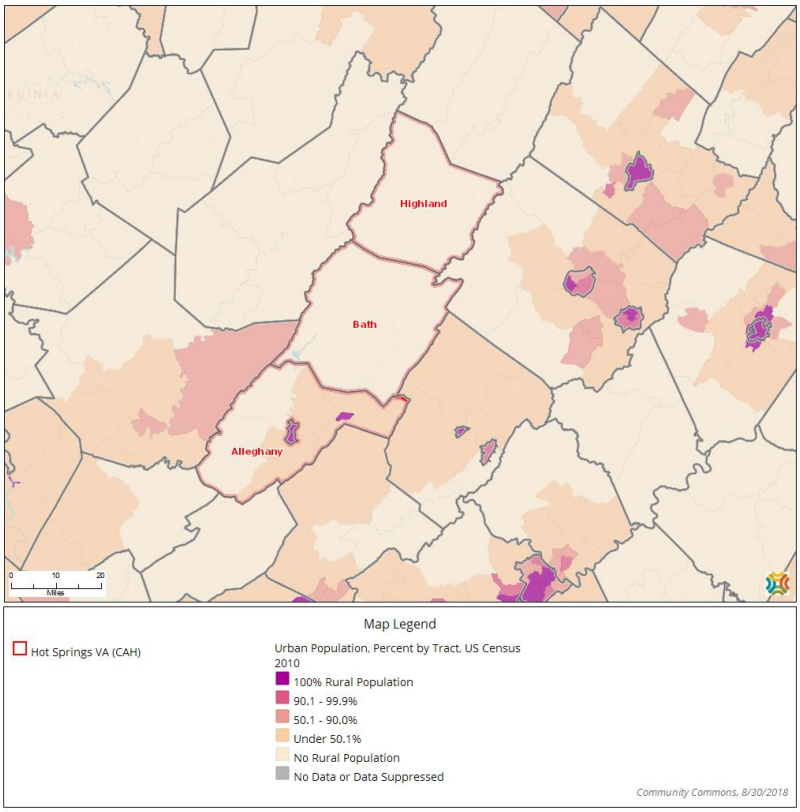
- In contrast, approximately 75% of the state population and 80% of the national population live in urban areas.
- Viewed by service area, the entire Primary Service Area (Bath County) is considered to be rural, compared with 58.3% of the Secondary Service Area.

Urban and Rural Population
(2010)



Sources:
- US Census Bureau Decennial Census.
- Retrieved August 2018 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.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Hot Springs VA (CAH)
Urban Population, Percent by Tract, US Census 2010
100% Rural Population
90.1 - 99.9%
50.1 - 90.0%
Under 50.1%
No Rural Population
No Data or Data Suppressed
Community Commons, 8/30/2018

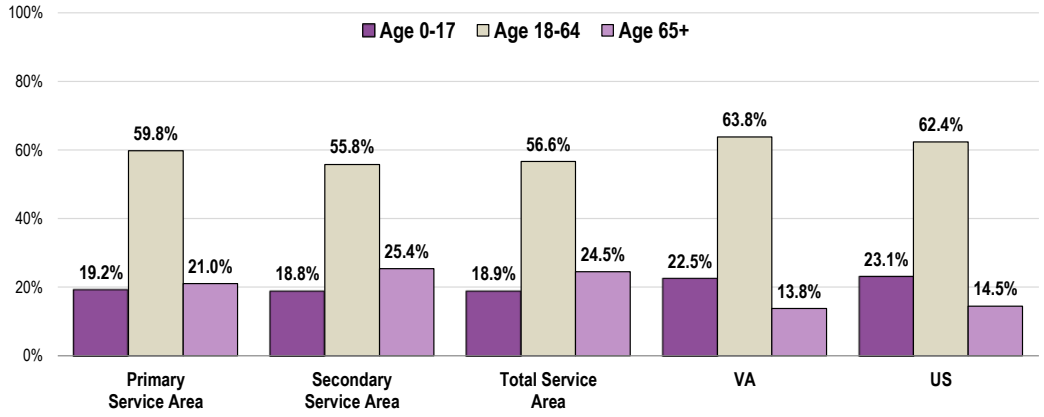
Age

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

In the Total Service Area, 18.9% of the population are infants, children, or adolescents (age 0-17); another 56.6% are age 18 to 64, while 24.5% are age 65 and older.

- The percentage of older adults (65+) is considerably higher than found statewide or nationally.
- Viewed by service area, residents in the Primary Service Area are more likely to be under age 65 than are those in the Secondary Service Area.

Total Population by Age Groups, Percent
(2012-2016)

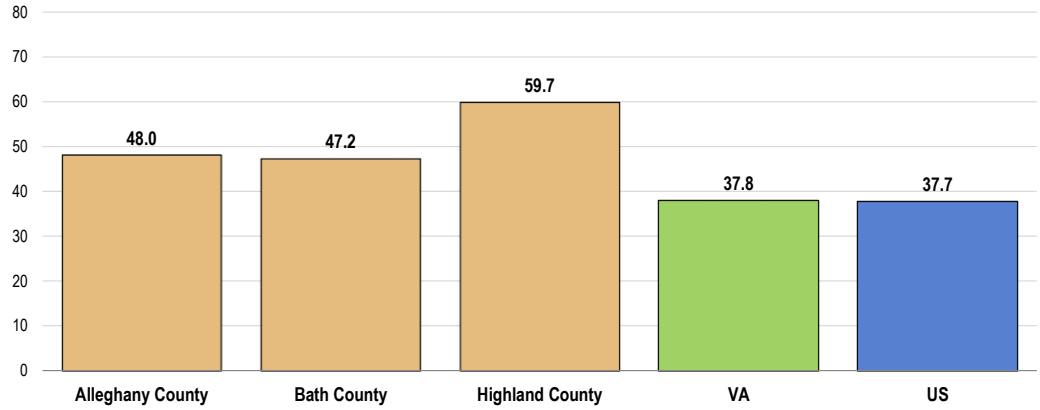


Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Median Age

The Total Service Area is "older" than the state and the nation in that the median ages for all three counties are higher (especially Highland County).

Median Age
(2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

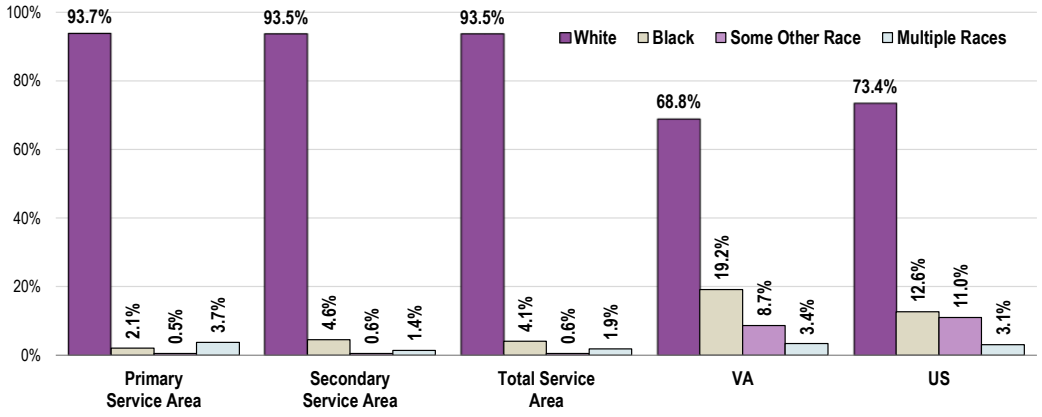
Race & Ethnicity

Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 93.5% of residents of the Total Service Area are White, and 4.1% are Black.

- The populations across the state and nation are considerably more diverse.

Total Population by Race Alone, Percent
(2012-2016)



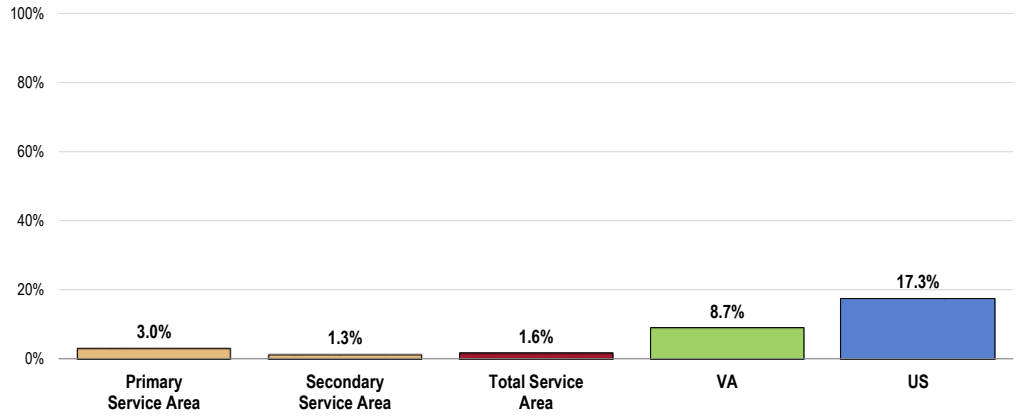
Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Ethnicity

A total of 1.6% of service area residents are Hispanic or Latino.

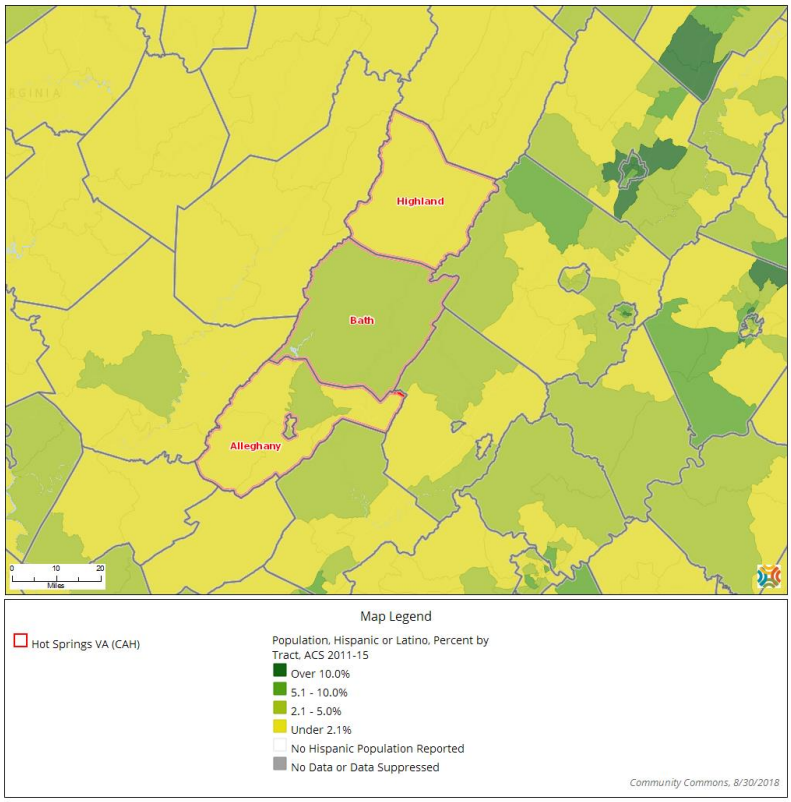
- Well below the state and especially the national percentage.
- Higher in the Primary Service Area than the Secondary Service Area.

Hispanic Population
(2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 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.

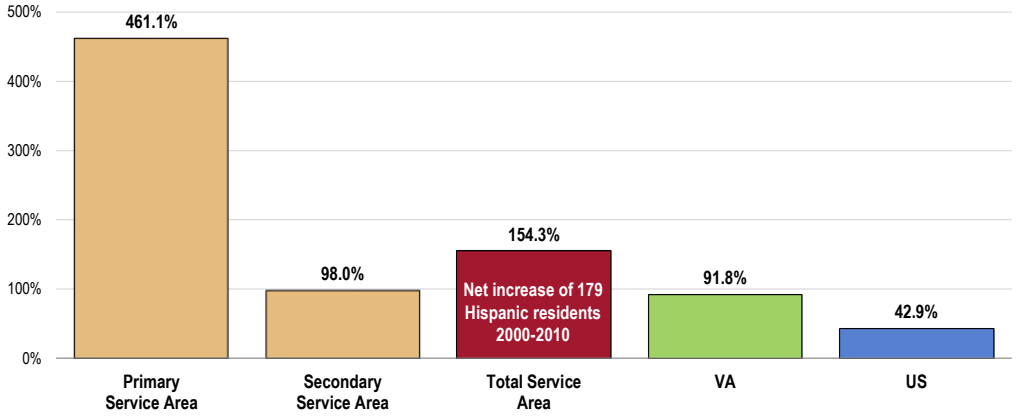


Between 2000 and 2010, the Hispanic population increased by 179 residents, or 154.3%.

- Considerably higher (in terms of percentage growth) than found statewide and especially nationally.
- The percentage growth was over four times as high in the Primary Service Area as it was in the Secondary Service Area.

Hispanic Population Change

(Percentage Change in Hispanic Population Between 2000 and 2010)



Sources:
- US Census Bureau Decennial Census (2000-2010).
- Retrieved August 2018 from Community Commons at http://www.chna.org.

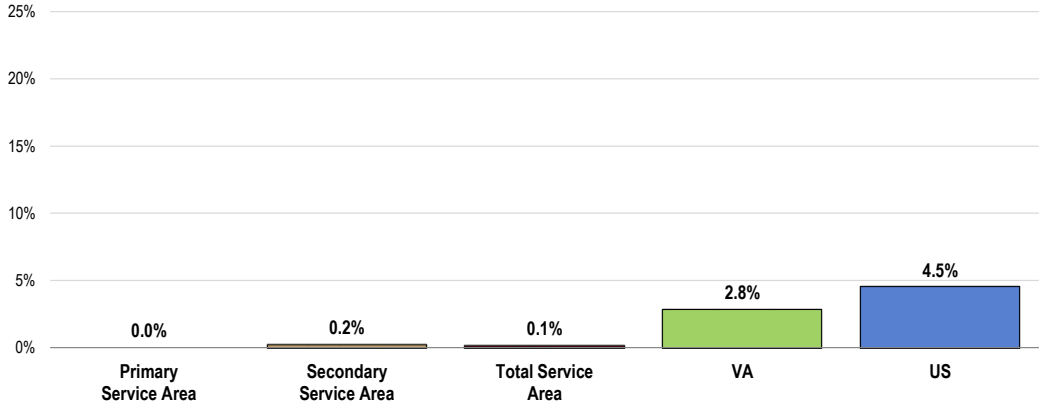
Linguistic Isolation

Nearly none (0.1%) of the Total Service Area population age 5 and older live in a home in which no persons age 14 or older is proficient in English (speaking only English, or speaking English "very well").

- Well below the state and US percentages.
- The only reported linguistic isolation was in the Secondary Service Area.

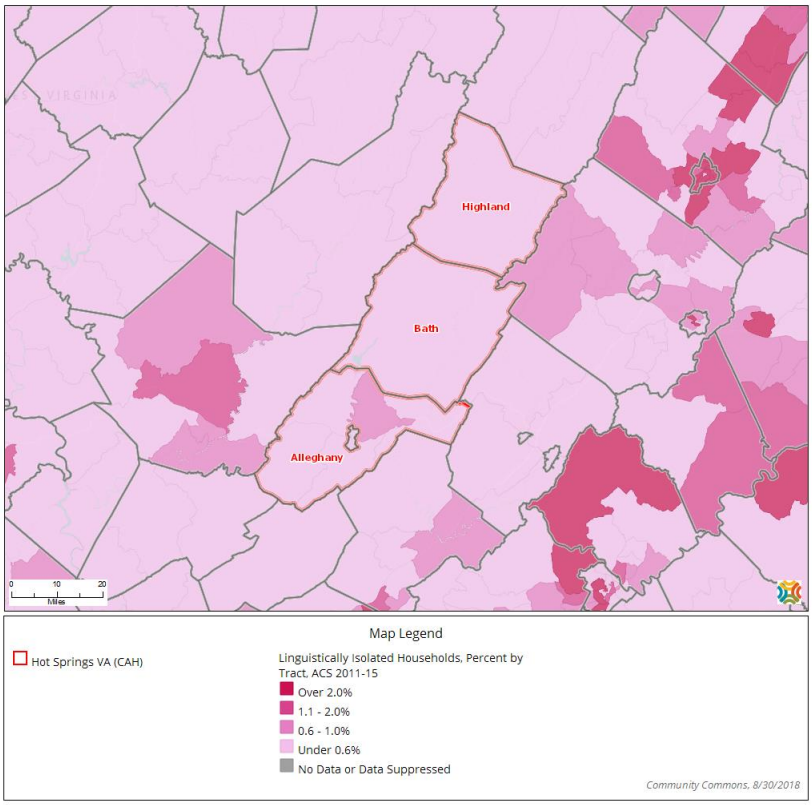
Linguistically Isolated Population

(2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 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."


Highland
Bath
Alleghany
0
10
20
Miles
Map Legend
Hot Springs VA (CAH)
Linguistically Isolated Households, Percent by Tract, ACS 2011-15
Over 2.0%
1.1 - 2.0%
0.6 - 1.0%
Under 0.6%
No Data or Data Suppressed
Community Commons, 8/30/2018

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

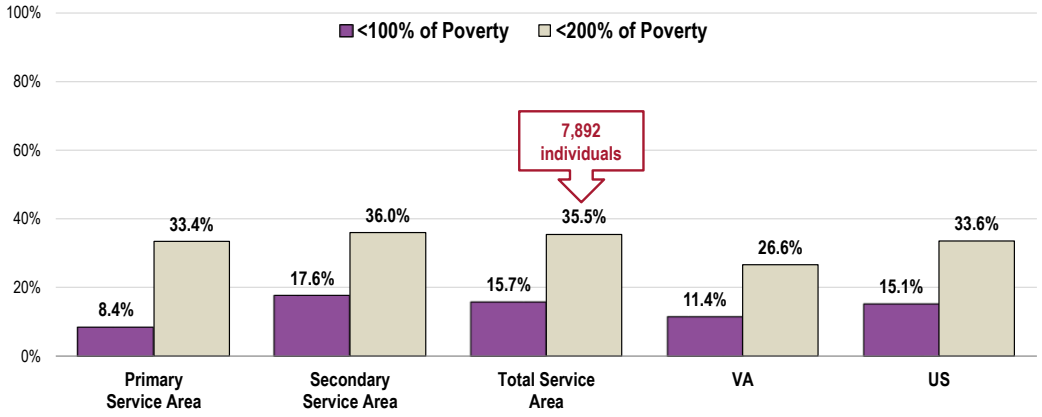
The latest census estimate shows 15.7% of the Total Service Area population living below the federal poverty level.

In all, 35.5% of service area residents (nearly 7,900 individuals) live below 200% of the federal poverty level.

- Particularly high in the Secondary Service Area.

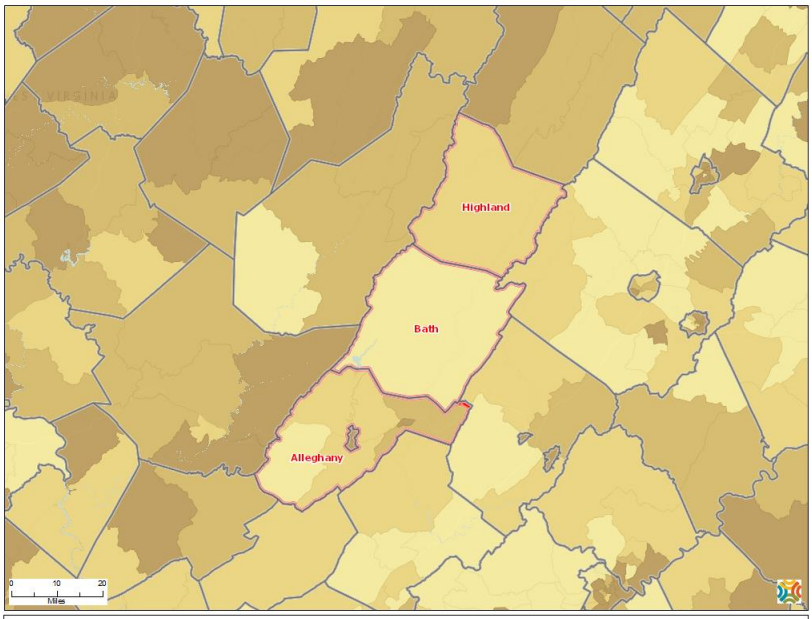
Population in Poverty

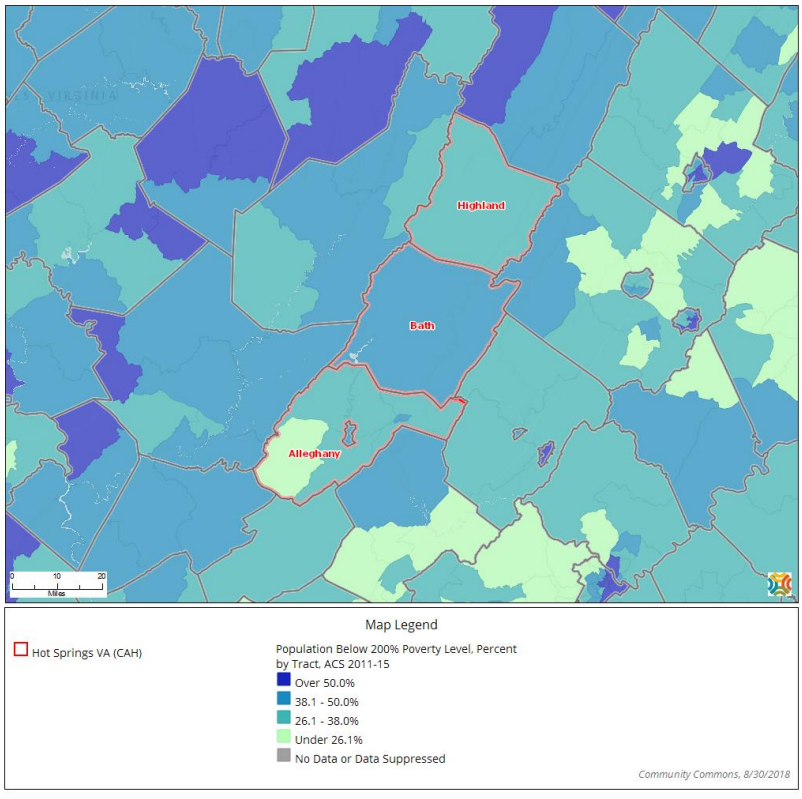
(Populations Living Below 100% and Below 200% of the Poverty Level; 2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 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.


Highland
Bath
Alleghany
0 10 20
Miles
Map Legend
Hot Springs VA (CAH)
Population Below the Poverty Level, Percent by Tract, ACS 2011-15
Over 20.0%
15.1 - 20.0%
10.1 - 15.0%
Under 10.1%
No Data or Data Suppressed
Community Commons, 8/30/2018


Highland
Bath
Alleghany
0 10 20
Miles
Map Legend
Hot Springs VA (CAH)
Population Below 200% Poverty Level, Percent by Tract, ACS 2011-15
Over 50.0%
38.1 - 50.0%
26.1 - 38.0%
Under 26.1%
No Data or Data Suppressed
Community Commons, 8/30/2018

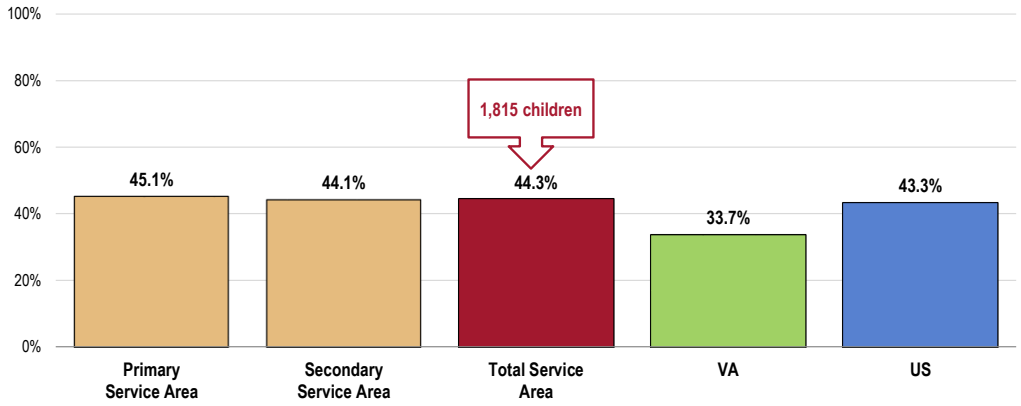
Children in Low-Income Households

Additionally, 44.3% of Total Service Area children age 0-17 (representing an estimated 1,815 children) live below the 200% poverty threshold.

- Worse than the proportion found statewide.
- Similar to the US proportion.
- Similar findings by service area.

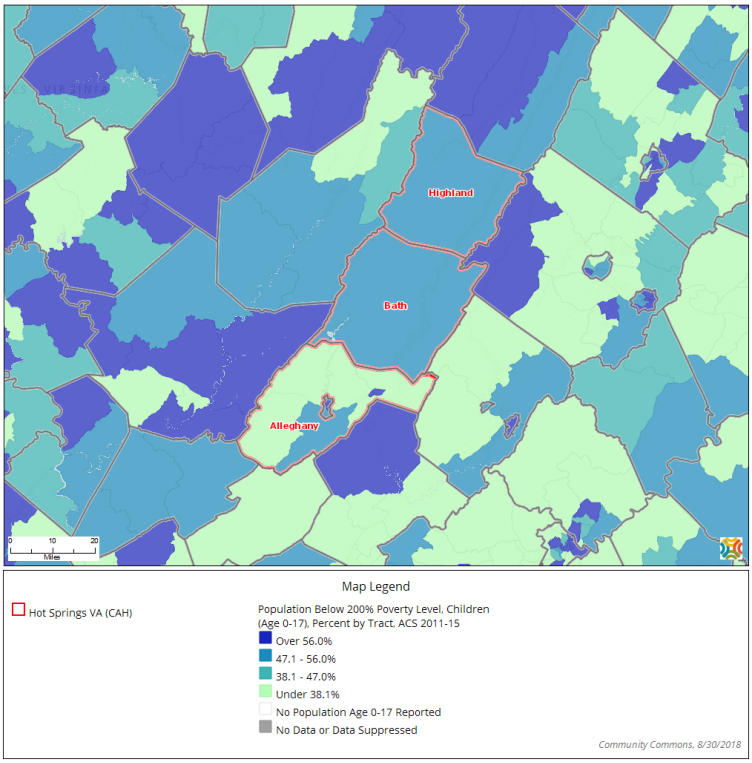
Percent of Children in Low-Income Households

(Children 0-17 Living Below 200% of the Poverty Level, 2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 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.



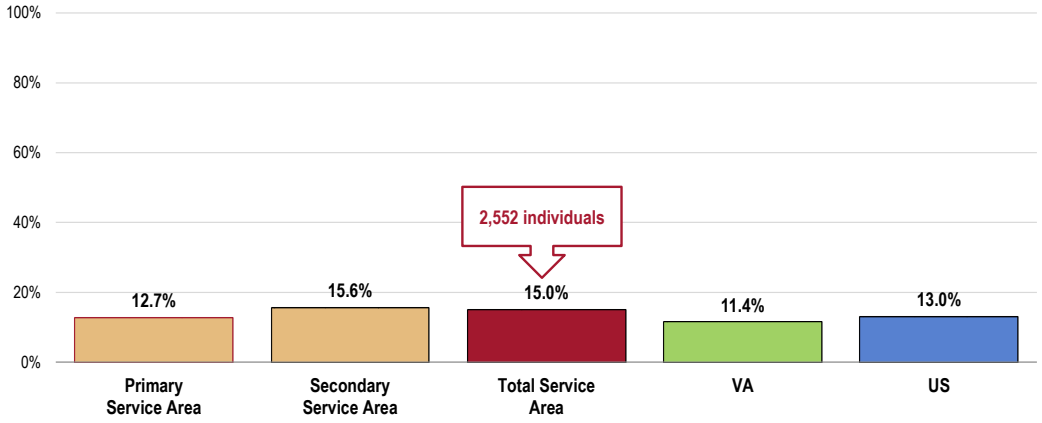
Education

Among the Total Service Area population age 25 and older, an estimated 15.0% (over 2,500 individuals) do not have a high school diploma.

- Higher than the Virginia and US percentages.
- Higher in the Secondary Service Area than in the Primary Service Area.

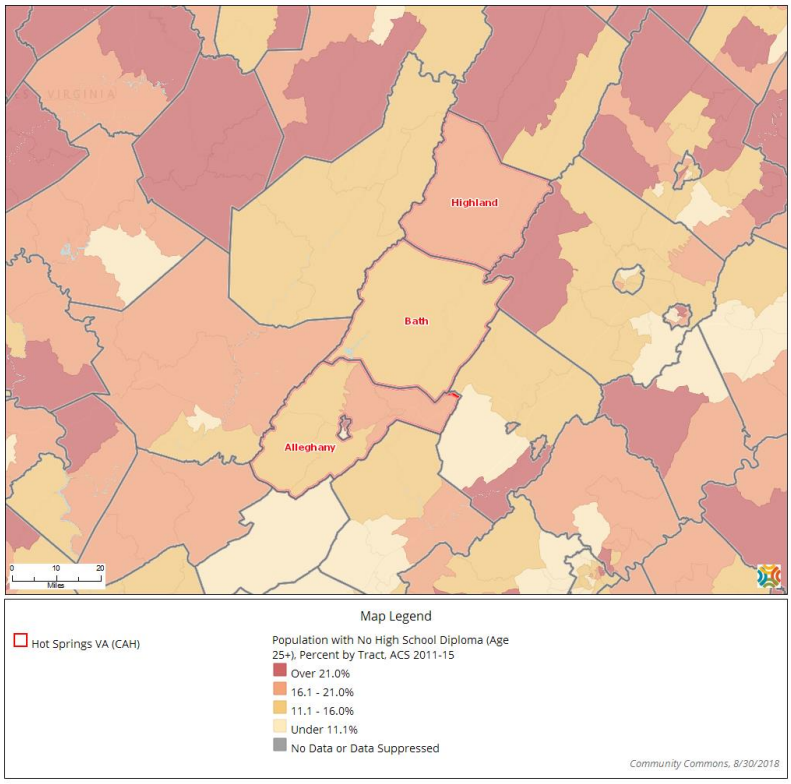
Population With No High School Diploma

(Population Age 25+ Without a High School Diploma or Equivalent, 2012-2016)



Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

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



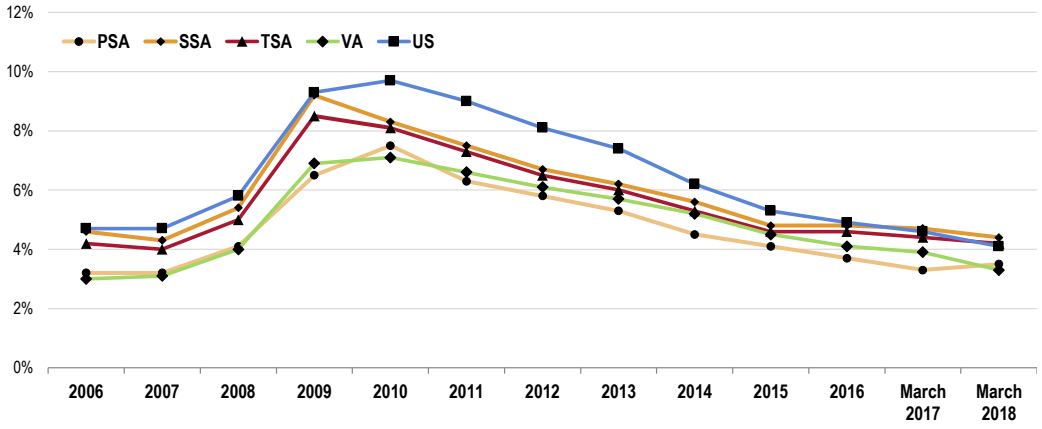
Employment

According to data derived from the US Department of Labor, the unemployment rate in the Total Service Area in March 2018 was 4.2%.

- Worse than the statewide unemployment rate.
- Similar to the national unemployment rate.
- Higher in the Secondary Service Area.

Unemployment Rate

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



Sources:
- US Department of Labor, Bureau of Labor Statistics.
- Retrieved August 2018 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.

General Health Status

Professional Research Consultants, Inc.

Overall Health Status

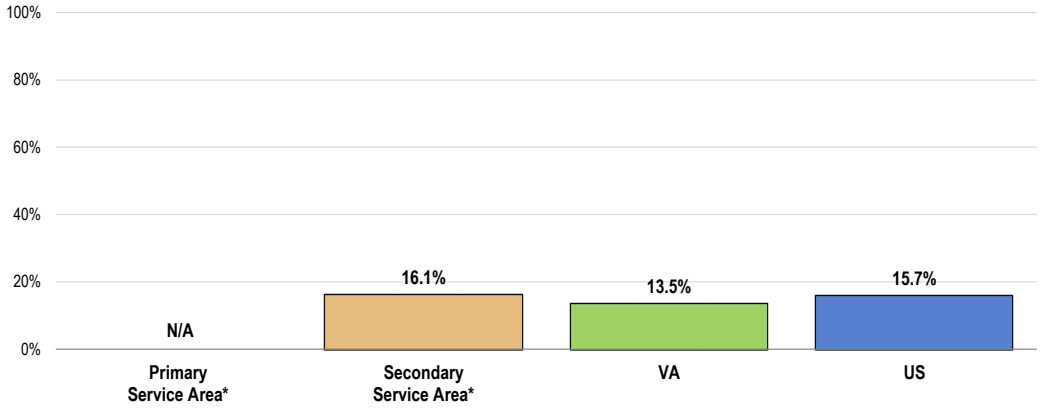
Self-Reported Health Status

A total of 16.1% of adults rate their overall health as "fair" or "poor."

- Higher than statewide findings.
- Comparable to the national percentage.
- *Note that Bath and Highland County data are unavailable*.

Adults With Fair or Poor Health (Age-Adjusted)

(2006-2012)



Sources:
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because it is a measure of general poor health status.
- *Bath and Highland County data are unavailable.

Mental Health

RELATED ISSUE:

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

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.

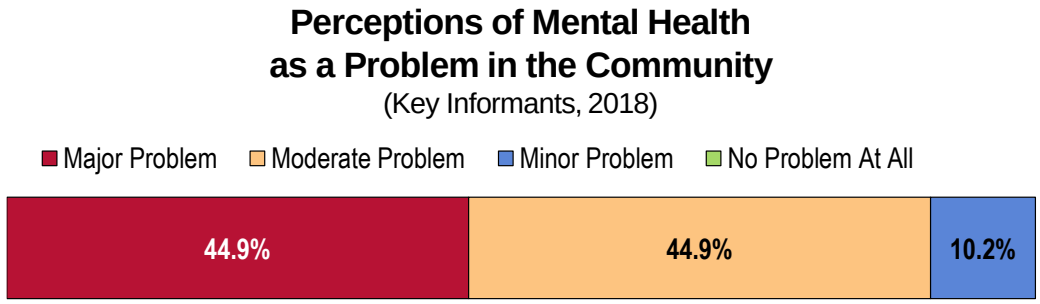
The existing model for understanding mental health and mental disorders emphasizes the interaction of social, environmental, and genetic factors throughout the lifespan. In behavioral health, researchers identify: **risk factors**, which predispose individuals to mental illness; and **protective factors**, 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, and 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)

Key Informant Input: Mental Health

Key informants taking part in an online survey equally characterized *Mental Health* as a "major problem" and a "moderate problem" in the community.



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

Access to psychiatrists and compliance with treatment. – Nurse Practitioner

Very few sources are available. – Community Leader

The lack of private counseling services is a major issue. A private clinic setting with a team of psychiatrists and counselors would be very beneficial to our area. It seems that anyone with a mental health issue has to go through Community Services Board. We need better education regarding mental health services that are actually offered in our area and the stigma needs to be lifted. We also have a difficult time hiring and retaining mental health counselors in our local school systems. Our youth and their parents desperately need these services. – Community Leader

Lack of access to skilled counseling. – Community Leader

Available therapists, programs in schools, and awareness programs within the community. I was glad to hear that BCH hired a counselor, but we need more and better programs for our youths and community to educated them on mental health. – Community Leader

Access to Psychiatrists. Culturally this topic is still very much considered embarrassing or a personal weakness. – Community Leader

Lack of adequate resources. In Highland, we have one local mental health counselor on an outpatient basis. Highland is served by Valley Community Services Board, who will send one counselor to Highland one day a week. We have no emergency services for mental health in Highland, meaning that someone in crisis has to go to Augusta Health, over an hour away for help. – Social Services Provider

Psychiatry support. Bath Physicians group has a substance abuse counselor (certified) however medical management is an issue. Although Bath Hospital is developing a telehealth option, not sure how this will benefit the patients that need this type of service – Other Health Provider

We need more physicians and facilities to help people with these issues. – Community Leader

Access. – Public Health Representative

Denial/Stigma

The stigma of going to an appointment. SO many people have indicated an interest and appear to truly want help. However, there is still the mentality that seeking counseling is something to be embarrassed about. Also, so few people in the community appear to know about the services that are already available. – Other Health Provider

Stigma, transportation, family support, no easy access in crisis, demographics make access difficult. – Other Health Provider

Fear of seeking treatment. Everyone knows everyone. – Community Leader

No one wants to admit mental issues for fear of what people would say or treat them. – Community Leader

Stigma placed on those with mental health issues limits seeking treatment. – Public Health Representative

Diagnosis/Treatment

Undiagnosed anxiety, depression, bipolar. Local mental health is good, some are afraid of being labeled if seen there. Cost of medications and unable to see therapist, psychiatrist due to cost. – Physician

Contributing Factors

Opioid, meth, alcohol and dependence. – Community Leader

Housing, lack of employment. – Other Health Provider

Policy

Need law change. – Community Leader

Death, Disease & Chronic Conditions

Professional Research Consultants, Inc.

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

Age-Adjusted Death Rates

In order to compare mortality in the region with other localities (in this case, Virginia 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.

Heart Disease Deaths

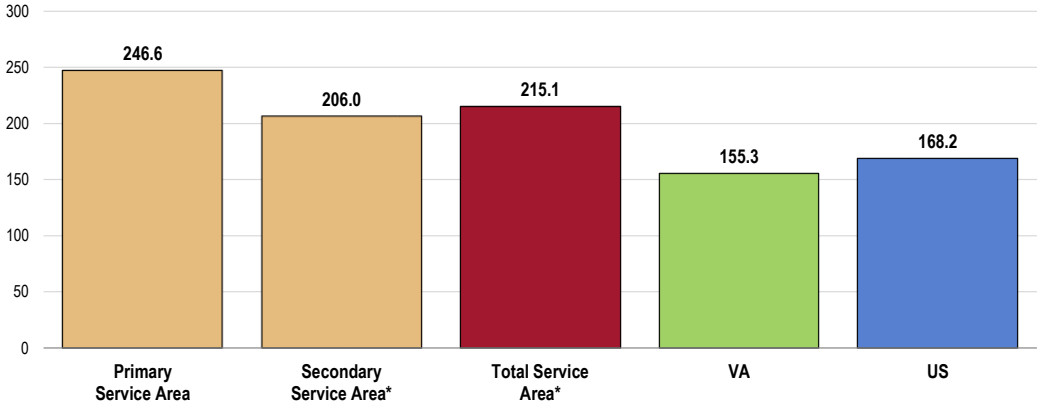
Between 2012 and 2016, there was an annual average age-adjusted heart disease mortality rate of 215.1 deaths per 100,000 population in the Total Service Area.

- Notably worse than the statewide and US rates.
- The rate is particularly high in the Primary Service Area.

Heart Disease: Age-Adjusted Mortality

(2012-2016 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 156.9 or Lower (Adjusted)



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System: 2012-2016. Accessed using CDC WONDER.
- Retrieved August 2018 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 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.
- *Highland County data not available.

Stroke Deaths

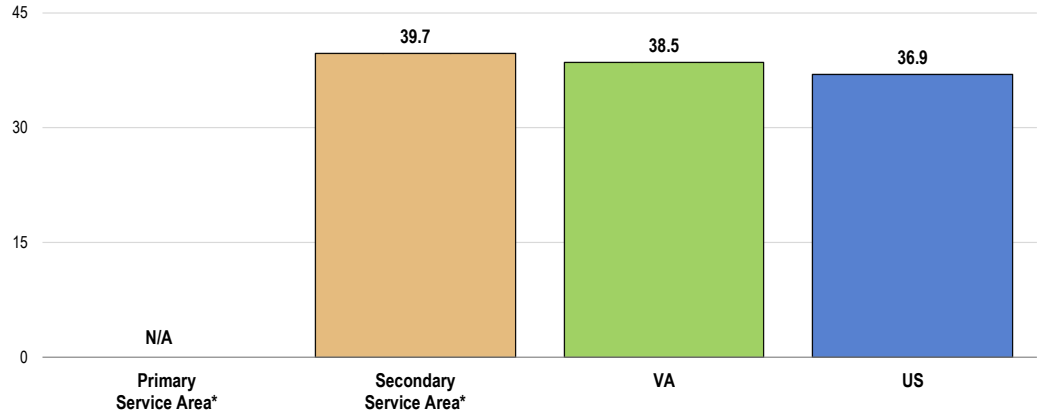
Between 2012 and 2016, there was an annual average age-adjusted stroke mortality rate of 39.7 deaths per 100,000 population in the area.

- Similar to the Virginia rate.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target of 34.8 or lower.
- *Note that Bath and Highland County data are unavailable*.

Stroke: Age-Adjusted Mortality

(2012-2016 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 33.8 or Lower (Adjusted)



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System: 2016-2016. Accessed using CDC WONDER.
- Retrieved August 2018 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 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.
- Local, state and national data are simple five-year averages; *Bath and Highland County data are not available.

Prevalence of High Blood Pressure & High Blood Cholesterol

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)

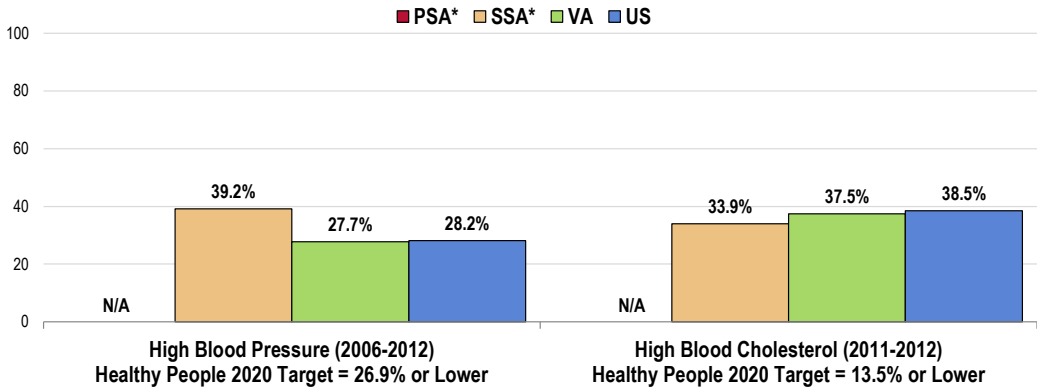
A total of 39.2% of area adults have been told at some point that their blood pressure was high.

- Higher than the Virginia and US percentages.
- Fails to satisfy the Healthy People 2020 target (26.9% or lower).

A total of 33.9% of adults have been told by a health professional that their cholesterol level was high.

- Lower than the Virginia and US figures.
- Over twice the Healthy People 2020 target (13.5% or lower).

Prevalence of High Blood Pressure & High Blood Cholesterol



Sources:
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES.
- Retrieved August 2018 from Community Commons at http://www.chna.org.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objectives HDS-5.1 and HDS-7]

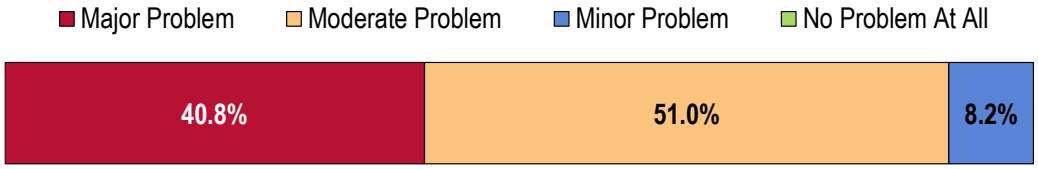
Notes:
- This indicator is relevant because coronary heart disease is a leading cause of death in the US and is also related to high blood pressure, high cholesterol, and heart attacks.
- *Bath and Highland County data not available.

Key Informant Input: Heart Disease & Stroke

Just over half of key informants taking part in an online survey characterized *Heart Disease & Stroke* as a "moderate problem" in the community.

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

(Key Informants, 2018)



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

There aren't enough resources in our area that actively seek out and educate our rural population about heart health and stroke. In my opinion, Nutritionists and health coaches should be employed by every hospital and school in our area with their main goal to educate our community on how to live a healthy lifestyle. We also don't have many "heart healthy" restaurants in this area. I don't believe we have any cardiologists in our local hospitals either. – Community Leader

Unable to afford medication, imagings such as carotid Dopplers, ECHOs, nuclear scans, lack of health care. – Physician

High risk factors are present, prehospital EMS care lack of timely response. Volunteer services for EMS dwindling, requirements for EMS volunteers time consuming. – Other Health Provider

Aging Population

Because of our aging population. – Public Health Representative

Elderly population. – Physician

High elderly population who often are not consistent with regular appointments and often have poor nutritional habits and lack exercise. – Nurse Practitioner

A high percentage of aged, over 65 and overweight population. – Community Leader

Heart attacks and disease are common among the elders in the community. – Community Leader

Contributing Factors

Same as diabetes and for both hereditary situations add. – Community Leader

Lack of education, social history and lifestyle. – Other Health Provider

Obesity and smoking. – Physician

Lifestyle

Unhealthy habits. – Community Leader

Eating habits and lots of young people having strokes. – Community Leader

Obesity and poor lifestyles. – Social Services Provider

Prevalence/Incidence

The prevalence of smoking, obesity and fatty diets. One also hears about community members suffering from these issues at younger than average ages and also more frequently than expected. We have a high middle aged and elderly population. – Community Leader

A whole lot of people with those problems. – 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

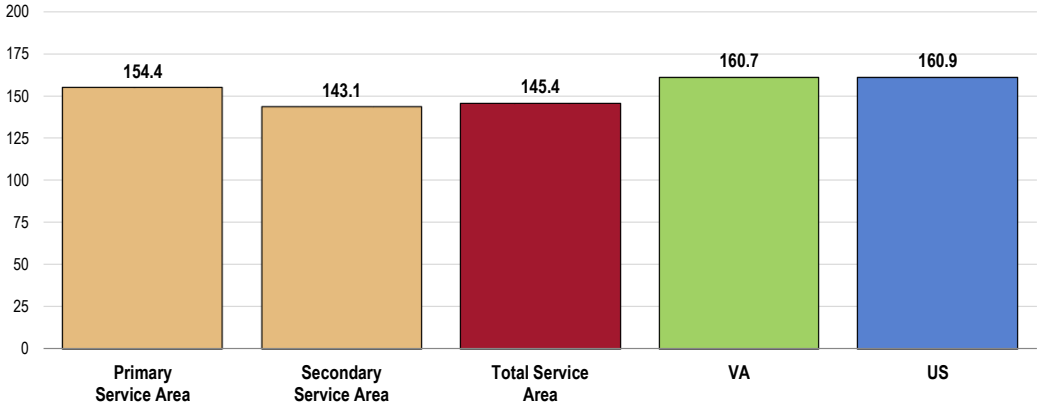
Between 2012 and 2016, there was an annual average age-adjusted cancer mortality rate of 145.4 deaths per 100,000 population in the Total Service Area.

- Lower than the statewide and US rates.
- Satisfies the Healthy People 2020 target of 161.4 or lower.
- Similar rates by service area.

Cancer: Age-Adjusted Mortality

(2012-2016 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 160.6 or Lower



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System: 2012-2016. Accessed using CDC WONDER.
- Retrieved August 2018 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 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 Incidence

Incidence rates reflect the number of newly diagnosed cases in a given population in a given year, regardless of outcome. 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.

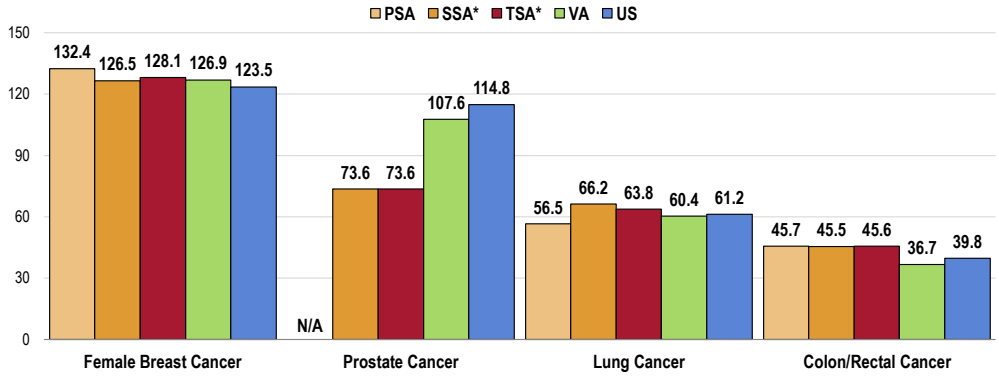
It is usually expressed as cases per 100,000 population per year.

The 2010-2014 Total Service Area annual average age-adjusted colorectal cancer incidence rate is worse than the US rate.

The area's lung cancer and colorectal cancer incidence rates are worse than state rates for the same years.

Cancer Incidence Rates by Site

(Annual Average Age-Adjusted Incidence per 100,000 Population, 2010-2014)



Sources:
- State Cancer Profiles.
- Retrieved August 2018 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.
- *Highland County data are not available.

About Cancer Risk

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

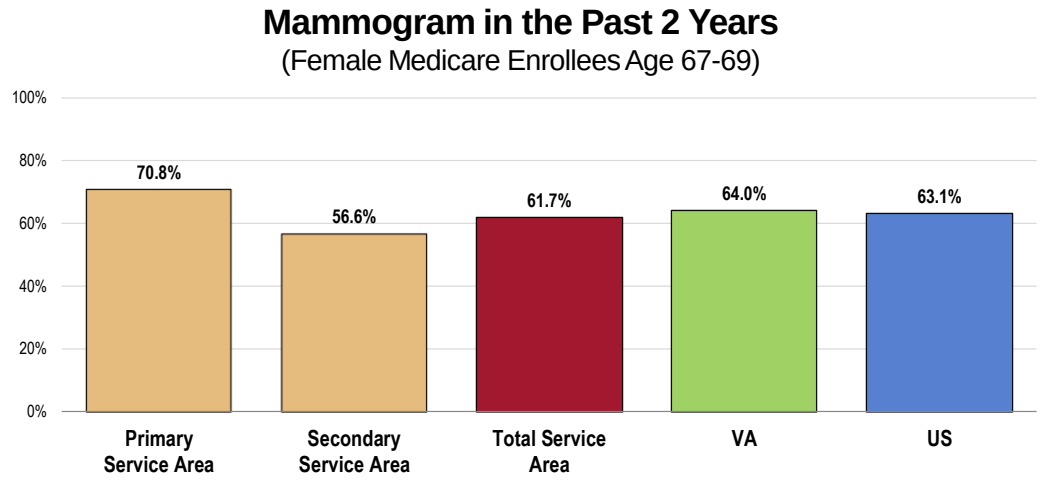
- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and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

Among service area women age 67-69 enrolled in Medicare, 61.7% had a mammogram within the past two years.

- Similar to the state and US figures.
- The percentage is higher among women in the Primary Service Area.

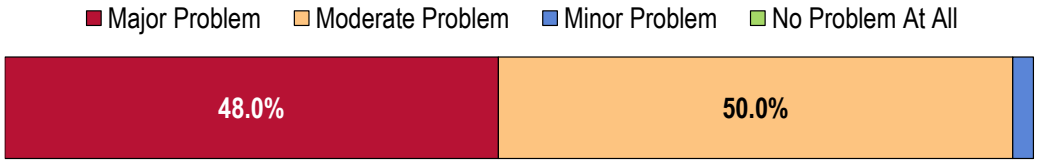


Sources: ● Dartmouth College Institute for Health Policy & Clinical Practice, 2014.
● Retrieved August 2018 from Community Commons at http://www.chna.org.
Notes: ● This indicator can highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Key Informant Input: Cancer

Half of key informants taking part in an online survey characterized *Cancer* as a "moderate problem" in the community, followed closely by "major problem" ratings.

Perceptions of Cancer as a Problem in the Community
(Key Informants, 2018)



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

Number of cancer deaths in the community. – Other Health Provider

Because there is a lot of people with cancer. – Community Leader

So many people have cancer in this area. – Community Leader

There seems to be a high rate of cancer diagnosed in our area. It would be good to offer radiation and chemo treatments locally, so people do not need to travel for this necessary help. – Community Leader

There is evidence to suggest a higher than average incidence of various cancers in our area. Smoking/ tobacco use is high. Anecdotally, one hears about people with cancer in the community frequently. – Community Leader

The number of individuals that I am aware of who have cancer, are in remission or have family members who were part of the community and passed away from cancer. – Social Services Provider

There are a lot of people in the community with cancer. – Other Health Provider

Almost daily news of a community member with new cancer diagnosis. Several children in past year as well as numerous adults. – Public Health Representative

Access to Care/Services

No oncology coverage. – Other Health Provider

Cancer diagnosis made too late due to lack of proximity to major health care providers with the tools needed to detect cancer early. Those requiring treatment choose long distance treatment options in many of our rural communities which is challenging in logistics and expenses – Other Health Provider

The lack of ongoing services such as chemo, radiation, lack of transportation. Aging population. Cost to provide care. – Other Health Provider

No access to specialist or treatments without travel. – Other Health Provider

Cancer is not something that can be treated locally. Those with cancer in Bath County drive as far as Charlottesville or out of the state to be treated. – Community Leader

Lack of treatment that is close by. – Social Services Provider

Environmental Contributors

> *Chemical exposure environmental lack of information about hazards. – Community Leader*
>
> *The paper mill. – Community Leader*
>
> *I believe industry, eating options, and personal habits all contribute. – Community Leader*

Tobacco Use

> *Smoking, genetics, age of population. – 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.]

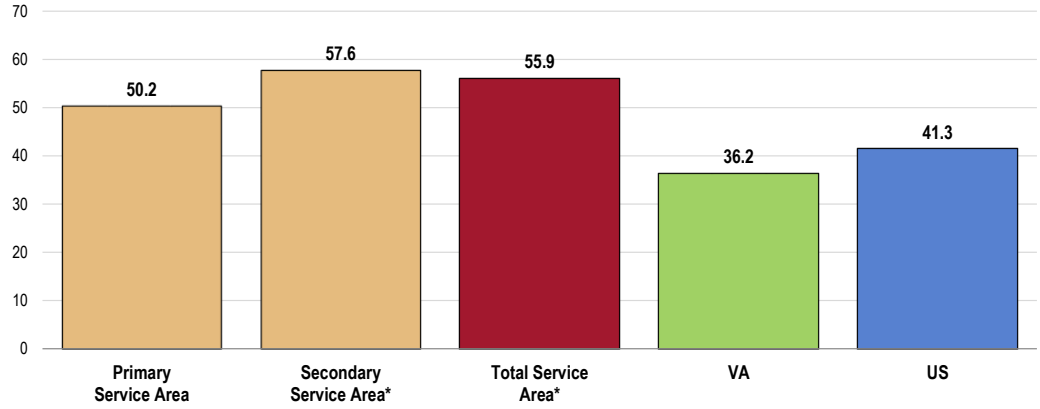
Age-Adjusted Chronic Lower Respiratory Disease Deaths

Between 2012 and 2016, there was an annual average age-adjusted lung disease mortality rate of 55.9 deaths per 100,000 population in the Total Service Area.

- Much higher than found statewide and nationally.
- Higher in the Secondary Service Area.

CLRD: Age-Adjusted Mortality

(2012-2016 Annual Average Deaths per 100,000 Population)



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System: 2012-2016. Accessed using CDC WONDER.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

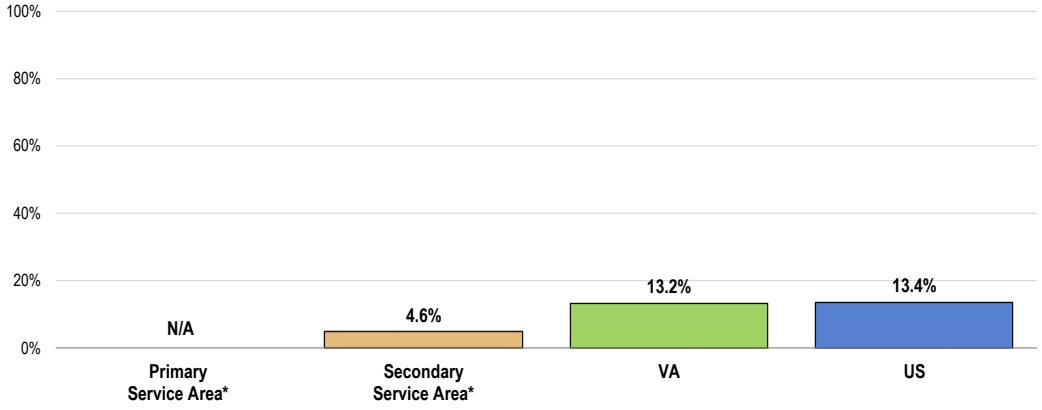
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- *Highland County data are not available.

Asthma Prevalence

A total of 4.6% of area adults currently suffer from asthma.

- Well below the state and US prevalence.

Asthma Prevalence
(2011-2012)



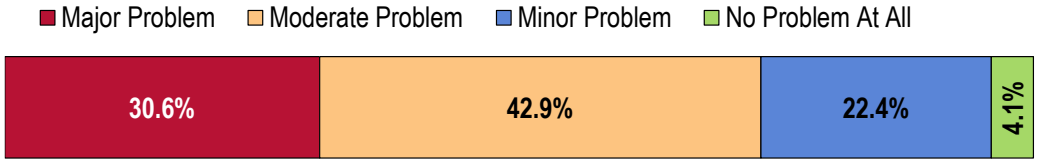
Sources:
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Notes:
- This indicator is relevant because asthma is a prevalent problem in the US that is often exacerbated by poor environmental conditions.
- *Bath and Highland County data are unavailable.

Key Informant Input: Respiratory Disease

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

Perceptions of Respiratory Diseases as a Problem in the Community
(Key Informants, 2018)



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:

Environmental Contributors

> *Smoking, exposure to fumes from local plant, insurances do not pay for maintenance inhalers or too expensive. – Physician*
>
> *Air pollution is a problem in our area and causes respiratory problems. – Community Leader*
>
> *Pollution air quality in some homes allergies. – Community Leader*
>
> *We live within ten miles of the largest bleach board paper mill in the world. – Community Leader*
>
> *Paper mill. – Community Leader*
>
> *Lack of proper diet and exercise and smoking. – Other Health Provider*

Aging Population

Older population has a lot of life long smokers. – Public Health Representative

High percentage of population over age 65. – Community Leader

Aged population. – Community Leader

Obesity and aging population. – Community Leader

Tobacco Use

Large percent of population smokes, limited access to pulmonology services. – Other Health Provider

High percentage of smokers and environmental exposures. – Nurse Practitioner

Prevalence/Incidence

Smoking is very prevalent. – 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

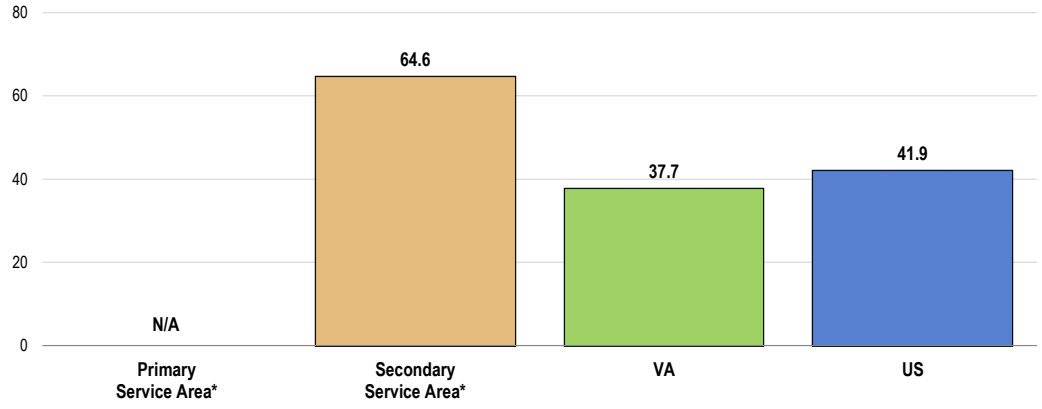
Between 2012 and 2016, there was an annual average age-adjusted unintentional injury mortality rate of 64.6 deaths per 100,000 population in the area.

- Much higher than the Virginia and US rates.
- Far from satisfying the Healthy People 2020 target of 36.4 or lower.

Unintentional Injuries: Age-Adjusted Mortality

(2012-2016 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 36.0 or Lower



Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System: 2012-2016. Accessed using CDC WONDER.
- Retrieved August 2018 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 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.
- *Bath and Highland County data are unavailable.

Intentional Injury (Violence)

Violent Crime

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

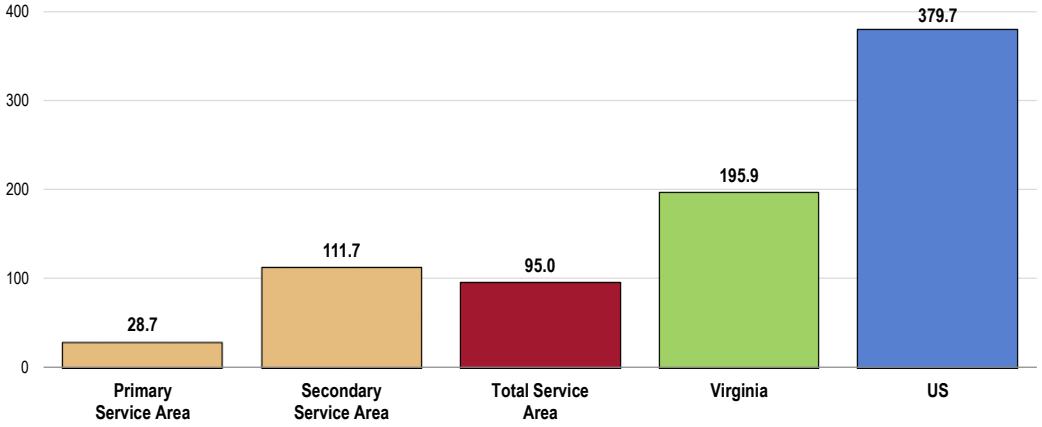
Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.

Between 2012 and 2014, there were a reported 95.0 violent crimes per 100,000 population in the Total Service Area.

- Below the Virginia rate and especially the national rate for the same period.
- Nearly four times higher outside the Primary Service Area.

Violent Crime

(Rate per 100,000 Population, 2012-2014)



Sources:
- Federal Bureau of Investigation, FBI Uniform Crime Reports.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

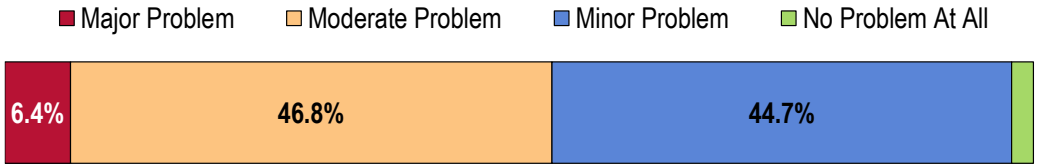
Notes:
- This indicator reports the rate of violent crime offenses reported by the sheriff's office or county police department per 100,000 residents. Violent crime includes homicide, rape, robbery, and aggravated assault. This indicator is relevant because it assesses community safety.
- Participation 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.

Key Informant Input: Injury & Violence

Key informants taking part in an online survey were similarly inclined to characterize *Injury & Violence* as a "moderate problem" and a "minor problem" in the community.

Perceptions of Injury and Violence as a Problem in the Community

(Key Informants, 2018)



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:

Domestic Violence

> *In reference to violence, there is a significant amount of domestic violence in Highland, with few resources in the county for assistance. – Social Services Provider*

Industry

> *Logging is a large industry in Highland, meaning that on-the-job injuries occur frequently. – Social Services Provider*

Socioeconomics

> *This is a poor, divided town. Lack of education. – 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; and 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.

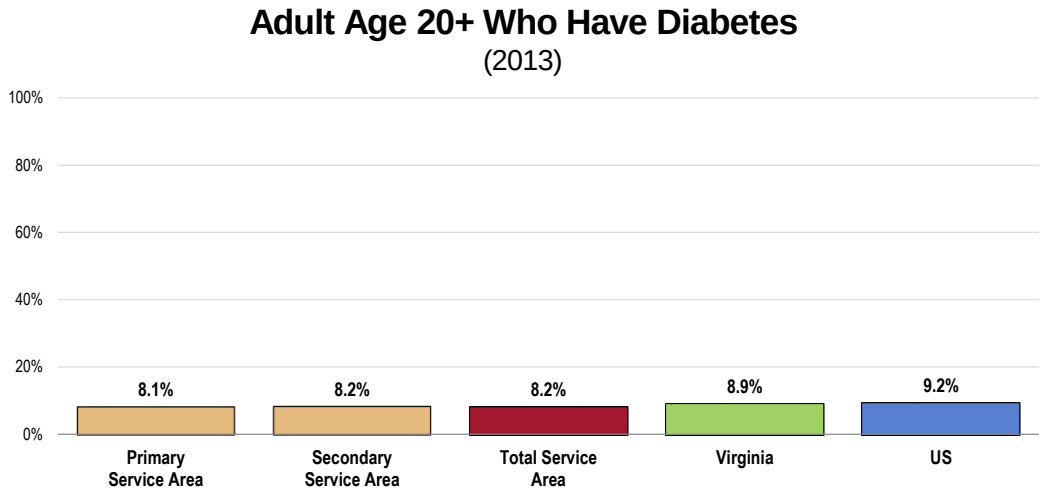
People from minority populations are more frequently affected by type 2 diabetes. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with type 2 diabetes. Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals.

- Healthy People 2020 (www.healthypeople.gov)

Prevalence of Diabetes

Among service area adults age 20 and older, 8.2% have been diagnosed with diabetes.

- Lower than the statewide and national prevalence.
- Similar findings by service area.

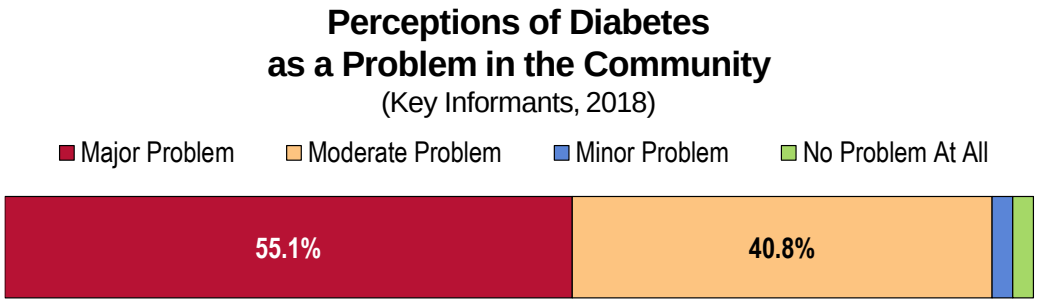


Sources:
- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Diabetes Atlas
- Retrieved August 2018 from Community Commons at http://www.chna.org.

Notes:
- This indicator reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes. This indicator is relevant because diabetes is a prevalent problem in the US; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Key Informant Input: Diabetes

The greatest share 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 this issue as a "major problem," the biggest challenges for people with diabetes are seen as:

Access to Care/Services

Little access to diabetes counselors, food education. Culturally, it is a challenge to get community members in for screening and once they are diagnosed it is a challenge to help patients follow regimen. – Community Leader

Two things... for those that have diabetes, they need access to high quality healthcare in order to manage their disease not only through treatment, but modified behavior/diet as well. For those that have pre-diabetes symptoms, they need education on how to modify behavior/diet to help avoid diabetes. – Community Leader

I selected this because I believe it is very prevalent in our area, not because I thought diabetics have specific problems here. That being said, I would say cost of supplies. – Public Health Representative

Transportation and healthcare. – Community Leader

Local specialty care. Financial limitations for healthy diets/knowledge of healthy eating/diabetes prevention. – Public Health Representative

Health Awareness/Education

Lack of preventive education and intervention. – Community Leader

Lack of education and support within the community. – Other Health Provider

Lack of participation in diabetic education. Unwillingness to change diet and incorporate healthy habits. – Other Health Provider

Not well controlled. Long-term complications. Need for patient education. – Community Leader

Education. – Other Health Provider

I think education is a huge gap for our population affected by diabetes. Appropriate care and treatment of diabetes does not appear to be readily discussed and those in the community who are diabetic appear to have minimal education on how to better care for themselves. – Other Health Provider

Access to Healthy Food

Lack of nutritious food, income to purchase food, family history, food mentality and lack of education. – Community Leader

Foods, it's cheaper to go to the drive through to get a hamburger then to go and buy organic. – Community Leader

Food desert, very limited access to healthy food, cost of healthy food. Needed life style changes and willingness to change, rather just take a pill. Genetics. – Other Health Provider

Lack of healthy food choices and eating establishments. – Other Health Provider

Lack of resources to healthy fresh foods. – Social Services Provider

Nutrition

Eating habits, uneducated. – Community Leader

Unhealthy diets and lack of fresh fruits and vegetables. – Community Leader

Nutrition, exercise and overweight. – Community Leader

Dietary habits, obesity and sedentary lifestyles. – Physician

Contributing Factors

Aging population and local diet. – Community Leader

Compliance with treatment and access to specialist as well as certified diabetic educator. – Nurse Practitioner

Lab work, medications, cost of office visits, unable to get a dilated eye exam annually, expense of seeing dietician. – Physician

Prevalence/Incidence

I think it's common among our population, but I believe they have available resources. – Community Leader

Alzheimer's Disease

About Dementia

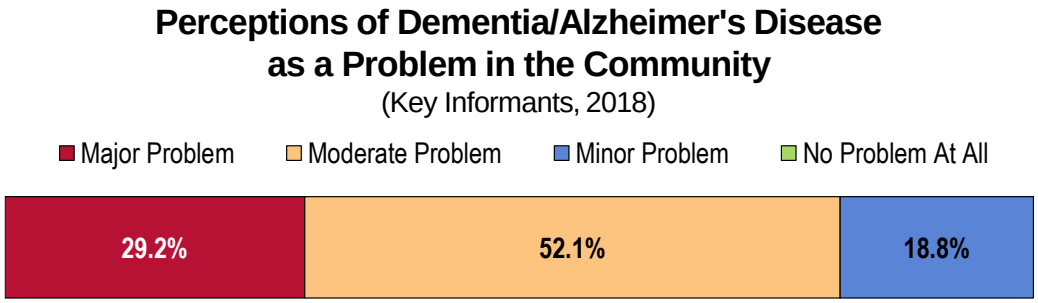
Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—to such an extent that it interferes with a person's daily life. Dementia is not a disease itself, but rather a set of symptoms. Memory loss is a common symptom of dementia, although memory loss by itself does not mean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

Key Informant Input: Dementias, Including Alzheimer's Disease

The greatest share of key informants taking part in an online survey characterized *Dementias, Including Alzheimer's Disease* 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:

Aging Population

Older population and retirees moving into rural communities. Limited resources beyond family to assist with managing the condition. – Other Health Provider

Aging community. – Other Health Provider

Old age demographic, fastest growing in area. – Community Leader

Prevalence/Incidence

I see a number of people with a diagnosis of some form of dementia in the community, with lack of services to address the patient's needs, or the caregiver's needs. There is also a lack of trained, reliable caregivers to provide care. – Social Services Provider

Numerous cases. – Public Health Representative

Access to Care/Services

> *Limited care for patients at end stage of disease. – Other Health Provider*
>
> *I don't think we have the facilities to help people suffering with these conditions. – Community Leader*

Contributing Factors

> *Lack of community support, cost, lack of facilities able to provide care, families not willing for patient to be placed in nursing home. – Other Health Provider*

Kidney Disease

About Chronic 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.

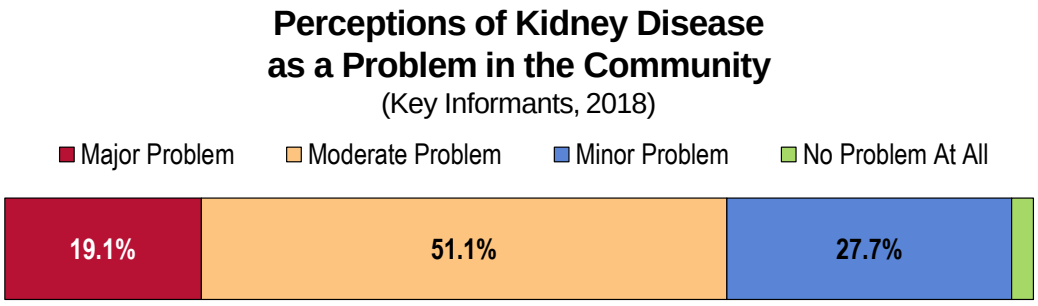
Genetic determinants have a large influence on the development and progression of chronic kidney disease. It is not possible to alter a person's biology and genetic determinants; however, environmental influences and individual behaviors also have a significant influence on the development and progression 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)

Key Informant Input: Chronic Kidney Disease

Over half of key informants taking part in an online survey characterized *Chronic Kidney Disease* 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:

Vulnerable Populations

> *Aging population and hypertension rate of area along with high rate of diabetes. – Other Health Provider*
>
> *High elderly population with multiple medication conditions that often contribute to CKD. – Nurse Practitioner*

Comorbidities

Due to DM and vascular disease. – Physician

Stress can cause blood pressure problems and because we work and work, we don't find out there's a problem until it's a problem. – Community Leader

Prevalence/Incidence

Number of people in community taking dialysis services, a new dialysis facility is opening at Mallow Mall area. – Other Health Provider

People on dialysis. – Community Leader

Access to Care/Services

Minimal urology services, only one day a week. – Other Health Provider

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.

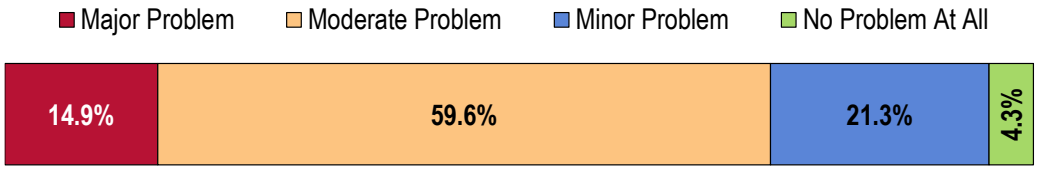
- Healthy People 2020 (www.healthypeople.gov)

Key Informant Input: Arthritis, Osteoporosis & Chronic Back Conditions

Key informants taking part in an online survey most often 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, 2018)



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 with chronic DDD issues complicated by other health conditions that makes treatment of pain challenging. – Nurse Practitioner

The majority of Bath County's population is senior citizens and arthritis is common. – Community Leader

Pain Management

Issues with pain management – I see 3-4 new patient a day, already on narcotics, hard to taper off or try nonnarcotic alternatives cost of going to PT – some patients can't go due to work commitments or due to expense. Can't afford bone density, X-rays. Can't afford alternative meds i.e., gabapentin, Lyrica. – Physician

Chronic pain management. – Other Health Provider

Work-Related Injuries

We have a manual labor work force and no access to orthopedics or special services to address these injuries, except for rehab services. – Other Health Provider

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)

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.

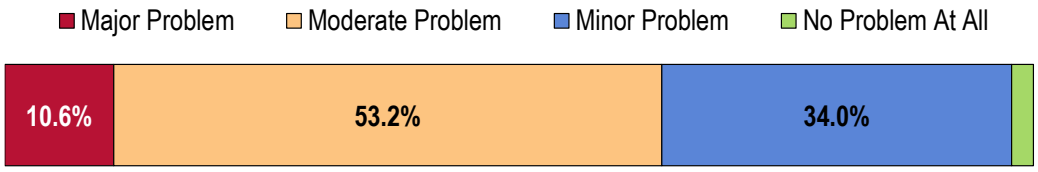
As the nation's population ages and survival rates for medically fragile infants and for people with severe injuries and acquired diseases improve, the prevalence of sensory and communication disorders is expected to rise.

- Healthy People 2020 (www.healthypeople.gov)

Key Informant Input: Vision & Hearing

A plurality of key informants taking part in an online survey characterized *Vision & Hearing* as a "moderate problem" in the community.

Perceptions of Vision and Hearing as a Problem in the Community
(Key Informants, 2018)



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

No access in the Bath County area for vision or hearing. Long distance to drive for many. Hearing aids expensive. – Other Health Provider

There are no hearing or vision providers in our area. Lack of funding for hearing aides seems to be a problem. – Social Services Provider

Receiving doctor services for vision and hearing needs would be great to offer locally. – Community Leader

People with no insurance and doctors charge so much. – Community Leader

Aging Population

As mentioned, the majority of our population are senior citizens and hearing and vision impairments are common among elderly. – Community Leader

Infectious Disease

Professional Research Consultants, Inc.

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.

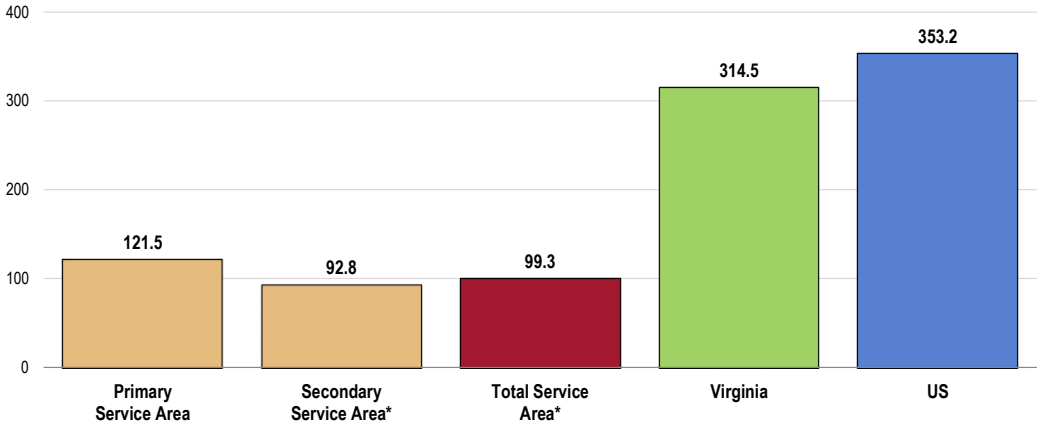
- Healthy People 2020 (www.healthypeople.gov)

HIV Prevalence

In 2013, there was a prevalence of 99.3 HIV cases per 100,000 population in the Total Service Area.

- Well below the Virginia and US prevalence rates.
- A higher prevalence is reported in the Primary Service Area.

HIV Prevalence
(Prevalence Rate of HIV per 100,000 Population, 2013)



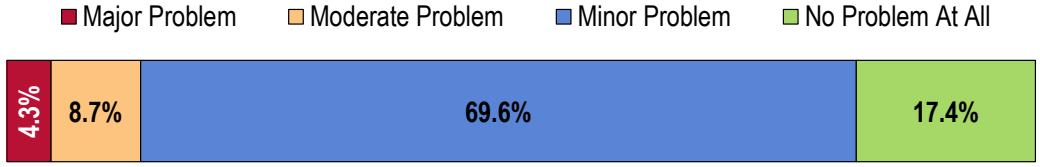
Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
- Retrieved August 2018 from Community Commons at http://www.chna.org.

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.
- *Highland County data are unavailable.

Key Informant Input: HIV/AIDS

A majority of key informants taking part in an online survey characterized *HIV/AIDS* as a "minor problem" in the community.

Perceptions of HIV/AIDS as a Problem in the Community
(Key Informants, 2018)



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:

Unprotected Sex

> *Carelessness. – Community Leader*

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 256.6 cases per 100,000 population.

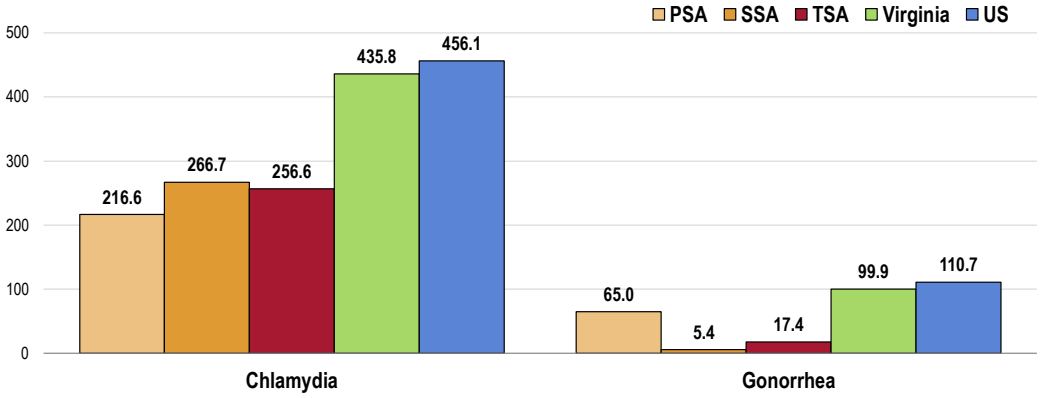
- Well below the state and US rates.
- A higher chlamydia incidence rate is reported in the Secondary Service Area.

The gonorrhea incidence rate in the service area was 17.4 cases per 100,000 population in 2014.

- Notably lower the statewide and national incidence rates.
- Significantly higher in the Primary Service Area.

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 August 2018 from Community Commons at http://www.chna.org.

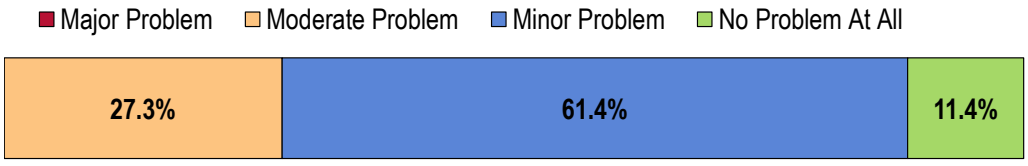
Notes:
- This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

Key Informant Input: Sexually Transmitted Diseases

Key informants taking part in an online survey most often characterized *Sexually Transmitted Diseases* as a "minor problem" in the community.

Perceptions of Sexually Transmitted Diseases as a Problem in the Community

(Key Informants, 2018)



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

Notes:
- Asked of all respondents.

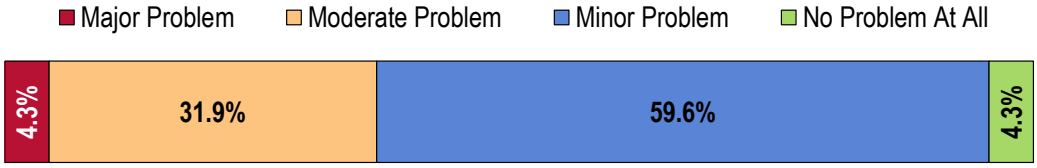
Immunization & Infectious Diseases

Key Informant Input: Immunization & Infectious Diseases

The greatest share of key informants taking part in an online survey 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, 2018)



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 Awareness/Education

> *Unawareness. – Community Leader*

Births

Professional Research Consultants, Inc.

Birth Outcomes & Risks

About Infant & Child Health

Improving the well-being of mothers, infants, and children is an important public health goal for the US. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the healthcare system. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and inter-conception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Many factors can affect pregnancy and childbirth, including pre-conception health status, age, access to appropriate healthcare, and poverty.

Infant and child health are similarly influenced by socio-demographic factors, such as family income, but are also linked to the physical and mental health of parents and caregivers. There are racial and ethnic disparities in mortality and morbidity for mothers and children, particularly for African Americans. These differences are likely the result of many factors, including social determinants (such as racial and ethnic disparities in infant mortality; family income; educational attainment among household members; and health insurance coverage) and physical determinants (i.e., the health, nutrition, and behaviors of the mother during pregnancy and early childhood).

- Healthy People 2020 (www.healthypeople.gov)

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.

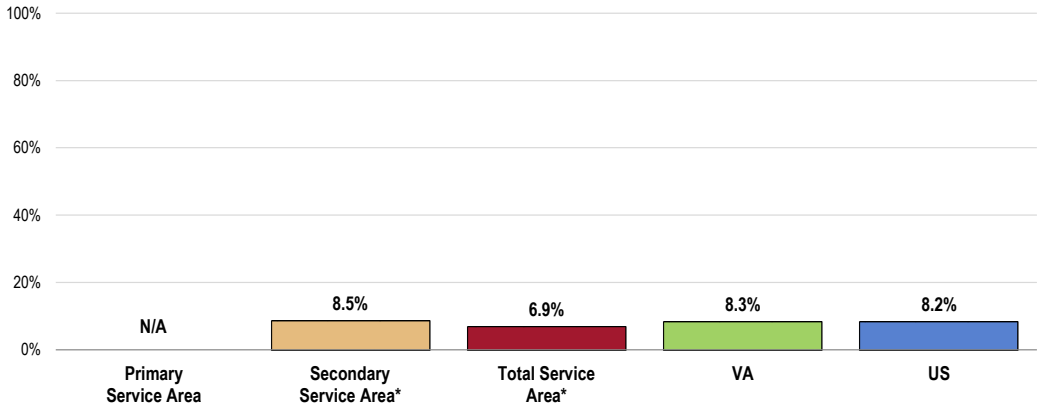
A total of 6.9% of 2006-2012 Total Service Area births were low-weight.

- Lower than the Virginia and US proportions.
- Satisfies the Healthy People 2020 target (7.8% or lower).
- The percentage was 8.5% in Alleghany County.

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: 2006-2012. Accessed using CDC WONDER.
- Retrieved August 2018 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.
- *Bath and Highland County data are suppressed.

Infant Mortality

Between 2006 and 2010, the Total Service Area reported an annual average of 4.7 infant deaths per 1,000 live births.

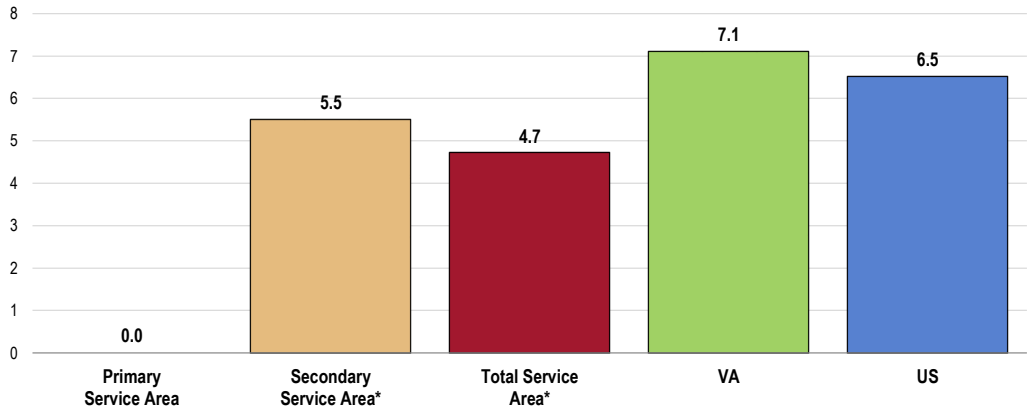
Infant mortality rates reflect deaths of children less than one year old per 1,000 live births.

- Better than the state and US mortality rates.
- Satisfies the Healthy People 2020 target of 6.0 per 1,000 live births.
- The Alleghany County rate was 5.5 infant deaths per 1,000 live births.

Infant Mortality Rate

(Annual Average Infant Deaths per 1,000 Live Births, 2006-2010)

Healthy People 2020 Target = 6.0 or Lower



Sources:
- US Department of Health & Human Services, Health Resources and Services Administration, *Area Health Resource File*. Data extracted August 2018.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective MICH-1.3]

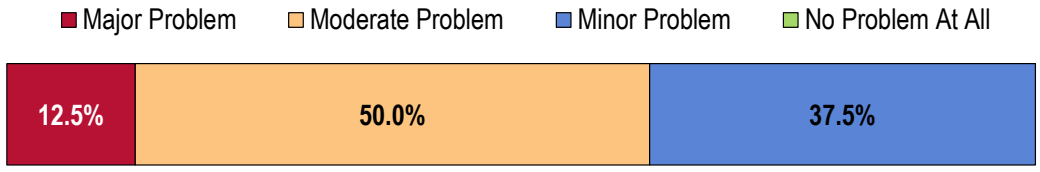
Notes:
- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.
- *Highland County data are suppressed.

Key Informant Input: Infant & Child Health

Half of key informants taking part in an online survey characterized *Infant & Child Health* as a "moderate problem" in the community.

Perceptions of Infant and Child Health as a Problem in the Community

(Key Informants, 2018)



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:

Lack of Providers

> *We have no pediatricians in the Highland area, meaning that parents have to travel to seek such specialized care for their children. – Social Services Provider*
>
> *Limited pediatrician availability. With a new mid-level pediatric provider now on BCH staff, the situation should improve. – Community Leader*
>
> *Up until very recently, we did not have a pediatrician in the area. – Community Leader*
>
> *We lack pediatric physicians. – Community Leader*

Awareness/Education

> *Parents don't know of opportunities and available programs. – Community Leader*

Emotional Health

> *The emotional health of children and adolescents. – Other Health Provider*

Affordable Care/Services

> *Young people with no insurance. – 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.

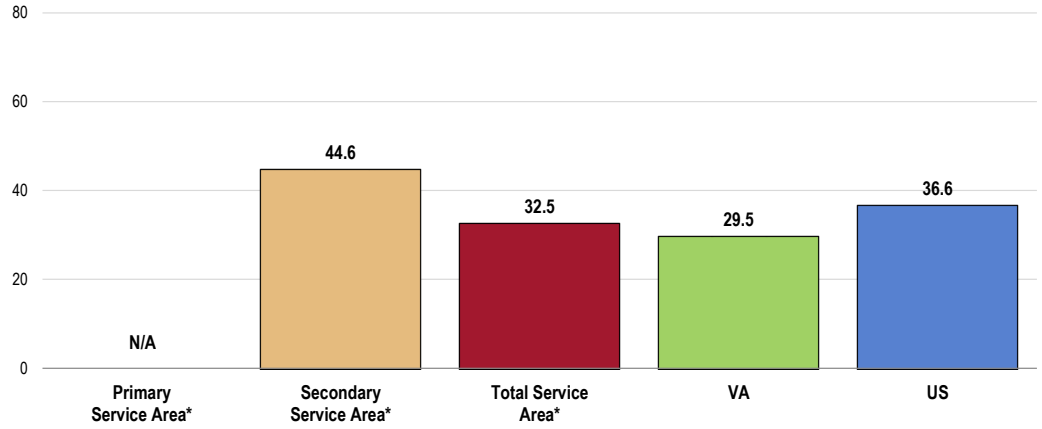
- Healthy People 2020 (www.healthypeople.gov)

Between 2006 and 2012, there were 32.5 births to women age 15 to 19 per 1,000 women age 15 to 19 in the Total Service Area.

- Higher than the Virginia rate.
- Lower than the national rate.
- The teen birth rate is much higher in Alleghany County.

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 from Community Commons at http://www.chna.org.

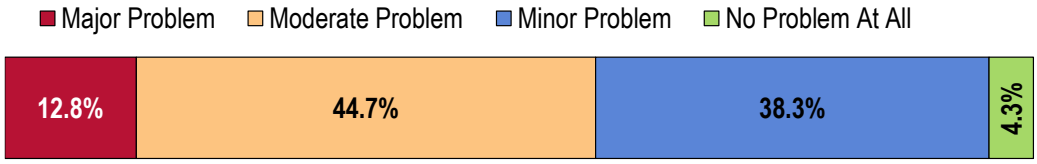
Notes:
- This indicator reports the rate of total births to women under the age of 15–19 per 1,000 female population age 15–19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.
- *Bath and Highland County data are suppressed.

Key Informant Input: Family Planning

Key informants taking part in an online survey frequently characterized *Family Planning* as a "moderate problem" in the community.

Perceptions of Family Planning as a Problem in the Community

(Key Informants, 2018)



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:

Unplanned Pregnancies

> *Many grandparents are raising their children. – Community Leader*
>
> *A lot of children born outside committed relationships and parents don't take responsibility for child care. – Community Leader*

Health Awareness/Education

> *Teenagers don't seem to understand it and lots of people are having kids that they don't plan and act surprised. – Other Health Provider*

Access to Care/Services

> *Highland currently does not have a health department nurse and has been lacking one for one year. – Social Services Provider*

Access to Providers

> *No pediatrician, Health Department not always responsive. – Other Health Provider*

Teen Pregnancies

> *So many young people having babies. – Community Leader*

Modifiable Health Risks

Professional Research Consultants, Inc.

Nutrition, Physical Activity, & Weight

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)

Low Food Access (Food Deserts)

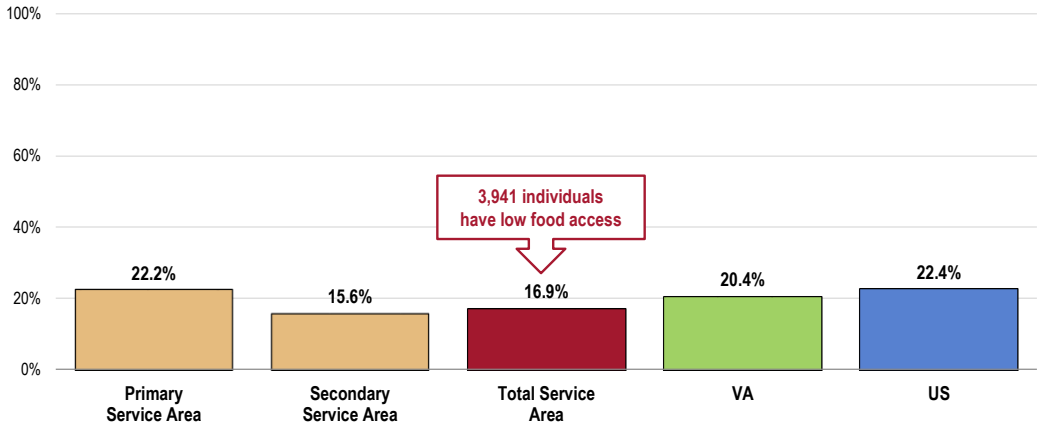
A food desert is defined as a low-income area where a significant number or share of residents is far from a supermarket, where "far" is more than 1 mile in urban areas and more than 10 miles in rural areas.

US Department of Agriculture data show that 16.9% of the Total Service Area population (representing nearly 4,000 residents) have low food access or live in a "food desert," meaning that they do not live near a supermarket or large grocery store.

- Below the state and US findings.
- The rate is higher in the Primary Service Area than in the Secondary Service Area.

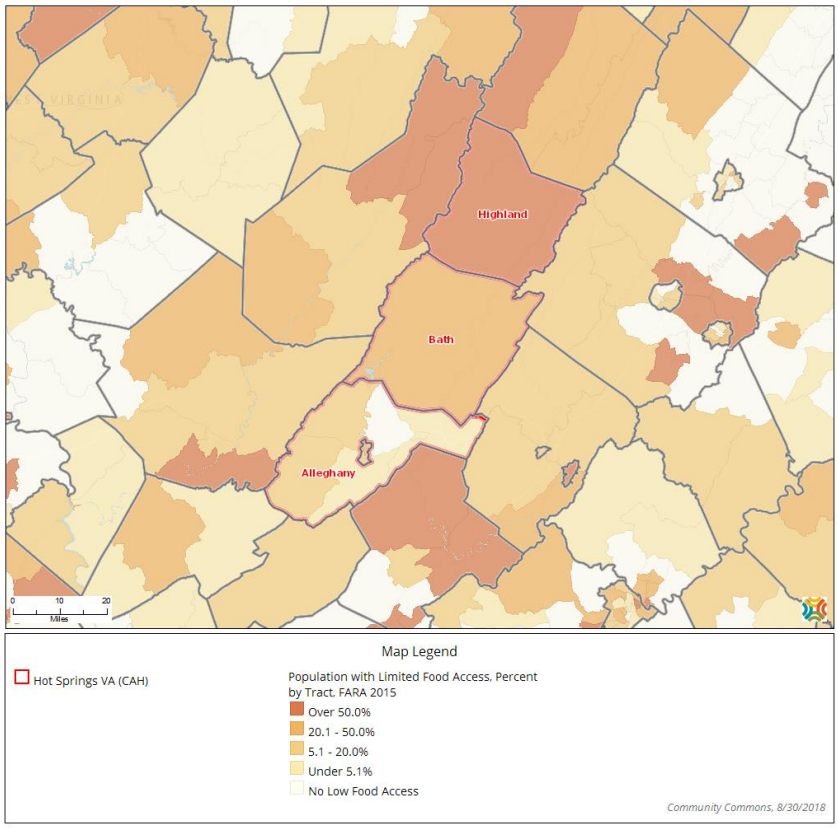
Population With Low Food Access

(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 August 2018 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.


VIRGINIA
Highland
Bath
Alleghany
0
10
20
Miles
Map Legend
Hot Springs VA (CAH)
Population with Limited Food Access, Percent by Tract, FARA 2015
Over 50.0%
20.1 - 50.0%
5.1 - 20.0%
Under 5.1%
No Low Food Access
Community Commons, 8/30/2018

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, 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)

Lack of 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.

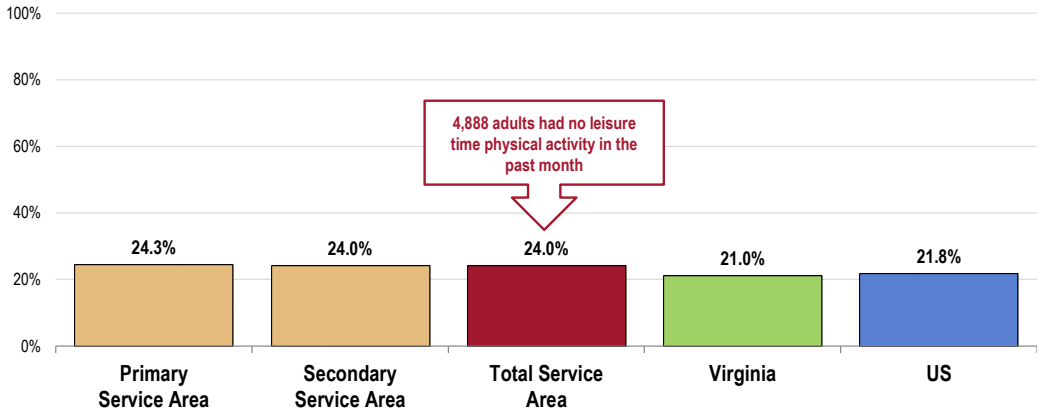
A total of 24.0% of Total Service Area adults (representing 4,888 individuals) report no leisure-time physical activity in the past month.

- Less favorable than statewide and US findings.
- Satisfies the Healthy People 2020 target (32.6% or lower).
- Comparable findings by service area.

Adults Age 20+ Who Have No Leisure-Time Physical Activity in the Past Month

(2013)

Healthy People 2020 Target = 32.6% or Lower



Sources:
- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- Retrieved August 2018 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 PA-1].

Notes:
- This indicator reports the percent of adults aged 20+, who self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?". This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

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.

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.

Obesity

A total of 31.9% of Total Service Area adults age 20 and older (representing 5,740 individuals) are obese.

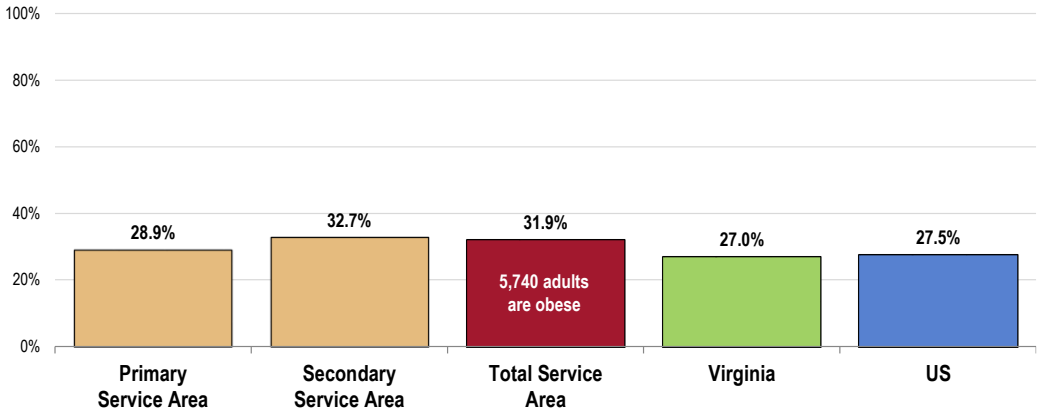
"Obese" includes respondents with a BMI value ≥30.0.

- Higher than Virginia and US findings.
- Similar to the Healthy People 2020 target (30.5% or lower).
- The prevalence of obesity is higher outside the Primary Service Area.

Adults Age 20 and Older Who Are Obese

(Body Mass Index ≥ 30.0; 2013)

Healthy People 2020 Target = 30.5% or Lower



Sources:
- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- Retrieved August 2018 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 NWS-9].

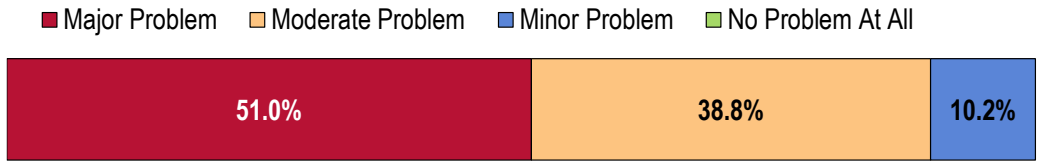
Notes:
- This indicator reports the percent of adults aged 20+ who self-report that they have a Body Mass Index (BMI) of 30.0 or greater (obese). This indicator is relevant because excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Key Informant Input: Nutrition, Physical Activity, & Weight

Half of key informants taking part in an online survey 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, 2018)



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 Awareness/Education

Misinformation...everyone thinks that Keto is the best way to be healthy when in essence you are just eating tons of fat which in turn clogs the arteries. It would be nice to have a nutritionist in every school or at least one that visits our schools and educates our children (and adults). Also, a reasonable weight loss program that would be offered at our local YMCA for beginners. An easy stretching class and low impact aerobics. I believe all these high intensity classes scare people away from working out. Adults need more programs offered, not just Weight Watchers where you have to pay so much to join. – Community Leader

Lack of education, school-based programs, social history and lifestyle. – Other Health Provider

Lack of knowledge and motivation. – Community Leader

Little education re: obesity, physical activity. Cultural barriers to changing eating habits and selecting healthy foods. Very limited access to options for physical activity. – Community Leader

Lack of education, unable to afford nutritious food, poor choices, lack of motivation to change, working long hours, shift work. – Physician

Diet/Nutrition

Lifelong habits/cooking like grandma. Food bank and grocery have healthy foods, but recipients known to take grocery bags of food and give away or throw away vegetables or foods that require preparation. – Physician

Poor eating habits coupled with decreased physical work requirements. – Community Leader

People unwilling to change habits of eating unhealthy foods, not making an effort to get exercise, and generally not making it a priority to decrease weight. – Other Health Provider

Better quality food more encouragement for healthy lifestyle. – Community Leader

Obesity/Overweight

Obesity, diet and lack of physical activity are significant issues in many rural areas, and Bath County and surrounding areas are no exception. These issues contribute to many chronic health issues and education and other resources are incredibly important to address these issues. – Community Leader

Too many children are overweight due to inactivity. – Community Leader

High percentage of obesity with lack of nutritional programs and access to dietician. – Nurse Practitioner

Obesity and lack of self-care. – Community Leader

A lot of obesity in the community. – Other Health Provider

Contributing Factors

Opportunities for physical activities and access to healthy food choices in our rural communities. – Other Health Provider

Getting people to change their habits and exercise. Mostly lower income levels. – Community Leader

People rarely see the need to relate health and overall wellness which includes lifestyle choices, nutrition, emotional and physical health. – Other Health Provider

Aging, diet and lifestyle. – Community Leader

Access to Care/Services

Costs of services like the YMCA are expensive for some. – Community Leader

Most are overweight cannot afford YMCA or gym and some do not have time. – Community Leader

Only two gyms in the area/income does not allow for people to eat healthy. – Other Health Provider

Access to Healthy Food

Terrible food options, lack of access to good grocery stores. – Community Leader

Lack of access to healthy foods, lack of time to work out. – 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.

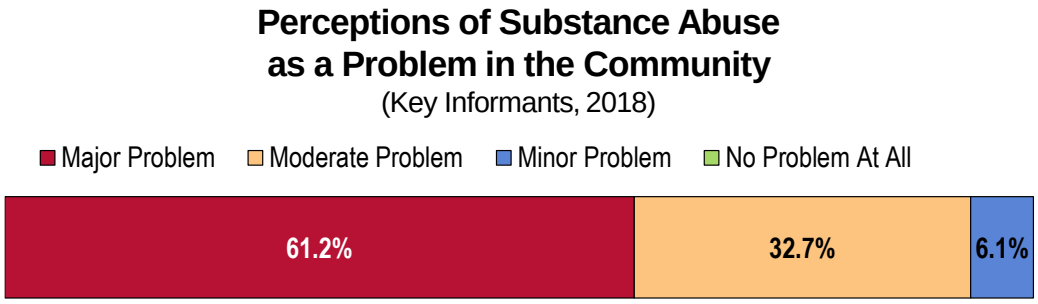
Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific 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)

Key Informant Input: Substance Abuse

Key informants taking part in an online survey most often characterized *Substance Abuse* as a "major problem" in the community.



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:

Denial/Stigma

Admission on the part of the user, public shame, an easily accessible supply. Rehab interferes with work. – Community Leader

Stigma of getting treatment. Denial there is a problem with substance abuse. Fear of local providers knowing and sharing information. – Public Health Representative

Lack of people truly wanting treatment and recognition of the problem. – Public Health Representative

Self help. – Community Leader

Denial that there is a substance abuse problem. – Community Leader

Stigma and access, especially transportation and availability in rural settings. – Other Health Provider

Treatment is voluntary and not mandated. – Other Health Provider

Accepting you have a problem, seeking help, dealing with ongoing addiction in families. – Community Leader

Social history, lack of education and culture. – Other Health Provider

It's not seen, but I hear more and more about the drug problems in the community. Seems to be hidden. – Other Health Provider

Access to Care

Poor programs for help drug court would help better oversight CSB. – Community Leader

Lack of local resources. Everyone knows everyone. Poor economic conditions. – Community Leader

No residential treatment facilities. Rural community creates social isolation. Treatment is often cost prohibitive. – Community Leader

No inpatient care that is close. Lack of outpatient options. – Social Services Provider

Lack of access to outpatient treatment programs. – Nurse Practitioner

The availability is huge. – Community Leader

Awareness/Education

Lack of knowledge about the seriousness of the issue and stigma about asking for help. – Other Health Provider

Don't know much about substance abuse. – Community Leader

> *Lack of education and a depressed local economy. – Community Leader*
>
> *Education, education and more education, starting with children at the appropriate age aimed at prevention, and then education and treatment for those that are addicted. – Community Leader*
>
> *We are told by local law enforcement there is a substance abuse problem in our community. Their barriers are treatment facilities are far away or they are not seeking help altogether. I think a better awareness in the community could help. – Community Leader*

Addiction

> *Opioid crisis, marijuana. – Community Leader*
>
> *Use of opioids in the adult population. Not enough funding and/or programs to assist people who are addicted to drugs. – Community Leader*
>
> *Kids have too much free time, not encouraged to work, but play on games and in front of a screen. When that's boring, they take to drugs. – Community Leader*

Affordable Care/Services

> *The cost for treatment, no clinics in this area. – Other Health Provider*

Most Problematic Substances

Key informants (who rated this as a "major problem") clearly identified **methamphetamine/ other amphetamines** as the most problematic substance abused in the community, followed by **alcohol**, **heroin/other opioids**, and **prescription medications**.

Problematic Substances

	Most Problematic	Second-Most Problematic	Third-Most Problematic	**Total Mentions**
	%	%	%	
Methamphetamines or Other Amphetamines	30.8	16.0	20.0	17
Alcohol	26.9	20.0	8.0	14
Heroin or Other Opioids	23.1	16.0	16.0	14
Prescription Medications	11.5	20.0	20.0	13
Marijuana	3.8	12.0	16.0	8
Cocaine or Crack	3.8	12.0	4.0	5
Over-the-Counter Medications	0.0	4.0	12.0	4
Club Drugs (e.g. MDMA, GHB, Ecstasy, Molly)	0.0	0.0	4.0	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); and 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 Prevalence

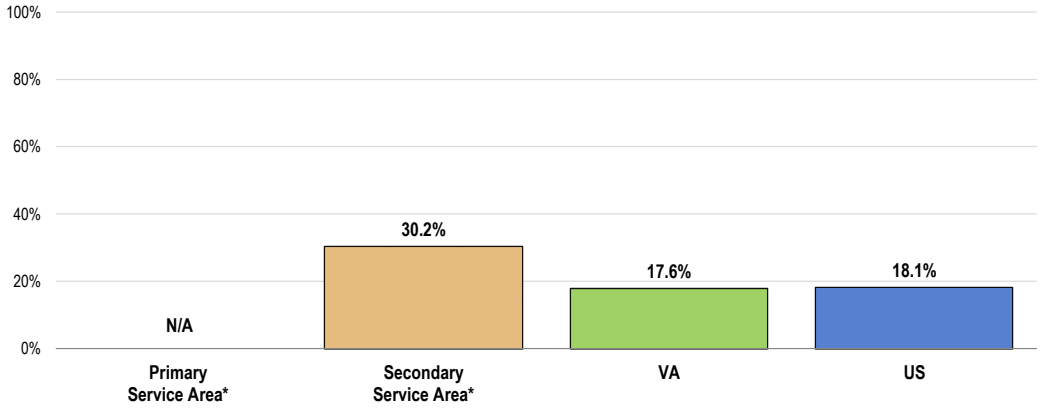
A total of 30.2% of area adults currently smoke cigarettes, either regularly or occasionally.

- Much higher than statewide and national findings.
- Far from satisfying the Healthy People 2020 target (12.0% or lower).

Current Smokers

(2006-2012)

Healthy People 2020 Target = 12.0% or Lower



Sources:
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse.
- Retrieved August 2018 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 TU-1.1]

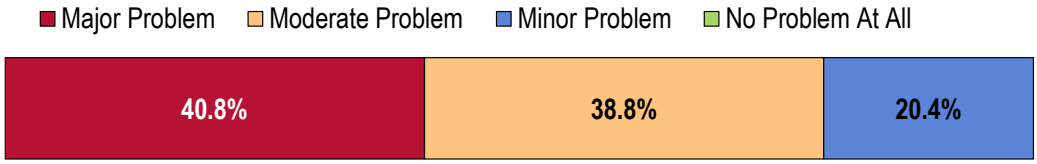
Notes:
- This indicator is relevant because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease.
- Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).
- *Bath and Highland County data are unavailable.

Key Informant Input: Tobacco Use

Key informants taking part in an online survey most often characterized *Tobacco Use* as a "major problem" in the community.

Perceptions of Tobacco Use as a Problem in the Community

(Key Informants, 2018)



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

Lots of people use it, mostly generational, from family member to family member. Hereditary, traditional. – Community Leader

Everyone smokes at early age, or smoke in 20s due to stress. Insurances do not cover Chantix or nicotine replacement. – Physician

Very high rate of tobacco users both smoking and chewing tobacco, both young and old. – Other Health Provider

Lots of smokers and those who dip. – Other Health Provider

Many in the community use chewing tobacco. Appears to be accepted as commonplace and not a health concern. – Other Health Provider

Many of our citizens of all ages use tobacco products. – Community Leader

Many in community still smoke. – Other Health Provider

Smokeless tobacco is generational. Many use tobacco as alternative to mental health services for calming effect but rather is an addictive habit. – Public Health Representative

Despite all the bad publicity of smoking, there is still a lot of tobacco use. – Community Leader

Tobacco use is common in the young adults in our community as well as adults and senior citizens. Smokeless tobacco is popular among youths. – Community Leader

Culture

Culturally it is still accepted. – Community Leader

Social history, culture, and lack of education. – Other Health Provider

Lack of education and respect for oneself. – Community Leader

Lifestyle

Stress. – Community Leader

Access to Health Services

Professional Research Consultants, Inc.

Lack of Health Insurance Coverage

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).

Among adults age 18 to 64 in the Total Service Area, 12.4% report having no insurance coverage for healthcare expenses.

- Similar to the state and US findings.
- The Healthy People 2020 target is universal coverage (0.0% uninsured).
- Similar findings by service area.

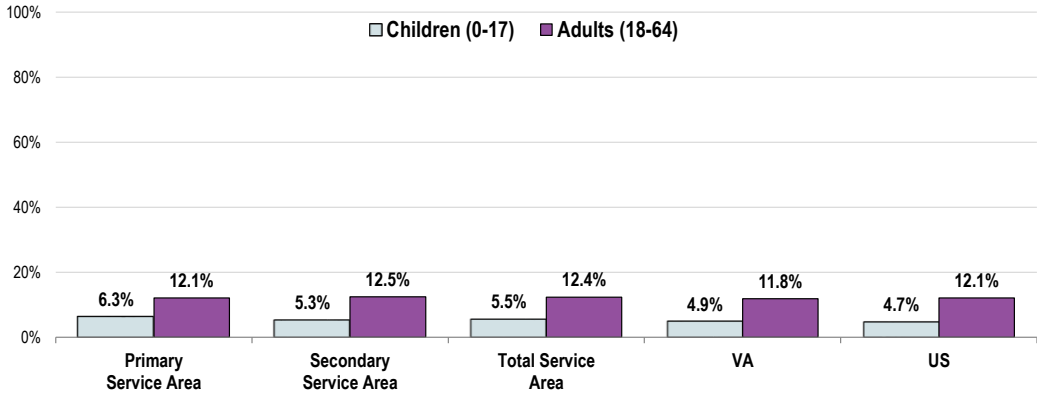
Additionally, among children age 0 to 17 in the Total Service Area, 5.5% have no insurance coverage for healthcare expenses.

- Worse than the state and US findings.
- Worse in the Primary Service Area than in the Secondary Service Area.

Uninsured Population

(2016)

Healthy People 2020 Target = 0.0%



Sources:
- US Census Bureau, Small Area Health Insurance Estimates. & American Community Survey 5-year estimates.
- Retrieved August 2018 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 AHS-1.1].

Notes:
- The lack of health insurance is considered a *key driver* of health status. This indicator is relevant because lack of insurance is a primary barrier to healthcare access (including regular primary care, specialty care, and other health services) that contributes to poor health status.

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.

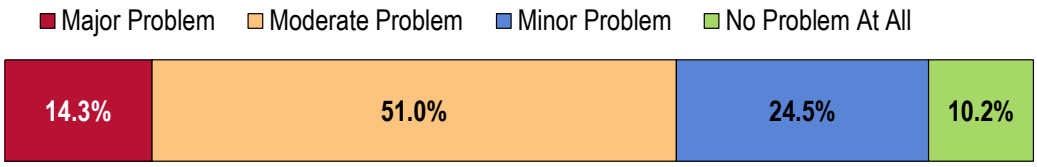
- Healthy People 2020 (www.healthypeople.gov)

Key Informant Input: Access to Healthcare Services

The largest share of key informants taking part in an online survey characterized *Access to Healthcare Services* as a "moderate problem" in the community.

Perceptions of Access to Healthcare Services as a Problem in the Community

(Key Informants, 2018)



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

The lack of health services in our rural location-specifically the lack of quality health care that treats the whole person's health, not just one or two aspects of it. Major treatments require travel to Staunton, Roanoke, or Charlottesville, or further, creating more of a burden on patients. – Social Services Provider

It is not a health issue but affects access to care and that is the transportation issue here. There are no options for people who cannot drive. – Public Health Representative

Critical care prehospital emergency services. Skilled care for other things beyond orthopedics, such as respiratory with BiPap, chronic heart disease. – Other Health Provider

Transportation to health care facilities unavailable to many in need. – Physician

Access to Providers

Not enough health care providers primary care. Concerns with costs associated with labs, office visits, X-rays, seeing specialist and getting medications. – Physician

Lack of specialist services and care. – Community Leader

Need for Orthopedics and General Surgery

> *The need for orthopedics and general surgery. Clearly the hospital cannot perform all procedures, but it would be nice not to have to travel for all general surgery. – Other Health Provider*

Type of Care Most Difficult to Access

Key informants (who rated this as a "major problem") most often identified **specialty care** 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**
	%	%	%	#
Specialty Care	40.0	20.0	0.0	3
Behavioral Health	20.0	20.0	0.0	2
Urgent Care	0.0	20.0	20.0	2
Substance Abuse Treatment	0.0	20.0	20.0	2
Pain Management	0.0	0.0	40.0	2
Elder Care	20.0	0.0	0.0	1
Dental Care	20.0	0.0	0.0	1
Chronic Disease Care	0.0	20.0	0.0	1
Primary Care	0.0	0.0	20.0	1

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)

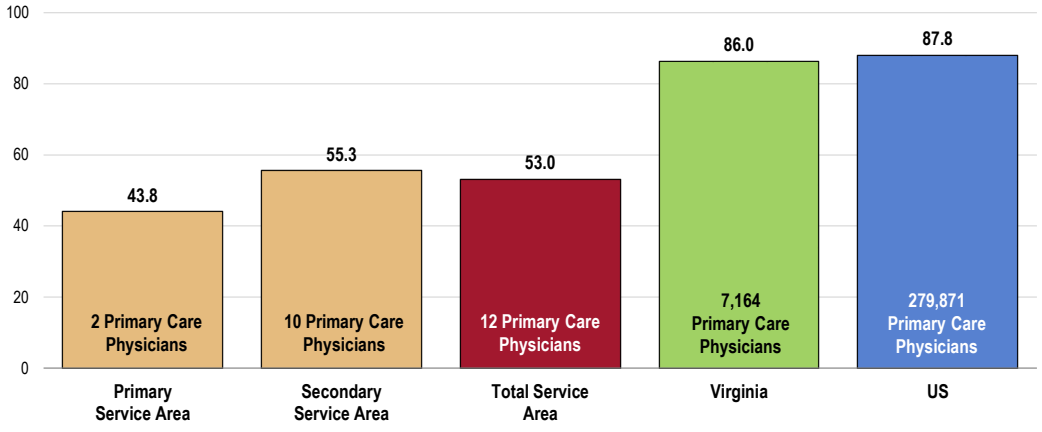
Access to Primary Care

In 2014, the Total Service Area had 12 primary care physicians, translating to a rate of 53.0 primary care physicians per 100,000 population.

- Well below what is found statewide and nationally.
- The ratio is higher outside the Primary Service Area.

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 August 2018 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.

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 Care

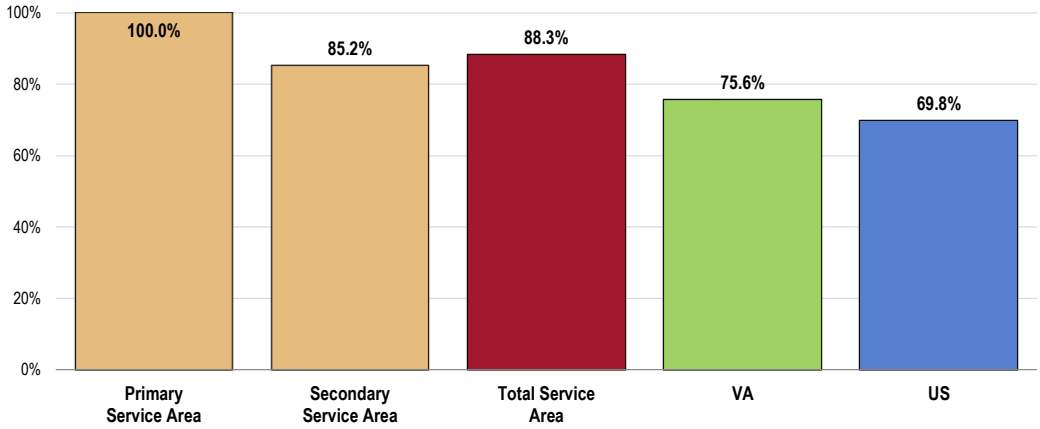
A total of 88.3% of Total Service Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- Above the statewide findings and especially the US findings.
- Easily satisfies the Healthy People 2020 target (49% or higher).
- Especially high in the Primary Service Area.

Have Visited a Dentist or Dental Clinic Within the Past Year

(2006-2010)

Healthy People 2020 Target = 49.0% or Higher



Sources:
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES.
- Retrieved August 2018 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 OH-7]

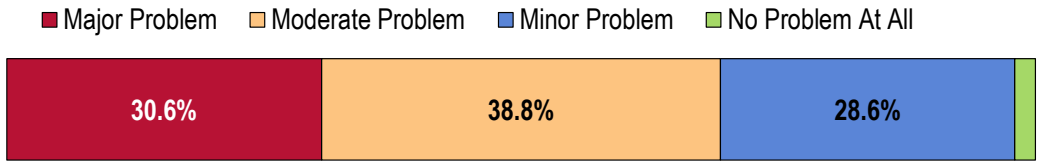
Notes:
- This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Key Informant Input: Oral Health

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

Perceptions of Oral Health as a Problem in the Community

(Key Informants, 2018)



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

People cannot afford to see dentist. No preventative care, bad eating habits, smoking, chewing tobacco. – Physician

Lack of service for those on limited income. – Other Health Provider

Cost of dental care unaffordable. Not enough dentist in the area. – Other Health Provider

The hospital used to allow a dentist to have an office within its building. It would be good to have this offered again. – Community Leader

No insurance. – Community Leader

Lack of free/discounted services in the community. Oral health/dental care not viewed as an 'important' determinate of overall health. – Other Health Provider

Costs and fear. – Community Leader

Lack of effort, poverty. – Community Leader

Access to Providers

We had a county dental program going because of this problem but lost our dentist. There are many people with dental problems and no insurance. Many suffer and seek no treatment. – Public Health Representative

Lack of dentist in area. – Other Health Provider

There is only one practicing dentist in the county. No education available about the importance of oral care. Mostly cost prohibitive for many families. – Community Leader

Health Awareness/Education

Uneducated and can't afford. – Community Leader

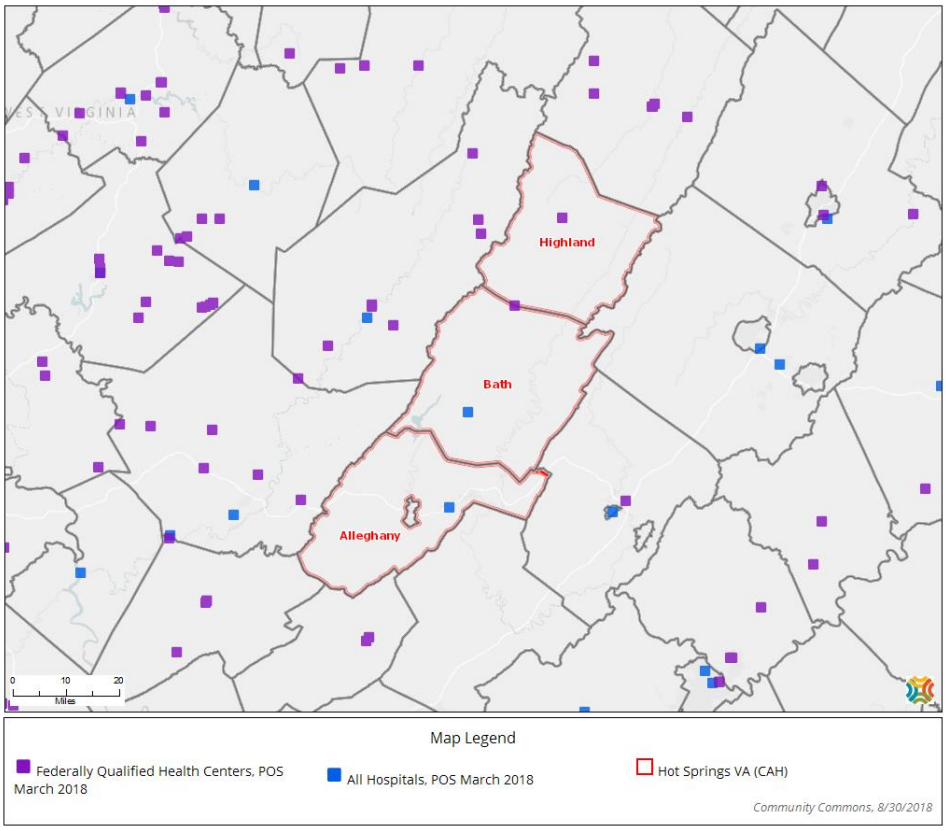
Local Resources

Professional Research Consultants, Inc.

Healthcare Resources & Facilities

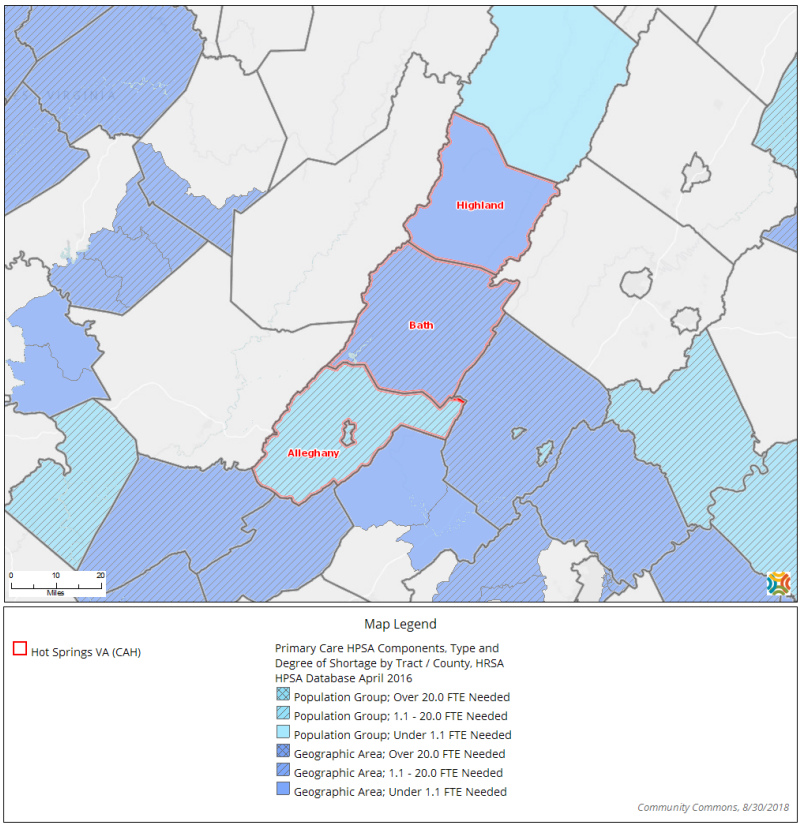
Hospitals & Federally Qualified Health Centers (FQHCs)

The following map provides an illustration of the hospitals and federally qualified health centers (FQHCs) found within the Total Service Area as of March 2018.



Health Professional Shortage Areas (HPSAs)

This map illustrates the locations designated as health professional shortage areas in the Total Service Area as of April 2016.



Resources Available to Address the Significant Health Needs

Incorporating input from community stakeholders taking part in the Online Key Informant Survey, the following represent potential measures and resources (such as programs, organizations, and facilities in the community) available to address the health needs identified in this report. This list is not exhaustive, but rather outlines those resources identified in the course of conducting this Community Health Needs Assessment.

Access Problems

Bath Access to Care
Bath Community Ambulance Services
Bath Community Hospital
EMS
Good Rx
Health Department
Highland Medical Center
Pendleton Community Care

Arthritis/Osteoporosis/Back Conditions

Bath Access to Care
Bath Community Hospital
Covington Chiropractor
Doctor's Offices
Good Rx
Health Clinic
LewisGale Hospital Alleghany
Physical Therapy
Rehabilitation Services

Cancer

Bath Community Physicians Group
Cancer Center
Cancer Fund
Cancer Society
Churches
Community Members Raising Funds
Doctor's Offices
Doris Via
Federally Qualified Health Centers
Friends/Family
Health Department
Hospitals
LewisGale Hospital Alleghany
LOA

Chronic Kidney Disease

Bath Community Hospital
Bath Community Physicians Group
Dialysis Center
Divita
Health Clinic

Dementia/Alzheimer's Disease

Alleghany Health and Rehab
Alleghany Highlands Community Services Board
Americare Plus
Bath Community Hospital
Brian Center
Caregiver Support Group
Community Services Board
Doctor's Offices
Federally Qualified Health Centers
LewisGale Hospital Alleghany
RHC
Springs Nursing Center

Diabetes

ARH
Bath Access to Care
Bath Community Hospital
Bath Community Physicians Group
Bath Community Rural Health Clinics
Bath Community Wellness Center
CDE
Community Health Center
Diabetic Services
Doctor's Offices
Farmer's Market
Free Screenings
Health Clinic
Health Department
Highland Health Clinic

- *Highland Medical Center*
- *Jackson River Internists*
- *LewisGale Hospital Alleghany*
- *Library*
- *Nutrition Services*
- *Pendleton Community Care*
- *Self-Coaching, Online Support Groups*
- *Urgent Care*
- *Walmart*

Family Planning

- *Bath Community Hospital*
- *Community Services Board*
- *Health Department*
- *School System*

Hearing and Vision Problems

- *Bath Community Hospital*
- *Doctor's Offices*

Heart Disease and Stroke

- *Bath Community Hospital*
- *Bath Community Physicians Group*
- *Bath Community Wellness Center*
- *Cardiac Rehab*
- *Doctor's Offices*
- *EMS*
- *Food Bank*
- *Health Clinic*
- *Hospitals*
- *LewisGale Hospital Alleghany*
- *Library*
- *LOA*
- *School System*
- *Senior Center*
- *Social Services*
- *Wellness Center*

HIV/AIDS

- *Health Department*

Infant and Child Health

- *Bath Community Hospital*
- *Doctor's Offices*

Mental Health Issues

- *Alleghany Community Services Board*
- *Alleghany Highlands Community Services Board*
- *Bath Community Hospital*
- *Bath Community Physicians Group*
- *Churches*
- *Community Health Center*
- *Community Services Board*
- *Department of Social Services*
- *Family Preservation Services*
- *Health Clinic*
- *Health Department*
- *Hospitals*
- *Mental Health Services*
- *Rockbridge Area Community Services Board*
- *School System*
- *Social Services*

Nutrition, Physical Activity, and Weight

- *Bath Community Hospital*
- *Bath Community Physicians Group*
- *Bath Community Rural Health Clinics*
- *Bath Community Wellness Center*
- *Food Bank*
- *Health Department*
- *Highland Health Clinic*
- *Library*
- *Parks and Recreation*
- *Rockbridge Area Community Services Board*
- *School System*
- *Senior Center*
- *Virginia Cooperative Extension*
- *Wellness Center*
- *YMCA*

Oral Health/Dental Care

- *Community Health Center*
- *Dentist's Offices*
- *Highland Medical Center*

Respiratory Diseases

- *Bath Community Hospital*
- *Bath Community Physicians Group*
- *Doctor's Offices*
- *Hospitals*
- *Jackson River Internists*
- *Pulmonary/Respiratory Rehab*
- *Sleep Center*

Substance Abuse

AA/NA
Alleghany Community Services Board
Alleghany Highlands Community Services Board
Bath Community Hospital
Bath Community Physicians Group
Bath Community Rural Health Clinics
Churches
Community Services Board
DARE
Department of Social Services
Drug Task Force
Health Department
Healthy Youth Coalition
Hospitals
Rockbridge Area Community Services Board
School System
Suboxone Clinic/Pain Management Clinic

Tobacco Use

Bath Community Hospital
Bath Community Physicians Group
Bath County Health Department
Bath County High School
Community Health Center
Community Services Board
Department of Social Services
Doctor's Offices
Health Department
Highland Medical Center
Medication Assistance Program
Quit Now Virginia

Appendix

Professional Research Consultants, Inc.

Evaluation of Past Activities

2015 Community Health Needs Assessment Implementation Grid

Mental Health & Substance Abuse	Explore the implementation of an Integrated Behavioral Health program in the RHC.	This model will establish a mental health provider in the primary care setting so that access is easily available during a primary care visit. This will create a continuum of care for the patient in a familiar setting.
	Offer Mental Health First Aid Class in the community.	This strategy will teach area residents and caregivers how to identify risk of harm or suicide, depression and mood disorders as well as substance abuse and encourage treatment of a mental health professional.
	Explore implementation of a SADD (Students Against Destructive Decisions) club	During our CHNA focus groups, we received alarming feedback from our youth population that alcohol and drugs were their greatest concern for the health of our community.
	Explore the use of Tele-Psychiatry Services	Bath Community Hospital has the capacity to offer Tele-Psychiatry Services with existing equipment from the Telemedicine program.
Exercise, Prevention & Education	Develop a robust Community Health Outreach program	Bath Community Hospital has engaged the community in various ways in their community outreach efforts. BCH will develop a more structured and robust program to promote health and wellness to our service area.
Chronic Disease Management in an Aging Population	Explore opportunity of Patient Navigator position	As the health care system continues to become more complex, the challenge for our older population to coordinate necessary care continues to increase. Providing a patient navigator in our facility would ensure the continuum of care for an aging population.
	Partner with Primary Care Providers	Recent state and national data identified eight clinical preventive services: two vaccinations that protect against influenza and pneumococcal disease; as well as five screenings for early detection of breast cancer, colorectal cancer, diabetes, lipid disorders, and osteoporosis. BCH plans to incorporate these services into the clinic and community health outreach services.

Prioritized Need #1: Mental Health & Substance Abuse

- *STRATEGY 1* – Explore the implementation of an Integrated Behavioral Health program in the RHC.
- *STRATEGY 2* – Offer Mental Health First Aid Class in the community.
- *STRATEGY 3* – Explore the use of Tele-Psychiatry Services
- S*TRATEGY 4* – Explore implementation of a SADD (Students Against Destructive Decisions) club

Implementation of Behavioral Health at BCH

Pari Baker, MSW hired in 2016. Pari passed her boards in March 2017 and is now a LCSW in the RHC in Hot Springs
Donna Mauck, LCSW,CSAC hired in October 2016 & sees patients in both Hot Springs and Covington locations.

2017- 1325
2018 (through October)- 1231

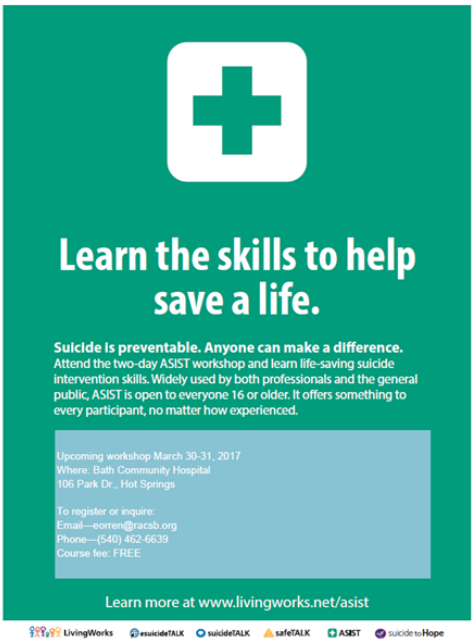
Mental Health First Aid Class in the community

Provided in partnership with Rockbridge Area Community Services

17 participants

Learning goals and objectives

- Understand the ways that personal and societal attitudes affect views on suicide and interventions
- Provide guidance and suicide first aid to a person at risk in ways that meet their individual safety needs
- Identify the key elements of an effective suicide safety plan and the actions required to implement it
- Appreciate the value of improving and integrating suicide prevention resources in the community at large
- Recognize other important aspects of suicide prevention including life-promotion and self-care



Explore the use of Tele-Psychiatry Services

Bath Community Hospital currently has 3 telemedicine units
- ER for Stroke
- Nursing for Diabetic Education

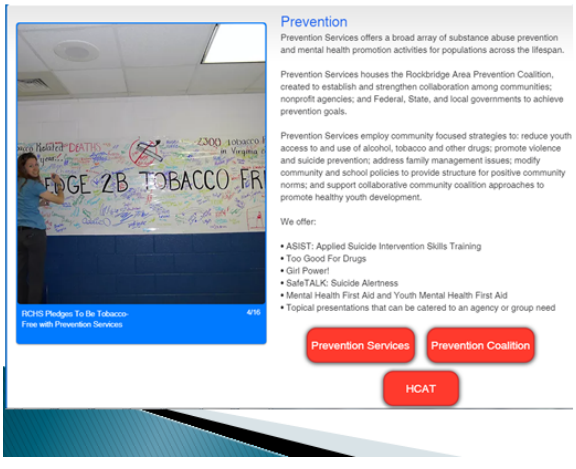
Hired a telemedicine and chronic care coordinator

Exploring opportunities including tele-psychiatry

- Cardiology
- Pulmonology
- Neurology

Other Opportunities
- Dermatology
- Endocrinology
- Psychiatry
- Surgical consults
- Wound care

STRATEGY4 - Explore implementation of a SADD (Students Against Destructive Decisions) club or a Prevention Education Program (Carry Over for 2018-2019)



Prioritized Need #2: Exercise, Prevention & Education

- STRATEGY 1– Develop a robust Community Health Outreach program
  - The Bath Community Rehab & Wellness Center will continue to offer programs for all ages.
    - Heart Health
    - Senior Program
    - Balance & Fall Prevention
    - Elder Abuse
    - Back Pack & Back Pain Prevention
  - The Bath Community Hospital will offer education programs for the community on healthy eating and good nutrition and education on staying fit.

Educational Events:

- Heartnet – Healthy Heart Program
- Diabetic Education in partnership with UVA
- Chronic Disease Management
- Exercise Program for High School Students
- Senior program at BCR &W
- Free classes for BCR&W members

Annual Events:

- Community Health Fair with The Homestead
- Health Fairs at Westrock, BARC, YMCA
- Relay for Life Team
- Breast Cancer Awareness activities
- Bath County Triathlon sponsor
- Bath County Athletics Physicals

Prioritized Need #3: Chronic Disease Management in an Aging Population

- STRATEGY 1– Explore opportunity of Patient Navigator position –
  - Chronic Care Coordinator hired in 2018. New program in development within the RHC locations.

- STRATEGY 2 – Partner with Primary Care Providers with MIPS reporting(Ongoing 2016–2017 baseline established)
  - Will be compared to national trends as they develop

MIPS REPORTING THRU 2nd qtr 2018

		2016	2017				2018	
			1st qtr	2nd qtr	3rd qtr	4th qtr	1st qtr	2nd qtr
		Average	Average	Average	Average	Average	Average	Average
	• Adult BMI Screening and Follow-Up Plan	33.01%	23.39%	29.19%	27.49%	26.58%	34.74%	54.36%
	• Weight Assessment and Counseling for Nutrition and Physical Activity for Children		0%	0%	0%	0%	0%	0%
	• Tobacco Use Screening/Counseling	64.03%	49.24%	36.55%	39.63%	51.85%	72.33%	98.47%
	• Colorectal Cancer Screening	10.66%	7.59%	5.92%	7.48%	11.83%	10.30%	21.96%
Improving Health Outcomes								
	• Controlling High Blood Pressure	80.63%	65.85%	69.13%	84.44%	80.21%	82.03%	82.14%
Generating Savings	• Use of Appropriate Medications for Asthma				0%	0%	0%	0%
Sustainable Business Operations	• Operational Measure: % increase in Annual Wellness Visits compared to previous 12 months; N=Number of AWVs billed, D=Number of Medicare Patients		3	3.5	3.67	2.20	3	2.4