Sentara RMH Medical Center

Community Health Needs Assessment 2018

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Sentara RMH Medical Center

Community Health Needs Assessment (CHNA)

2018

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I. Introduction

Sentara RMH Medical Center (SRMH) has conducted a community health needs assessment (CHNA) of the area that we serve, in collaboration with the Central Shenandoah Health District, the Harrisonburg-Rockingham Community Services Board, the Harrisonburg Community Health Center (FQHC), Valley Program for Aging Services, and Church World Service (Refugee Resettlement program). The assessment provides us with a picture of the health status of the residents in our communities and provides us with information about social and health-related problems that impact health status.

Our assessment includes a review of population characteristics such as age and racial and ethnic composition because demographic factors are important determinants of health. Socioeconomic factors such as education, employment and poverty are included because current research suggests that the way a person lives in their community, the challenges they face and the solutions they find, plays a substantial role in that person's ability to lead a healthy life. The assessment also looks at risk factors like obesity and smoking and at health indicators such as infant mortality and preventable hospitalizations. Community input is vital to the process, and we have conducted a key stakeholder survey and focus groups as well as including the results of a community survey by the Harrisonburg-Rockingham Community Services Board. Finally, the assessment presents the health status indicators that depict the medical conditions commonly found in the community. Each of these types of data is essential in developing a comprehensive view of community health.

The needs assessment identifies numerous health issues that our communities face. While there are many important community health problems, we are focusing our efforts on the issues listed below. Considering factors such as size and scope of the health problem, the severity and intensity of the problem, the feasibility and effectiveness of possible interventions, health disparities associated with the need, the importance the community places on addressing the need, and consistency with our mission "to improve health every day," we have identified these priority health problems in our area:

- Access to Services

- Behavioral Health
- Chronic Disease Prevention and Management
- Needs of the Aging
- Strong Start for Children
- Substance Abuse

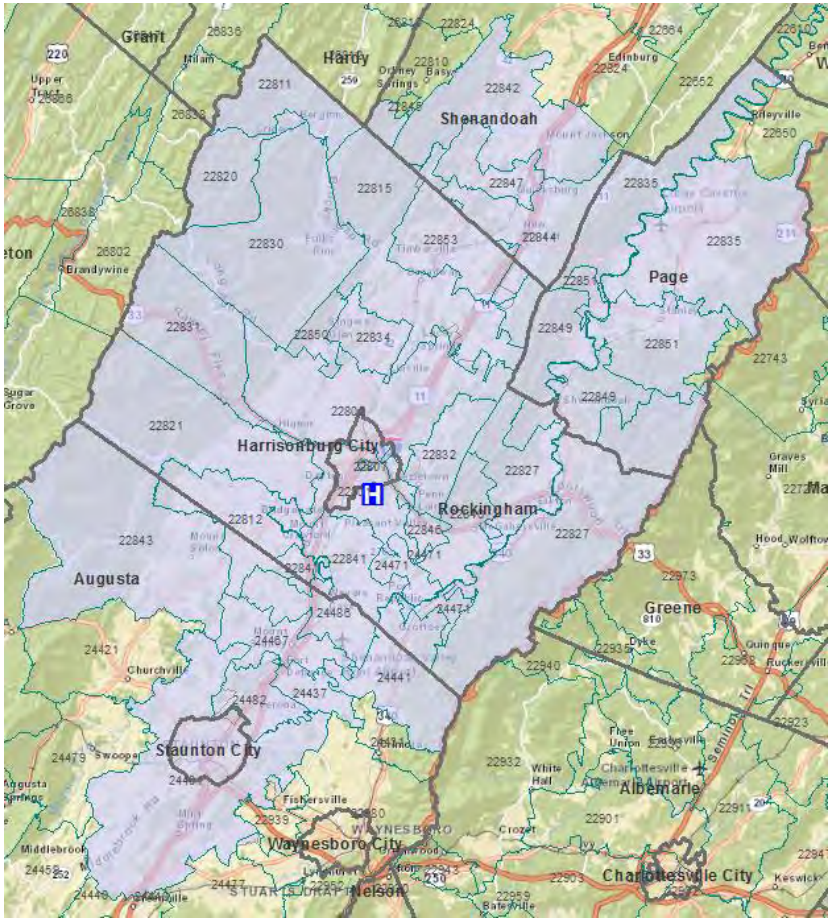
Most of these health issues are continued from our previous CHNA, completed in 2015. This makes sense because these are complex, intractable health conditions, and it takes many years and concerted effort to make positive changes that are significant enough to impact outcomes for the whole community. In 2015, an implementation strategy was developed to address these problems and many programs have been developed to improve health for those who face these health challenges. The hospital has tracked progress on the implementation activities in order to evaluate the impact of these programs. A summary of the strategies employed to address health issues identified in the 2015 CHNA is included at the end of this document.

Sentara RMH Medical Center works with a number of community partners to address health needs. The hospital has compiled a community resource guide to improve our ability to connect patients with community resources. Information on community resources is also available from sources like 2-1-1 Virginia and Sentara.com. Together, we will work to improve the health of the communities we serve.

Your input is important to us so that we can incorporate your feedback into our future assessments. You may use our online feedback form available on the Sentara.com website. Thanks!

II. Community Description

The SRMH Service Area in Detail:



The service area of Sentara RMH Medical Center (SRMH) comprises four counties: Rockingham, Page, Shenandoah and Augusta, and two incorporated cities, Harrisonburg and Staunton, as the primary service area. SRMH is seeing some expansion of its service area with a small but growing number of patients traveling from Pendleton and Hardy Counties in West Virginia to access the high quality services it provides. Those patients comprise less than 2% of the patients receiving care at SRMH. The area encompasses the 38 zip codes displayed below, and the lives of 295,586 residents. Approximately 100% of the hospital's inpatients reside in this area.

Zip Code	Zip Name	County	Zip Code	Zip Name	County
22801	Harrisonburg	Harrisonburg	22844	New Market	Shenandoah
22802	Harrisonburg	Harrisonburg	22846	Penn Laird	Rockingham
22803	Harrisonburg*	Harrisonburg*	22847	Quicksburg	Shenandoah
22807	JMU	Rockingham	22849	Shenandoah	Page
22811	Bergton	Rockingham	22850	Singers Glen	Rockingham
22812	Bridgewater	Rockingham	22851	Stanley	Page
22815	Broadway	Rockingham	22853	Timberville	Rockingham
22820	Criders	Rockingham	24401	Staunton City	Staunton
22821	Dayton	Rockingham	24402	Staunton City*	Staunton
22827	Elkton	Rockingham	24437	Ft.Defiance	Augusta
22830	Fulks Run	Rockingham	24441	Grottoes	Rockingham
22831	Hinton	Rockingham	24467	Mt.Sidney	Augusta
22832	Keezletown	Rockingham	24471	Port Republic	Rockingham
22834	Linville	Rockingham	24482	Verona	Augusta
22835	Luray	Page	24486	Weyers Cave	Augusta
22840	McGaheysville	Rockingham	26802	Brandywine	Pendleton, WV
22841	Mt. Crawford	Rockingham	26807	Franklin	Pendleton, WV
22842	Mt. Jackson	Shenandoah	26815	Sugar Grove	Pendleton, WV
22843	Mt. Solon	Augusta	26838	Milam	Hardy, WV

The geography of the service area distinguishes it from both Virginia as a whole and the United States in that it is two cities surrounded by an extremely rural region (designated as such by US Census Bureau classification). The total service area comprises 2,673 square miles, with Augusta and Rockingham counties being the second and third largest geographies in Virginia. The logistical challenges faced by large geographic regions,

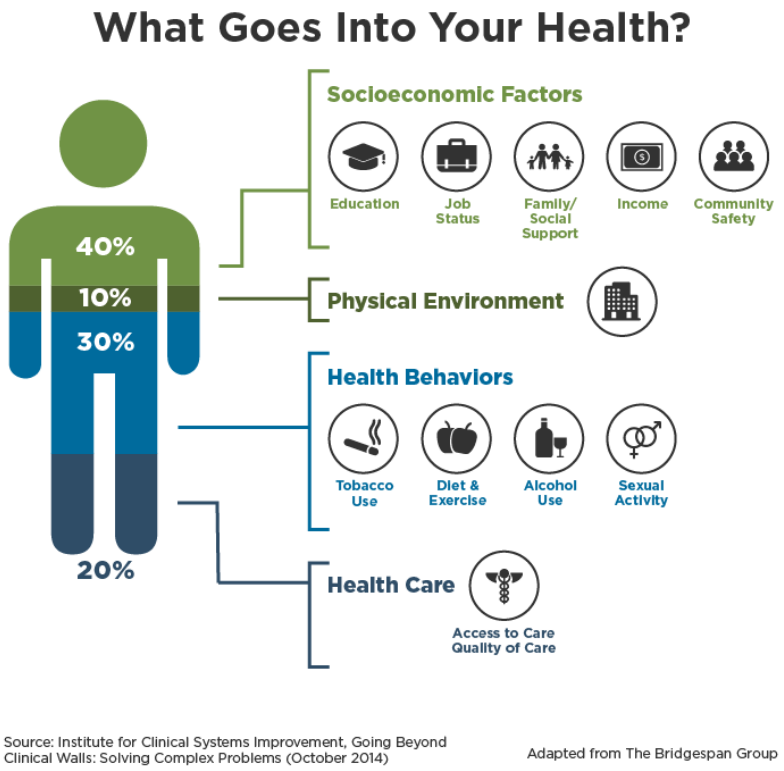
including lack of public transportation, clustering of social, medical and educational services, and the poverty that results in a substantial portion of the population not having access to a reliable vehicle, make access to services an important health issue.

Geographic Description	Harrisonburg	Staunton	Rockingham County	Augusta County	Page County	Shenandoah County	VA	USA
Total Population 2017	51,979	24,234	78,427	74,330	23,759	42,857	8,310,301	318,558,162
Population Density/square mile*	2,984	1,213	92.4	76.9	76.4	84.2	215	92
Projected Population Change 2017 - 2022	+6.1%	+3%	+2.7%	+2%	<1%	+1.6%	+4.2%	+3.8%

The population of the SRMH service area is expected to grow in the next 5 years, although more slowly than the state as a whole. Only the West Virginia counties are expected to experience population loss. Harrisonburg, the largest city, most urban locality, and home to James Madison University and Eastern Mennonite University, will see almost twice the state growth rate, while Bridgewater College in southern Rockingham County, Blue Ridge Community College in northern Augusta County and Mary Baldwin College in Staunton, will contribute to the expected growth. Page County will remain essentially stable, with less than 1% growth in the next 5 years.

The Role of Social Determinants in Health:

A growing body of research is being conducted on the ways our lifestyle opportunities, choices and constraints impact our overall health. Some have been surprised to discover that what we consider to be medical care, visits with our doctors, medication requirements and procedures to treat identified illnesses, contribute fairly little to our overall health over the course of a lifetime (20%). Much more important in determining our health are our health behaviors (like screenings, diet, exercise, alcohol/tobacco use, sleep habits) and what we call the social determinants of health, the circumstances we live in (such as poverty, access to services, adequate housing, education and stable family structure). The following graphic depicts the impact of various factors on our health.



The following pages present some of the social determinants that influence community health in the SRMH service area.

The People, Who We Are:

Knowing the characteristics of the people who live in the service region is the first step to knowing their health status and concerns, and provides important information to use in improving community health.

	Harrisonburg	Staunton	Rockingham County	Augusta County	Page County	Shenandoah County	Virginia	United States
Total Population	51,979	24,234	78,427	74,330	23,759	42,857	8,310,301	318,558,162
Race								
White Non-Hispanic	84.5%	83.3%	93.9%	93.2%	95.8%	93.5%	68.7%	73.3%
Black Non-Hispanic	6.8%	11.2%	2.1%	4%	1.6%	2.1%	19.2%	12.6%
Hispanic	18.2%	2.7%	6.2%	2.4%	1.8%	6.7%	8.7%	17.3%
Minority Population	15.5%	16.7%	6.1%	6.8%	4.2%	6.5%	31%	26.4%
Median Age in years	24	42.6	41.6	44.5	44.7	44.8	37.8	37.7
% of Population Aged 0 - 17	15.8%	18.5%	22.6%	19.3%	20%	21.2%	22.4%	23%
% of Population Aged 65+	8.1%	20.7%	17.9%	18.8%	20.1%	20.2%	13.3%	14.1%
Projected Population Change through 2040**	43.4%	5%	20.1%	15.4%	-1.3%	17.9%	22.8%	20.2%

American Community Survey, US Census Bureau 2012-2017

**produced by the Demographic Research Group of the Weldon Cooper Center for Public Service, March 2017, http://demographics.coopercenter.org

One of the primary characteristics of the SRMH service area is the presence of a refugee resettlement program in Harrisonburg, which creates both special needs and opportunities for collaborations and partnerships between organizations working to meet those needs. The result is a rich environment with multiple organizations focused on improving community health from multiple perspectives and care delivery paradigms. A community diversity profile follows.

Community Diversity Profile

The nearest school system to Sentara RMH Medical Center is the Harrisonburg City Public Schools (HCPS). This school system is rich in diversity with students from many countries around the world and whose primary language is not English. According to the most recent "Enrollment of English Language Learners" report (June 2017), enrollment of students include:

- 56 unique countries of birth
- 58 unique languages of origin
- 127 HCPS students speak more than one language in addition to English.

The Church World Service (CWS) Harrisonburg Immigration and Refugee Program has resettled refugees since 1988 from Afghanistan, Azerbaijan, Belarus, Bosnia, Burma, Colombia, Congo (DRC), Croatia, Cuba, El Salvador, Eritrea, Honduras, Iran, Iraq, Kazakhstan, Kosovo, Pakistan, Russia, Rwanda, Serbia, Sierra Leone, Somalia, Syria, Sudan, Tajikistan, Ukraine, and Uzbekistan within a 100 mile radius of their Harrisonburg-based office.

In 2018, CWS put out a report that highlighted the impact of immigrants in the Harrisonburg metropolitan area (*New Americans in Harrisonburg: A snapshot of the demographic and economic contributions of immigrants in the metro area*, 2018).

- In 2016, there were 12,599 immigrants living in the Harrisonburg metro area, making up 9.7% of the overall population. Of the total immigrant population, 7.8% of them were likely refugees, 33.4% were naturalized citizens, and 43.3% were likely undocumented.
- From 2011-2016, the foreign-born population in the Harrisonburg metro area grew from 7,274 to 12,599 (73.2%) while the total population of the area grew at a rate of 3.3%.
- Foreign-born workers represented 12.5% of the employed labor force and play an important role in several key industries in the region:
    - Manufacturing: 22.1%
    - Hospitality and recreation: 17.6%
    - Transportation: 17.5%
    - Professional services: 17.1%
    - Agriculture: 15.4%
- In 2016, 17% of immigrants ages 25 and older held at least a bachelor's degree (compared to 29.4% of the U.S.-born population in Harrisonburg).
- In 2016, 34.4% of immigrant households owned their own homes (compared to 52.6% of U.S.-born households) and 58.1% of immigrant households were renters, for total annual rent of $24.1 million.

Our Aging Population:

It is well understood that older individuals are more likely to need more healthcare services, and a variety of services which are targeted toward that population. The need for healthcare services increases with age and looking at the elderly population in fine detail reveals a set of likely healthcare needs as time goes on. The population of the SRMH service area is aging faster than the rest of the state, as presented in the table below. In 2020, 19.4% of the SRMH service area population will be aged 65+, while only 16% of the population of Virginia as a whole falls into that category. In 2030 the percent of elderly in the SRMH service area increases to 22.2%, while Virginia will find 19% of its population aged 65+. The trend reverses slightly by 2040, but the percentage in the SRMH area remains higher than in the whole of Virginia combined.

Additionally, the percent of the population aged 80+ and 85+ is consistently greater in the SRMH service area than in Virginia as a whole, and that difference continues through 2040. When the City of Harrisonburg is excluded from analysis, the service region's older adult population is dramatically different than the state population. To address the needs of our patients and seniors in the community, Sentara RMH has focused on improving patient transitions to community settings through improved discharge planning and community-based care management. Health education and physical activity programming is available through the Senior Advantage program, which also coordinates an annual Aging Gracefully conference with health education, screenings, and information on community resources. Sentara RMH Lifeline offers the Safe Transitions program, which provides a medical alert device to patients who need it upon discharge.

The Aging Population: a Comparison of Projections for the SRMH Service Area and the State of Virginia			
2020			
Total SRMH Service Area % Aged 65+	19.4%	Virginia % Aged 65+	16%
Total SRMH Service Area % Aged 80+	4.8%	Virginia % Aged 80+	3%
Total SRMH Service Area % Aged 85+	2.4%	Virginia % Aged 85+	2%
2030			
Total SRMH Service Area % Aged 65+	22.2%	Virginia % Aged 65+	19%
Total SRMH Service Area % Aged 80+	6.0%	Virginia % Aged 80+	5%
Total SRMH Service Area % Aged 85+	2.7%	Virginia % Aged 85+	2%
2040			
Total SRMH Service Area % Aged 65+	21.5%	Virginia % Aged 65+	15%
Total SRMH Service Area % Aged 80+	7.0%	Virginia % Aged 80+	6%
Total SRMH Service Area % Aged 85+	3.4%	Virginia % Aged 85+	3%

The Demographics Group of the UVA Weldon Cooper Center for Public Service, June 2017: http://demographics.coopercenter.org

Maternal Demographics:

Unsupported and under-supported young families face many negative health outcomes, and predict many community challenges as time goes on, so looking at the way families begin can help us understand the current and future health of the community. Compared to Virginia, residents of the SRMH service area have fewer instances of receiving late or no prenatal care and lower rates of low weight and very low weight births. While teen births are a community concern, the very low numbers do not permit meaningful standardization for comparison to state rates. Staunton and Page County have the highest rates of teen and non-marital births, two correlated statistics.

Indicator	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Virginia
Total Births to Residents	693	371	797	234	571	450	103,074
Births w/Late or No Prenatal Care %	4.8	4.6	2.3	5.1	2.5	2.2	14.8
Total Teen Births / 1,000	16.0	34.6	21.1	24.1	19.9	21.9	23.2
Teen Births: Age 18-19, raw number	37	18	40	8	24	19	3,444
Teen Births: Age 15-17, raw number	11	7	14	4	8	5	1,055
Non-Marital Births %	38.5	45.6	29.7	50.4	29.6	39.6	34.5
Preterm Births %	7.6	9.2	7.3	4.7	10.2	8.4	9.2
Low Weight Births %	6.5	7.5	6.0	5.6	5.1	8.2	7.9
Very Low Weight Births %	1.3	1.1	1.9	—	.7	.7	1.5

Virginia Department of Health, Division of Health Statistics, 2015 (the most recent year available) www.vdh.virginia.gov/healthstats/

*CDC National Center for Health Statistics, 2015

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

Household Sustainability:

Family economic stability and sufficiency are leading indicators of community health, and predict access to preventive care, healthcare utilization and engagement in healthy lifestyle choices. Structural changes to the economy over the last 20 years have led to a high correlation between education, employment and income, the foundation of a stable household. The SRMH service area shares challenges with the state of Virginia.

Indicator	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Virginia	United States
Educational Attainment*								
Less than High School (aged 25+) %	14.9	11.8	18	20.8	13.5	14.3	11.3	13
Bachelor's Degree %	21.1	19.3	14.8	8.7	15.4	12.8	21.2	18.8
Graduate or Professional Degree %	15.1	14.4	9.7	4.2	7.9	6.6	15.7	11.5
Unemployment (March 2018)** %	3.7	3.2	3.0	5.3	3.0	3.3	3.4	3.9
Single (female) Headed Households* %	11.9	11.8	9.5	12.0	9.3	9.8	18.5	19.7
Children in single-parent female headed households* %	22.1	33.2	15.4	16.3	17	19.1	30	23
Children in Poverty (below 100% FPL)*%	25.1	25.7	17.0	21.3	12.9	14.8	15.1	21.2
Population with Health Insurance*** %	85.6	88.1	88.3	86.4	89.6	89.1	89.3	91.4
With Public Health Insurance %	19.1	34.9	28	37.4	31.9	33.7	26.1	37.3
% with Disability *	6.8	16.2	13.2	18.4	14.1	14.7	11.3	12.5

*American Community Survey (ACS), American Factfinder 2012-2016, US Census Bureau

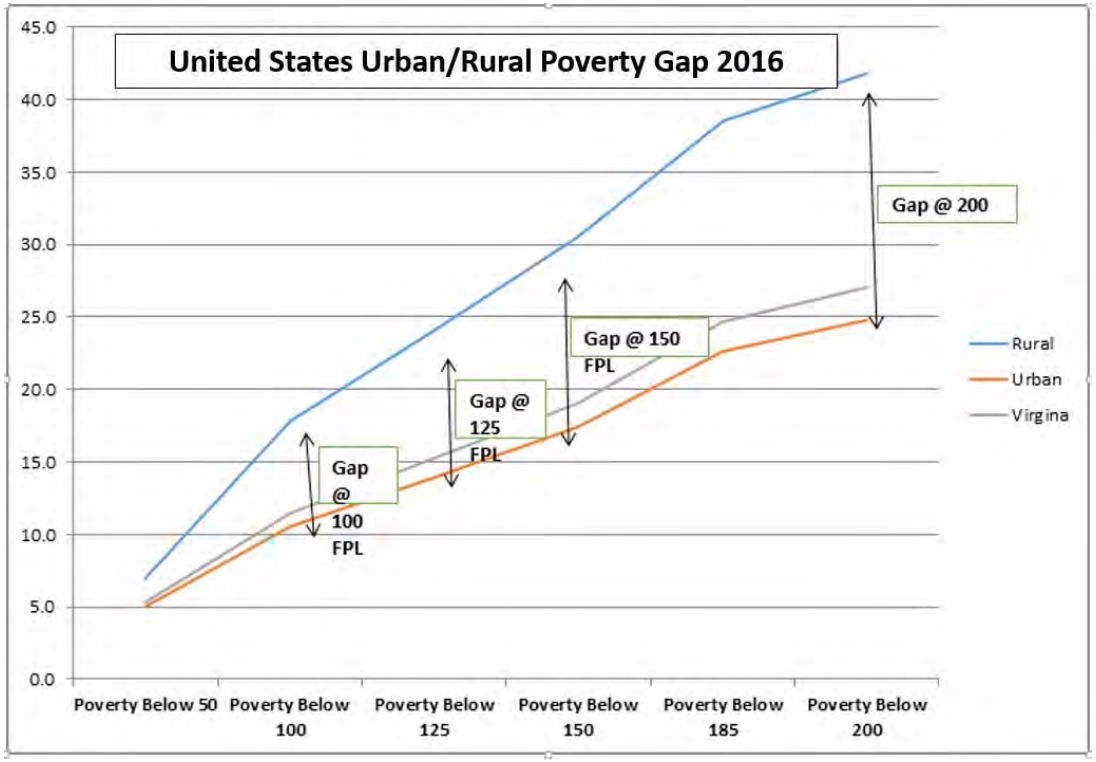
**Bureau of Labor statistics

***includes Medicare, Medicaid, and public exchange coverage

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

Poverty:

Independent of other factors, poverty is a powerful predictor of health status in any setting. The graph presented below demonstrates why it might be of particular concern to residents of the SRMH service area. The graph depicts the distribution of poverty between rural (shown in blue) and urban areas (shown in orange) for United States, with the combined and averaged level for the state of Virginia as a whole included for context. The graph shows that while only a slightly higher percent of rural dwellers are extremely poor, living below 50% of the federal poverty level (approximately 7% for rural vs. 5% for urban residents), the gap between rural and urban grows significantly as poverty becomes less acute, but no less crippling. More than 40% of rural residents in the United States live below 200% of the federal poverty level, while only 25% of urban residents do. This disparity becomes important in policy decisions, and is applicable in understanding the generational, chronic poverty that is part of life in a rural area such as the service area of SRMH.



NACCHO (National Assn. of County and City Health Officials) annual meeting 2016 Phoenix, AZ, NACCHOANNUAL.ORG

The poverty status of the SRMH service area mirrors the national poverty status, with 53.3% of Harrisonburg residents living below 200% of the Federal Poverty Level, double Virginia's 26.8% rate. A closer look reveals another important distinction, with the poverty level of black and Hispanic residents of the SRMH service area significantly higher than for white individuals, listed in the table below. In Augusta, Page and Shenandoah Counties, the overall population of black residents is so small that generalizations about poverty must be cautious. It is striking to note that with low unemployment and other household stability indicators throughout the service area at, or better than, comparisons to Virginia, the level of poverty is so high.

Poverty Level: % 2016	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Virginia	United States
100%	33.1%	15.8%	11.6%	16.0%	9.2%	10.6%	11.4%	15.1%
100% Poverty Level: White	34.7%	15.0%	9.7%	15.6%	8.6%	10.1%	9.1%	12.4%
100% Poverty Level: Black	38.7%	24.3%	33.5%	30.3%	12.9%	12.8%	19.9%	26.2%
100% Poverty Level: Hispanic	25.2%	8.6%	36.0%	27.8%	33.7%	12.9%	15.5%	23.4%
200%	53.3%	35.4%	28.9%	39.8%	27.3%	34%	26.8%	34%
Median Household Income	$40,494	$42,948	$55,029	$45,030	$56,802	$50,450	$66,149	$55,322

**American Community Survey, American Factfinder 2012-2016, US Census Bureau*

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

General Health Status:

Each year the County Health Rankings Project, funded by the Robert Wood Johnson Foundation, compiles data on various factors recognized as determinants of health, both medical and social, and compounds them into indicators that are then ranked with other localities within each state. In Virginia, 133 localities, both counties and incorporated cities, reported. The overarching indicators, health outcomes (data on medical status) and health factors (comprising medical care, social determinants, and individual behaviors) for the SRMH service area vary from very high (Rockingham County health outcomes) to very low (Page County clinical care) reflecting both the health conditions of the counties and the composite variables used to create each ranking. The table on the next page presents the findings.

Indicator	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Virginia
Health Outcomes Ranking (1 out of 133 is best) - length of life, quality of life	53	73	20	61	22	49	
Health Factors Ranking (1 is best) – health behaviors	71	44	41	94	49	61	
Clinical Care Ranking (1 is best) – medical care sufficiency and quality	59	35	105	130	60	125	
Diabetes Prevalence	7%	11%	10%	11%	12%	11%	10%
Diabetes Monitoring	89%	87%	90%	86%	88%	86%	87%
Mammogram Screenings	60%	68%	55%	55%	69%	60%	64%
Adult Smoking	20%	17%	16%	17%	16%	16%	15%
Premature Death (cumulative yrs. of life lost before age 75/100,000 age adjusted)	290	470	270	440	300	330	320
Poor or fair health – self-report	24%	17%	14%	15%	13%	15%	15%
Frequent Mental Distress –self report	14%	12%	11%	12%	10%	11%	11%
Food Environment Index (10.0 is best) -- access, affordability, knowledge, behavior	7.7	8.1	8.7	8.4	8.9	8.9	8.9
Physical Inactivity	20%	24%	27%	26%	26%	25%	22%
Exercise Opportunities	79%	100%	70%	56%	56%	72%	83%
Injury Deaths per 100,000 population – intentional and accidental	33	77	67	92	70	85	58

County Health Rankings 2018, a project of the Robert Wood Johnson Foundation, www.countyhealthrankings.org/app/virginia/2018

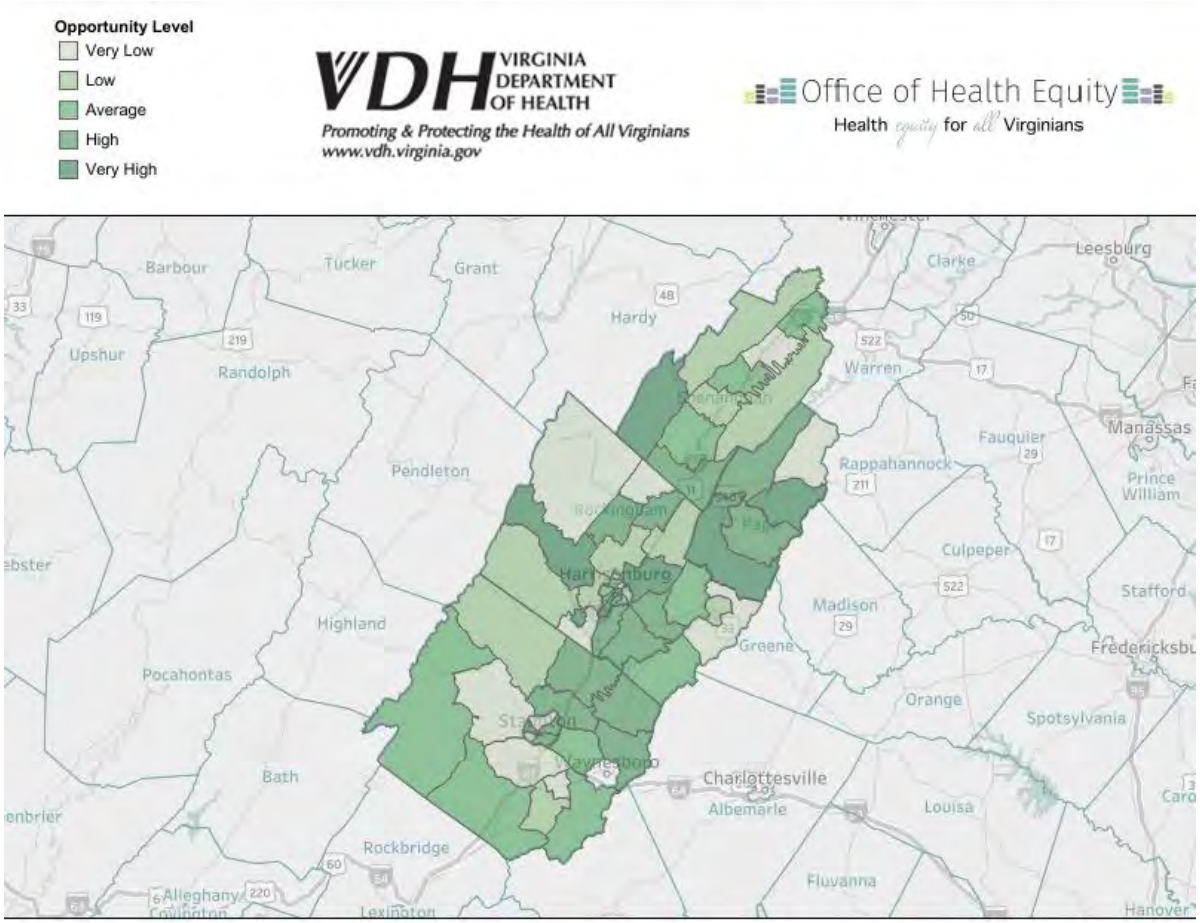
GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

The variability across different indicators for each county demonstrates that the health of a community is a result of complex relationships between what we do, who we are (genetically) and where we live. In Staunton, for instance, the level of clinical care is listed at 35, in the 75th percentile (with only 25% of localities scoring better), yet it experiences the highest level of premature death, 470 years compared to Virginia's 320. Rockingham County, in contrast, has health outcomes listed at 20, in the 85th percentile (only 15% of localities with better scores) while it's clinical care score is 105, in the 21st percentile, which means that 79% of localities score better.

The Environment – How it Impacts Life in the Community:

Wellness Disparity Index:

The map below represents the Virginia Department of Health's Wellness Disparity Index. Included in the composite indicator are measures of access to care (the number of providers within 30 miles of the community) and the ability to afford care in the form of the number of uninsured residents. Additionally, it includes a measure of segregation, the degree to which members of different racial and ethnic backgrounds live together in diverse communities. The two together measure both community diversity and the distance between communities with different racial or ethnic profiles. A low wellness disparity index score indicates a community where there is high disparity between racial or ethnic groups – thus a lower opportunity for all residents to live a healthy life.



The Community Environment:

Having an active, supportive and engaged community is essential to creating the conditions that lead to improved health. The residents of the SRMH service area are highly engaged in matters important to the community. There were 236 invitations sent out to key stakeholders and 88 (a 37% response rate, entirely respectable in survey research) in 58 separate organizations representing service providers, policy makers and underserved communities responded by filling out the survey. Not only does SRMH appreciate their input, but we recognize the importance of their willingness to participate in efforts to enhance life in our community. Representatives of the following organizations participated in the study:

Sentara Rockingham Memorial Hospital - Community Stakeholder Survey Participants by Organization		
Augusta County Public Schools	Harrisonburg-Rockingham Free Clinic	Sentara RMH Palliative Care
Augusta Healthcare for Women	Healthcare for the Homeless Suitcase Clinic	Shenandoah Community Clinic
Autumn Valley Guardianship	Harrisonburg Rockingham Community Services Board	Shenandoah County Public Schools
Blue Ridge Area Health Educators	JMU/Suitcase Clinic	Shenandoah Women's Healthcare
Boys and Girls Clubs	Keister Elementary School	Skyline Literacy
Cargill Meats	Kline May Realty	SRMH Outpatient Behavioral Health
Central Shenandoah Health District	Lantz Construction Company	SRMH South Main Health Center
Child Protective Services	Lee and Associates	SRMH Timberway Health Center
City of Harrisonburg	Open Doors Thermal Shelter	Staunton City Schools
Coldwell Banker Funkhouser Realty	Pace Capital, LLC	Turner Ashby High School, RCPS
Collins Center & Chile Advocacy Center	PACE/Infant Toddler Connection	United Way Harrisonburg/Rockingham
Community Mennonite Church: Faith in Action Coalition	Page County School Board	VA Cooperative Extension
Dept. of Social Services S-A-W	Pathology Associates of Harrisonburg	Valley Community Services Board
Elkton Area United Services	Pendleton Community Care	Valley Elder Care
Generations Crossing	Pendleton County Board of Supervisors	Valley Program for Aging Services
Harrisonburg Chamber of Commerce	Pendleton Manor	Virginia House of Delegates
Harrisonburg City Public Schools	Refugee Resettlement	Virginia Mennonite Retirement Community
Harrisonburg Community Health Center	RHC Board	Way 2 Go Coalition
Harrisonburg Fire Department	Rockingham County Public Schools	Wharton Aldheizer Weaver
	Sentara RMH	

As expected, many of these organizational representatives wear many hats, meaning the true reach of this survey into the community is broader than the listed organizations. Additionally, focus groups were held to get more in-depth perspectives on the health of the community.

III. Community Insight

Key Stakeholder Survey Results

Asked to choose the most important health concerns among 34 health conditions, with no restrictions on the number of choices, respondents selected them as in the table below. These selections resulted in ratings closely resembling those of the previous (2015) community health needs assessment, which makes sense because many of them are complex conditions with multiple contributing factors. Improving these conditions throughout the community will take many years.

Frequency Rank	2018 Most Important Health Problem in Community	% of Participants Selecting Item
1	Mental Health - Behavioral Health Conditions (e.g. depression, anxiety, etc.)	83%
2	Obesity	70%
	Substance Abuse (prescription or illegal drugs)	70%
3	Diabetes	64%
4	Alcohol Use	57%
	Heart Disease	57%
	High Blood Pressure/Hypertension	57%
5	Dental / Oral Health Care	53%
6	Chronic Pain	51%
7	Cancer	49%
8	Dementia/Alzheimer's Disease	47%
9	Infant/Child Health	46%
10	Violence – Domestic Violence	43%
11	Prenatal and Pregnancy Care	40%
	Tobacco Use	40%
12	Respiratory Diseases (e.g. asthma, COPD, etc.)	36%
13	Teen Pregnancy	33%
14	Neurological Conditions (e.g. seizures, multiple sclerosis, traumatic brain injury, etc.)	30%

Frequency Rank	2018 Most Important Health Problem in Community	% of Participants Selecting Item
15	Hunger	27%
	Intellectual / Developmental Disabilities	27%
	Stroke	27%
16	Accidents/Injuries	24%
	Physical Disabilities	24%
	Sexually Transmitted Diseases	24%
17	Orthopedic Problems	20%
18	Arthritis	19%
	Bullying	19%
19	Renal (kidney) Disease	17%
20	Autism	16%
	Infectious Diseases	16%
	Violence – Other than Domestic Violence	16%
21	HIV/AIDS	11%
22	Environmental Health (e.g., pollution, mosquito control, water quality, etc.)	7%
23	Drowning/Water Safety	4%

The general category of mental health garnered the most concern, with 83% of respondents choosing that item. The remaining choices represent a broad array of health conditions distributed in a mix of behavioral health, episodic medical events, socio-economic conditions, and chronic health conditions. The order and degree of interest in the most frequently chosen answers closely reflects the choices of the last CHNA in 2015, perhaps indicating that there is more work to do.

Community Services Needing Strengthening

Survey participants were asked, "Which community health services need strengthening?" Thirty-five choices were included in the survey; the number of choices each person could select was not restricted or ranked. The frequency of the services chosen are displayed below. Responses are ranked in order of the frequency identified; when counts equaled, the same rank is provided for those selections. Seventy-nine participants responded to this question.

Frequency Rank	2018 Community Services Needing Strengthening	% of Participants Selecting Item
1	Mental Health - Behavioral Health Services	73%
2	Substance Abuse Services	56%
3	Services for Vulnerable Populations (e.g. uninsured / underinsured, migrant workers, homeless, etc.)	54%
4	Transportation Services	52%
5	Aging Services	48%
	Health Care Insurance Coverage	48%
6	Dental/Oral Health Care Services	42%
7	Care Coordination and Transitions of Care	41%
	Chronic Pain Management Services	41%
8	Chronic Disease Services (e.g. diabetes, high blood pressure, etc.)	38%
9	Services for Caregivers	35%
10	Health Promotion and Prevention Services	32%
11	Long Term Care Services	30%
12	Early Intervention Services for Children	29%
	Self-management Services (e.g. nutrition, exercise, taking medications)	29%
13	Public Health Services	25%
14	Domestic Violence Services	23%
	Social Services	23%
15	Primary Care Medical Services	22%
	Veterans Services	22%
16	Maternal, Infant, and Child Health Services	20%
17	Food Safety Net (e.g., food bank, community gardens, school lunches, etc.)	19%
	Home Health Services	19%
18	Cancer Services (e.g., screening, diagnosis, treatment, etc.)	18%
19	Family Planning Services	17%
20	Hospice Services	15%
21	Intellectual /Developmental Disabilities Services	13%
22	School Health Services	10%
23	Hospital Services (e.g. inpatient, outpatient, emergency care, etc.)	9%
	Public Safety Services	9%
	Specialty Medical Care Services (e.g., cardiologists, oncologists, etc.)	9%
24	Pharmacy Services	8%

Frequency Rank	2018 Community Services Needing Strengthening	% of Participants Selecting Item
25	Workplace Health and Safety Services	6%
26	Physical Rehabilitation	5%
27	Environmental Health Services	4%

Respondents were asked two questions new to the survey this year: (1) to identify vulnerable populations and geographies where health conditions may be worse or where residents may have restricted access to care and resources, and (2) to list community assets that can improve the level of community health by providing opportunities to engage in healthful behaviors. The results of those questions are presented in the two tables below. Seventy participants responded to the first question, while 49 participants responded to the second question.

Vulnerable/At-Risk Populations	Vulnerable/At-Risk Geographic Regions
• The Elderly • Low income Populations • Under/Uninsured Populations • Refugees/Immigrants • The Homeless • Those who Lack Transportation • Those with Mental/Behavioral Health Problems • Those with Language Barriers • Children • Those with Disabilities • The Unemployed and Working Poor • Those who have not been oriented to the healthcare system • Nursing Home/Assisted Living Facility Residents • Sexual Assault Victims • Undereducated/low skill workers • Those with Chronic Conditions • Those with High ACE Scores • The Isolated/Rural • Substance Abusers	• Route 40 from Elkton to Waynesboro • Rockingham County • Harrisonburg • Rural Areas with no Transportation • Elkton • Fulks Run • Trailer Parks • The Inner City • Shenandoah County • Grottoes • Broadway • Page County • CSB Housing • Craigsville • Deerfield • Greenville • Timberville • Luray • East Rockingham • Basye • North Fork • Hispanic Housing Developments • Rockbridge • Low Income Housing

The elderly and low income populations were chosen most often as vulnerable populations. The risk is compounded by the poverty of so many elderly individuals. The uninsured, listed third among choices, are most often poor, demonstrating that socioeconomic factors combine with demographics to create a complex and interwoven experience of health. Vulnerability is closely correlated to poverty and to inability to be integrated into the community, lacking access to resources due to barriers of transportation, language, disability or unfamiliarity/lack of education about available services. While vulnerable geographies are located throughout the service area, a common theme of isolation among small rural communities is the thread that connects the choices of vulnerable localities.

Health Assets in the Community

Survey participants were asked to think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. Then they were asked two related free response questions, "In your view, what are the most important health assets within the community?" followed by, "Are there any health assets that the community needs but is lacking?" Summary results for each question are provided below, listed in order of relative frequency noted by stakeholder participants. Sixty-two participants responded to the first question, while 52 participants responded to the second question.

Most Important Health Assets Existing in Community	Needed Health Assets Currently Lacking in the Community
• Parks • Walking/Running /Hiking/Biking Trails • Wellness Centers/Community Centers/Gyms • Strong Healthcare System – Sentara • Caring People • Service Providers who are Supported • Community Outreach Programs and Classes • Higher education Institutions/ Schools/Educators • The Availability of Fresh Food	• More Emphasis on a Bikable, Walkable Community • Biking and Walking Trails • Mental Health Services • Additional Medical Services • Fitness Centers and Classes • More emphasis on healthy food and nutrition • Services for the elderly • Transportation • Services for Vulnerable Populations

Several types of facilities and programs were chosen in both the asset and deficit categories, such as walking trails and fitness facilities. This suggests that community members may not be aware of existing opportunities, or lack access due to transportation or financial barriers, as one respondent stated. Transportation, a chronic need in rural communities, was listed in connection with the elderly as well as low income and rural populations in describing vulnerabilities in addition to being a barrier against access to health assets.

Focus Groups:

Community Focus Groups were carried out for greater granularity in insight from diverse stakeholders. Focus groups were pulled from existing organizational meetings and represent both civic organization members and service providers from a wide range of disciplines. Five focus group sessions were held in April and May of 2018.

- United Way partners, representing include 41 health and human services agencies and community non-profits (35 participants).
- Sentara RMH Patient Family Advisory council, comprising patients and family members of patients (12 participants).
- Continuum of Care regional coalition, representing housing service providers, emergency shelters, rapid rehousing service providers, mental health and substance abuse agencies, rental assistance agencies, health care providers, school systems, and other community resource centers (45 participants).
- Agencies serving immigrant and refugee population, including the Central Shenandoah Health District, Church World Service/Refugee Resettlement Office, New Bridges Immigrant Resource Center, and Blue Ridge Area Health Education Center (8 participants).
- Transitions Circle, including regional skilled nursing facilities and rehab locations, medical transport, agencies serving the older adult population, home health agencies, and care coordinators at Sentara and Carilion primary care centers (14 participants).

The following questions were utilized. The results of the focus groups are summarized below.

- What are the most serious health problems in our community?
- Who/what groups of individuals are most impacted by these problems?
- What keeps people from being healthy? In other words, what are the barriers to achieving good health?
- What is being done in our community to improve health and to reduce the barriers? What resources exist in the community?
- What more can be done to improve health, particularly for those individuals and groups most in need?

Topic	Key Findings
What are the most serious health problems in our community?	Complications from obesity and sedentary lifestyle. Heart disease Mental health: access to affordable treatment, lack of diagnosis and care, resulting unemployment, disconnect between prescribing physician and counselor – 2 different appointments, two different agendas, lack of sustained care to ensure stay on meds, stigma Childhood hunger Violence within families and childhood trauma and lack of providers to treat Teens: lack of sleep, addiction to social media, sexual health and teen pregnancy, self-injury, mental health – lack of care and stigma, debilitating anxiety Lack of knowledge of how and where to access healthcare services – lack of ability to access services/resources for a variety of reasons – including lack of transportation Older adults: caregiver stress, having to choose which conditions to treat due to cost, need for health navigator services, lack of male counselors, hard to access care because of limitations on insurance network Uncontrolled diabetes leading to other complications and comorbidities, CHF and sepsis, need more diabetic educators Lack of awareness of resources available after skilled nursing including hospice and palliative care Lack of quick, convenient interpreter services to assist with bills, as well as in clinical setting

What are the most serious health problems in our community? (continued)	Lack of access to affordable dental care Opioid over-prescription – leading to search for alternatives when patients can't continue to get through prescribers Social determinants – housing, employment for special populations (re-entry programs), detox and sobering housing
Who/what groups of individuals are most impacted by these problems?	Low income and homeless, older adults living on fixed incomes, Those who suffer trauma, and young people who experience violence, victims of domestic violence The isolated who can't access services Refugees suffering trauma due to displacement, threats and witnessing lots of violence, and immigrants with low English proficiency Those with low literacy levels Those with a culture (family or community) of neglect, who don't access preventive or early care Mental/behavioral health patients who lack substance abuse services and counselors, especially young patients Veterans – lacking transportation, insurance, mental health services, access to stabilizing medications (leads to self-medication) Congolese community Non-English speakers – lack of knowledge, written help at too high literacy level, including discharge information Re-entry population
What keeps people from being healthy? In other words, what are the barriers to achieving good health?	Stigma and pride Economics, the high cost of care, the Medicaid gaps (dental, peds, vision, neurology), lack of exchange navigation services – difficulty of monthly paperwork to continue financial assistance Transportation, services are not easy for rural residents to access No paid sick time, business policies that don't support employees taking care of themselves or their sick children Cycle of unhealthy practice, generational culture of neglect, family members who prevent access Long appointment wait time and lack of extended hours for primary care No day care for young children Immigrant/refugee cultural barriers – different knowledge and expectations, providers not culturally competent, lack of documentation Language, especially first point of contact, interpretation services not used consistently Lack of knowledge about service types and availability – lack of knowledge about hospital charity care policies Fractured and dysfunctional families – lack of parental guidance Lack of access to nutritious food Distrust and fear lead to not wanting to let people into their homes to help Lack of medication reconciliation across providers and conditions Lack of childcare to attend appointments Lack of access to distant specialists
What is being done in the community to improve health and to reduce the barriers? What resources exist in the community?	Harrisonburg Ccommunity Health Center partnership with OBGYN to increase access to prenatal care Health Community Council – transportation Health education and literacy classes for non-English speakers – Skyline Literacy Healthcare navigator at Blue Ridge Legal Services Nutrition education and Second Home Collaborations with agencies and non-profits – community capacity building Community Outreach at the ARC, moving away from sedentary lifestyle toward more activity

What is being done in the community to improve health and to reduce the barriers? What resources exist in the community? (continued)	VPAS chronic disease management classes in Kurdish Care coordination at SRMH, and community health workers Transitions circle, VPAS, free clinic, donation centers for medical equipment SRMH Foundation grant program Summer food programs for kids – backpack programs Support groups for postpartum depression and bereavement Open Doors Shelter United Way BBBS Huge hearts and people go above and beyond Valley Health discharge protocols for coordinating post-discharge for patients without stable housing
What more can be done to improve health, particularly for those individuals and groups most in need?	Public awareness campaign focusing on mental health stigma Mental health pop up clinics – mobile health treatment like Gus Bus, psych NP integrated into primary care Masters level mental health professionals – need many more in community (Augusta has strong mental health capacity) Americorp type of program to bring workers to rural places More emphasis on mental health in nursing and physician training – more Mental Health First Aid training Palliative care in home visits and easier transition into hospice care Assist with transportation to appointments – use faith based volunteers, JMU/EMU/Bridgewater students More fresh food at pantries – produce auctions, community garden at hospital, ways to donate unused food Health navigator services, especially for veterans. Develop network of community leaders to share information on how to navigate healthcare, also promoters to share information in other languages Marketplace agency More languages other than Spanish in literature, automated messages, scheduling etc. Train providers in cultural competency Immigrant learning tours Valley Health discharge protocols for coordinating post-discharge for patients without stable housing

Clearly, the definition of community health is broader than simply medical care. As more is known about the role of social determinants of health, more opportunities will arise to influence population health through engaging in community building approaches to care. Beyond the scope of SRMH alone, these opportunities will require active partnerships among community organizations and individuals to create lasting impact.

IV. Health Status Indicators

In addition to the input of the community, an important clue to community health needs resides in the "hard" data, the statistics on death, disease and treatment that are routinely collected and reported by a number of agencies. Below are the health status indicators used in this report.

Leading Causes of Death:

The table on the next page presents the leading causes of death in the SRMH service area in 2016, the most recent data available. The data have been made comparable by adjusting each data point for the differences in population size by converting the numbers to the proportion of a population size of 100,000.

The table indicates that while the total number of individuals residing in The SRMH service area who would have died in 2015 per 100,000 in population was 933.7, that number was 748.9 for Virginia as a whole, which means that a significantly higher proportion of residents of the SRMH service area died. This agrees with the higher number of years of life lost to premature death, discussed on page 15. Breaking out the individual causes of death gets us closer to the underlying causes, and to working on possible solutions. It is important to note that in some cases, the actual number of deaths is small, making any larger analysis statistically unstable.

Heart disease causes the highest death rate in the service area, while for Virginia as a whole the highest death rate is due to cancer. In 2015, the primary cause of death in the SRMH service area was cancer, followed by heart disease. Although the order of the number of deaths by each cause has changed, the conditions underlying the deaths are the same from year to year, and reflect the prevalence and impact of chronic disease on community health.

Leading Causes of Death and Death Rates per 100,000 Population SRMH Service Area* Compared to Virginia 2016								
Cause of Death	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Service Area	Virginia
Heart Disease	79	88	158	59	163	84	631	13,461
Cancer	60	76	155	69	158	105	623	14,317
Chronic Obstructive Pulmonary Disease (COPD)	4	25	35	16	50	26	156	3,106
Stroke	22	20	48	17	40	21	168	3,305
Alzheimer's Disease	20	17	39	3	37	21	137	2,354
Accidental Injury	13	9	35	16	30	19	122	3,358
Diabetes	9	10	24	12	19	17	91	1,999
Influenza and Pneumonia	6	5	8	4	18	9	50	1,070
Kidney Disease	7	4	13	6	15	7	52	1,454
Blood Poisoning	6	6	7	2	6	4	31	1,143
All Causes	302	351	690	281	704	432	2,760	62,995
Death Rate per 100,000	**602.9**	**1,440.7**	**865.3**	**1,188**	**938.7**	**1,000.6**	**933.7**	**748.9**
Heart Disease	148.8	361.2	198.1	249.4	217.3	194.6	213.5	160
Cancer	113	311.9	194.4	291.7	210.7	243.2	210.8	170.2
Chronic Obstructive Pulmonary Disease (COPD)	7.5	102.6	43.5	67.6	66.7	60.2	52.8	36.9
Stroke	41.4	82.1	60.2	71.9	53.3	48.6	56.8	39.3
Alzheimer's Disease	37.7	69.8	48.9	12.7	49.3	48.6	46.3	28
Accidental Injury	24.5	36.9	43.9	67.6	40	44	41.3	39.9
Diabetes	17	41	30.1	50.7	25.3	39.4	30.8	23.8
Influenza and Pneumonia	11.3	20.5	10	16.9	24	20.8	16.9	12.7
Kidney Disease	13.2	16.4	16.3	25.4	20	16.2	17.6	17.3
Blood Poisoning	11.3	24.6	8.8	8.5	8	9.3	10.5	13.6
Data Source: Deaths -- VDH (OIM -- Data Management)								
*Data presented is for full county/city level even though only a part of some counties is within SRMH service area								

GREEN = SRMH rates are better compared to Virginia, **RED** = Virginia rates are better

Chronic Conditions

The Behavioral Risk Factor Surveillance System (BRFSS), an instrument of the Centers for Disease Control and Prevention, collects data from a sample of local populations on a variety of behavioral and health outcome self-report items and extrapolates that to provide an estimation of the overall health of a locality on several vectors including risky behavior such as the incidence of smoking and drinking, health promotion or neglect such as healthy eating and exercise, and the incidence of health problems related to those behaviors. The table below presents the BRFSS data for 2014 for the 6 localities considered to be the SRMH service area. It is important to note that the survey contains self-report data and that sample size and distribution depends on response rates, and caution should be exercised in making generalizations.

Percent of Population Ever Told by a Healthcare Professional that they have a Chronic Condition						
Chronic Condition	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County
Arthritis	17.2	31.5	25.8	28.9	35.4	26.9
Asthma	12	11.8	9.1	13.0	9.8	13.6
COPD (Chronic Obstructive Pulmonary Disease)	3.7	8.5	6.9	12.8	7.7	7.7
Diabetes	5.2	7.5	9.3	10.8	11.6	8.7
Heart Attack	4.2	12.6	7.8	7.9	10.1	8.7
Heart Disease	3.5	6.4	3.3	3.6	4.2	4
Overweight/Obese	44.6	57.5	66	63	66.2	64.7
Pre-diabetic	3.6	6.1	9.3	9.5	11.4	6.3
Skin Cancer	2.9	8	5.9	7.1	7.5	6.6
Stroke	2	5.5	4	3.7	5.6	2.3

2014 Behavioral Risk Factor Survey (BRFSS) Small Area Estimation data, VDH Population Health Profile 2016

Incidence of Health Problems, Communicable Disease:

The data on sexually transmitted infections is presented both as the raw number of cases and the rates per 100,000 in population. The rates are included to ease comparisons, but the raw numbers are included to prevent conclusions based on extremely small numbers of cases. Only chlamydia demonstrates enough cases to reliably constitute useful data. In all cases except the Harrisonburg chlamydia rate, the rates per 100,000 are significantly lower than for the state as a whole.

Sexually Transmitted Disease 2016: Number of Cases/Rates per 100,000							
Sexually Transmitted Disease	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	Virginia
Early Syphilis	1 / 1.8	1 / 4.1	1 / 1.3	0 / 0	0 / 0	0 / 0	6306 / 7.8
Chlamydia	314 / 599.1	87 / 355.8	152 / 190.6	26 / 110.2	138 / 184.5	81 / 193.1	331096 / 408.8
Gonorrhea	22 / 40.6	10 / 40.9	16 / 20.1	2 / 8.5	10 / 13.4	22 / 52.5	79642 / 98.3
HIV/AIDS	1 / 1.9	2 / 8.2	5 / 6.4	1 / 4.2	3 / 4.0	1 / 2.3	9753 / 12.0

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

VDH Population Health Profile 2016

Cancer in Detail:

The Hahn Cancer Center was established to provide a full range of cancer diagnostic and treatment services in our community to reduce the burden on patients and families to travel for care. SRMH has been working to develop both screening opportunities in the communities we serve and diagnostic and treatment options to address the importance of this set of diseases in our communities. The addition of low-dose CT lung cancer scanning and colonography (a less invasive form of colon examination) are successful modalities for early detection of lung and colon cancers before they are detectable by conventional means. Public awareness efforts and free screening opportunities encourage people to pay attention to the issues and the importance of early detection, and patient navigation services for radiation diagnostics makes the path between screening and treatment easier for patients and families to understand and to complete.

The 3 tables presented below and on the next page show the incidence of the leading types of cancer, the mortality rate for those same types and the rate at which those cancers are diagnosed at the local (early) stage, enhancing the chance of successful treatment.

Cancer Incidence Per 100,000, Age Adjusted 2016								
Site of Cancer	SRMH Service Area	Harrisonburg	Staunton	Rockingham County	Page County	Augusta County	Shenandoah County	VIrginia
Breast (female)	120.1	138.5	130.5	111.8	130.7	120.9	113.7	126.9
Cervix Uteri	7.4	~	~	7.9	~	8.0	~	6.3
Ovary	13.1	~	~	17.9	~	9.4	~	10.9
Prostate	97.3	101.0	152.5	81.8	72.1	111.7	80.2	107.6
Lung and Bronchus	75.2	88.1	94.2	64.0	98.7	65.1	84.8	73.2
Colon and Rectum	41.4	43.8	55.5	35.1	47.0	44.0	36.2	41.1
Melanoma of the Skin	32.4	38.6	43.3	31.6	21.1	37.0	23.5	24.6
Oral Cavity/Pharynx	14.6	~	~	16.9	~	12.4	17.2	16.6
All Sites	478.2	528.2	617.8	447.7	460.5	485.2	438.4	459.1

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better *Virginia Department of Health, Division of Health Statistics 2015*

Cancer Mortality per 100,000 Age Adjusted 2011 -- 2014		
Site of Cancer	SRMH Service Area	Virginia
Breast (female)	25.0	28.1
Cervix Uteri	3.3	3.5
Ovary	8.8	8.7
Prostate	28.0	32.5
Lung and Bronchus	48.1	54.5
Colon and Rectum	19.5	21.0
Melanoma of the Skin	3.2	2.7
Oral Cavity/Pharynx	2.7	3.1
All Sites	182.9	199.3

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better. *VDH, Division of Health Statistics 2015*

Percent of Cancers Diagnosed at Early Stage 2011 -- 2014		
Site of Cancer	**SRMH Service Area**	**Virginia**
Breast (female)	**62.6**	**64.1**
Cervix Uteri	**46.6**	**42.0**
Ovary	**16.3**	**14.1**
Prostate	**76.3**	**79.2**
Lung and Bronchus	**16.5**	**18.9**
Colon and Rectum	**36.1**	**38.0**
Melanoma of the Skin	**81.5**	**76.9**
Oral Cavity/Pharynx	**38.6**	**30.7**
All Sites	**43.1**	**45.0**

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

Virginia Department of Health, Division of Health Statistics 2015

Breast cancer is the most common form, followed by prostate and lung/bronchus, colon/rectum and melanoma of the skin. Lung cancer has the highest mortality rate, followed by prostate and breast cancers, although the overall cancer mortality rate for the service area is 16 points lower than for the state as a whole. SRMH is able to diagnose cancers at the early stage for 4 different types of cancers, out of the 8 most common types, at a higher rate than the state as a whole, yet still lags behind the state's 45.0% early diagnosis rate.

Preventive Quality Indicators (PQI) Discharges:

The Agency for Healthcare Research and Quality (AHRQ), part of the US Department of Health and Human Services, is devoted to conducting and funding research designed to understand how to make healthcare provision safer and more effective. Researchers there have created a measure of healthcare quality based on the number of inpatient admissions/discharges for conditions that could be managed with appropriate outpatient care. The higher the number, the more room for improvement there is in the quality of primary care that is being provided for a number of conditions. The table below presents the PQI score for the SRMH service area compared to the state of Virginia as a whole. One thing to remember when looking at the table is that the SRMH service area has a higher (7% higher) proportion of elderly residents than Virginia as a whole, so may be expected to have a higher incidence of the diseases that comprise the PQI index, which consists of mostly chronic diseases that affect the elderly. Rates have been standardized per 100,000 for ease of comparison.

SRMH Preventable Quality Indicators (PQI) Report with Comparisons to Virginia as a Whole, Age Adjusted						
Locality	Total PQI Discharges	Community Acquired Pneumonia	Congestive Heart Failure	COPD or Asthma (older adult aged 40+)	Diabetes	Urinary Tract Infection
Virginia	778.7	99.9	231	134.3	106.2	82
SRMH Service Area	698.6	104.5	229.2	131.7	85.8	58.5
Difference	-80.1	4.6	-1.8	-2.6	-20.4	-23.5
Trend Rates: 2014-2016						
Virginia	-5%	-13%	6%	-11%	-12%	-9%
SRMH Service Area	-15%	-30%	1%	11%	-38%	-31%
Difference	10%	17%	5%	22%	26%	22%

GREEN = SRMH rates are better compared to Virginia, RED = Virginia rates are better

PQI data provided by Community Health Solutions using 2016 data, standardized per 100,000 population

The table presents in red the areas where the state is doing better than the SRMH service area, and in green where SRMH has surpassed the state in progress toward quality care. The table shows that for 4 out of 5 conditions, the SRMH service area experiences a lower level of hospitalization for these chronic illnesses, with community acquired pneumonia being the exception. However, as seen in the trend rates, it is also true that SRMH has made significant progress in addressing these unnecessary hospitalizations, and in 4 out of 5 cases, has made more progress than the state as a whole. The exception is the rate of COPD hospitalizations, where the state decreased admissions while the SRMH rate increased.

Behavioral Health:

A goal of the 2018 Sentara RMH CHNA was to gather more in-depth information and data on the behavioral health needs of the community, compared to previous assessments. In both previous SRMH CHNAs, mental health and substance abuse have consistently been identified as important health problems facing our community. Additionally, the Harrisonburg-Rockingham area has been designated a Health Professional Shortage Area (HPSA) for Mental Health by the Health Resources and Services Administration (HRSA).

There is still comparatively little secondary data available on mental health conditions, so our CHNA explored opportunities to gain more qualitative insight to describe the burden of behavioral health in the community. We accomplished this by collaborating with the Harrisonburg-Rockingham Community Services Board (HRCSB) on their community survey and by conducting focus groups with HRCSB and Sentara RMH Valley Behavioral Medicine providers.

Community Survey:
The Harrisonburg-Rockingham Community Services Board (HRCSB) conducted a community survey as part of its strategic planning process with the goal of gauging community awareness of HRCSB services, utilization of behavioral health services in the community, and important gaps in access, availability, and quality. We also wanted to know if community members were receiving treatment for behavioral health conditions from their family physician.

Primary Care access:
390 of 467 respondents saw a family doctor at least once per year
160 of 467 received help from the family doctor with mental health concerns such as stress, depression, and anxiety
Medication:
252 of 467 respondents said they had access to needed medications; 79 said they did not (136 N/A)
Access:
357 of 439 respondents said they had healthcare coverage; 82 did not
227 of 467 respondents said they would not be willing to do online counseling (240 would)
Of 227 respondents who identified the types of services they received from HRCSB, the two most used services were therapy (161) and medication management (130)
Of 164 respondents who answered, 55 said they needed services outside normal business hours (M-F 8-5) and 109 did not

Psychiatric Provider focus groups:

The focus groups with HRCSB and Sentara RMH Valley Behavioral Medicine physicians and advanced practice clinicians yielded great insight into the most pressing issues facing patients being treated by a psychiatric provider. The sessions also generated ideas for strategies for the CHNA Implementation Plan.

Topic	Key Findings
What are the most serious health problems in our community?	**Adults:** Substance abuse – opiates and methamphetamine most commonly abused substances, alcohol Treatment for depression, anxiety, PTSD, substance abuse, primary care capacity for follow up Provider capacity Treatment options for addiction All geriatric services **Teens:** Provider capacity Lack of local hospitalization options ADD/ADHD take up a lot of resources but not most concerning issue Out of control behavior that is harmful to self or others; anger and aggression in schools Suicidal ideation Pill parties and stimulants Primary Care resistance to prescribe controlled drugs Treatment options for addiction **Children:** Provider capacity: child & adolescent therapy and medication management Abuse and neglect, sexual abuse, and trauma issues – many are in DSS system Broken families – grandparents and other families members raising, many due to parental substance abuse
Who/what groups of individuals are most impacted by these problems?	Addiction – everyone Access – children and elderly Homeless/those with unstable housing Adults with issues related to past trauma – difficulties with relationships, holding a job Those with substance abuse tied in with behavioral health problems
What keeps people from being healthy? In other words, what are the barriers to achieving good health?	Financial barriers Transportation (in rural areas like Page Co, it isn't practical to drive an hour+ regularly to see a therapist) Ability to get off work for appointments Balancing services with employment and childcare

What keeps people from being healthy? In other words, what are the barriers to achieving good health? (continued)	For substance abuse, having jobs in industries where substance use is rampant Stable housing Nutrition Lack of respite care, caregiver stress, lack of resources and not sure where to go for help – we are creating another person with a mental health issue Supervision for residency (i.e. MSW) Stigma still an issue for adults, elderly, and sometimes children – college age population are more normalized Family medicine being not being willing to treat some behavioral health conditions
What is being done in the community to improve health and to reduce the barriers? What resources exist in the community?	New Maternal Mental Health Coalition Support groups Community therapist Medication assistance – GAP has greatly improved availability of important medications (though help adults more than children) Community case managers are helping with transportation arrangement, resource applications, etc.
What more can be done to improve health, particularly for those individuals and groups most in need?	Supervision for residency More disease-specific support groups Meet community therapists to help with appropriate referrals List of community support groups for providers Provider list of who is taking new patients/areas of specialty More case management More referrals from OB-GYNs (for substance use, depressive disorders, etc) Improve communication between medical providers and CSB/RMH psychiatric providers – some place to send them when no longer qualify for CSB services Co-locate CSB prescribers in primary care offices; different locations each week

Substance Abuse

The following table presents the reported overdose deaths in the SRMH service area. Where a 0 appears in the table, it does not indicate that there were no overdose deaths, but only that there were too few to register when standardized as a proportion of 100,000 population. The columns labeled EMS and NAS (neonatal abstinence syndrome) present data on the incidence of Narcan administration to overdose victims by emergency medical service staff and to the incidence of NAS, a condition found in newborns whose mothers were active drug users during the final months of pregnancy, respectively. Drug related incidence numbers are frequently underreported, and care must be taken when making assertions based on these numbers.

	Overdose Deaths		ED Visits for Overdose		EMS	NAS
Locality	Fentanyl/Heroin	Prescription Opioid	Heroin	Opioid	Narcan Administration	Per 1,000 Live Births
VA	9.6	5.5	16.7	103.5	48.5	6.1
Harrisonburg	5.7	3.8	5.7	59	49.5	0
Staunton	4.1	8.2	0	16.4	41	13.5
Rockingham	1.3	1.3	5.1	103.1	28	2.5
Page	0	12.6	8.4	109.6	33.7	17.1
Augusta	0	2.69	0	13.5	12.1	3.5
Shenandoah	6.9	6.9	34.7	132	41.7	22.2

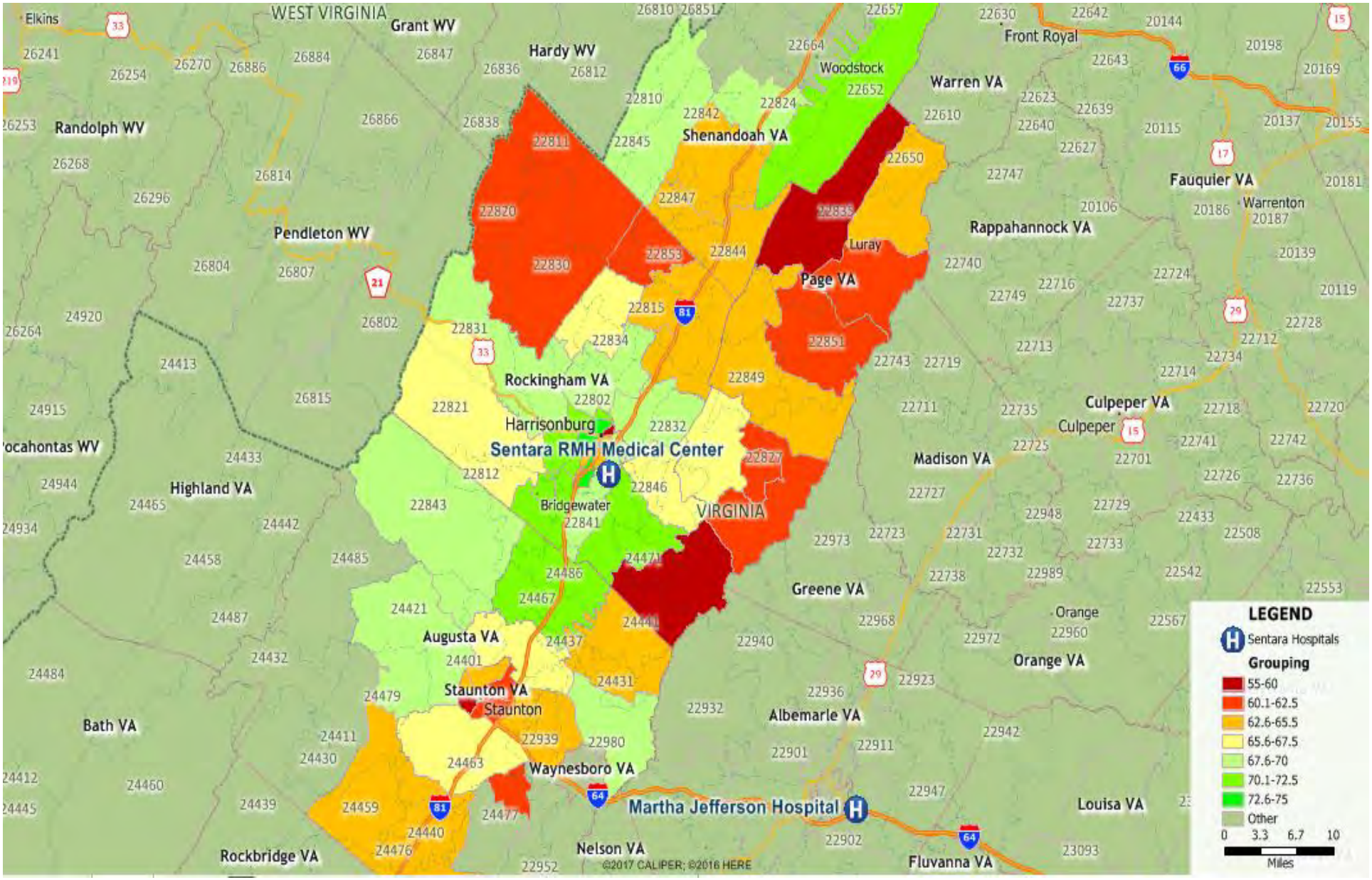
Rates per 100,000 except for NAS (Neonatal Abstinence Syndrome), which is reported per 1,000 live births

http://www.vdh.virginia.gov/data/opioid-overdose/

Virginia Department of Health (VDH) Disability-free Life Expectancy Map:

The VDH has created a map as part of their project to visualize the health of all Virginians that shows how long, on average, a resident of the service area can expect to live a healthy, disability-free life. The map is presented on the following page. Disability is defined as any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions). As the legend of the map shows, the map presents in red the areas with the shortest disability-free life expectancy. While residents of the area immediately surrounding the hospital, parts of Harrisonburg, Bridgewater and places to the south, and with parts of Shenandoah County to the north, can expect to live 72.6 – 75 years without major disabilities, residents of Page County, rural Rockingham County and more remote areas of the service region can expect to face disability almost 20 years earlier, at 55 – 60 years old.

There are many factors that go into creating an environment that supports disability-free life span, including the availability of nutritious food, opportunities for exercise and an active lifestyle – which often includes built-environment features such as sidewalks and community parks – and access to health care and social services. Those factors have been considered in the creation of this map.



Data: Virginia Department of Health, Maptitude mapping software

V. Evaluation of the Progress of 2015 CHNA Implementation Strategies

Finally, we present the fourth quarter report for the CHNA currently in effect for the SRMH service area. Strategies implemented in the fourth quarter of 2017, or continued into the fourth quarter from previous reporting periods, to address each of the health concerns that were selected in 2015 are presented including efforts in both community settings as well as in the hospital. While many of these strategies will continue through the 2018 CHNA, some may be altered or deleted, and others will be added as new opportunities and capacity are developed.

Sentara Community Health Needs Assessment Implementation Strategy

2017 Progress Report

Hospital: Sentara RMH Medical Center

Quarter (please indicate): ☐First Quarter ☐Second Quarter ☐Third Quarter ☒Year End

In support of community health needs assessment and related implementation strategies, Sentara will measure the progress toward the community health needs assessment implementation strategies selected by each hospital on a quarterly basis.

To complete this quarterly progress report, the health problems and implementation strategies can be pasted into this document from the hospital's existing Three Year Implementation Strategy document. The quarterly progress should be identified in the third column below.

The quarterly report should include only key actions taken during the quarter; the report does not need to include all activities. Where possible the actions should be quantified, with outcomes measurements if available.

Reports should be emailed to Laura Armstrong-Brauer at lrarmstr@sentara.com within 15 days of the close of each quarter.

Health Problem	Three Year Implementation Strategies	Progress
All		
Access to Services	Collaborate with healthcare safety net providers in the community to reduce unnecessary hospitalizations and inappropriate Emergency Department utilization. Increase access to needed primary care and specialty care for uninsured and underinsured patients.	• RMH Foundation funded Healthcare for the Homeless Suitcase Clinic care coordinator position. • Sentara RMH Medical Group implemented extended hours to help increase access to needed primary care after hours. • Opened the Transition of Care Clinic to increase capacity for follow-up appointments for discharged patients who are unable to get a follow-up appointment with their PCP in the recommended timeframe or for those patients without a PCP.
Behavioral Health & Substance Abuse	Improve health outcomes, continuity of care, and value by applying population management competencies to defined populations.	• Awarded $300k/3 year grant for the Prevention of Opioid Misuse Among Women to implement primary and secondary prevention strategies in primary care and community settings. • Community partner agency Strength in Peers was awarded a HRSA grant to implement trauma-informed behavioral health services in Shenandoah County – Sentara RMH Medical Group staff and providers will receive education through this grant. • SRMH Outpatient Pharmacy opened a consumer drug take-back bin for convenient and safe drug disposal. • SRMH Healthy Families of the Blue Ridge program hired two substance abuse specialists to work with families affected by substance use and at-risk of losing their children – this is the first program in the state that has expanded to provide special substance abuse services.
Chronic Disease Prevention & Management	Increase the capacity of primary care in the SRMH service region to manage chronic disease.	• Diabetes Prevention Program: 107 participants attended for 957 visits at four SRMH primary care clinics throughout the service region – average weight loss was 3% for class participants. • Developed and piloted a Best Practice Alert to screen for prediabetes in patients of SRMH primary care clinics. Successfully piloted at Mt. Jackson Health

Health Problem	Three Year Implementation Strategies	Progress
	Improve health outcomes, continuity of care, and value by applying population management competencies to defined populations.	Center and prepared to expand to others. • Outpatient Diabetes Self-Management Education: over 650 patients were seen for 1,300 encounters in 3 primary care clinics and the hospital (average reduced A1c not available yet) • Mobile Mammography services: 2,396 screening mammograms were conducted at 62 locations in Augusta, Rockingham, Shenandoah, Page, and Highland counties • RMH Foundation paid for 247 screening mammograms for indigent patients and an additional 39 were provided by the SRMH Funkhouser Women's Center Pink Fund on two Screening days (also provided with a clinical breast exam, diabetes screening, and health risk assessment. • *Every Woman's Life*: 17 women have been enrolled since program was re-instituted in Sept 2017. • Colorectal cancer awareness event had 100 participants; 80% agreed to follow up with their Primary Care Physicians about their screening results. • Aug 2017: Sentara RMH at the Rockingham County Fair – screenings, health education, and water offered to ~10,000 people during the week. • IRB study for the Continuum Care Management program concluded and initial analysis indicates reduced hospital admissions, reduced length of stay, and estimated cost reductions of over $1.1 million for 155 patients during the study period. • SRMH Senior Advantage provided health education and screenings to 120 older adults at the annual Aging Gracefully conference, and over 275 seniors during monthly lunch-and-learn education events.
Strong Start for Children	Increase the number of children who are safe, healthy, and ready to learn.	• SRMH Hand-in-Hand Resource Mothers program served 95 teen mothers and babies: 84% initiated breastfeeding, 98% up to date on vaccines, 98% compliance with well-child check visits • SRMH Healthy Families of the Blue Ridge (HFBR) program served 65 high-risk families to provide

Health Problem	Three Year Implementation Strategies	Progress
		education on healthy pregnancies and child development, connect with community resources, and monitor compliance with immunizations and well child visits. • Trained Healthy Families Blue Ridge staff in new evidence-based curriculum *Growing Great Kids* to improve outcomes for families. • Safety net provider Harrisonburg Community Health Center began providing GYN services for uninsured/underinsured women.

The information presented in this CHNA reveals a rural community facing a number of health challenges resulting from geographic constraints, demographic forces and cultural beliefs and choices based on generations of behavior. The same challenges can be found in countless rural communities throughout the country. Sentara Healthcare and Sentara RMH Medical Center are committed to finding innovative, responsive and successful strategies to address these challenges, to fulfill our mission to improve health every day.