

Sentara Norfolk General Hospital Community Health Needs Assessment 2016



Sentara Norfolk General Hospital 2016 Community Health Needs Assessment

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I. INTRODUCTION

Sentara Norfolk General Hospital has conducted a community health needs assessment of the area that we serve. The assessment provides us with a picture of the health status of the residents in our communities and provides us with information about health and health-related problems that impact health status.

Our assessment includes a review of population characteristics such as age, educational level, and racial and ethnic composition because social factors are important determinants of health. 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 important so the assessment also includes survey results from key stakeholders including public health, social services, service providers, and those who represent underserved populations. The report also includes findings from focus groups with community members on health issues and barriers to achieving good health.

The needs assessment identifies numerous health issues that our communities face. 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 a number of priority health problems in our area to address in our implementation strategy:

- Healthy, connected communities
- Obesity
- Mental health and depression
- Sexual health (preventing sexually transmitted diseases and teen pregnancies)

Our previous Community Health Needs Assessment also identified a number of health issues. An implementation strategy was developed to address these problems. The hospital has tracked progress on the implementation activities in order to evaluate the impact of these actions. The implementation progress report is available in the Appendix.

Sentara Norfolk General Hospital works with a number of community partners to address health needs. Information on available resources is 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 assessments. You may use our online feedback form available on the Sentara.com website. Thanks!

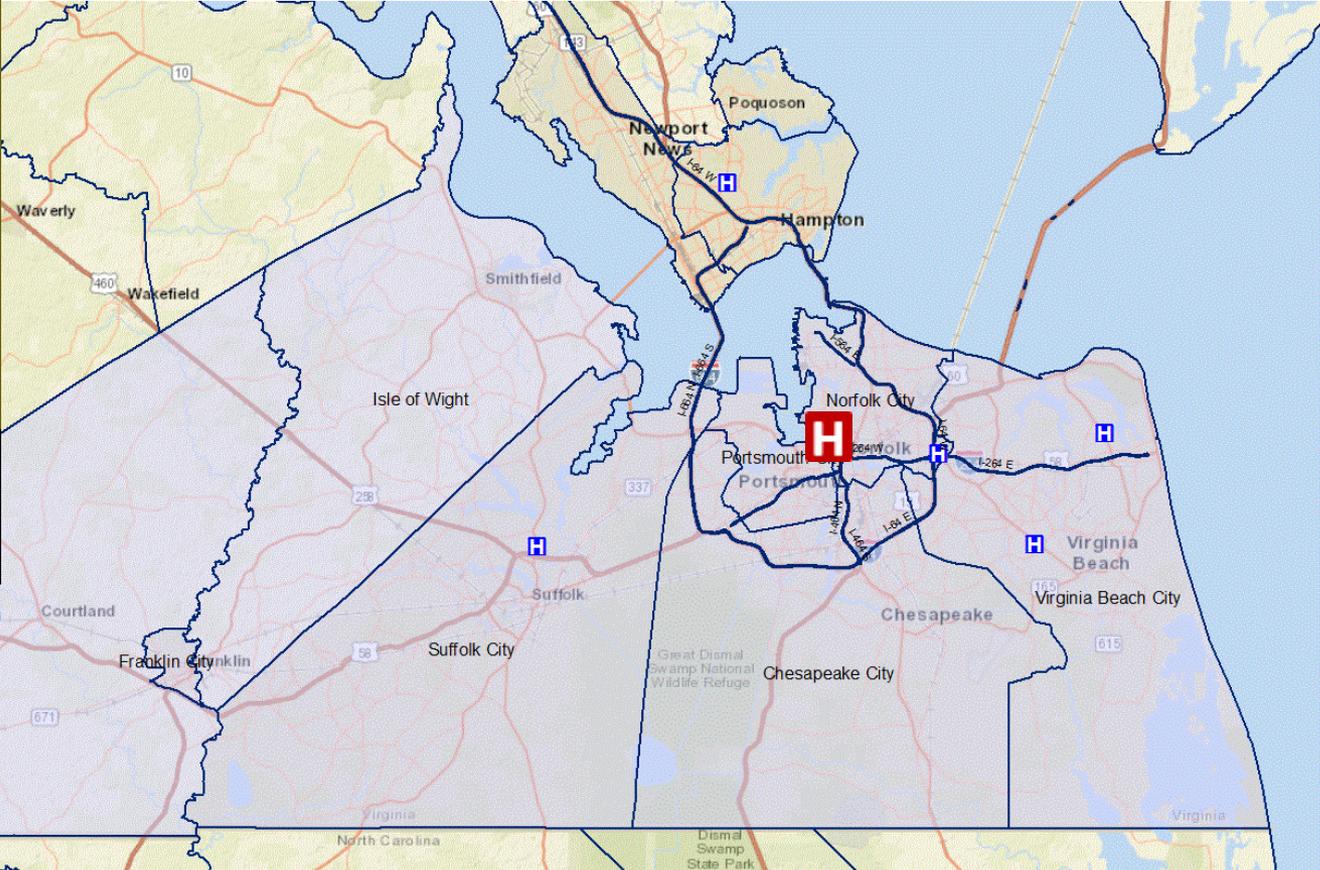
Sentara Norfolk General Hospital (SNGH) 2016 Community Health Needs Assessment

Community Description

Community Description

Sentara Norfolk General Hospital (SNGH) serves residents of these counties and cities: Virginia Beach, Norfolk, Chesapeake, Suffolk, Portsmouth and adjoining communities. Approximately 82% of the hospital's inpatients reside in the service area depicted in the map.

Sentara Norfolk General Hospital Service Area



 SNGH

 Other Sentara Hospitals

Area-wide Key Demographic Characteristics

DEMOGRAPHIC CHARACTERISTICS						
			Selected Area	Virginia	USA	
2010 Total Population			1,145,164	8,001,038	308,745,538	
2016 Total Population			1,187,933	8,428,339	322,431,073	
2021 Total Population			1,231,798	8,801,874	334,341,965	
% Change 2016 - 2021			3.7%	4.4%	3.7%	
Median Household Income			\$ 60,498	\$ 65,624	\$ 55,072	
POPULATION DISTRIBUTION						
Age Distribution						
Age Group	2016	% of Total	2021	% of Total	Virginia 2016	USA 2016
					% of Total	% of Total
0-14	227,050	19.1%	232,390	18.9%	18.5%	19.0%
15-17	44,694	3.8%	47,100	3.8%	3.8%	4.0%
18-24	132,154	11.1%	127,517	10.4%	10.0%	9.8%
25-34	184,027	15.5%	179,991	14.6%	13.6%	13.3%
35-54	305,032	25.7%	309,266	25.1%	26.8%	26.0%
55-64	144,295	12.1%	154,583	12.5%	12.9%	12.8%
65+	150,681	12.7%	180,951	14.7%	14.4%	15.1%
Total	1,187,933	100.0%	1,231,798	100.0%	100.0%	100.0%
EDUCATION LEVEL						
Education Level Distribution						
2016 Adult Education Level	Pop Age 25+	% of Total	Virginia 2016	USA		
					% of Total	% of Total
Less than High School	21,661	2.8%	4.8%	5.8%		
Some High School	54,101	6.9%	7.0%	7.8%		
High School Degree	201,239	25.7%	25.0%	27.9%		
Some College/Assoc. Degree	279,216	35.6%	27.3%	29.2%		
Bachelor's Degree or Greater	227,818	29.1%	35.8%	29.4%		
Total	784,035	100.0%	100.0%	100.0%		
© 2016 The Nielsen Company, © 2016 Truven Health Analytics Inc.						

- The area's 2016 total population is 1,187,933 with projected growth of 3.7% over the next five years.
 - This rate of growth is lower than Virginia (4.4%) and equal to the U.S rate.
- The median household income (\$60,498) is lower than the state, but higher than the US median income.
- Population by age group:
 - 15.5% of this population is age 25-34, which is a greater percent compared to Virginia (13.6%) and the U.S (13.3%).
 - The 65+ age cohort (12.7%) is a lower percent compared to Virginia (14.4%) and the U.S (15.1%).
- 9.7% of the population age 25+ has only some high school education or less.
 - This is a lower percent compared to Virginia (11.8%) and the U.S. (13.6%).

Area-wide Key Demographic Characteristics, Cont.

- The projected growth of females, child bearing age (15-44) is 0.8%, which is lower than the state (1.3%) and the U.S. (1.5%).
- 18.6% of the population has a household income below \$25,000.
 - This is slightly higher than Virginia with 17.9%, but lower than the U.S. with 22.7%.
 - 200% of the current Federal Poverty Level for a family of four is \$48,600.
- 30.4% of the population is Black Non-Hispanic and 54.8% White Non-Hispanic.
 - The percent Black non-Hispanic population is larger than that of Virginia (18.9%) and the U.S. (12.3%).

DEMOGRAPHIC CHARACTERISTICS						
	2016	2021	% Change	Virginia % Change	USA % Change	
Total Male Population	589,103	611,504	3.8%	4.5%	3.8%	
Total Female Population	598,830	620,294	3.6%	4.4%	3.6%	
Females, Child Bearing Age (15-44)	244,453	246,451	0.8%	1.3%	1.5%	
HOUSEHOLD INCOME DISTRIBUTION						
Income Distribution						
2016 Household Income	HH Count	% of Total	Virginia % of Total	USA % of Total		
<\$15K	44,754	10.1%	9.6%	12.3%		
\$15-25K	37,501	8.5%	8.3%	10.4%		
\$25-50K	103,648	23.4%	20.8%	23.4%		
\$50-75K	88,600	20.0%	17.6%	17.6%		
\$75-100K	58,755	13.3%	12.6%	12.0%		
Over \$100K	109,892	24.8%	31.1%	24.3%		
Total	443,150	100.0%	100.0%	100.0%		
RACE/ETHNICITY						
Race/Ethnicity Distribution						
Race/Ethnicity	2016 Pop	% of Total	Virginia % of Total	USA % of Total		
White Non-Hispanic	651,393	54.8%	62.5%	61.3%		
Black Non-Hispanic	361,311	30.4%	18.9%	12.3%		
Hispanic	79,378	6.7%	9.2%	17.8%		
Asian & Pacific Is. Non-Hispanic	51,858	4.4%	6.3%	5.4%		
All Others	43,993	3.7%	3.1%	3.1%		
Total	1,187,933	100.0%	100.0%	100.0%		

Key Demographic Data by City and County

Area	Population and Age							
	2016 Population	Projected 2016-2021 % Change in Total Pop.	2016 % of Total Pop. that is age 65+	Projected 2016-2021 % Change in Pop. age 65+	2016 % of Total Pop. that is age 0-17	Projected 2016-2021 % Change in Pop. age 0-17	2016 % of Female Pop. that is age 15-44	Projected 2016-2021 % Change in Female Pop. age 15-44
Chesapeake city	238,208	5.6%	12.5%	25.9%	23.8%	0.1%	39.2%	3.3%
Franklin city	8,522	1.1%	18.2%	9.7%	26.1%	4.2%	33.4%	0.3%
Isle of Wight	36,435	3.5%	18.1%	19.5%	20.2%	-4.9%	32.5%	2.4%
Norfolk city	246,386	2.4%	10.4%	18.9%	21.2%	7.2%	46.1%	-0.8%
Portsmouth city	96,364	2.0%	14.3%	13.2%	24.3%	6.1%	39.1%	0.0%
Southampton	18,177	0.0%	18.5%	12.5%	18.8%	-7.0%	33.5%	0.8%
Suffolk city	89,015	4.5%	13.6%	21.6%	24.6%	0.1%	37.9%	2.3%
Virginia Beach city	455,193	3.8%	12.7%	19.8%	23.0%	2.8%	41.1%	0.3%
Total	1,188,300	3.7%	12.7%	20.1%	22.9%	2.8%	40.8%	0.8%
Virginia	8,428,339	4.4%	14.4%	20.2%	22.3%	2.0%	39.2%	1.3%
United States	322,431,073	3.7%	15.1%	17.6%	23.0%	0.9%	38.7%	1.5%

- The two highest projected growth areas in the SNGH service region are Chesapeake city (5.6%) and Suffolk city (4.5%); all other areas are expected to grow at a slower pace than Virginia and the U.S. in the next 5 years with the exception of Virginia Beach city.
- The areas of Chesapeake city and Suffolk city are expected to grow at a faster rate (25.9% and 21.6% respectively) than the rest of the SNGH service region, Virginia and the U.S.
- The pediatric population growth rate for the service region (2.8%) is expected to exceed state and national rates, with Norfolk city expecting 7.2% growth, however 2 areas are projected to have declines.
- The female population of childbearing age (15-44) in Chesapeake city is projected to grow by 3.3%, whereas Norfolk City with 46.1% of the female population is within this age group, is projected to decline by -0.8% over the next 5 years.

Key Demographic Data by City and County

Area	Race and Ethnicity			Income and Education	
	2016 % of Pop.: Black, Non-Hispanic	2016 % of Pop.: Asian, Non-Hispanic	2016 % of Pop.: Hispanic Ethnicity (Any Race)	% of Households with Income Below \$25,000	% of Pop age 25+ that did not Graduate from High School
Chesapeake city	29.1%	3.4%	5.6%	14.7%	8.8%
Franklin city	55.2%	1.0%	2.7%	40.8%	20.1%
Isle of Wight	23.2%	1.1%	2.9%	19.5%	13.8%
Norfolk city	40.5%	3.7%	7.9%	29.2%	13.3%
Portsmouth city	52.3%	1.3%	4.1%	26.6%	16.2%
Southampton	35.6%	0.3%	1.6%	25.0%	21.6%
Suffolk city	42.1%	1.8%	4.2%	14.8%	11.4%
Virginia Beach city	18.7%	6.5%	8.2%	13.2%	5.5%
Total	30.4%	4.2%	6.7%	18.6%	9.7%
Virginia	18.9%	6.3%	9.2%	17.9%	11.8%
United States	12.3%	5.3%	17.8%	22.7%	13.6%

- The SNGH service area overall has a higher percent of the population to the state and U.S. that is Black, Non-Hispanic; with Franklin city (55.2%) and Portsmouth city (52.3%) as the leading two areas.
- Virginia Beach city has the highest percent of the Asian (Non-Hispanic) and Hispanic population of (6.5% and 8.2% respectively) than the overall service area.
- For households with income levels below \$25,000, Franklin city has the largest percent (40.8%) as compared to the overall service area, Virginia and the U.S.
- Six out of the 8 areas within the SNGH service area have a higher percent of population age 25 and older that did not graduate from High school, with Franklin city and Southampton county being the two highest.

Key Demographic Data by ZIP

City/County	ZIP Code	ZIP Common Name	Total Population 2016	Total Population 2021	% Change 2016-2021	% of Pop 65+ 2016	% of Pop 65+ 2021	Pop Density / Sq Mile	% of Households with Income Below \$25,000	% of Pop age 25+ that did not Graduate from High School	% of Service Area Pop
Isle of Wight	23314	Carrolton	7,861	8,549	8.8%	16.2%	19.2%	386	10.6%	11.1%	0.7%
Isle of Wight	23315	Carrsville	1,392	1,392	0.0%	17.5%	21.1%	45	18.6%	15.9%	0.1%
Chesapeake city	23320	Greenbrier	57,367	61,952	8.0%	12.4%	14.7%	1696	12.6%	5.2%	4.8%
Chesapeake city	23321	Western Branch	35,861	37,633	4.9%	14.0%	16.5%	1308	14.9%	8.1%	3.0%
Chesapeake city	23322	Fentress	64,555	67,821	5.1%	11.8%	14.9%	343	7.8%	6.0%	5.4%
Chesapeake city	23323	Deep Creek	38,832	41,182	6.1%	11.3%	13.5%	458	14.1%	10.4%	3.3%
Chesapeake city	23324	South Norfolk	23,489	24,259	3.3%	12.8%	14.2%	3137	31.1%	20.5%	2.0%
Chesapeake city	23325	Indian River	18,307	18,804	2.7%	14.5%	16.3%	4303	21.1%	14.5%	1.5%
Isle of Wight	23430	Smithfield	17,907	18,462	3.1%	18.9%	21.6%	167	21.3%	12.5%	1.5%
Suffolk city	23432	Chuckatuck	1,380	1,362	-1.3%	21.5%	24.2%	101	13.3%	9.5%	0.1%
Suffolk city	23433	Crittenden	1,404	1,526	8.7%	24.9%	28.3%	732	15.4%	5.5%	0.1%
Suffolk city	23434	Suffolk Downtown	49,168	50,851	3.4%	14.0%	16.1%	234	18.8%	13.3%	4.1%
Suffolk city	23435	Driver	29,660	31,743	7.0%	10.6%	12.9%	797	8.3%	8.3%	2.5%
Suffolk city	23436	Hobson	1,106	1,213	9.7%	19.5%	24.0%	396	10.0%	5.1%	0.1%
Suffolk city	23437	Holland	4,205	4,192	-0.3%	18.5%	22.1%	41	14.7%	12.5%	0.4%
Suffolk city	23438	Whaleyville	1,850	1,911	3.3%	17.0%	19.7%	46	12.1%	13.6%	0.2%
Virginia Beach city	23451	Oceanfront	43,896	45,890	4.5%	16.7%	18.8%	2092	17.6%	4.0%	3.7%
Virginia Beach city	23452	Little Neck	60,012	61,054	1.7%	13.5%	15.0%	3577	13.2%	7.0%	5.1%
Virginia Beach city	23453	Green Run	37,558	38,999	3.8%	7.7%	9.7%	3942	11.6%	5.1%	3.2%
Virginia Beach city	23454	Hilltop / Oceana	62,589	65,023	3.9%	12.3%	14.2%	2547	15.0%	4.4%	5.3%
Virginia Beach city	23455	Bayside	51,566	53,533	3.8%	15.5%	17.2%	2619	12.8%	5.1%	4.3%
Virginia Beach city	23456	Princess Anne	55,680	58,970	5.9%	10.9%	13.9%	867	6.2%	4.0%	4.7%
Virginia Beach city	23457	Back Bay	4,384	4,581	4.5%	16.7%	19.9%	67	9.9%	8.6%	0.4%
Virginia Beach city	23459	Fort Story	423	463	9.5%	2.6%	1.3%	342	13.3%	0.0%	0.0%
Virginia Beach city	23460	NAS Oceana	868	866	-0.2%	0.0%	0.0%	148	44.4%	0.5%	0.1%
Virginia Beach city	23461	Dam Neck	926	955	3.1%	0.0%	0.1%	530	0.0%	14.8%	0.1%
Virginia Beach city	23462	Witchduck	62,361	64,850	4.0%	11.4%	12.6%	5477	15.2%	7.7%	5.2%
Virginia Beach city	23463	CBN	402	440	9.5%	4.7%	5.5%	1336	23.2%	6.8%	0.0%
Virginia Beach city	23464	Kempsville	74,588	77,095	3.4%	13.4%	15.7%	4354	12.5%	5.9%	6.3%
Isle of Wight	23487	Windsor	6,338	6,371	0.5%	18.6%	21.2%	66	24.6%	18.3%	0.5%

Key Demographic Data by ZIP

City/County	ZIP Code	ZIP Common Name	Total Population 2016	Total Population 2021	% Change 2016-2021	% of Pop 65+ 2016	% of Pop 65+ 2021	Pop Density / Sq Mile	% of Households with Income Below \$25,000	% of Pop age 25+ that did not Graduate from High School	% of Service Area Pop
Norfolk city	23502	JANAF	20,959	21,576	2.9%	15.2%	17.2%	2301	23.7%	14.9%	1.8%
Norfolk city	23503	Willoughby	31,067	31,783	2.3%	9.9%	12.1%	6354	22.4%	11.5%	2.6%
Norfolk city	23504	Huntersville	24,382	25,094	2.9%	9.8%	11.3%	5397	48.9%	22.4%	2.1%
Norfolk city	23505	Wards Corner	30,142	31,077	3.1%	10.2%	11.6%	3774	28.9%	9.3%	2.5%
Norfolk city	23507	Hague/EVMS	6,117	6,172	0.9%	13.3%	15.5%	7265	26.1%	3.7%	0.5%
Norfolk city	23508	Larchmont	39,359	39,694	0.9%	4.2%	4.9%	9967	31.8%	5.5%	3.3%
Norfolk city	23509	Lafayette	13,071	13,373	2.3%	14.5%	16.6%	4551	25.7%	17.8%	1.1%
Norfolk city	23510	Waterside	7,900	8,459	7.1%	16.1%	18.4%	6172	32.7%	14.3%	0.7%
Norfolk city	23511	Naval Base & Naval A	3,063	3,078	0.5%	0.2%	0.4%	549	13.0%	2.2%	0.3%
Norfolk city	23513	Norview	29,340	29,976	2.2%	10.7%	12.7%	5581	29.4%	18.0%	2.5%
Norfolk city	23517	Ghent	4,815	5,009	4.0%	10.4%	12.2%	5836	28.5%	7.8%	0.4%
Norfolk city	23518	East Ocean View	28,218	28,767	1.9%	13.6%	15.4%	3211	24.6%	14.2%	2.4%
Norfolk city	23523	Berkley	7,970	8,199	2.9%	10.1%	11.4%	2891	42.7%	20.4%	0.7%
Portsmouth city	23701	Olive	25,031	25,318	1.1%	18.4%	19.8%	3032	21.0%	16.6%	2.1%
Portsmouth city	23702	Cradock	11,284	11,408	1.1%	9.5%	11.3%	3567	31.9%	20.6%	0.9%
Portsmouth city	23703	Churchland	26,287	27,081	3.0%	13.6%	15.4%	1745	16.4%	9.5%	2.2%
Portsmouth city	23704	Downtown	19,027	19,405	2.0%	14.0%	15.5%	3790	40.8%	22.9%	1.6%
Portsmouth city	23707	Midcity	14,460	14,795	2.3%	12.9%	14.5%	3100	31.6%	16.0%	1.2%
Southampton	23827	Boykins	1,375	1,336	-2.8%	20.7%	22.5%	27	38.3%	32.6%	0.1%
Southampton	23828	Branchville	338	327	-3.3%	20.7%	22.6%	9	40.0%	34.5%	0.0%
Southampton	23829	Capron	2,590	2,613	0.9%	14.9%	15.9%	36	26.2%	35.2%	0.2%
Southampton	23837	Courtland	4,143	4,149	0.1%	20.2%	22.6%	38	23.6%	16.8%	0.3%
Southampton	23844	Drewryville	611	594	-2.8%	19.5%	21.5%	14	42.5%	31.0%	0.1%
Franklin city	23851	Franklin	13,818	13,887	0.5%	18.2%	20.1%	119	34.3%	18.9%	1.2%
Southampton	23866	Ivor	2,316	2,357	1.8%	18.6%	21.9%	25	18.3%	16.1%	0.2%
Southampton	23874	Newsoms	1,001	990	-1.1%	18.2%	20.7%	23	26.3%	18.1%	0.1%
Southampton	23878	Sedley	1,180	1,193	1.1%	18.1%	19.9%	28	19.3%	16.2%	0.1%
Isle of Wight	23898	Zuni	2,134	2,146	0.6%	16.9%	19.9%	50	19.0%	17.5%	0.2%
Total SNGH Service Area			1,187,933	1,231,798	3.7%	12.7%	14.7%	590	18.6%	9.7%	
Virginia			8,428,339	8,801,874	4.4%	14.4%	16.6%	213.8	17.9%	11.8%	
USA			322,431,073	334,341,965	3.7%	15.1%	17.1%	91.4	22.7%	13.6%	

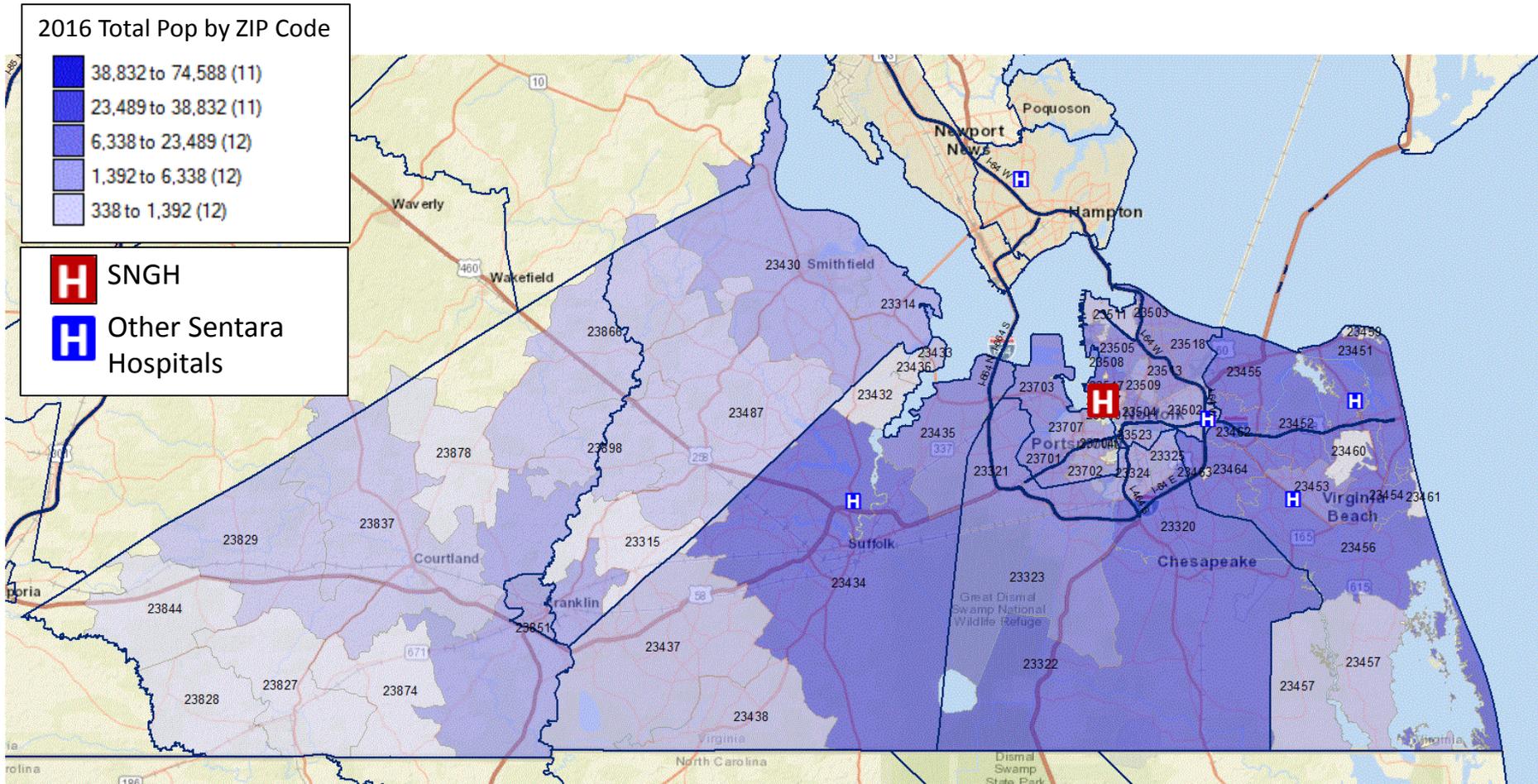
Race & Ethnicity by ZIP

City/County	ZIP Code	ZIP Common Name	Total Pop 2015	Total Pop 2020	% White NonHispanic	% Black NonHispanic	% Hispanic	% Asian NonHispanic	% Other NonHispanic
Isle of Wight	23314	Carrolton	7,861	8,549	70.7%	20.0%	3.8%	1.9%	3.7%
Isle of Wight	23315	Carrsville	1,392	1,392	78.5%	17.4%	1.6%	0.7%	1.8%
Chesapeake city	23320	Greenbrier	57,367	61,952	53.8%	29.5%	6.7%	5.9%	4.1%
Chesapeake city	23321	Western Branch	35,861	37,633	56.2%	32.7%	3.9%	3.4%	3.8%
Chesapeake city	23322	Fentress	64,555	67,821	79.9%	10.3%	4.0%	2.8%	3.0%
Chesapeake city	23323	Deep Creek	38,832	41,182	52.3%	34.4%	6.4%	2.8%	4.1%
Chesapeake city	23324	South Norfolk	23,489	24,259	31.3%	55.9%	8.9%	1.0%	2.9%
Chesapeake city	23325	Indian River	18,307	18,804	47.1%	41.7%	5.7%	2.0%	3.5%
Isle of Wight	23430	Smithfield	17,907	18,462	67.4%	26.5%	2.8%	1.0%	2.3%
Suffolk city	23432	Chuckatuck	1,380	1,362	56.4%	38.7%	2.0%	0.9%	2.0%
Suffolk city	23433	Crittenden	1,404	1,526	87.2%	6.7%	3.0%	1.4%	1.7%
Suffolk city	23434	Suffolk Downtown	49,168	50,851	43.4%	49.9%	3.5%	0.9%	2.3%
Suffolk city	23435	Driver	29,660	31,743	51.0%	36.2%	5.9%	3.5%	3.4%
Suffolk city	23436	Hobson	1,106	1,213	80.8%	11.8%	3.5%	2.3%	1.6%
Suffolk city	23437	Holland	4,205	4,192	71.6%	23.7%	1.9%	0.5%	2.3%
Suffolk city	23438	Whaleyville	1,850	1,911	78.4%	16.9%	1.9%	0.5%	2.4%
Virginia Beach city	23451	Oceanfront	43,896	45,890	77.8%	9.3%	7.6%	2.0%	3.4%
Virginia Beach city	23452	Little Neck	60,012	61,054	62.9%	18.5%	9.4%	4.6%	4.7%
Virginia Beach city	23453	Green Run	37,558	38,999	45.7%	27.1%	10.7%	11.2%	5.4%
Virginia Beach city	23454	Hilltop / Oceana	62,589	65,023	73.1%	11.2%	7.9%	3.7%	4.2%
Virginia Beach city	23455	Bayside	51,566	53,533	68.3%	14.7%	7.7%	5.4%	3.8%
Virginia Beach city	23456	Princess Anne	55,680	58,970	64.7%	15.1%	7.0%	8.9%	4.3%
Virginia Beach city	23457	Back Bay	4,384	4,581	89.6%	4.2%	3.0%	1.2%	2.0%
Virginia Beach city	23459	Fort Story	423	463	56.0%	17.5%	19.1%	0.5%	6.9%
Virginia Beach city	23460	NAS Oceana	868	866	49.4%	37.1%	7.3%	3.8%	2.4%
Virginia Beach city	23461	Dam Neck	926	955	48.2%	38.3%	6.4%	4.5%	2.6%
Virginia Beach city	23462	Witchduck	62,361	64,850	50.1%	29.8%	9.3%	5.8%	5.0%
Virginia Beach city	23463	CBN	402	440	55.2%	26.6%	7.2%	5.0%	6.0%
Virginia Beach city	23464	Kempsville	74,588	77,095	54.5%	22.8%	7.2%	10.9%	4.5%
Isle of Wight	23487	Windsor	6,338	6,371	75.2%	19.4%	2.7%	0.7%	2.0%

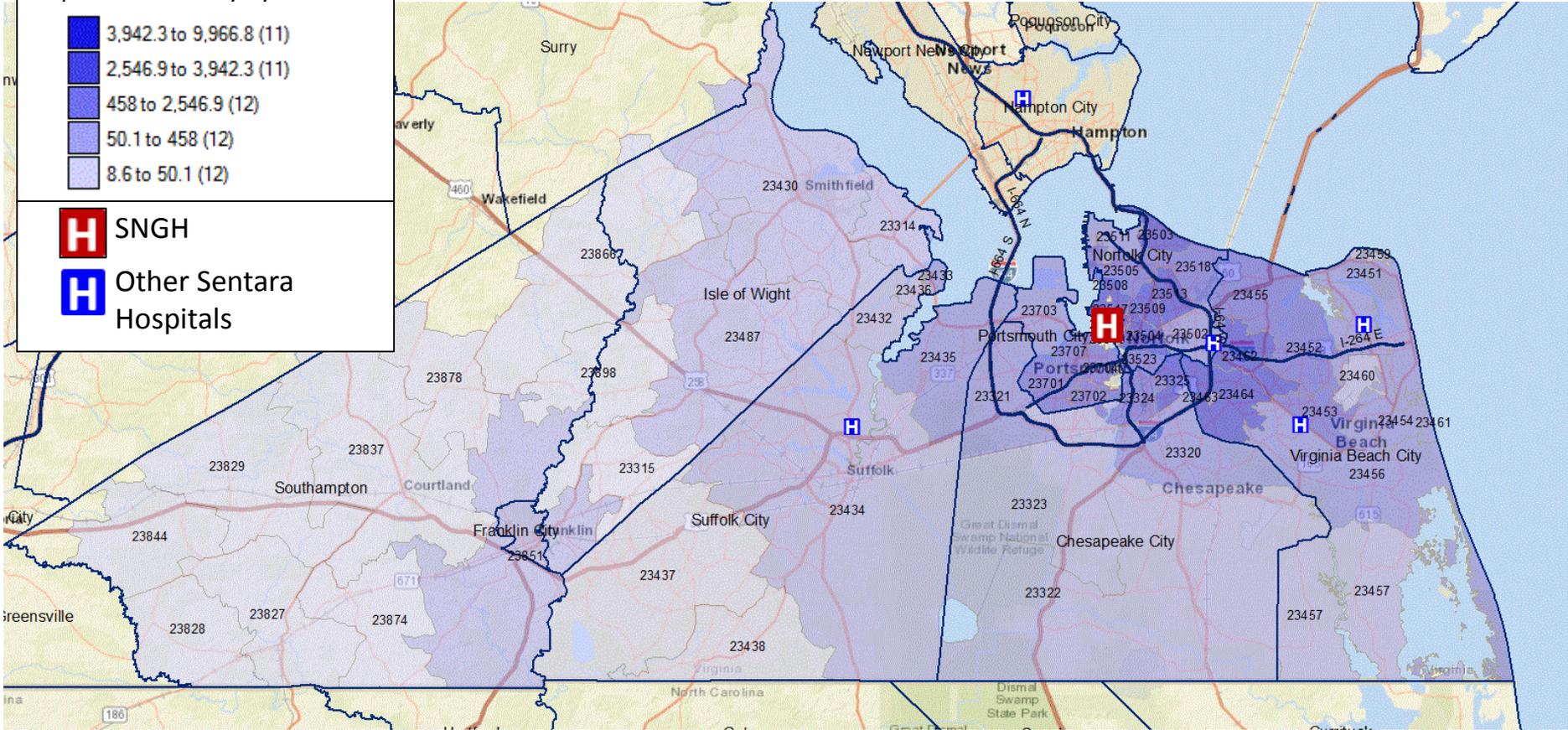
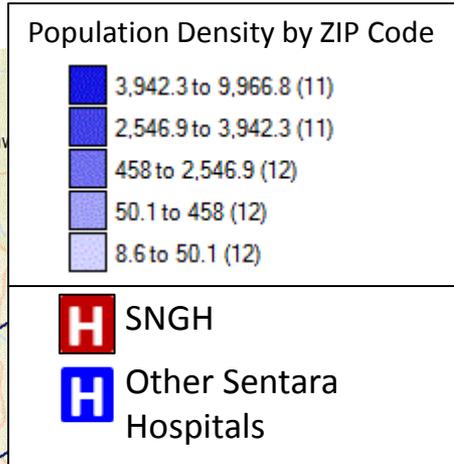
Race & Ethnicity by ZIP

City/County	ZIP Code	ZIP Common Name	Total Pop 2015	Total Pop 2020	% White NonHispanic	% Black NonHispanic	% Hispanic	% Asian NonHispanic	% Other NonHispanic
Norfolk city	23502	JANAF	20,959	21,576	35.6%	49.4%	7.1%	4.3%	3.6%
Norfolk city	23503	Willoughby	31,067	31,783	62.8%	20.8%	8.9%	2.7%	4.8%
Norfolk city	23504	Huntersville	24,382	25,094	8.7%	84.3%	3.5%	0.6%	2.9%
Norfolk city	23505	Wards Corner	30,142	31,077	50.7%	31.5%	9.4%	4.1%	4.3%
Norfolk city	23507	Hague/EVMS	6,117	6,172	81.6%	7.3%	3.8%	4.4%	2.9%
Norfolk city	23508	Larchmont	39,359	39,694	51.2%	29.0%	10.4%	5.0%	4.4%
Norfolk city	23509	Lafayette	13,071	13,373	40.8%	47.4%	6.6%	1.6%	3.6%
Norfolk city	23510	Waterside	7,900	8,459	46.8%	46.3%	2.1%	2.8%	2.0%
Norfolk city	23511	Naval Base & Naval A	3,063	3,078	62.5%	16.7%	12.2%	2.2%	6.5%
Norfolk city	23513	Norview	29,340	29,976	26.6%	55.0%	8.7%	5.1%	4.6%
Norfolk city	23517	Ghent	4,815	5,009	65.7%	23.5%	4.1%	3.6%	3.1%
Norfolk city	23518	East Ocean View	28,218	28,767	58.9%	22.1%	9.4%	5.3%	4.4%
Norfolk city	23523	Berkley	7,970	8,199	4.1%	90.1%	3.0%	0.4%	2.4%
Portsmouth city	23701	Olive	25,031	25,318	41.9%	49.8%	4.4%	1.1%	2.8%
Portsmouth city	23702	Cradock	11,284	11,408	38.3%	50.8%	5.0%	1.5%	4.4%
Portsmouth city	23703	Churchland	26,287	27,081	43.6%	46.4%	4.2%	1.9%	3.9%
Portsmouth city	23704	Downtown	19,027	19,405	22.2%	71.2%	3.3%	0.7%	2.7%
Portsmouth city	23707	Midcity	14,460	14,795	48.2%	43.4%	3.8%	1.3%	3.2%
Southampton	23827	Boykins	1,375	1,336	48.1%	48.3%	2.2%	0.2%	1.2%
Southampton	23828	Branchville	338	327	46.4%	50.0%	2.1%	0.0%	1.5%
Southampton	23829	Capron	2,590	2,613	48.8%	48.1%	1.4%	0.2%	1.5%
Southampton	23837	Courtland	4,143	4,149	65.3%	31.4%	1.3%	0.3%	1.7%
Southampton	23844	Drewryville	611	594	45.5%	48.6%	2.1%	0.0%	3.8%
Franklin city	23851	Franklin	13,818	13,887	45.5%	48.7%	2.4%	0.8%	2.6%
Southampton	23866	Ivor	2,316	2,357	74.1%	20.9%	1.8%	0.7%	2.5%
Southampton	23874	Newsoms	1,001	990	56.7%	40.3%	1.9%	0.2%	0.9%
Southampton	23878	Sedley	1,180	1,193	74.4%	22.1%	1.2%	0.6%	1.7%
Isle of Wight	23898	Zuni	2,134	2,146	80.2%	15.0%	1.5%	0.7%	2.6%
Total SNGH Service Area			1,187,933	1,231,798	54.8%	30.4%	6.7%	4.2%	¹² 3.8%

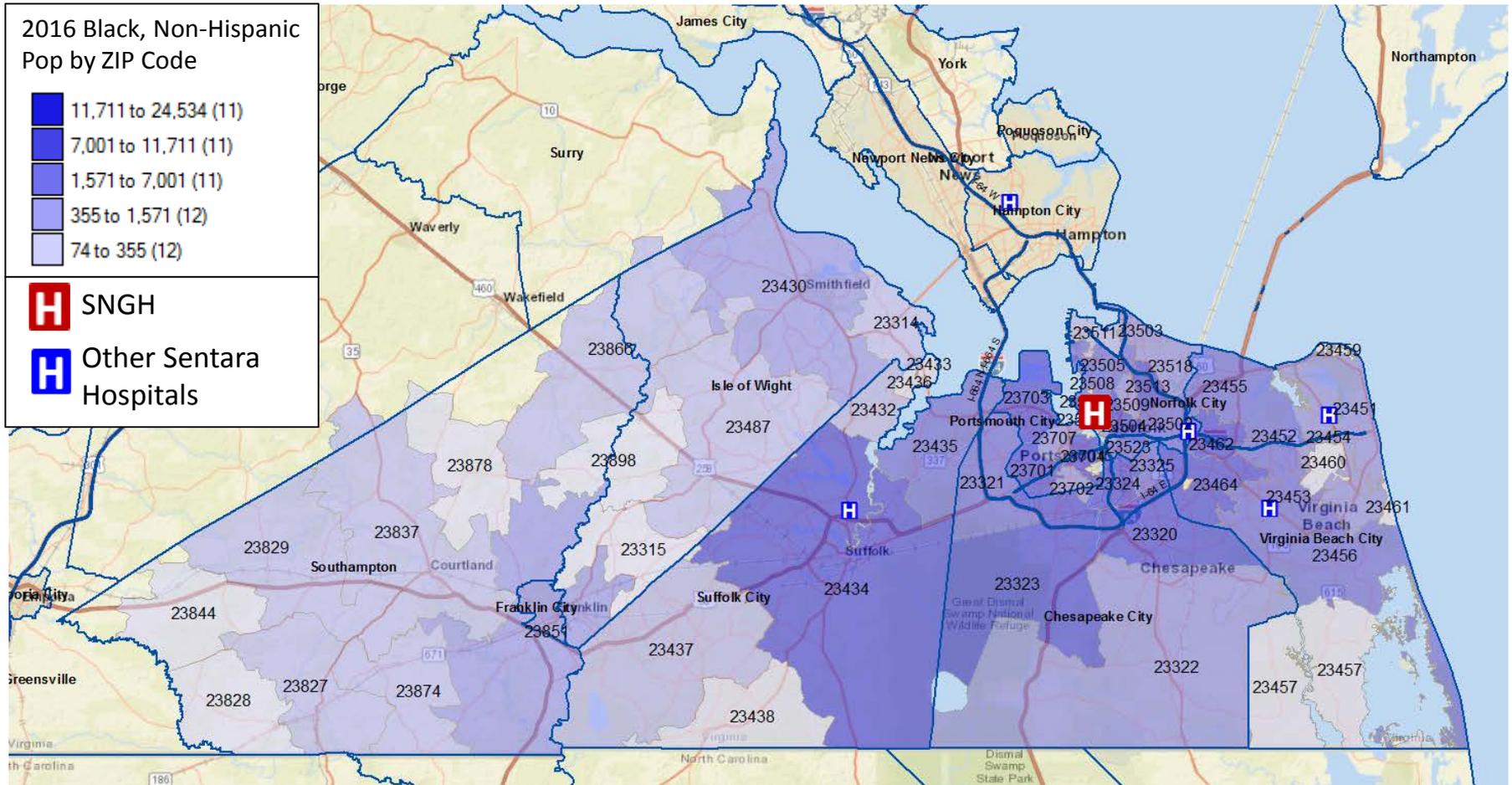
2016 Total Population by ZIP Code



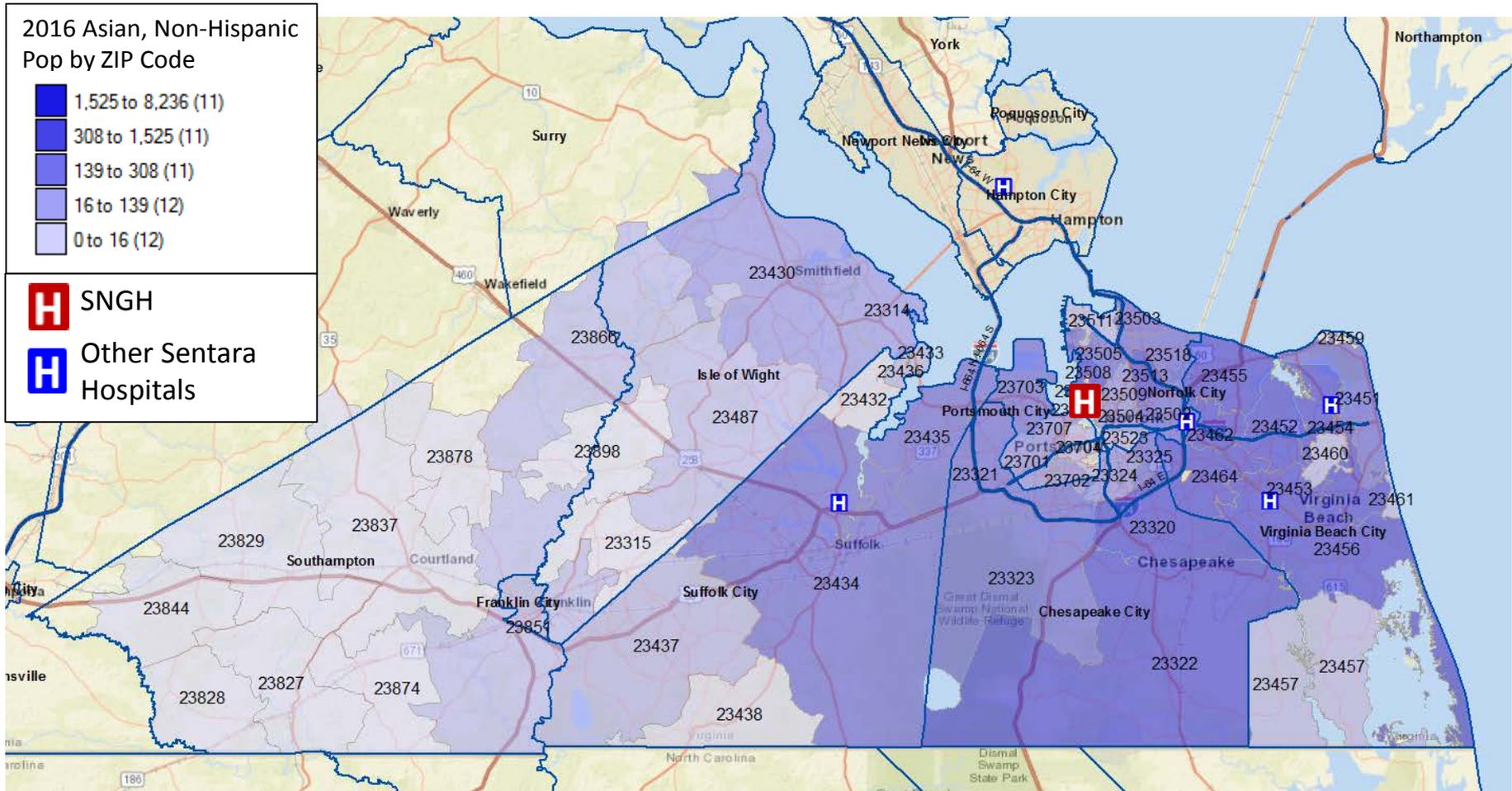
2016 Population Density by ZIP Code



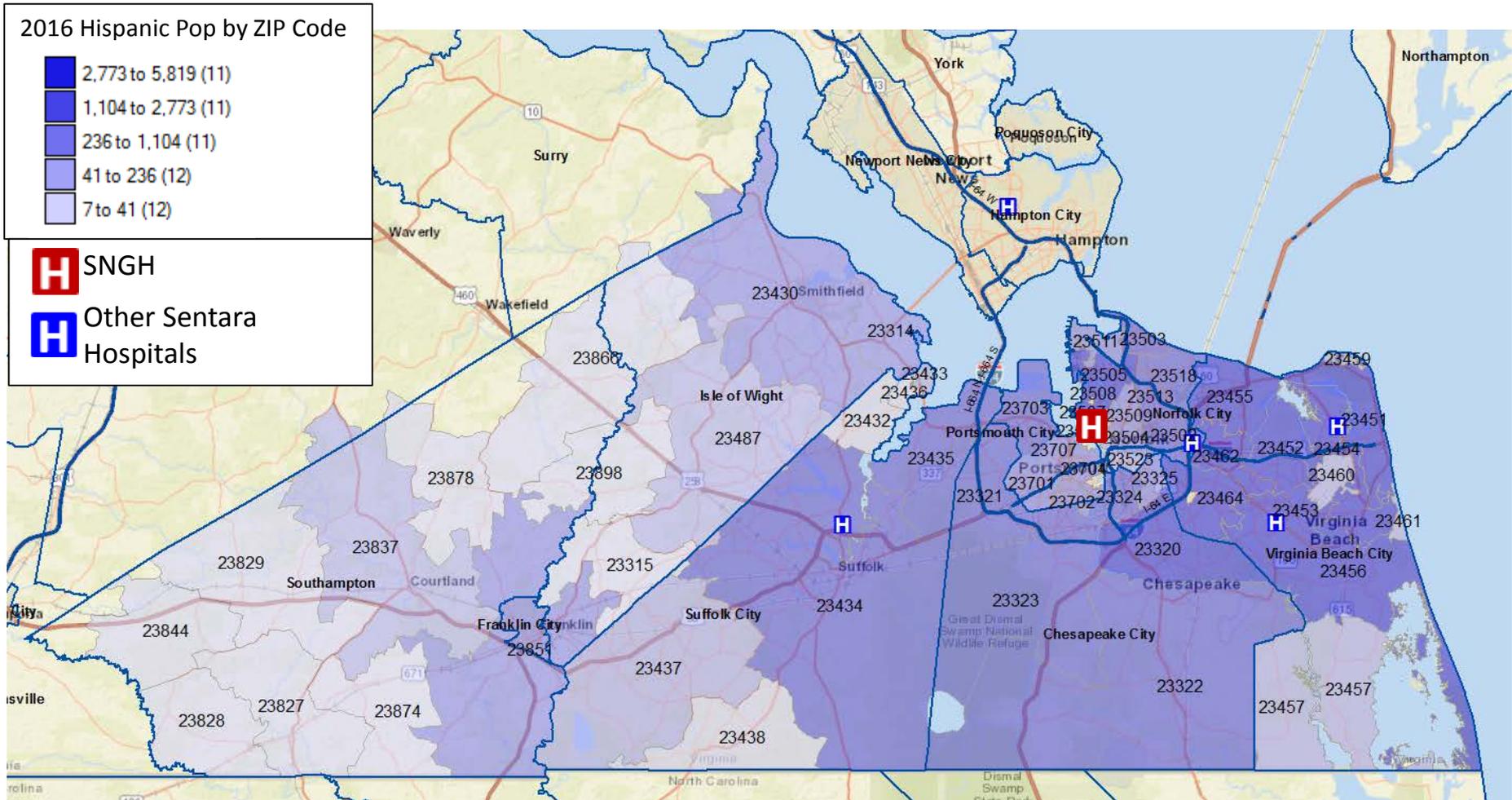
2016 Black, Non-Hispanic Population by ZIP Code



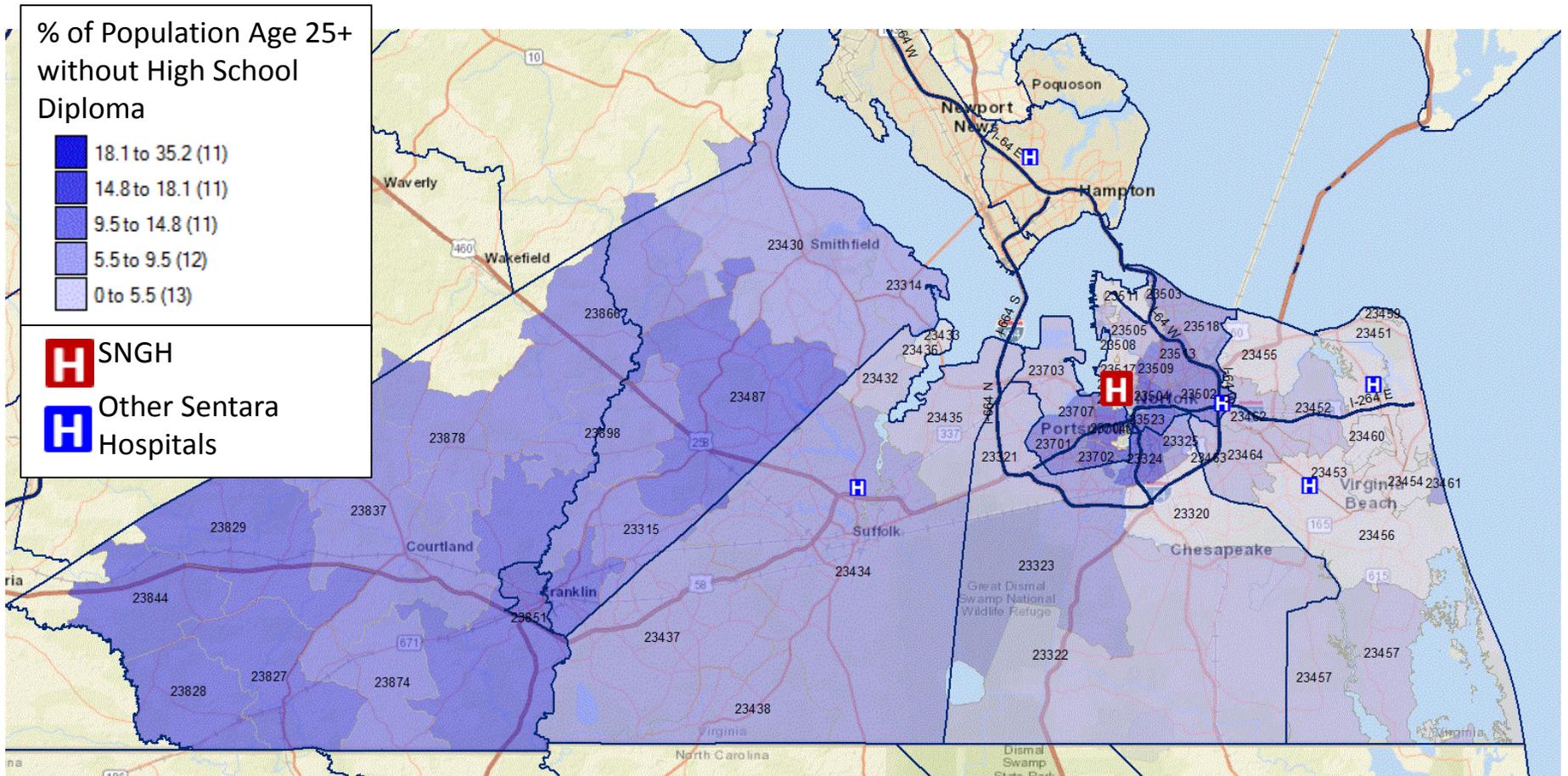
2016 Asian, Non-Hispanic Population by ZIP Code



2016 Hispanic Population by ZIP Code



2016 % of Population Age 25+ without a High School Diploma



ZIP Codes Included in SNGH Area

ZIP	ZIP Common Name	ZIP	ZIP Common Name
23314	Carrolton	23487	Windsor
23315	Carrsville	23502	JANAF
23320	Greenbrier	23503	Willoughby
23321	Western Branch	23504	Huntersville
23322	Fentress	23505	Wards Corner
23323	Deep Creek	23507	Hague/EVMS
23324	South Norfolk	23508	Larchmont
23325	Indian River	23509	Lafayette
23430	Smithfield	23510	Waterside
23432	Chuckatuck	23511	Naval Base & Naval A
23433	Crittenden	23513	Norview
23434	Suffolk Downtown	23517	Ghent
23435	Driver	23518	East Ocean View
23436	Hobson	23523	Berkley
23437	Holland	23701	Olive
23438	Whaleyville	23702	Cradock
23451	Oceanfront	23703	Churchland
23452	Little Neck	23704	Downtown
23453	Green Run	23707	Midcity
23454	Hilltop / Oceana	23827	Boykins
23455	Bayside	23828	Branchville
23456	Princess Anne	23829	Capron
23457	Back Bay	23837	Courtland
23459	Fort Story	23844	Drewryville
23460	NAS Oceana	23851	Franklin
23461	Dam Neck	23866	Ivor
23462	Witchduck	23874	Newsoms
23463	CBN	23878	Sedley
23464	Kempsville	23898	Zuni

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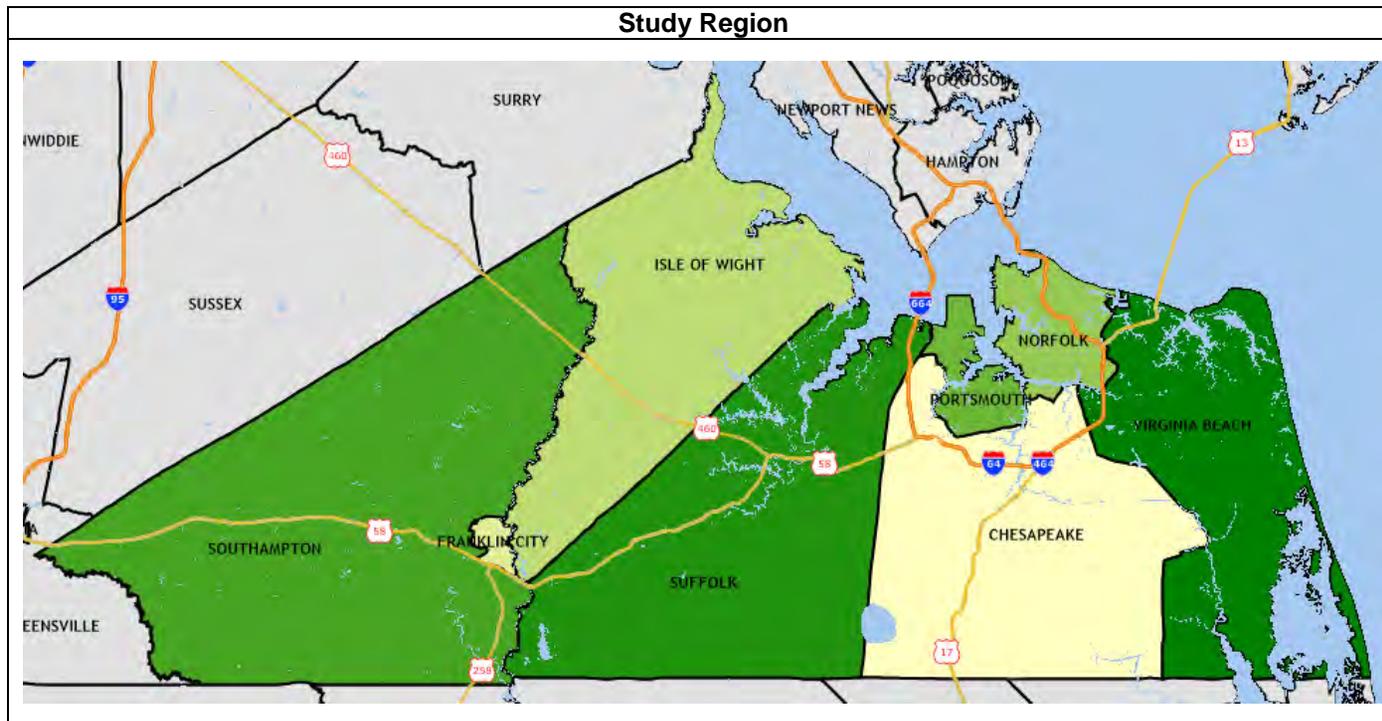
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Introduction

This document presents a health status indicators report for Sentara Norfolk General Hospital. The report was commissioned by Sentara Healthcare and Sentara Norfolk General Hospital, and produced by Community Health Solutions. The study presents health status indicators for the Sentara Norfolk General Hospital region. The study region includes the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach; and the counties of Isle of Wight and Southampton.



The study draws upon multiple data sources to present nine health indicator profiles in the following categories:

1. Mortality Profile
2. Maternal and Infant Health Profile
3. Preventable Hospitalization Profile
4. Behavioral Health Hospitalization Profile
5. Adult Health Risk Factor Profile
6. Youth Health Risk Factor Profile
7. Uninsured Profile
8. Cancer Profile
9. Communicable Disease Profile

The profiles are presented in order in the following pages. Following the profiles, *Appendix A* presents a set of Zip Code-Level maps of selected indicators. *Appendix B* provides detail on the methods used to produce the indicators.

Study Approach

This document contains a wide array of community health indicators from multiple sources. By design, the profiles do not include every possible indicator of community health. The profiles are focused on a core set of indicators that provide broad insight into community health, and for which there were readily available data sources. The results of this profile can be used to evaluate community health status compared to the Commonwealth of Virginia overall. The results can also be helpful for determining the number of people affected by specific health concerns. The analysis objectives for this study included the following:

- Provide a snapshot analysis (for the most current year of data) for each indicator profile.
- Provide a trend analysis (for the 2011-2013 timeframe) of selected indicators as requested by Sentara Healthcare.
- Provide both counts and rates (where available) for all indicators. *Counts* refer to the number of cases of a particular health condition, such as the number of newborns with low birth weight. *Rates* refer to the number of cases per capita, such as the percent of all newborns with low birth weight. Counts are helpful for understanding the magnitude of need within a region, while rates are helpful for comparing health indicators across geographies with different population sizes (i.e. the study region vs. Virginia statewide).
- For the snapshot indicators, identify where the study region rates were worse (higher or lower, depending on the indicator), than the state rate. For this report, a study region rate within one percent of the state rate is considered comparable (no difference).
- For the trend indicators, identify where the study region trend differs from the state trend. For this report, a percent change of one percent is considered relatively stable (no change).

1. Mortality Profile

This profile presents indicators of death counts and rates for the local area compared to Virginia. The indicators are based on analysis of death record data provided by the Virginia Department of Health, and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.)

Mortality Snapshot (2013)

As shown in *Exhibit 1A*:

- In 2013 there were 8,930 deaths in the study region.
- The leading causes of death in the study region were Malignant Neoplasms (cancer), Heart Disease; Cerebrovascular Disease (stroke); Chronic Lower Respiratory Disease; Unintentional Injury; Diabetes; and Nephritis and Nephrosis.
- The age-adjusted death rates for the study region were higher (worse) than the state rates for all causes combined, and for 10 of the 14 leading causes of death. Specifically, the death rates for the study region were higher than the state rates for Malignant Neoplasms (cancer), Heart Disease; Chronic Lower Respiratory Disease; Unintentional Injury; Diabetes; Nephritis and Nephrosis; Alzheimer's Disease; Septicemia; Chronic Liver Disease; and Primary Hypertension.

Mortality Trend – All Deaths (2011-2013)

- **Trend by Cause:** As shown in *Exhibit 1B*, from 2011 to 2013 the age-adjusted death rates in the study region increased for Unintentional Injury, Nephritis and Nephrosis and Septicemia; remained relatively stable for all deaths combined, Malignant Neoplasms and Heart Disease; and declined for the other leading causes. Unlike the study region, Unintentional Injury deaths remained stable.
- **Trend by Race/Ethnicity:** As shown in *Exhibit 1C*, from 2011 to 2013 there was an increase in the number of total deaths in the study region for all racial/ethnic groups, with the exception of the Asian population. Unlike the study region, statewide deaths for the Asian population increased, and deaths for the White population remained stable.
- **Trend by Sex:** As shown in *Exhibit 1D*, from 2011 to 2013 there was a 2% increase in the number of total deaths in the study region for the female population, and a 7% increase for the male population. The study region trend was consistent with the statewide trend.

Premature Death Trend (2011-2013)

- **Definition:** Consistent with conventions in the field, premature mortality can be defined as deaths that occur before age 75.
- **Leading Causes:** As shown in *Exhibit 1E*, over the 2011 to 2013 time period, roughly 47% of all deaths could be classified as premature deaths. While Unintentional Injury was the fifth leading cause of all deaths, it was the third leading cause of premature deaths.
- **Trend by Cause:** As shown in *Exhibit 1E*:
 - From 2011 to 2013 there was an increase in the number of premature deaths in the study region overall, and for seven of the top 10 causes of premature death. Specifically, study region premature deaths increased for Malignant Neoplasms, Heart Disease, Unintentional Injury, Nephritis and Nephrosis, Septicemia, and Chronic Liver Disease.
 - Unlike the study region, the statewide counts remained relatively stable for Malignant Neoplasms, Chronic Lower Respiratory Diseases, Diabetes and Suicide.
 - Unlike the study region, the statewide counts declined for Unintentional Injury.
- **Trend by Race/Ethnicity:** As shown in *Exhibit 1F*, from 2011 to 2013, there was an increase in the number of premature deaths in the study region for White and Hispanic Ethnicity populations, a decline in the Asian population, and the Black/African American population remained relatively stable. Unlike the study region, the statewide rates increased for Asian and Black/African American populations, and remained stable for the Hispanic population.
- **Trend by Sex:** As shown in *Exhibit 1G*, from 2011 to 2013 there was a 2% increase in the number of premature deaths in the study region for the female population, and an 8% increase for the male population. The study region trend was consistent with the statewide trend.

Exhibit 1A. Mortality Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Deaths by All Causes	62,309	8,930
Counts-Leading 14 Causes of Death		
Malignant Neoplasms (Cancer) Deaths	14,348	2,061
Heart Disease Deaths	13,543	1,929
Cerebrovascular Disease (Stroke) Deaths	3,278	429
Chronic Lower Respiratory Disease Deaths	3,168	426
Unintentional Injury Deaths	2,794	417
Diabetes Mellitus Deaths	1,618	261
Nephritis and Nephrosis Deaths	1,547	253
Alzheimer's Disease Deaths	1,634	230
Septicemia Deaths	1,464	221
Influenza and Pneumonia Deaths	1,430	156
Suicide Deaths	1,047	132
Chronic Liver Disease Deaths	836	131
Primary Hypertension and Renal Disease Deaths	629	93
Parkinson's Disease Deaths	549	65
Age Adjusted Death Rates per 100,000 Population		
Deaths by All Causes	720.1	793.0
Malignant Neoplasms (Cancer) Deaths	161.3	180.0
Heart Disease Deaths	155.9	171.2
Cerebrovascular Disease (Stroke) Deaths	38.5	38.3
Chronic Lower Respiratory Disease Deaths	37.2	39.5
Unintentional Injury Deaths	33.0	35.9
Diabetes Mellitus Deaths	18.3	22.9
Nephritis and Nephrosis Deaths	18.0	22.8
Alzheimer's Disease Deaths	19.6	21.5
Septicemia Deaths	17.7	18.9
Influenza and Pneumonia Deaths	16.8	14.4
Suicide Deaths	12.2	11.1
Chronic Liver Disease Deaths	8.9	10.5
Primary Hypertension and Renal Disease Deaths	7.2	8.3
Parkinson's Disease Deaths	6.7	6.2
<i>Note: Rates are not calculated where n<30.</i>		
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>		

Exhibit 1B. Mortality Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
All Deaths (Leading 10 Causes)					
Total Deaths (All Causes)	8,584	8,614	8,930	3%	4%
Malignant Neoplasms (Cancer)	1,974	1,999	2,061	1%	4%
Heart Disease	1,848	1,878	1,929	3%	4%
Cerebrovascular Disease (Stroke)	441	395	429	-1%	-3%
Chronic Lower Respiratory Disease	440	438	426	2%	-3%
Unintentional Injury	353	344	417	2%	18%
Alzheimer's Disease	293	263	230	-9%	-22%
Diabetes Mellitus	259	251	261	-1%	1%
Nephritis and Nephrosis	220	199	253	9%	15%
Septicemia	191	160	221	7%	16%
Influenza and Pneumonia	170	136	156	2%	-8%
Age Adjusted Death Rates per 100,000 Population					
Total Deaths (All Causes)	798.3	782.4	793.0	-2%	-1%
Malignant Neoplasms (Cancer)	182.1	179.3	180.0	-5%	-1%
Heart Disease	172.7	170.5	171.2	-3%	-1%
Cerebrovascular Disease (Stroke)	41.7	36.0	38.3	-7%	-8%
Chronic Lower Respiratory Disease	42.5	41.3	39.5	-3%	-7%
Unintentional Injury	31.5	30.6	35.9	-1%	14%
Alzheimer's Disease	28.5	25.2	21.5	-15%	-25%
Diabetes Mellitus	24.0	23.2	22.9	-6%	-5%
Nephritis and Nephrosis	20.9	18.0	22.8	2%	9%
Septicemia	17.9	14.5	18.9	5%	6%
Influenza and Pneumonia	16.0	12.5	14.4	-3%	-10%
<i>Note: Rates are not calculated where n<30.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

Exhibit 1C. All Death Trend by Race/Ethnicity (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Asian	166	150	162	15%	-2%
Black/African American	2,812	2,790	2,879	4%	2%
White	5,573	5,653	5,802	1%	4%
Hispanic Ethnicity	92	106	114	8%	24%
<i>Notes: Rates and/or percent change are not calculated where n<30. Deaths with Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

Exhibit 1D. All Death Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Female	4,393	4,387	4,465	3%	2%
Male	4,191	4,227	4,465	4%	7%
<i>Notes: Rates and/or percent change are not calculated where n<30.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

Exhibit 1E. Leading Causes – Premature Death Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Premature Deaths (Leading 10 Causes)					
Total Premature Deaths (All Causes)	4,027	4,040	4,247	4%	5%
Malignant Neoplasms (Cancer)	1,150	1,167	1,240	0%	8%
Heart Disease	742	770	787	6%	6%
Unintentional Injury	256	234	297	-2%	16%
Chronic Lower Respiratory Diseases	168	161	156	1%	-7%
Cerebrovascular Diseases	163	164	174	5%	7%
Diabetes Mellitus	135	114	130	-1%	-4%
Nephritis and Nephrosis	83	86	109	16%	31%
Septicemia	86	78	101	11%	17%
Chronic Liver Disease	94	108	116	21%	23%
Suicide	134	135	126	0%	-6%
<i>Note: Rates and/or percent change are not calculated where n<30.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

Exhibit 1F. Premature Mortality Trend by Race/Ethnicity (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Asian	93	83	86	3%	-8%
Black/African American	1,646	1,607	1,656	3%	1%
White	2,265	2,337	2,445	2%	8%
Hispanic Ethnicity	58	66	64	0%	10%
<i>Notes: Rates and/or percent change are not calculated where n<30. Deaths with Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

Exhibit 1G. Premature Mortality Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Female	1,726	1,702	1,765	3%	2%
Male	2,301	2,338	2,482	4%	8%
<i>Notes: Rates and/or percent change are not calculated where n<30.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

2. Maternal and Infant Health Profile

This profile presents indicators of maternal and infant health for the local area compared to Virginia. The indicators are based on analysis of birth record data provided by the Virginia Department of Health, and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.)

Maternal and Infant Health Snapshot (2013)

- As shown in *Exhibit 2A*, in 2013 there were 21,126 total pregnancies and 15,752 live births in the study region. Among the live births were 1,389 low weight births, 2,054 late prenatal care births, 6,179 non-marital births, and 880 live births to teens.
- The study region had a higher birth rate than Virginia in 2013. The study region also had higher rates (worse) than Virginia for all maternal and infant health indicators, with the exception of births with late prenatal care, where the rates were comparable.
- Focusing on infant mortality, there were 676 infant deaths for the study region from 2009 to 2013. The rate of infant mortality was above (worse) the state rate for this period.

Maternal and Infant Health Trend (2011-2013)

- **Select Birth and Teenage Pregnancy Indicators.** As shown in *Exhibit 2B*, from 2011 to 2013 within the study region, there was a decrease in the rate of total live births, low weight births, non-marital births, and teenage pregnancies. Unlike the study region, the statewide rates remained relatively stable for low weight births.
- **Teenage Births Trend by Age Group.** As shown in *Exhibit 2C*, from 2011 to 2013 within the study region, there was a substantial decrease in the overall number of teen births. The study region trend was consistent with the statewide trend.
- **Teenage Births Trend Race/Ethnicity.** As shown in *Exhibit 2D*, from 2011 to 2013 there was a decrease in the number of teen births among all race/ethnic groups. The study region trend was consistent with the statewide trend.

Exhibit 2A. Maternal and Infant Health Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total Pregnancies	126,655	21,126
Induced Terminations of Pregnancy	19,724	4,605
Natural Fetal Deaths	4,954	769
Total Live Births	101,977	15,752
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	8,178	1,389
Late Prenatal Care (No Prenatal Care in First 13 Weeks)	13,435	2,054
Non-Marital Births	35,289	6,179
Total Teen Pregnancies Ages 10-19	7,447	1,382
Pregnancies- Teens Age 18-19	5,647	1,047
Pregnancies- Teens Age 15-17	1,712	315
Pregnancies-Teens Age <15	88	20
Live Births to Teens Age 10-19	5,316	880
Live Births to Teens Age 18-19	4,073	676
Live Births to Teens Age 15-17	1,208	197
Live Births to Teens Age <15	35	7
Total Infant Deaths 2009-2013	3,402	676
Rates		
Live Birth Rate per 1,000 Population	12.3	13.5
Low Weight Births pct. of Total Live Births	8%	9%
Late Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	13%	13%
Non-Marital Births pct. of Total Live Births	35%	39%
Teenage (age 10-19) Pregnancy Rate per 1,000 Teenage Female Population (age 10-19)	14.4	19.3
Pregnancy Rate- Teens Age 18-19	50.4	70.9
Pregnancy Rate- Teens Age 15-17	11.3	14.7
Pregnancy Rate-Teens Age <15	0.3	0.6
Teenage (age 10-19) Live Birth Rate per 1,000 Teenage Female Population (age 10-19)	10.3	12.3
Teenage (age 18-19) Live Birth Rate per 1,000 Teenage Female Population (age 18-19)	36.4	45.8
Teenage (age 15-17) Live Birth Rate per 1,000 Teenage Female Population (age 15-17)	8.0	9.2
Teenage (age <15) Live Birth Rate per 1,000 Teenage Female Population (age <15)	0.1	0.2
Five-Year Infant Mortality Rate per 1,000 Live Births) 2009-2013	6.6	8.4
<i>Notes: Rates and/or percent change are not calculated where n<30.</i>		
<i>Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.</i>		

Exhibit 2B. Select Birth and Teenage Pregnancy Indicator Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total Live Births	16,031	16,064	15,752	-1%	-2%
Low Weight Births	1,455	1,531	1,389	0%	-5%
Non Marital Births	6,538	6,524	6,179	-3%	-5%
Teenage (age 10-19) Pregnancies	1,800	1,630	1,382	-23%	-23%
Rates					
Total Live Births (per 1,000 population)	13.9	13.8	13.5	-3%	-3%
Low Weight (as a percent of Total Live Births)	9%	10%	9%	0%	-3%
Non Marital Births (as a percent of Total Live Births)	41%	41%	39%	-1%	-4%
Teenage (age 10-19) Pregnancies (per 1,000 Teenage Female Population)	24.4	22.4	19.3	-23%	-21%

Note: Rates and/or percent change are not calculated where n<30.

Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.

Exhibit 2C. Teenage Births Trend by Age (2011-2013)

Indicator	Study Region			% Change (2011-2013)		
	2011	2012	2013	Virginia	Study Region	
Counts						
Teenage (Age 10-19) Live Births						
Total Teenage Live Births	1,146	1,065	880	-19%	-23%	
Age	18-19	857	796	676	-15%	-21%
	15-17	282	253	197	-29%	-30%
	<15	7	16	7	-39%	--

Note: Rates and/or percent change are not calculated where n<30.

Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Exhibit 2D. Teenage Births Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Teenage (Age 10-19) Live Births						
Race	Black/African American	688	643	541	-23%	-21%
	White	394	348	256	-26%	-35%
Ethnicity	Hispanic Ethnicity	62	56	59	-5%	-5%
<i>Note: Rates and/or percent change are not calculated where n<30. Births with Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

3. Preventable Hospitalization Profile

This profile presents indicators of preventable hospitalizations based on PQI definitions for the study region compared to Virginia. High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents. This profile presents indicators of preventable hospitalizations based on PQI definitions for the study region compared to Virginia. The indicators are based on analysis of hospital discharge data provided by the Virginia Health Information (VHI), and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities.

Preventable Hospitalization Snapshot (2013)

As shown in *Exhibit 3A*:

- In 2013 there were 11,285 PQI hospital discharges from Virginia hospitals for residents of the study region.
- The leading PQI diagnoses in the study region were Congestive Heart Failure, COPD or Asthma in Older Adults (age 40+), Diabetes, Bacterial Pneumonia, and Urinary Tract Infection. Diabetes ranks higher in the study region than for the state as a whole.
- The age-adjusted PQI diagnoses rates for the study region were higher (worse) than the Virginia rates for the PQIs overall, and for COPD or Asthma in Older Adults (age 40+), Diabetes, Hypertension, and Asthma in Younger Adults (age 18-39).

Preventable Hospitalization Trend (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 3B*, from 2011 to 2013 the age-adjusted PQI discharge rates per 100,000 population declined for the total PQIs, and for all specific diagnoses. Unlike the study region, the statewide rate remained stable for Diabetes.
- **By Age Group.** As shown in *Exhibit 3C*, from 2011 to 2013 the rate of PQI discharges for the study region decreased for all age groups. Age-group rates also declined for Virginia as a whole, although at a faster pace. The study region trend was consistent with the statewide trend.
- **By Race/Ethnicity.** As shown in *Exhibit 3D*, from 2011 to 2013 the rate of PQI discharges for the study region decreased for all racial/ethnic populations. The study region trend was consistent with the statewide trend.
- **By Payer.** As shown in *Exhibit 3E*, from 2011 to 2013 the study region counts for Total PQI Discharges declined for the Medicare, Medicaid, and Private Insurance populations, and increased for the Self-Pay/Uninsured population. Unlike the study region, study region rates increased for the Medicare population.

Exhibit 3A. Preventable Hospitalization Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total PQI Discharges (<i>see note</i>)	76,860	11,285
Congestive Heart Failure	18,239	3,129
COPD or Asthma in Older Adults (age 40+)	16,026	2,203
Diabetes	9,938	1,673
Bacterial Pneumonia	11,867	1,525
Urinary Tract Infection	8,452	1,008
Dehydration	7,743	996
Hypertension	2,768	435
Perforated Appendix	1,189	160
Angina	941	98
Asthma in Younger Adults (age 18-39)	444	153
Age Adjusted Rates per 100,000 Population		
Total PQI Discharges (<i>see note</i>)	897.9	988.1
Congestive Heart Failure	209.1	188.7
COPD or Asthma in Older Adults (age 40+)	176.3	278.2
Diabetes	114.5	140.3
Bacterial Pneumonia	136.4	135.3
Urinary Tract Infection	100.1	92.0
Dehydration	89.5	88.9
Hypertension	31.7	37.5
Perforated Appendix	13.7	13.3
Angina	12.0	8.5
Asthma in Younger Adults (age 18-39)	5.0	13.1
<i>Note: -- Rates are not calculated where n<30. The sum of the individual diagnoses may differ slightly from the Total Discharges figure for technical reasons.</i>		
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>		

Exhibit 3B. Preventable Hospitalization Trend by Selected Diagnosis (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total PQI Discharges (<i>see note</i>)	11,551	10,997	11,285	-6%	-2%
Congestive Heart Failure	3,008	2,934	3,129	-8%	4%
Bacterial Pneumonia	1,744	1,686	1,525	-29%	-13%
COPD or Asthma in Older Adults (age 40+)	2,264	2,089	2,203	-20%	-3%
Diabetes	1,660	1,462	1,673	-2%	1%
Urinary Tract Infection	1,163	1,082	1,008	-22%	-13%
Age Adjusted Rates per 100,000 Population					
Total PQI Discharges (<i>see note</i>)	1,062.8	977.2	988.1	-9%	-7%
Congestive Heart Failure	282.8	264.5	278.2	-10%	-2%
Bacterial Pneumonia	163.7	152.1	135.3	-31%	-17%
COPD or Asthma in Older Adults (age 40+)	204.6	180.2	188.7	-31%	-8%
Diabetes	142.7	123.5	140.3	0%	-2%
Urinary Tract Infection	111.9	100.6	92.0	-24%	-18%
<i>Note: -- Rates and/or percent change are not calculated where n<30. The sum of the individual diagnoses may differ slightly from the Total Discharges figures for technical reasons.</i>					
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>					

Exhibit 3C. Preventable Hospitalization Trend by Age Group (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI)		2011	2012	2013	Virginia	Study Region
Age	Adults Age 18-29	554	501	482	-23%	-13%
	Adults Age 30-44	991	913	933	-21%	-6%
	Adults Age 45-64	3,688	3,423	3,588	-18%	-3%
	Seniors Age 65+	6,318	6,160	6,282	-20%	-1%
Crude Rates per 100,000 population						
Age	Adults Age 18-29	242.9	221.2	205.4	-24%	-15%
	Adults Age 30-44	435.8	398.8	403.9	-21%	-7%
	Adults Age 45-64	1,245.8	1,127.7	1,180.0	-19%	-5%
	Seniors Age 65+	5,078.0	4,669.7	4,830.4	-23%	-5%
<i>Note: -- Rates and/or percent change are not calculated where n<30.</i>						
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>						

Exhibit 3D. Preventable Hospitalization Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI)		2011	2012	2013	Virginia	Study Region
Race	Asian	186	159	136	-11%	-27%
	Black/African American	4,793	4,563	4,506	-16%	-6%
	White	6,160	5,767	5,781	-22%	-6%
Ethnicity	Hispanic Ethnicity	121	114	121	-30%	0%
Crude Rates per 100,000 population						
Race	Asian	425.4	349.7	291.9	-24%	-31%
	Black/African American	1,304.9	1,233.8	1,224.8	-21%	-6%
	White	910.8	846.7	832.5	-19%	-9%
Ethnicity	Hispanic Ethnicity	180.9	180.6	173.1	-23%	-4%
<i>Note: -- Rates and/or percent change are not calculated where n<30.</i>						
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>						

Exhibit 3E. Preventable Hospitalization Trend by Payer (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI)		2011	2012	2013	Virginia	Study Region
Payer	Medicare	7,253	6,835	7,058	2%	-3%
	Medicaid	1,209	1,120	1,004	-6%	-17%
	Private	1,004	1,012	927	-12%	-8%
	Self-Pay/Uninsured	1,150	1,135	1,185	2%	3%
Crude Rates per 100,000 population						
Payer	Medicare	--	--	--	--	--
	Medicaid	--	--	--	--	--
	Private	--	--	--	--	--
	Self-Pay/Uninsured	--	--	--	--	--
<i>Note: -- Rates and/or percent change are not calculated where n<30.</i>						
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>						

4. Behavioral Health Hospitalization Profile

Behavioral health is another important indicator of community health status. The indicators in this Behavioral Health Hospitalization Profile are based on analysis of hospital discharge data provided by Virginia Health Information (VHI), and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) The analysis includes records of discharges of adult Virginia residents from Virginia hospitals excluding state and federal facilities. Due to the lack of reporting on the part of a regional child/adolescent psychiatric hospital, the analysis in this profile does not include data for residents age 0-17.

Behavioral Health Hospitalization Snapshot-Age 18+ (2013)

As shown in *Exhibit 4A*:

- In 2013 there were 7,835 behavioral health (BH) discharges for residents of the study region.
- The leading diagnoses for behavioral health hospitalization in the study region were Affective Psychoses, Schizophrenic Disorders, and Alcoholic Psychoses.
- The study region BH discharge rate was higher than the statewide rate for Alcohol Dependence, Adjustment Reaction, Depressive Disorders, Other Nonorganic Psychoses, Drug Dependence, Neurotic Disorders and Other Organic Psychotic Conditions-Chronic.

Behavioral Hospitalization Trend-Age 18+ (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 4B*, from 2011 to 2013 the study region rates remained relatively stable for all BH discharges combined. Focusing on three diagnoses identified as being of particular interest for this study, hospitalization rates remained relatively stable for Affective Psychoses, declined for Schizophrenic Disorders, and increased significantly for Alcoholic Psychoses. Unlike the study region, the statewide rate increased for BH discharges overall, decreased for Affective Psychoses, and remained stable for Schizophrenic Disorders.
- **By Age Group.** As shown in *Exhibit 4C*, from 2011 to 2013 the study region rate for BH discharges declined for all age groups with the exception of the 45-64 group. Unlike the study region, the statewide rate increased for the population age 18-64.
- **By Sex.** As shown in *Exhibit 4D*, from 2011 to 2013 the study region rate for BH discharges declined for females, and increased for males. The study region trend was consistent with the statewide trend.
- **By Race/Ethnicity.** As shown in *Exhibit 4E*, from 2011 to 2013 the study region rates for BH discharges declined or remained stable for all racial populations. Unlike the study region, the statewide rate increased for the Asian and White populations, and remained stable for the Black/African American population.
- **By Payer.** As shown in *Exhibit 4F*, from 2011 to 2013 the study region counts of BH discharges increased for the Medicaid and Self-Pay/Uninsured populations, and decreased for the Medicare and Private Insurance populations. The study region trend was consistent with the statewide trend for the Medicaid, Private Insurance and Self-Pay/Uninsured population. Unlike the study region, the statewide rate increased for the Medicare population.

Exhibit 4A. Behavioral Health Hospitalization Snapshot- Age 18+ (2013)

Indicator	Virginia	Study Region
Counts-BH Discharges		
Total BH Discharges for All Diagnoses	53,638	7,835
Counts-Leading 14 BH Discharges		
Affective Psychoses	22,078	3,350
Schizophrenic Disorders	8,064	1,592
Alcoholic Psychoses	4,033	656
Drug Psychoses	2,102	341
Alcohol Dependence Syndrome	2,388	235
Adjustment Reaction	2,031	225
Depressive Disorder, Not Elsewhere Classified	2,608	214
Other Nonorganic Psychoses	1,951	175
Symptoms Involving Head or Neck	883	153
Altered Mental Status	976	153
Drug Dependence	810	109
Neurotic Disorders	982	97
Other Organic Psychotic Conditions-Chronic	795	55
Non Dependent Abuse of Drugs	575	27
<i>Note: Rates are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>		
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>		

Exhibit 4A. Behavioral Health Hospitalization Snapshot-Age 18+ (2013)- Continued

Indicator	Virginia	Study Region
Crude Rates Per 100,000 Population		
All Diagnoses	650.4	666.4
Affective Psychoses	267.7	284.9
Schizophrenic Disorders	97.8	135.4
Alcoholic Psychoses	48.9	55.8
Drug Psychoses	25.5	29.0
Alcohol Dependence Syndrome	29.0	20.0
Adjustment Reaction	24.6	19.1
Depressive Disorder, Not Elsewhere Classified	31.6	18.2
Other Nonorganic Psychoses	23.7	14.9
Symptoms Involving Head or Neck	10.7	13.0
Altered Mental Status	11.8	13.0
Drug Dependence	9.8	9.3
Neurotic Disorders	11.9	8.3
Other Organic Psychotic Conditions-Chronic	9.6	4.7
Non Dependent Abuse of Drugs	7.0	--
<i>Note: Rates are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>		
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>		

Exhibit 4B. Behavioral Health Hospitalization Trend by Leading Diagnoses-Age 18+ (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total BH Discharges (All Diagnoses)	7,945	7,975	7,835	3%	-1%
Affective Psychoses	3,288	3,214	3,350	-1%	2%
Alcoholic Psychoses	455	629	656	23%	44%
Schizophrenic Disorders	1,682	1,689	1,592	1%	-5%
Crude Rates per 100,000 Population					
Total BH Discharges (All Diagnoses)	691.6	686.3	666.4	2%	-4%
Affective Psychoses	286.2	276.6	284.9	-2%	0%
Alcoholic Psychoses	39.6	54.1	55.8	21%	41%
Schizophrenic Disorders	146.4	145.4	135.4	0%	-8%
<i>Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>					
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>					

Exhibit 4C. Behavioral Health Hospitalization Trend by Age (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
All BH Discharges						
Age	Adults Age 18-29	1,895	1,969	1,856	10%	-2%
	Adults Age 30-44	2,201	2,194	2,159	2%	-2%
	Adults Age 45-64	2,805	2,824	2,911	3%	4%
	Seniors Age 65+	1,044	988	909	-4%	-13%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	830.8	869.3	791.0	7%	-5%
	Adults Age 30-44	967.9	958.3	934.6	2%	-3%
	Adults Age 45-64	947.5	930.4	957.4	2%	1%
	Seniors Age 65+	839.1	749.0	699.0	-7%	-17%
<i>Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.</i>						

Exhibit 4D. Behavioral Health Hospitalization Trend by Sex-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
All BH Discharges						
Sex	Female	4,224	4,036	3,930	-1%	-7%
	Male	3,720	3,938	3,905	8%	5%
Crude Rates per 100,000 Population						
Sex	Female	721.7	687.3	660.3	-2%	-9%
	Male	657.7	685.1	672.7	7%	2%
<i>Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

Exhibit 4E. Behavioral Health Hospitalization Trend by Race/Ethnicity-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
All BH Discharges						
Race	Asian	78	82	64	14%	-18%
	Black/African American	2,809	2,793	2,760	2%	-2%
	White	4,766	4,822	4,713	2%	-1%
Ethnicity	Hispanic Ethnicity	104	85	22	-6%	--
Crude Rates per 100,000 Population						
Race	Asian	178.4	180.4	137.3	6%	-23%
	Black/African American	764.8	755.2	750.2	0%	-2%
	White	704.7	707.9	678.7	2%	-4%
Ethnicity	Hispanic Ethnicity	155.5	134.6	--	-7%	--
<i>Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

Exhibit 4F. Behavioral Health Hospitalization Trend by Payer-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
All BH Discharges						
Payer	Medicare	2,537	2,403	2,295	5%	-10%
	Medicaid	742	713	864	12%	16%
	Private	3,947	4,212	3,803	-2%	-4%
	Self-Pay/Uninsured	708	640	866	14%	22%
Crude Rates per 100,000 Population						
Payer	Medicare	--	--	--	--	--
	Medicaid	--	--	--	--	--
	Private	--	--	--	--	--
	Self-Pay/Uninsured	--	--	--	--	--
<i>Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

5. Adult Health Risk Factor Profile

This profile presents indicators of adult health risks for adults age 18+ based on analysis of data from the Virginia Behavioral Risk Factor Surveillance Survey and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are estimates based on statistical analysis of survey data, and are subject to estimation error.

- As shown in *Exhibit 5*, substantial numbers of adults have lifestyle health risks related to nutrition, weight, physical inactivity, tobacco and alcohol. For example,
 - An estimated 716,647 (79%) adults age 18+ are not meeting the guidelines for fruit and vegetable intake,
 - An estimated 562,432 (62%) adults age 18+ are overweight or obese, and
 - An estimated 471,717 (52%) adults age 18+ are not meeting recommendations for physical activity.

- Please note that these estimates reflect general patterns based on statistical analysis of multiple years of survey data. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates. It is important to note many survey items are self-reported, or calculated/classified measures based on self-reported items.

Exhibit 5. Adult Health Risk Factor Profile (2014 Estimates)

Indicator		Virginia	Study Region
Estimates-Counts			
Estimated Adults age 18+		6,393,583	907,148
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	5,114,866	716,647
	Overweight or Obese	3,964,021	562,432
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	3,068,920	471,717
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	1,150,845	181,430
	Smoker	1,214,781	190,501
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	2,237,754	317,502
	High Blood Pressure (told by a doctor or other health professional)	1,918,075	263,073
	Arthritis (told by a doctor or other health professional)	1,534,460	217,716
	Diabetes (told by a doctor or other health professional)	575,422	81,643
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	1,214,781	172,358
	Fair or Poor Health Status	1,022,973	145,144
Behavioral Health Risk Factors	Dissatisfied with Their Life	359,536	47,604
	Frequent Mental Distress	457,497	61,846
	Inadequate Social or Emotional Support	412,372	59,582
Estimates-Percent of Adults Age 18+			
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	80%	79%
	Overweight or Obese	62%	62%
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	48%	52%
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	18%	20%
	Smoker	19%	21%
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	35%	35%
	High Blood Pressure (told by a doctor or other health professional)	30%	29%
	Arthritis (told by a doctor or other health professional)	24%	24%
	Diabetes (told by a doctor or other health professional)	9%	9%
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	19%	19%
	Fair or Poor Health Status	16%	16%
Behavioral Health Risk Factors	Dissatisfied with Their Life	6%	5%
	Frequent Mental Distress	7%	7%
	Inadequate Social or Emotional Support	6%	7%

Note: State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.

Source: Estimates produced by Community Health Solutions using Virginia Behavioral Health Risk Factor Surveillance Survey data and demographic data from Alteryx, Inc. See details on methods in Appendix B.

6. Youth Health Risk Factor Profile

This profile presents estimates of health risks for youth age 10-14 and 14-19. The indicators in this profile are estimates based on analysis of data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2013) and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are estimates, and are subject to estimation error.

- As shown in *Exhibit 6*, substantial numbers of youth have lifestyle health risks related to nutrition, weight, alcohol, mental health, physical inactivity, and tobacco. For example,
 - An estimated 7,792 (8%) youth age 14-19 and 18,287 (25%) youth age 10-14 met the guidelines for fruit and vegetable intake,
 - An estimated 26,895 (29%) youth age 14-19 are overweight or obese, and
 - An estimated 52,416 (56%) youth age 14-19 and 25,208 (34%) youth age 10-14 met the guidelines for physical activity.
- Please note that these estimates reflect general patterns based on statistical analysis of survey data. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates. See *Appendix B* for details.

Exhibit 6. Youth Health Risk Factor Profile (2014 Estimates)

Indicator		Virginia	Study Region
Estimates-Counts			
High School Youth Age 14-19			
<i>Total Estimated High School Youth Age 14-19</i>		654,462	94,006
Risk Factors	Met Guidelines for Fruit and Vegetable Intake	54,707	7,792
	Overweight or Obese	179,050	26,895
	Not Meeting Recommendations for Physical Activity in the Past Week	363,586	52,416
	Used Tobacco in the Past 30 Days	118,572	16,962
	Have at least One Drink of Alcohol At least One Day in the Past 30 Days	178,173	25,092
General Health Status	Feel Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)	165,270	23,008
Middle School Youth Age 10-14			
<i>Total Estimated Middle School Youth Age 10-14</i>		523,850	74,542
Risk Factors	Met Guidelines for Fruit and Vegetable Intake	125,285	18,287
	Not Meeting Recommendations for Physical Activity in the Past Week	178,443	25,208
	Used Tobacco in the Past 30 Days	19,192	2,840
Estimates-Percent			
High School Youth Age 14-19			
Risk Factors	Met Guidelines for Fruit and Vegetable Intake	8%	8%
	Overweight or Obese	27%	29%
	Not Meeting Recommendations for Physical Activity in the Past Week	56%	56%
	Used Tobacco in the Past 30 Days	18%	18%
	Have at least One Drink of Alcohol At least One Day in the Past 30 Days	27%	27%
General Health Status	Feel Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)	25%	24%
Middle School Youth Age 10-14			
Risk Factors	Met Guidelines for Fruit and Vegetable Intake	24%	25%
	Not Meeting Recommendations for Physical Activity in the Past Week	34%	34%
	Used Tobacco in the Past 30 Days	4%	4%
<i>Note: State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.</i>			
<i>Source: Estimates produced by Community Health Solutions using Virginia Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.</i>			

7. Uninsured Profile

This profile presents estimates of the uninsured population within the 0-64 age group. The indicators in this profile are estimates based on analysis of data from the U.S. Census Bureau Small Area Health Insurance Estimates and demographic estimates from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are subject to estimation error. Also, because of limitations in the data it is not possible to calculate the statistical significance of differences between local rates and state rates. See Appendix B for details.

As shown in *Exhibit 7*:

- At any given point in 2014, an estimated 146,615 residents of the study region were uninsured.
- The estimated number of uninsured children age 0-18 was 15,332 in the study region. Among uninsured children, it is estimated that roughly half have family income below 200 percent of the federal poverty level, possibly making them income-eligible for coverage through the state Medicaid or FAMIS program.
- The estimated number of uninsured adults age 19-64 was 131,283 in the study region. Among uninsured adults, it is estimated that more than half have family income below 200 percent of the federal poverty level.

Exhibit 7. Uninsured Profile (2014 Estimates)

Indicator	Virginia	Study Region
Estimated Uninsured Counts*		
Uninsured Nonelderly Age 0-64	1,013,986	146,615
Uninsured Children Age 0-18	120,105	15,332
Uninsured Children Age 0-18 <=138% FPL	327,185	4,674
Uninsured Children Age 0-18 <=200% FPL	479,797	7,340
Uninsured Children Age 0-18 <=250% FPL	578,328	9,019
Uninsured Children Age 0-18 <=400% FPL	749,463	12,127
Uninsured Children Age 0-18 138-400% FPL	422,276	7,454
Uninsured Adults Age 19-64	893,456	131,283
Uninsured Adults Age 19-64 <=138% FPL	327,185	47,321
Uninsured Adults Age 19-64 <=200% FPL	479,797	70,357
Uninsured Adults Age 19-64 <=250% FPL	578,328	85,186
Uninsured Adults Age 19-64 <=400% FPL	749,463	112,296
Uninsured Adults Age 19-64 138-400% FPL	422,276	64,971
Estimated Uninsured Percent		
Uninsured Children Percent	6%	5%
Uninsured Adults Percent	17%	17%
<i>Note: Federal poverty level (FPL) categories are cumulative.</i>		
<i>Source: Estimates produced by Community Health Solutions using U.S. Census Bureau Small Area Health Insurance Estimates (2013) and local demographic estimates from Alteryx, Inc. See Appendix B for details on methods.</i>		

8. Cancer Profile

This profile presents indicators of cancer counts for the study region and Virginia. The indicators are based on analysis of cancer registry and death record data provided by the Virginia Department of Health. (see *Appendix B* for details on methods.)

As shown in *Exhibit 8A*:

- From 2008-2012, there were 25,472 residents diagnosed with cancer in the study region.
- The three leading sites of cancer were breast (among females only), lung and bronchus, and prostate.
- Local-stage diagnosis rates were lower (worse) in the study region than in Virginia for breast (among females only), melanoma, oral cavity, colorectal, ovarian and cervical cancers.

As shown in *Exhibit 8B*:

- From 2009-2013, there were 10,020 cancer deaths in the study region.
- The leading sites for cancer deaths in the study region were lung and bronchus, colorectal, breast (female only), and prostate. The study region death rates for lung and bronchus far exceeded the rates for other cancers.
- The study region rates were higher (worse) than the statewide rates for breast (among females only), cervical, and prostate deaths. The study region rates were lower than the statewide rates overall, and for colorectal, lung and bronchus, and melanoma deaths. Oral cavity and ovarian cancer were the same as the statewide rates.

Exhibit 8A. Cancer Incidence by Site (2008-2012)

Indicator	Virginia	Study Region
Counts		
2008-2012 Cancer Incidence -All Sites	183,650	25,472
2008-2012 Diagnosed at Local Stage-All Sites	82,981	11,386
2008-2012 Cancer Incidence -Breast (Female Only)	28,621	4,101
2008-2012 Diagnosed at Local Stage-Breast (Female Only)	17,948	2,485
2008-2012 Cancer Incidence -Lung and Bronchus	26,509	3,829
2008-2012 Diagnosed at Local Stage-Lung and Bronchus	5,021	765
2008-2012 Cancer Incidence -Prostate	25,706	3,335
2008-2012 Diagnosed at Local Stage-Prostate	20,549	2,699
2008-2012 Cancer Incidence -Colorectal	16,015	2,267
2008-2012 Diagnosed at Local Stage-Colorectal	6,266	858
2008-2012 Cancer Incidence -Melanoma	7,673	1,185
2008-2012 Diagnosed at Local Stage-Melanoma	5,601	843
2008-2012 Cancer Incidence -Oral Cavity	4,550	623
2008-2012 Diagnosed at Local Stage-Oral Cavity	1,353	146
2008-2012 Cancer Incidence -Ovarian	2,698	350
2008-2012 Diagnosed at Local Stage-Ovarian	388	45
2008-2012 Cancer Incidence -Cervical	1,337	214
2008-2012 Diagnosed at Local Stage-Cervical	620	91
Rates (percent diagnosed at the local stage) *		
2008-2012 Diagnosed at Local Stage-All Sites pct. of Total Diagnosed	45%	45%
2008-2012 Diagnosed at Local Stage-Breast (Female Only) pct. of Total Diagnosed	63%	61%
2008-2012 Diagnosed at Local Stage-Lung and Bronchus pct. of Total Diagnosed	19%	20%
2008-2012 Diagnosed at Local Stage-Prostate pct. of Total Diagnosed	80%	81%
2008-2012 Diagnosed at Local Stage-Colorectal pct. of Total Diagnosed	39%	38%
2008-2012 Diagnosed at Local Stage-Melanoma pct. of Total Diagnosed	73%	71%
2008-2012 Diagnosed at Local Stage-Oral Cavity pct. of Total Diagnosed	30%	23%
2008-2012 Diagnosed at Local Stage-Ovarian pct. of Total Diagnosed	14%	13%
2008-2012 Diagnosed at Local Stage-Cervical Cancer pct. of Total Diagnosed	46%	43%
<i>Notes: Rates and/or percent change are not calculated where n<30. Age-adjusted rates are not provided because record level data cannot be accessed due to patient confidentiality restrictions. * There may be cases in the study region where the diagnosis stage is unknown.</i>		
<i>Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix B for methods details.</i>		

Exhibit 8B. Cancer Deaths by Site (2009-2013)

Indicator*	Virginia	Study Region
Counts		
Five Year Total (2009-2013) Cancer Deaths, All Sites	70,846	10,020
Five Year Total (2009-2013) Cancer Deaths, Lung and Bronchus	19,765	2,723
Five Year Total (2009-2013) Cancer Deaths, Colorectal	6,021	817
Five Year Total (2009-2013) Cancer Deaths, Breast (Female Only)	5,252	816
Five Year Total (2009-2013) Cancer Deaths, Prostate	3,451	517
Five Year Total (2009-2013) Cancer Deaths, Ovarian	1,799	253
Five Year Total (2009-2013) Cancer Deaths, Melanoma	1,194	166
Five Year Total (2009-2013) Cancer Deaths, Oral Cavity	1,008	145
Five Year Total (2009-2013) Cancer Deaths, Cervical	400	69
Rates per 100,000 Population		
Five Year Total (2009-2013) Cancer Deaths, All Sites	175.2	173.7
Five Year Total (2009-2013) Cancer Deaths, Lung and Bronchus	48.9	47.2
Five Year Total (2009-2013) Cancer Deaths, Colorectal	14.9	14.2
Five Year Total (2009-2013) Cancer Deaths, Breast (Female Only)	25.5	28.0
Five Year Total (2009-2013) Cancer Deaths, Prostate	17.4	18.1
Five Year Total (2009-2013) Cancer Deaths, Ovarian	8.7	8.7
Five Year Total (2009-2013) Cancer Deaths, Melanoma	3.0	2.9
Five Year Total (2009-2013) Cancer Deaths, Oral Cavity	2.5	2.5
Five Year Total (2009-2013) Cancer Deaths, Cervical	1.9	2.4
<i>Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix B for methods details.</i>		

9. Communicable Disease Profile

This profile presents indicators of communicable disease counts and rates for the study region and Virginia. The indicators are based on analysis of communicable disease annual reports by the Virginia Department of Health. (see *Appendix B* for details on methods.) As shown in *Exhibit 9*:

- In 2014, there were 8,384 cases of chlamydia, 2,243 cases of gonorrhea, 233 new cases of HIV, and 125 cases of early syphilis.
- The study region had a higher rate (worse) of disease than Virginia as a whole for all selected communicable diseases.

Exhibit 9. Selected Communicable Disease Profile (2014)

Indicator	Virginia	Study Region
Counts		
Chlamydia Diagnoses	35,473	8,384
Gonorrhea Diagnoses	8,128	2,243
Newly Diagnosed Cases of HIV Disease	940	233
Total Early Syphilis Diagnoses	545	125
Crude Rates per 100,000 Population		
Chlamydia Diagnoses (rate per 100,000)	429.4	716.9
Gonorrhea Diagnoses (rate per 100,000)	98.4	191.8
Newly Diagnosed Cases of HIV Disease (rate per 100,000)	11.4	19.9
Total Early Syphilis Diagnoses (rate per 100,000)	6.6	10.7
<i>Note: Rates are not calculated where n<30.</i>		
<i>Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix B for methods details.</i>		

APPENDIX A: Zip Code-Level Maps

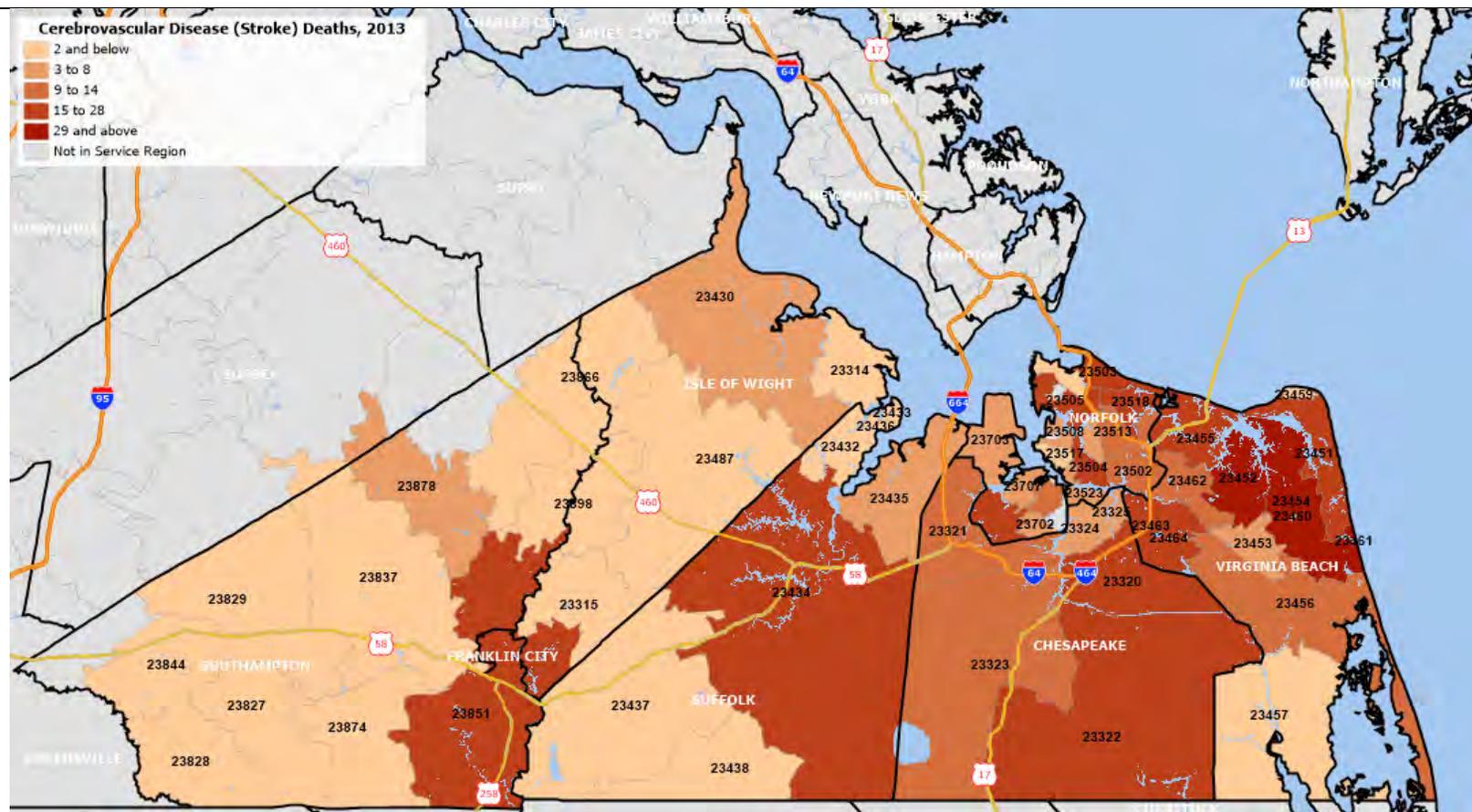
The Zip Code-Level maps in this section illustrate the geographic distribution of the zip code-level study region on key health status indicators. The maps in this section include the following for 2013/2014:

1. Total Deaths, 2013	9. Estimated Adult Age 18+ Smokers, 2014
2. Heart Disease Deaths, 2013	10. Estimated Adults Age 18+ with No Dental Visit in the Last Year, 2014
3. Cerebrovascular Disease (Stroke) Deaths, 2013	11. Estimated Adults Age 18+ with Diabetes, 2014
4. Malignant Neoplasms (Cancer) Deaths, 2013	12. Estimated Adults Age 18+ who are Overweight or Obese, 2014
5. Total Live Births, 2013	13. Estimated High School-aged Youth (age 14-19) who are Overweight or Obese, 2014
6. Total Teenage Live Births (age<18), 2013	14. Estimated Uninsured Children Age 0-18, 2014
7. Total Prevention Quality Indicator Hospitalization Discharges, 2013	15. Estimated Uninsured Adults, Age 19-64, 2014
8. Total Behavioral Health Hospitalization Discharges, 2013	Map Table

Technical Notes

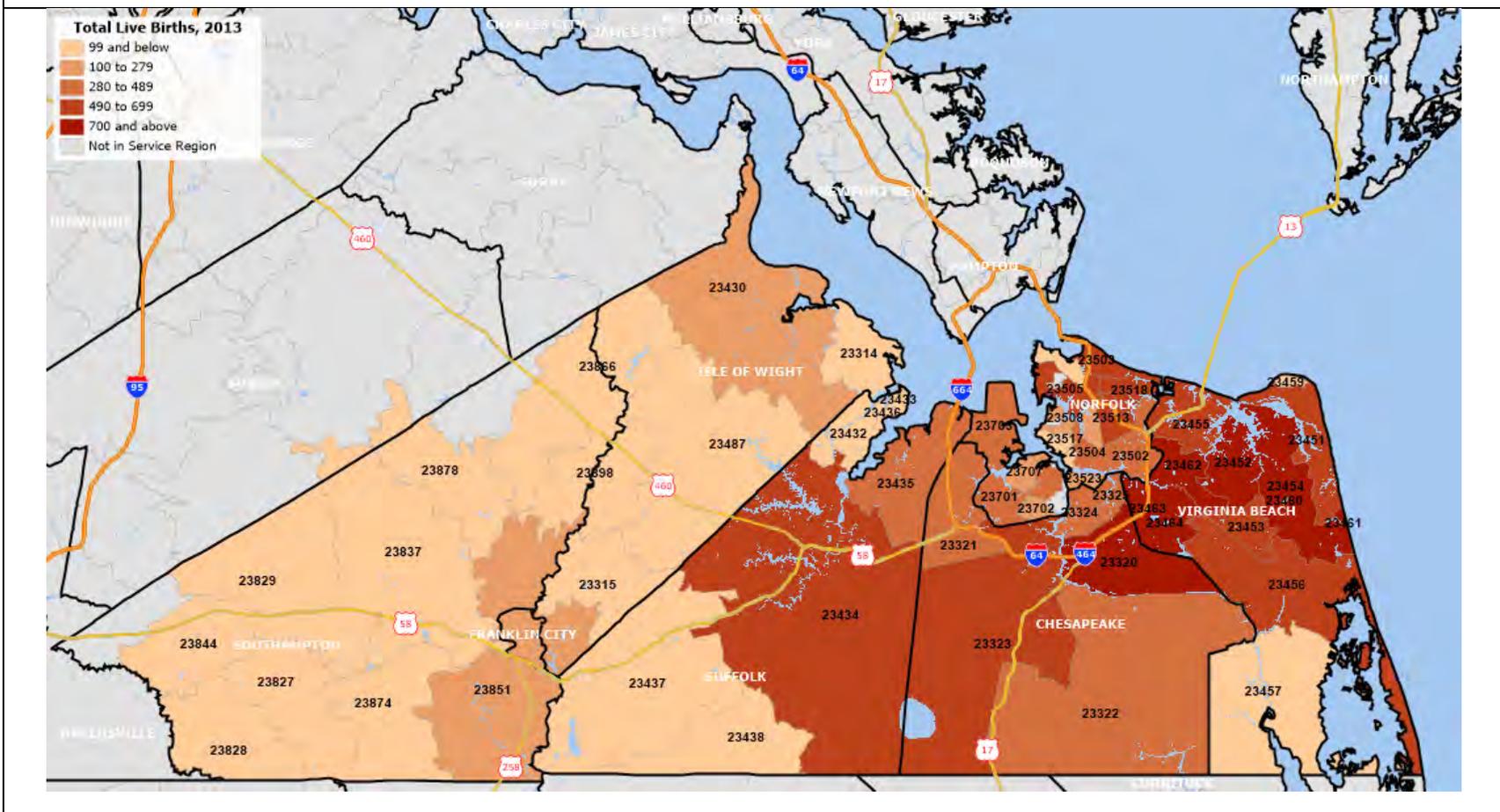
1. The maps and data include 27 zip codes, as identified by Sentara Norfolk General Hospital, most of which fall within the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach City; and the counties of Isle of Wight and Southampton. It is important to note that zip code boundaries do not automatically align with city/county boundaries, and there are some zip codes that extend beyond the county boundaries. Zip codes that solely contain special populations (e.g. military installations, colleges) were excluded from the Zip Code-Level Study Region. Consequently, the combined zip-code-level totals for the maps differ from the study region totals listed throughout the body of the report.
2. The maps show counts rather than rates. Rates are not mapped at the zip code-level because in some zip codes the population is too small to support rate-based comparisons.
3. Data are presented in natural breaks.
4. Zip Code-Level Study Region zip codes with zero values are noted.

Map 3: Cerebrovascular Disease (Stroke) Deaths, 2013



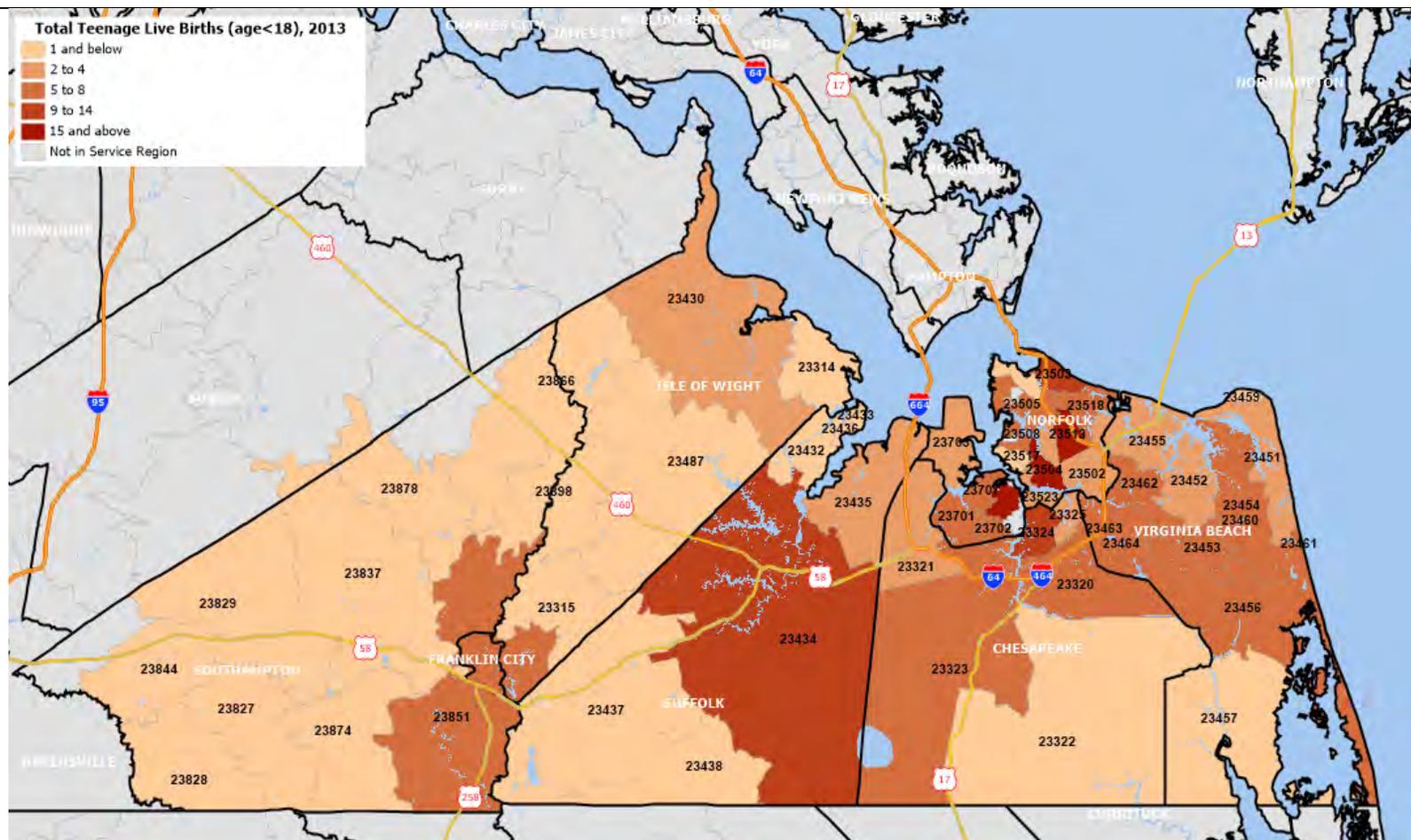
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported stroke deaths for zip codes 23411, 23432, 23436, 23437, 23438, 23457, 23459, 23460, 23461, 23463, 23507, 23511, 23517, 23828, 23837, 23844, and 23874.

Map 5: Total Live Births, 2013



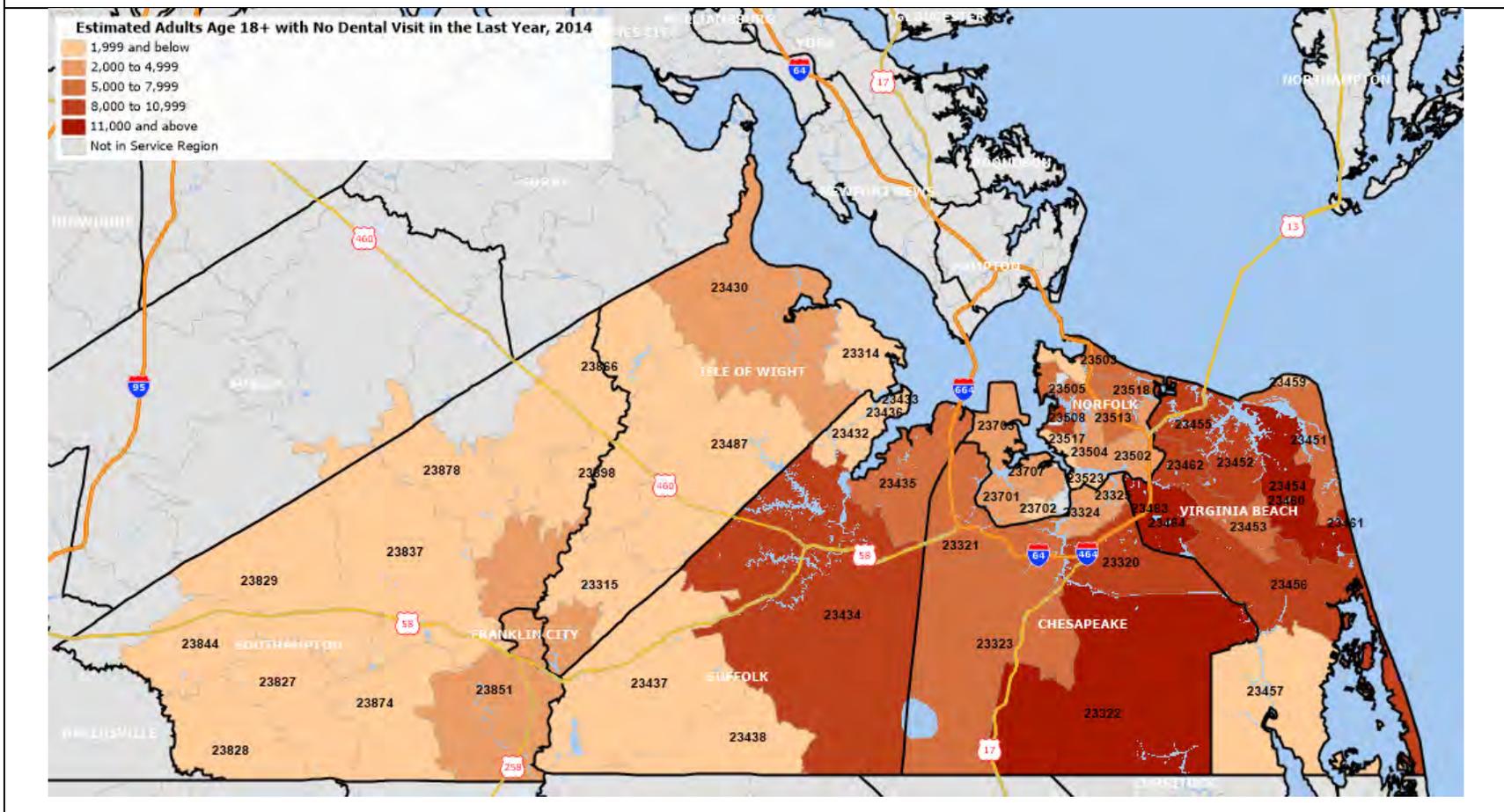
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported live births for zip codes 23459 and 23463.

Map 6: Total Teenage Live Births (age <18), 2013



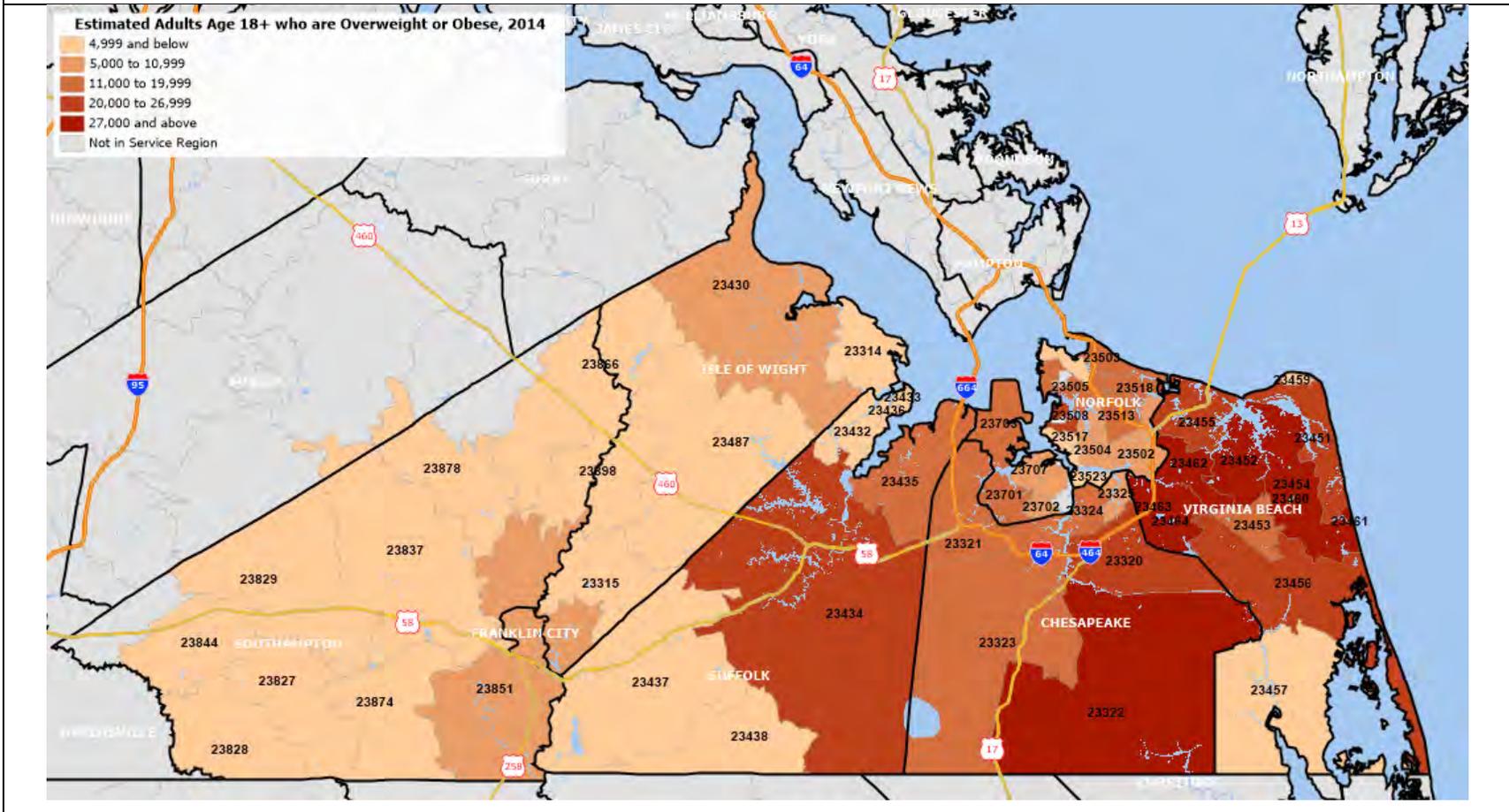
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported teenage live births for zip codes 23315, 23322, 23432, 23433, 23436, 23437, 23438, 23457, 23459, 23460, 23461, 23463, 23487, 23507, 23511, 23827, 23828, 23829, 23837, 23844, 23866, 23874, 23878, and 23898.

Map 10: Estimated Adults Age 18+ with No Dental Visit in the Last Year, 2014-Estimates



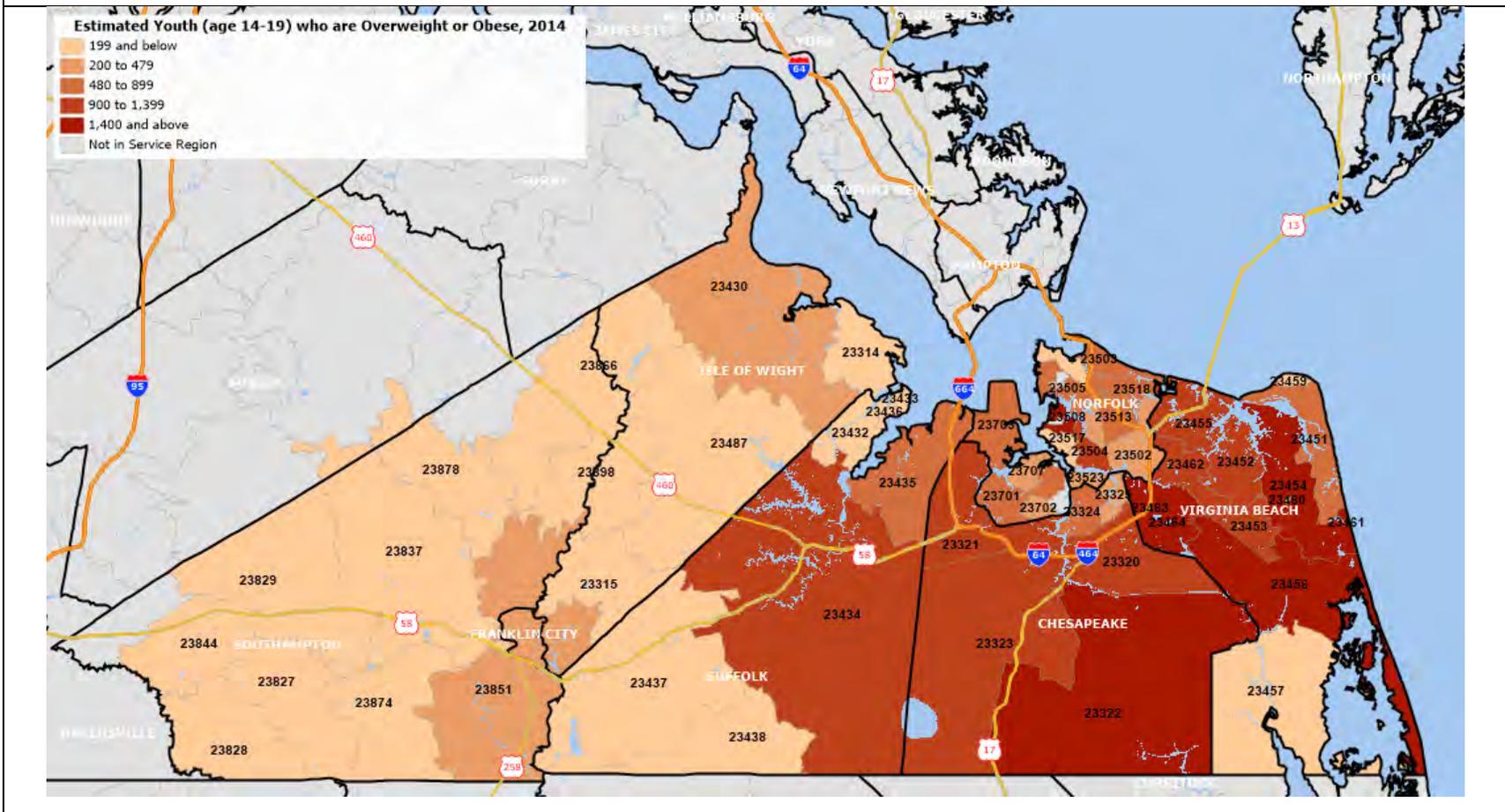
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

Map 12: Estimated Adults Age 18+ who are Overweight or Obese, 2014-Estimates



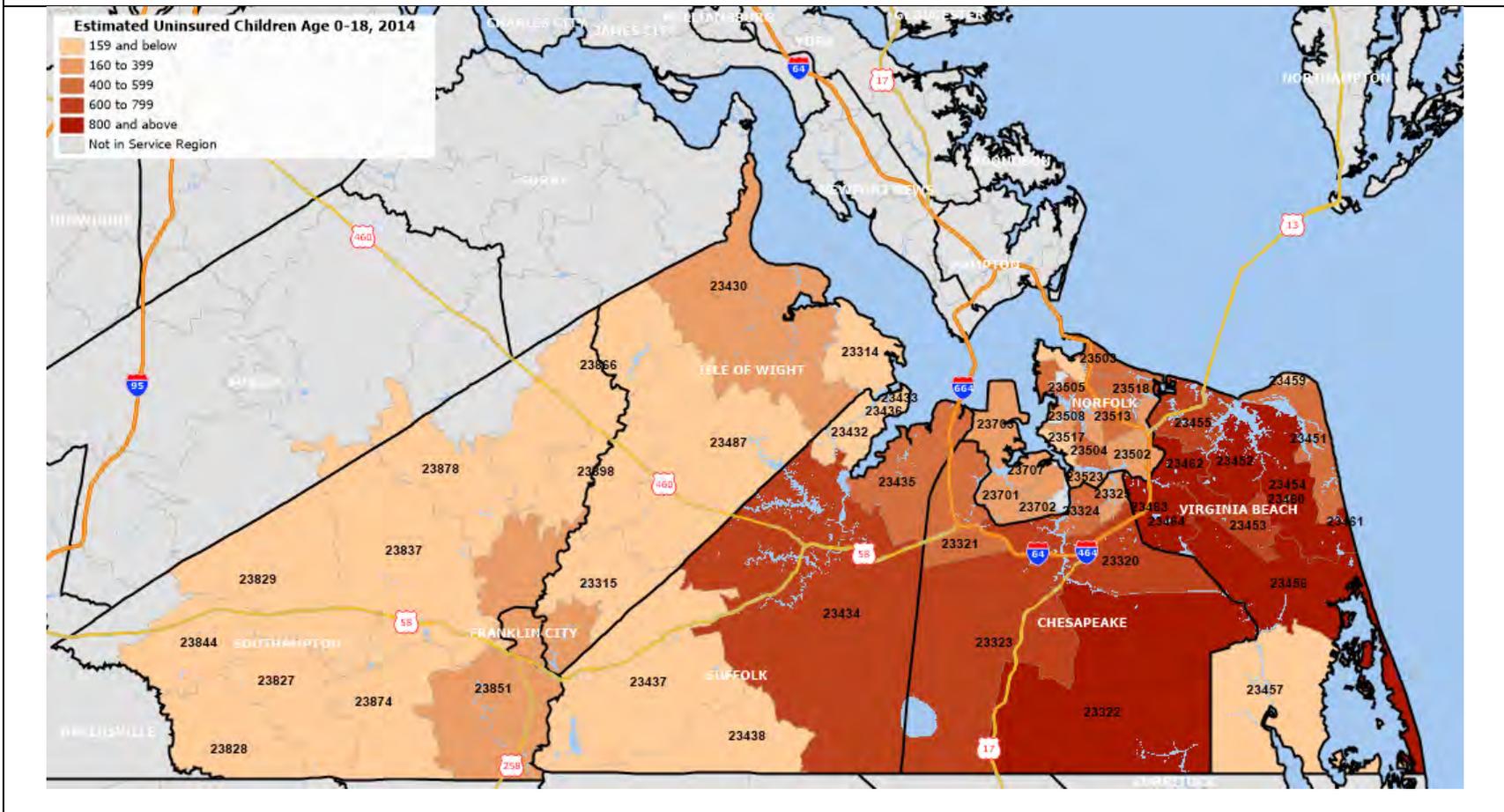
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B.

Map 13: Estimated High School-aged Youth (age 14-19) who are Overweight or Obese, 2014-Estimates



Source: Estimates produced by Community Health Solutions using Virginia Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.

Map 14: Estimated Uninsured Children, Age 0-18, 2014-Estimates



Source: Estimates of uninsured are based on Community Health Solutions analysis of U.S. Census Bureau Small Area Health Insurance Estimates (2013) and demographic data from Alteryx, Inc. See Appendix B. Data Sources for details.

APPENDIX B: Health Status Indicators Data Sources

Profile	Source
Important Note on Data Sources	The data used to produce the health status indicators in this report were obtained from public or commercial sources as indicated throughout this appendix. Community Health Solutions cannot, and does not guarantee the accuracy of these data sources.
1) Mortality Profile (also Appendix A. Maps 1-4)	Community Health Solutions analysis of Virginia Department of Health data (2011-2013). Locality-Level counts and rates were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
2) Maternal and Infant Health Profile (also Appendix A. Maps 5-6)	Community Health Solutions analysis of Virginia Department of Health data (2011-2013). Locality-Level counts and rates were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
3) Preventable Hospitalization Profile (also Appendix A. Map 7)	<p>Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) 2011-013 datasets and demographic estimates from Alteryx, Inc. (2011-2013). Data include discharges for Virginia residents from Virginia hospitals reporting to Virginia Health Information, Inc.) The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities.</p> <p>Preventable Hospitalizations. The prevention quality indicator (PQI) definitions are based on definitions published by the Agency for Healthcare Research and Quality (AHRQ). The definitions are detailed in their specification of ICD-9 diagnosis codes and procedure codes. Not every hospital admission for congestive heart failure, bacterial pneumonia, etc. is included in the PQI definition; only those meeting the detailed specifications. Low birth weight is one of the PQI indicators, but for the purpose of this report, low birth weight is included in the Maternal and Infant Health Profile. Also, there are four diabetes-related PQI indicators which have been combined into one for the report. Within the Exhibits, the <i>All PQI Discharges</i> figures are based on an AHRQ methodology that counts a hospital discharge with multiple PQI diagnoses as one discharge. By comparison, the figures for individual discharges do include a small number of cases in which a single hospital discharge with more than one PQI diagnosis would be counted more than once. Also, AHRQ refined their method to exclude the perforated appendix PQI from its list, but this diagnosis is included in the data used for this study. As a result of these methodological factors, the sum of the individual PQI discharges may be slightly different than the total for All PQI Discharges. These differences or on the order of less than one percent. For more information on the AHRQ methodology, visit the AHRQ website at http://www.qualityindicators.ahrq.gov/modules/pgi_resources.aspx</p> <p>Behavioral Health Hospitalizations- Behavioral health data reported are based on the patient's primary diagnosis. Due to the lack of reporting on the part of a regional child/adolescent psychiatric hospital, the analysis in this profile does not include data for residents age 0-17.</p> <p><i>NOTE: Virginia Health Information (VHI) requires the following statement to be included in all reports utilizing its data: VHI has provided non-confidential patient level information used in this report which was compiled in accordance with Virginia law. VHI has no authority to independently verify this data. By accepting this report the requester agrees to assume all risks that may be associated with or arise from the use of inaccurately submitted data. VHI edits data received and is responsible for the accuracy of assembling this information, but does not represent that the subsequent use of this data was appropriate or endorse or support any conclusions or inferences that may be drawn from the use of this data.</i></p>
4) Behavioral Health Hospitalization Profile (also Appendix A. Map 8)	

Profile	Source
<p>5) Adult Health Risk Factor Profile (also Appendix A. Maps 9-12)</p>	<p>Estimates of chronic disease and risk behaviors for adults 18+ were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • A multi-year dataset (2006-2010) from the Virginia Behavioral Risk Factor Surveillance System (BRFSS). For more information on BRFSS visit: http://www.cdc.gov/brfss/about/index.htm • Local demographic estimates from Alteryx, Inc. (2014) <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates.</p>
<p>6) Youth Health Risk Factor Profile (also Appendix A. Map 13)</p>	<p>Estimates of risk behaviors for youth age 14-19 and 10-14 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • Data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2013). For more information on YRBSS visit: http://www.cdc.gov/HealthyYouth/yrebs/index.htm • Local demographic estimates from Alteryx, Inc. (2014). <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates.</p>
<p>7) Uninsured Profile (also Appendix A. Maps 14-15)</p>	<p>Estimates of uninsured nonelderly age 0-64 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • U.S. Census Bureau Small Area Health Insurance Estimates (2013). For more information, visit: http://www.census.gov/did/www/sahie/data/index.html. • Local demographic estimates from Alteryx, Inc. (2014) <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, prior year locality-level rates were used to predict current year counts and rates, with adjustments for local demographics. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates. Additionally, populations in group living quarters (e.g. colleges) and undocumented populations may not be adequately addressed in this model.</p>

Profile	Source
8) Cancer Profile	Community Health Solutions analysis of: <ul style="list-style-type: none"> • 2009-2013 (five-year total for cancer data by site) Virginia Department of Health death record data; • 2008-2012 Virginia Department of Health Cancer Registry data.
9) Communicable Disease Profile	Community Health Solutions analysis of 2014 Virginia Department of Health annual surveillance report data.

Community Insight

The community insight component of this CHNA consisted of two methodologies: an online Community Stakeholder Survey carried by the Sentara Strategy Department and a series of more in-depth Community Focus Groups carried out by the hospital.

The Community Stakeholder Survey was conducted jointly with all Sentara hospitals in South Hampton Roads due to the proximity of the hospitals and the wide variety of community stakeholders that work with multiple hospitals throughout the region. The survey tool was similar to but expanded from the survey utilized for the 2013 CHNA. The expansion was a result of a community collaborative effort. The survey was conducted using Survey Monkey, an online survey service, in June 2016. Stakeholders were invited to participate by email and were sent the link to open the survey. They were asked to identify the hospitals they work with and their answers were included with each hospital identified. Invitations were based on the recipients' employment or community engagement, community history, and knowledge. A wide-variety of stakeholders were sought, including representative from public health departments, social services, emergency services, healthcare providers, elected or non-elected government officials, representatives of underserved and/or minority populations, consumers of services, and others.

The survey contained questions on:

- The most important health problems in the community
- Community services that need strengthening
- Vulnerable/at-risk populations in the community
- Existing health assets within the community
- Health assets needed in the community
- Additional ideas of suggestions for improving community health

Across the region, 458 invitations were sent, and 121 individual stakeholders completed the survey. For Sentara Norfolk General Hospital, 52% of overall South Hampton Roads survey respondents indicated they work with the hospital, which includes 63 individual stakeholders. The survey results that follow are limited to these responses. Note that not all participants answered every question.

Community Focus Group Sessions were carried out by the hospital to gain more in-depth insight from community stakeholders. The questions below were utilized. The results of the focus groups are presented after the survey results.

- 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?

Community Stakeholder Survey Results

The results of the 2016 Community Stakeholder Survey for Sentara Norfolk General Hospital are displayed on the following pages in table form. First, the list of community stakeholders participating in the survey are displayed below.

Sentara Norfolk General Hospital - Community Stakeholder Survey Participants by Organization	
Access Partnership	Norfolk Fire Rescue
American Cancer Society	Norfolk Plastic Surgery
American Heart Association	Old Dominion University
Anesthesia Specialists	Old Dominion University School of Dental Hygiene
Atlantic Anesthesia	PFAC
Bon Secours Hampton Roads	RG Electric Company, Inc
Bon Secours Health System	Senior Services of Southeastern Virginia
Charles Murray, Properties	Sentara Health Plans, Optima Health
Chesapeake Care	Sentara Neurology
Chesapeake Integrated Behavioral Healthcare	SNGH (Volunteer)
Chesapeake Regional Medical Center	South University
City of Norfolk	Suffolk Christian Church
Consortium for Infant and Child Health (CINCH)	Susan G. Komen Tidewater
Eastern Virginia Medical School (EVMS)	The Planning Council
ECPI University, MSN Program	The Union Mission
Emergency Medical Service (EMS)	Tidewater Community College
Emergency Physicians of Tidewater	Virginia Beach Rescue Squad Volunteer Paramedic
EVMS/CHKD/Children's Specialty Group	Virginia Beach Fire Department
First Baptist Church, Mahan Street	Virginia Department of Health
Foodbank of Southeastern VA	Virginia Department of Health - Portsmouth
Gastrointestinal & Liver Specialists of Tidewater (GLST)	Virginia Oral Health Coalition
LifeNet	Virginia Supportive Housing
Norfolk Community Services Board	Virginia Wesleyan College
Norfolk Department of Public Health	YMCA of South Hampton Roads

Community Health Concerns

Survey participants were asked, “What are the most important health problems in your community?” Thirty-four choices were included in the survey; the number of choices each person could select was not restricted or ranked. The frequency of the health problems chosen are displayed below, followed by open-ended responses or additional comments submitted by the participants. Responses are ranked in order of the frequency identified; when counts equaled, the same rank is provided for those selections. Sixty participants responded to this question.

Frequency Rank	2016 Most Important Health Problem in Community	% of Participants Selecting Item
1	Mental Health - Behavioral Health Conditions (e.g. depression, anxiety, etc.)	78%
2	Diabetes	77%
3	Obesity	75%
4	Heart Disease	62%
	High Blood Pressure / Hypertension	62%
6	Substance Abuse (prescription or illegal drugs)	53%
7	Cancer	52%
8	Alcohol Use	48%
9	Dental / Oral Health Care	43%
	Infant and Child Health	43%
	Tobacco Use	43%
12	Accidents / Injuries	40%
13	Dementia / Alzheimer's Disease	38%
14	Violence - Domestic Violence	35%
15	Prenatal and Pregnancy Care	33%
	Respiratory Diseases (e.g. asthma, COPD, etc.)	33%
	Sexually Transmitted Diseases	33%
	Violence - Other than Domestic Violence	33%
19	Chronic Pain	32%
	Stroke	32%
21	Teen Pregnancy	30%
22	Physical Disabilities	28%
23	Infectious Diseases	27%
	Intellectual / Developmental Disabilities	27%
25	HIV / AIDS	25%
26	Orthopedic Problems	23%

27	Bullying	22%
	Neurological Conditions (e.g. seizures, multiple sclerosis, traumatic brain injury, etc.)	22%
29	Environmental Health (e.g. pollution, mosquito control, water quality, etc.)	20%
	Hunger	20%
	Renal (kidney) Disease	20%
32	Arthritis	18%
33	Autism	17%
34	Drowning / Water Safety	15%

Mental and behavioral health topped the most important health problems selected by community stakeholder participants, followed by diabetes and obesity.

Fourteen participants chose to provide additional comments to the question, “What are the most important health problems in your community?” These responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Comments
<ul style="list-style-type: none"> • Healthy Eating • Access to Care • Prevention and Early Detection
<ul style="list-style-type: none"> • Health care for the homeless or those without health insurance
<ul style="list-style-type: none"> • I am associated with Susan G. Komen so breast cancer, late stage diagnosis and mortality rates are a particular concern from our standpoint. The issues that I have checked off are ones that I have identified as a person in the Sentara Norfolk community.
<ul style="list-style-type: none"> • Metabolic syndrome
<ul style="list-style-type: none"> • Uninsured and under-insured status creates barriers to care for any health problems. • Access Partnership receives numerous calls each month requesting assistance to obtain DME, medical supplies and medications. Social Workers, case managers, insurance companies, hospitals, health centers, free clinics and community members need nutritional supplements, adult diapers, walkers, wheelchairs, hospital beds, shower chairs, nebulizers, CPAPs (over 100 people are waiting for these at Sentara ACC). Out of necessity, Access Partnership has been coordinating donated supplies & equipment which people want to donate (they are often told by DME and supply companies that the items are paid for and to dispose of them or give them away). Most thrift stores will not accept large items (hospital beds). FREE Foundation will accept a number of items but does not accept diapers, nutritional supplements, beds, and more. • Dental/Oral Health is a significant problem which has been shown by HR residents sleeping overnight outside Green Run HS for the Mission of Mercy project on April 30. Over 500 were provided care but more approx 150 were turned away. • Tobacco, substance abuse, alcohol use all contribute to oral health care and oral health care (lack of or poor oral health care) contributes to heart disease, kidney disease, premature birth, uncontrolled diabetes, and more health issues. • Care connection is an additional need in our communities. Life Coaches are in some EDs, case managers and social workers are in the health care sites and communities but there is a need to "link" and connect all available resources. This has been a key objective for Access Partnership.
<ul style="list-style-type: none"> • Transportation

<ul style="list-style-type: none"> • These are all IMPORTANT issues. I highlighted the ones I felt are a bigger priority right now in our communities. • Not listed are other contributing factors to these issues - like gun violence, poor built environments that do not support physical activity, lack of access to affordable, healthy foods, etc.
<ul style="list-style-type: none"> • Wound healing/chronic wounds
<ul style="list-style-type: none"> • I believe all of the above are important to the Hampton Roads Community. However, the over health and nutrition in Hampton Roads play a huge part in the community and future well-being.
<ul style="list-style-type: none"> • Cardiovascular diseases • Adequate Transportation Options • Healthy Job Market Separate from Military • Climate Change, Severe Weather, and Sea Level Rise Impacts on Health
<ul style="list-style-type: none"> • We would love to see expansion of your inpatient units and would like to see more partnership opportunities with you in the future. We serve a population that is in need of primary care, many without insurance or with Medicaid or GAP insurance where we don't have many providers will to accept these insurances for primary care.
<ul style="list-style-type: none"> • As a volunteer paramedic I am exposed to all of these issues and each is just as important as another to that individual that it is affecting at the time. Obviously, some of these issues last a lifetime. Take for incident car accidents - not all are just bad driving, but so many are caused because of medical conditions, alcohol/drug abuse, elderly who should know longer be driving, etc... I see a real need for more mental health facilities. So many patients we bring in with mental health/alcohol/drug abuse do not necessarily need a jail nor always a hospital but a place they can go to get help and counseling. This is to include chronic pain and the over use/abuse of prescription pain medication. • Sepsis - this continues to be a real problem in all ages of the population, however, I see it a great deal in our elderly. More early recognition programs for families need to be in place. • More help needs to be given to people who cannot afford medications for such chronic illnesses as diabetes. We have repeat offenders who for whatever reason do not take their medications or cannot afford insulin pumps that is critical to their everyday life. • Drowning is definitely an issue that we should always be addressing in our community due to all of our natural resources and backyard accessibility to pools. • Obesity is huge in our community. We need to continue to work on improving this whether through workplace incentives, insurance incentives, medical payment incentives...; something because so many of the other diseases HTN, orthopedic problems, heart disease, diabetes, and even mental health and bullying etc... I feel may be associated with obesity. ----Nutrition
<ul style="list-style-type: none"> • Support groups

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, followed by open-ended responses or additional comments submitted by the participants. Responses are ranked in order of the frequency identified; when counts equaled, the same rank is provided for those selections. Fifty-nine participants responded to this question.

Frequency Rank	2016 Community Services Needing Strengthening	% of Participants Selecting Item
1	Care Coordination and Transitions of Care	61%
	Mental Health - Behavioral Health Services	61%
	Services for Vulnerable Populations (e.g. uninsured / underinsured, migrant workers, homeless, etc.)	61%
4	Aging Services	53%
5	Chronic Disease Services (e.g. diabetes, high blood pressure, etc.)	51%
6	Dental / Oral Health Care Services	49%
7	Substance Abuse Services	41%
8	Health Care Insurance Coverage	39%
9	Health Promotion and Prevention Services	37%
10	Long Term Care Services	34%
	Public Health Services	34%
12	Maternal, Infant, and Child Health Services	32%
	Self Management Services (e.g. nutrition, exercise, taking medications)	32%
	Transportation Services	32%
15	Chronic Pain Management Services	31%
	Early Intervention Services for Children	31%
17	Food Safety Net (e.g. food bank, community gardens, school lunches, etc.)	27%
	Services for Caregivers	27%
	Social Services	27%
	Veterans Services	27%
21	Cancer Services (e.g. screening, diagnosis, treatment, etc.)	25%
	Primary Care Medical Services	25%
23	Home Health Services	24%
	School Health Services	24%
25	Domestic Violence Services	20%
	Environmental Health Services	20%
27	Hospice Services	19%

28	Family Planning Services	17%
29	Intellectual / Developmental Disabilities Services	15%
30	Public Safety Services	14%
31	Pharmacy Services	12%
	Workplace Health and Safety Services	12%
33	Hospital Services (e.g. inpatient, outpatient, emergency care, etc.)	9%
	Physical Rehabilitation	9%
	Specialty Medical Care Services (e.g. cardiologists, oncologists, etc.)	9%

Care coordination, mental and behavioral health services, and services for vulnerable populations were the most frequently identified services by community stakeholders that need to be strengthened.

Eight participants chose to provide additional comments to the question, “Which community health services need strengthening?” These responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Comments
<ul style="list-style-type: none"> • Palliative Care - Resources and Education
<ul style="list-style-type: none"> • Patient advocacy for those hospitalized or in need of care who are living alone
<ul style="list-style-type: none"> • Access to DME & Medical Supplies for uninsured and under-insured persons. Nutritional supplements are very expensive but most insurance will not cover cost unless only source of nutrition. Adult diapers are not covered by most private insurance, are very expensive but are needed for the health and comfort of individuals. Over 100 are on a waiting list for CPAPs at Sentara ACC and the sleep center will no longer perform sleep studies on patients that don't have coverage, funds or access to CPAP machines. Access Partnership has gathered about 40 donated CPAPs and provided to ACC who has them cleaned and ready for use for individuals in need. • Dental and oral services are most often excluded from coverage and there is a need to address reimbursement under medical benefits when oral health needs are adversely affecting medical health. Dental insurance is geared toward preventive care and most often has limits of \$1,000 to \$1,500 per year (under-insured). Access to dentures and partials is an issue that affects nutritional status and overall health but there are rare insurance programs that cover this. • Specialty care is difficult to obtain for the un/under insured. Most safety net providers focus on primary care and when a specialist is required, an "advocate" is needed to navigate. Specialty providers are being asked to see pro-bono cases by several different clinics, health centers, hospitals (specialists are required to take call and accept uninsured for privileges)
<ul style="list-style-type: none"> • Supportive Housing for persons with significant behavioral health issues to support their overall well-being including their management of chronic disease and preventing medical conditions. "Housing is healthcare"
<ul style="list-style-type: none"> • I believe that management of chronic wounds could be improved upon.
<ul style="list-style-type: none"> • Chronic disease management for HBP, diabetes, respiratory illnesses.
<ul style="list-style-type: none"> • comprehensive health care that includes oral health - to reduce ED visits for dental issues; to improve diabetes outcomes, contribute to a reduction in preterm birth

- We still have many elderly who are living by themselves-- we need more affordable transitioning and not just rehab centers that have understaffed and at times unqualified people working in them. Many of our local rehab facilities need updating and have better facilities management and even at times care staff. So many times I walk into a facility that smells of urine and there is no place that should be like that. It is a matter of cleanliness. The staff quite often say this patient isn't mine so I don't have information on him. It is disgraceful the care our elderly, or people with severe head injuries, severe orthopedic injuries at times receive in facilities.
- Cardiac arrests - we can do better! AHA has come out with a phone app that shows defibrillators and their locations, and will go off when a cardiac arrest is nearby prompting a citizen to respond if they are close by to initiate CPR. I think this is something Sentara should help the region supply with our 911 system.
- In addition, I feel Sentara should consider lobbying or delegate etc.. for such things as requiring all people who get a DMV license needs to have gone through a cpr class and show proof prior to getting their license and that it must be maintained. So every time they renew, they must renew their CPR.
- Also, I feel they should lobby the localities and request that as part of getting a business license if they have X number of employees they are required to purchase and maintain an AED.
- Para-medicine is something that our community should look at adopting. I think this could help our Emergency Depts as so often many people that come in are for "sick visits" and it is something if a Medic were to have been doing preventive stops may could avoid so many of the unnecessary calls to 911 and stops to the ER.
- Stroke Bus - http://www.emsworld.com/press_release/12178068/excellance-reveals-mobile-stroke-unit our area may benefit from something such as this.

Vulnerable/At-Risk Populations and Geographic Regions in the Community

Survey participants were asked two related free response questions: “Are there particular populations within the community who are vulnerable or at risk for health problems or having difficulties obtaining health services?” and, “Are there particular neighborhoods or geographic regions within the community where the resident population may be vulnerable or at risk for health problems or having difficulties obtaining health services?” Summary results for each question are provided below, listed in order of relative frequency noted by stakeholder participants, followed by tables listing the detailed, unedited responses to each question. Forty-six participants responded to the first question, while 42 participants responded to the second question.

Vulnerable/At-Risk Populations	Vulnerable/At-Risk Geographic Regions
<ul style="list-style-type: none"> • Low income • Uninsured/ underinsured • Elderly • Individuals with mental health issues • Immigrants/non-English speakers • Homeless 	<ul style="list-style-type: none"> • Low income regions • Norfolk, including Oceanview, inner city, South Norfolk, and public housing communities • Portsmouth • Virginia Beach, including the Northwest region • Rural areas of Suffolk and Chesapeake • Chesapeake

Low income and uninsured/underinsured populations were most frequently identified by community stakeholders as being vulnerable or at risk for health problems or having difficulties obtaining health services, followed by the elderly.

<p>“Are there particular populations within the community who are vulnerable or at risk for health problems or having difficulties obtaining health services?”</p> <p>Detailed Responses (unedited except for confidentiality reasons)</p>
<ul style="list-style-type: none"> • Substance abusers; mentally ill
<ul style="list-style-type: none"> • low health literacy populations , uninsured , indigent and obese populations, increased aging population
<ul style="list-style-type: none"> • Those living in poverty
<ul style="list-style-type: none"> • Homeless individuals, elderly who lack transportation, people who can't afford healthcare or their meds
<ul style="list-style-type: none"> • uninsured
<ul style="list-style-type: none"> • low income residents, seniors
<ul style="list-style-type: none"> • Seniors and Children • Working Poor
<ul style="list-style-type: none"> • There are disparities in health outcomes and access to healthy social and environmental conditions to promote health for low income and minority populations, particularly African Americans. Also, access issues for Hispanic and immigrant populations. Also, individuals with mental health issues are vulnerable.
<ul style="list-style-type: none"> • Lower socio-economic groups, particularity from the city of Portsmouth.
<ul style="list-style-type: none"> • yes, they can't afford the federal insurance program and make to much to qualify for medicaid
<ul style="list-style-type: none"> • Homeless. Immigrants with poor English aptitude.

<ul style="list-style-type: none"> • those without medical insurance
<ul style="list-style-type: none"> • Inner City, public housing
<ul style="list-style-type: none"> • Extremely low-income (under 100% poverty), unemployed, veterans, mentally and physically disabled, children and elderly populations are recognized vulnerable populations with many nonprofits and federal, state and local governments are working to address their needs. However, the working poor (over 100% and under 300% poverty) are over-income for most assistance, yet cannot afford health insurance premiums (without high deductibles & copays), and don't have funds to pay for preventive and therapeutic services.
<ul style="list-style-type: none"> • Uninsured/Underinsured, Unemployed/Underemployed, • Non-English speaking
<ul style="list-style-type: none"> • Persons experiencing homeless • Persons with serious mental illness - primary care physicians who are comfortable with medically treating persons with SMI
<ul style="list-style-type: none"> • The Aged who have no family care
<ul style="list-style-type: none"> • Homeless
<ul style="list-style-type: none"> • low income, low education residents
<ul style="list-style-type: none"> • under insured and uninsured
<ul style="list-style-type: none"> • Inadequately insured individuals
<ul style="list-style-type: none"> • Of course the poor are without health services as they have no insurance.
<ul style="list-style-type: none"> • Low Income/elderly.
<ul style="list-style-type: none"> • Home support for those not ready for, no financially capable, or refusing skilled care facilities.
<ul style="list-style-type: none"> • Low-income, race/ethnic populations with disparities
<ul style="list-style-type: none"> • Populations at risk include those who are in poverty, who do not know how to navigate the health system, who are in need of health/wellness education and disease prevention education- such as the importance of exercise and fresh fruits/vegetables.
<ul style="list-style-type: none"> • Low income and minority populations; populations that lack access to transportation, education, quality housing and jobs.
<ul style="list-style-type: none"> • Homeless, uninsured
<ul style="list-style-type: none"> • There continues to be a disconnect between the inpatient and outpatient management of hospitalized patients that are cared for by hospitalists
<ul style="list-style-type: none"> • Yes - underinsured, public housing, individuals living in food deserts
<ul style="list-style-type: none"> • Lack of access to oral health and mental health services
<ul style="list-style-type: none"> • Adults without health insurance
<ul style="list-style-type: none"> • Individuals with Disabilities for Dental Services • Veterans • Low income Seniors • All need Oral Healthcare Services
<ul style="list-style-type: none"> • Uninsured and those with mental illnesses
<ul style="list-style-type: none"> • Low income African American residents in Norfolk & Portsmouth. Low SES residents (all races) in western Tidewater and Eastern Shore
<ul style="list-style-type: none"> • Homeless, Undocumented, African-American, Non-English Speaking, Teen Moms
<ul style="list-style-type: none"> • Chronically mentally ill and substance abusing groups
<ul style="list-style-type: none"> • Not insured/underinsured - any specialty service, screening/preventive care, pharmacy services (low cost or free medications).
<ul style="list-style-type: none"> • lower income families
<ul style="list-style-type: none"> • Those below the poverty level

<ul style="list-style-type: none"> • Elderly, Underprivileged and Mental Health are the populations I would say we still have a lot of needs for service. • Elderly - Paramedicine could help by stopping by and making sure they are taking their meds, do an in home fall assessment. Continue with stroke awareness, heart attack awareness out reach programs. • Mental health - Need more facilities as they do not always need jail time but they need counseling and detox. - Our community does NOT have enough beds and staff to take care of the demand. We see kids as young as 5 with suicidal ideations - we need more beds and staff for mental health. • Underprivileged - need education on health issues and need places to go for everyday medical care with easy access and leave the ER's for emergencies.
<ul style="list-style-type: none"> • Elder care
<ul style="list-style-type: none"> • uninsured, under-insured, low-income
<ul style="list-style-type: none"> • Yes. At risk for health problems are low income community members, as well as the elderly.
<ul style="list-style-type: none"> • Pediatric population; they only have one place to go, and it is not in your facilities.
<ul style="list-style-type: none"> • The people most vulnerable are those with some or no health insurance that still cannot afford the copays or the 20% payments. These individuals still not afford healthcare. People are making daily choices to seek treatment or not based on how much money is in the bank. The price of health care (on the bills) is astounding and illogical. The money reimbursed by insurance is the same. Healthcare costs and reimbursements do not make sense to the public (nothing adds up) and even to healthcare providers.

“Are there particular neighborhoods or geographic regions within the community where the resident population may be vulnerable or at risk for health problems or having difficulties obtaining health services?” Detailed Responses (unedited except for confidentiality reasons)
<ul style="list-style-type: none"> • Low income areas
<ul style="list-style-type: none"> • Portsmouth, Norfolk , Suffolk Chesapeake, Rural communities
<ul style="list-style-type: none"> • Public housing communities; senior neighborhoods
<ul style="list-style-type: none"> • Areas without public transportation. Reserving HRT for the elderly or disabled is really a challenge
<ul style="list-style-type: none"> • South Norfolk - not enough primary care
<ul style="list-style-type: none"> • Southeast Community, Newport News
<ul style="list-style-type: none"> • Calvert Square, Tidewater Park, Southside, Suffolk, Portsmouth
<ul style="list-style-type: none"> • We have multiple neighborhoods throughout the City that are vulnerable.
<ul style="list-style-type: none"> • Portsmouth
<ul style="list-style-type: none"> • Yes, several. East Ocean View is one that comes to mind
<ul style="list-style-type: none"> • Portsmouth, Norfolk, Virginia Beach, Hampton, Newport News undeserved communities for most health challenges. Suburbs for stress related illnesses and substance abuse.
<ul style="list-style-type: none"> • uncertain
<ul style="list-style-type: none"> • Public Housing downtown Norfolk
<ul style="list-style-type: none"> • Average working class communities and those with young families. Child care averages \$150 to \$200 week and 2bdr apartments average \$1,000/month. Add utilities, car payments, gas, etc. and there is nothing left to go to the dentist or see a doctor for preventive care. They delay until their need is acute and could have been prevented.
<ul style="list-style-type: none"> • There are pockets throughout the area
<ul style="list-style-type: none"> • Ocean View, Berkley
<ul style="list-style-type: none"> • usual underserved areas

<ul style="list-style-type: none"> • any area with populations of residents with low socioeconomic status.
<ul style="list-style-type: none"> • Portsmouth
<ul style="list-style-type: none"> • Inner city Norfolk has food deserts as well as one of the highest violence rates in the state of Va.
<ul style="list-style-type: none"> • Economically challenged and homeless in the Virginia Beach Oceanfront area, the northwestern section of the Virginia Beach and Plaza/Green Run/ Salem areas.
<ul style="list-style-type: none"> • South Norfolk, Young Terrace
<ul style="list-style-type: none"> • East Ocean View area of Norfolk, Virginia Beach Blvd stretch between Lynnhaven Blvd and the Oceanfront.
<ul style="list-style-type: none"> • Generally low income neighborhoods need more intrusive intervention strategies
<ul style="list-style-type: none"> • Areas around public housing and low income areas, particularly minorities are at a higher risk.
<ul style="list-style-type: none"> • Ocean View
<ul style="list-style-type: none"> • Norfolk, Newport News, Portsmouth, Hampton
<ul style="list-style-type: none"> • Inner cities of Norfolk & Portsmouth
<ul style="list-style-type: none"> • Yes. Impoverished areas. Low income. Unemployed.
<ul style="list-style-type: none"> • Lower income neighborhoods in all of the cities and rural communities in Suffolk, Chesapeake and Virginia Beach
<ul style="list-style-type: none"> • I have witnessed all areas of Southampton Roads Virginia in need of oral healthcare services
<ul style="list-style-type: none"> • Norfolk, Portsmouth
<ul style="list-style-type: none"> • Norfolk and Portsmouth low income census tracts, all rural areas
<ul style="list-style-type: none"> • Communities with the worst social determinants of health - parts of Norfolk, Portsmouth, Franklin County, Newport News, and Hampton
<ul style="list-style-type: none"> • Public housing developments and surrounding neighborhoods; northern part of Norfolk City that has a rising immigrant population; older neighborhoods with low income families.
<ul style="list-style-type: none"> • rural areas of Suffolk and Virginia Beach
<ul style="list-style-type: none"> • Neighborhoods with residents below the poverty level
<ul style="list-style-type: none"> • Jamestown Commons - Military Highway has many underprivileged housing areas that are part of the Virginia beach community, Birdneck area - a lot of homeless also live in this area, Campus East, and those neighborhoods around Wesleyan and Aragona, Plaza near Plaza apts, Lake Edward, Luther Manor Nursing home, Etc..
<ul style="list-style-type: none"> • Inner city/urban
<ul style="list-style-type: none"> • see above. zip code is very much a predictor of health
<ul style="list-style-type: none"> • All of the neighborhoods that you serve.
<ul style="list-style-type: none"> • Area of northhampton blvd is home to many sex offenders and a new building for the working homeless. The areas up Diamond Springs Rd are poor and dangerous. More services to this area of Virginia Beach would be great.

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, followed by tables listing the detailed, unedited responses to each question. Forty-six participants responded to the first question, while 43 participants responded to the second question.

Most Important Health Assets Existing in Community	Needed Health Assets Currently Lacking in the Community
<ul style="list-style-type: none"> • Built resources, including community parks, recreation areas, walking and bike trails/lanes, community recreation centers, gyms, YMCA, Farmer’s markets, and transportation infrastructure • Natural resources, including beaches, bodies of water, and the outdoors • Safety net providers/clinics; accessible medical, preventive, and dental care; and hospitals • Health Department and EVMS • Emphasis on people, institutions, programs, and employers 	<ul style="list-style-type: none"> • Built resources to improve the walkability and bikeability of communities • Assets related to wellness and obesity prevention (increased access to healthy foods/venues, more grocery stores in underserved areas, education, safe parks to exercise) • Mental health and substance abuse services/facilities • Assets focused on improving medical and preventive care to the indigent and uninsured/ underinsured • Improved public transportation (more options, options that take special populations into consideration) • More community health workers/advocates • Recreational services for adults with autism

Built resources, natural resources, and safety net providers and accessible medical care were frequently noted by stakeholders as the most important health assets that exist in the community. More built resources to improve the walkability and bikeability of communities, assets related to wellness and obesity prevention, and mental health and substance abuse services and facilities were among the most frequently mentioned health assets that are needed in the community.

<p align="center">“In your view, what are the most important health assets within the community?” Detailed Responses (unedited except for confidentiality reasons)</p>
<ul style="list-style-type: none"> • Safety net clinics and community health centers
<ul style="list-style-type: none"> • Community parks , walking trails , bike lanes ,athletic and fitness centers. Strong health systems .
<ul style="list-style-type: none"> • people
<ul style="list-style-type: none"> • Rec centers in Va Beach that offer indoor pools for exercise for persons with arthritis or other mobility difficulties
<ul style="list-style-type: none"> • Chesapeake Regional Medical Center, Chesapeake Public Health Department, YMCA, Chesapeake Care Free Clinic
<ul style="list-style-type: none"> • Natural resources, built resources, evms
<ul style="list-style-type: none"> • community recreational centers
<ul style="list-style-type: none"> • Bike trail in Norfolk

<ul style="list-style-type: none"> • There is a lot of interest and support at this time for efforts to improve community health by Norfolk residents, employees and leadership.
<ul style="list-style-type: none"> • EVMS and many more
<ul style="list-style-type: none"> • access to fresh produce, many areas are a food desert
<ul style="list-style-type: none"> • people and institutions
<ul style="list-style-type: none"> • Integrated health systems, corporate wellness programs, trails and parks.
<ul style="list-style-type: none"> • All of the above. Each needs to be present to create a culture of health.
<ul style="list-style-type: none"> • Free standing children's hospital • Cardiac center at SNGH
<ul style="list-style-type: none"> • People helping people, for example the faith-based community. Churches have food pantries, are providing more affordable child care, dinners for seniors, shelter (NEST), emergency financial assistance for people in need. They are the best example of community assistance.
<ul style="list-style-type: none"> • Institutions that can be relied on to serve as models of health. Built resources that can be easily utilized in the metropolis that is Hampton Roads.
<ul style="list-style-type: none"> • Parks, parks & rec classes
<ul style="list-style-type: none"> • prevention care, health,dental
<ul style="list-style-type: none"> • People
<ul style="list-style-type: none"> • Sentara, EVMS, VDH, local outdoors
<ul style="list-style-type: none"> • Open spaces, parks and opportunities to be physically active in a safe environment, we need to change the culture to active living
<ul style="list-style-type: none"> • food deserts
<ul style="list-style-type: none"> • low income people living in poverty
<ul style="list-style-type: none"> • If the people have health insurance
<ul style="list-style-type: none"> • Recreation Centers; bike/walking trails; boardwalk/beach.
<ul style="list-style-type: none"> • Bikeways, parks, pools, sports teams for all ages. Group fitness programs. Nutrition and lifestyle support programs.
<ul style="list-style-type: none"> • People. They are the foundation for the programs (including built resources) and institutions. Natural resources are also important, but need to be developed/maintained.
<ul style="list-style-type: none"> • Parks, rec centers, higher education institutions.
<ul style="list-style-type: none"> • Safe places to exercise, accessible medical facilities
<ul style="list-style-type: none"> • Programs and institutions
<ul style="list-style-type: none"> • Built environments - parks, playgrounds, transportation infrastructure, grocery stores, quality housing, preventive services.
<ul style="list-style-type: none"> • The well equipped/staffed hospitals that we have.
<ul style="list-style-type: none"> • Walking paths, healthy-food access/ farmer's markets, Hands-only CPR training
<ul style="list-style-type: none"> • We have a number of beaches, lakes walking trails, bike trails and parks that are accessible to all
<ul style="list-style-type: none"> • Expanded public and specialized transportation; greater access to evidence based wellness instruction, stronger links between health collaboratives and civic groups
<ul style="list-style-type: none"> • Recreation centers with modest fees.
<ul style="list-style-type: none"> • Safety net providers who have dental • ODU School of Dental Hygiene has 32 chair clinic • ODU School of Dental Hygiene 35 dental hygiene students who impact community • Sentara Grant -Dental Voucher Program for those who are uninsured and underserved • Mission of Mercy Dental Access Event 1x per year - over 600 individuals were turned away • Homeless Connect Norfolk Access Event

<ul style="list-style-type: none"> walking trails in South Hampton Roads and Peninsula (but fewer in Norfolk). Community gardens.
<ul style="list-style-type: none"> EVMS, United Way, Eastern Region Collaborations around Health, Affordable Recreation Centers (in particular, Virginia Beach)
<ul style="list-style-type: none"> Having a network of individuals willing to work on population health issues, such as the Healthy Chesapeake Coalition
<ul style="list-style-type: none"> Green spaces and sidewalks or trails - safe ones (good lighting, not too secluded, patrolled) that encourage walking and allow people to safely walk more places; better public transportation.
<ul style="list-style-type: none"> Health and Wellness facilities/YMCAs, Sentara network, public parks/recreation centers, walking friendly neighborhoods,
<ul style="list-style-type: none"> Free clinic
<ul style="list-style-type: none"> This may be off track but the light rail could bring our communities together; encourages walking, lowers pollution and attracts a younger population base.
<ul style="list-style-type: none"> Yes
<ul style="list-style-type: none"> Sentara is well located throughout the community. Safety on walking trails outside the state parks is an issue. The Public Health Department is underfunded - and they serve a large population in Hampton Roads. Assisting with funding of Public Health Initiatives (partnering) would be an important asset.

“Are there any health assets that the community needs but is lacking?” Detailed Responses (unedited except for confidentiality reasons)
<ul style="list-style-type: none"> Substance abuse and mental health treatment, especially for those who cannot afford it or are uninsured
<ul style="list-style-type: none"> More healthy eating and fresh food offerings
<ul style="list-style-type: none"> Senior offerings
<ul style="list-style-type: none"> Obesity prevention and education
<ul style="list-style-type: none"> More walking trails, bike share programs
<ul style="list-style-type: none"> Better transportation options. If you can't drive yourself, bus or other public transportation is exhausting to and from the bus stops
<ul style="list-style-type: none"> Mental health facilities, good public transit, bicycle trails
<ul style="list-style-type: none"> bike and walking trails, parks
<ul style="list-style-type: none"> Safe Parks for children, walking trails
<ul style="list-style-type: none"> Assets to support mental health needs is particularly lacking.
<ul style="list-style-type: none"> Parks and Rec Centers
<ul style="list-style-type: none"> Mental health, addiction treatment, homelessness-particularly for families or single mothers with children,
<ul style="list-style-type: none"> Walking trails, green spaces
<ul style="list-style-type: none"> Adult autism recreational programs for older children who are left wanting
<ul style="list-style-type: none"> Coordination, connections to resources, teaching (without lecturing) how to access and better manage health resources. Many "classes" and workshops are offered but there is a limited amount of time to participate in the offerings. Access Partnership identified that if information is sent to some of the local churches, they reach out to their congregations. There is also a "trust" within the faith-based communities that may be lacking in other areas, especially in minority communities.
<ul style="list-style-type: none"> Bike trails, walking trails, better public transportation that would encourage more biking and walking rather than just pulling in a parking space.
<ul style="list-style-type: none"> Assertive outreach and access primary care and medications for no fee for indigent
<ul style="list-style-type: none"> free dental
<ul style="list-style-type: none"> Mental health
<ul style="list-style-type: none"> some sort of collaborative community analytic and needs identification capability
<ul style="list-style-type: none"> Bike and pedestrian paths

<ul style="list-style-type: none"> • access to dental care, improved access to mental health care
<ul style="list-style-type: none"> • Health insurance
<ul style="list-style-type: none"> • In home or easy access follow up and compliance care for patients with chronic illness (diabetes, CAD, obesity,...). Especially for low income families and those with less than a high school education.
<ul style="list-style-type: none"> • Community health workers/advocates, access to affordable fresh fruits/vegetables, expanded affordable/free primary care with a medical home, mental health services
<ul style="list-style-type: none"> • Improved walkability and bikeability. Improving access to fresh fruits and vegetables. Encouraging employers to promote physical activity during the work day.
<ul style="list-style-type: none"> • Safe places to exercise for some of the more vulnerable zip codes
<ul style="list-style-type: none"> • See all of the above...need more.
<ul style="list-style-type: none"> • Better organized chronic wound care management.
<ul style="list-style-type: none"> • education
<ul style="list-style-type: none"> • Not that I can think of
<ul style="list-style-type: none"> • Sidewalks
<ul style="list-style-type: none"> • Sidewalks.
<ul style="list-style-type: none"> • A call-center for our area for those who do not have access to healthcare services especially dental. Most go to the emergency room - expensive and inadequate care.
<ul style="list-style-type: none"> • Mental health
<ul style="list-style-type: none"> • Free clinics
<ul style="list-style-type: none"> • safer places to walk. More access to recreational facilities, for example when public schools are not in use.
<ul style="list-style-type: none"> • Fresh produce in under-served areas, multi-modal transportation options, healthier options in restaurants, better linkages between social care and health care, workforce development for social services and health
<ul style="list-style-type: none"> • availability of primary care willing to serve the under or un-insured
<ul style="list-style-type: none"> • Regular grocery stores in or near low income areas (not a convenience store or small independent grocery store that sells mostly packaged food on shelves).
<ul style="list-style-type: none"> • Better transportation resources for people with small children, the elderly, or people with access and functional needs.
<ul style="list-style-type: none"> • Access to fruits and vegetables in some urban and rural areas
<ul style="list-style-type: none"> • I am not aware of any
<ul style="list-style-type: none"> • Paramedicine, • AHA App - CPR, - Pulse Point • AED program for businesses and churches (large meeting areas and recreation areas, • Stop the Bleed program • Sepsis Program • More stroke awareness and heart attack awareness presenters to go to church groups, rotary clubs, etc... to present. • Facilities for Mental health
<ul style="list-style-type: none"> • collaboration among existing orgs and agencies will increase collective impact and improve outcomes.
<ul style="list-style-type: none"> • Safe walking areas at night

Additional Ideas and Suggestions

As an optional open-ended question, additional ideas or suggestions for improving community health were asked to be shared. Nineteen participants provided comments. The detailed responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Ideas and Suggestions
<ul style="list-style-type: none"> • The state government needs to expand Medicaid.
<ul style="list-style-type: none"> • Transportation for health care is a major concern for many. • More long term care facilities and resources for increasing senior populations . Better collaboration within the health community.
<ul style="list-style-type: none"> • Outreach to seniors or the homeless for more available screening , medical care, and follow up care
<ul style="list-style-type: none"> • Work collaboratively with CRMC and public health department
<ul style="list-style-type: none"> • Conduct health promotion and intervention • Engage in public health education • Improve communication between the pubic health agencies and the community • Promote stewardship of community residents in maintaining and improving their health • Provide public health service for low income residents and seniors
<ul style="list-style-type: none"> • access to dental services for adults is also lacking.
<ul style="list-style-type: none"> • Bon Secours created Parish Nursing, now known as faith-based nursing and worked with health advocates and professionals within the churches. This was very successful but doesn't seem as active. There may be an opportunity to revisit faith community nursing in Hampton Roads since there are churches in every community. http://www.churchhealthcenter.org/fcnhome
<ul style="list-style-type: none"> • Perhaps SNGH could collaborate with the Collective Impact committees in Norfolk to set a road map to health care in the Tidewater region.
<ul style="list-style-type: none"> • Partnerships need to be more abundant and we need to look at our local sourcing of food. People need access to locally grown fresh produce, we need a large farmers market that is affordable to all.
<ul style="list-style-type: none"> • Rental bikes for downtown areas. More drive share areas for traveling to and from work.
<ul style="list-style-type: none"> • Obesity and poor nutrition contributes to a host of problems and should be addressed community wide.
<ul style="list-style-type: none"> • Increase collaboration between the health systems and partners to collectively improve the health of the community.
<ul style="list-style-type: none"> • As a physician that relies on Sentara Norfolk General Hospital, primarily, I continue to be troubled by a problematic discharge planning service. Hospitals are "punished" for 30-day readmission, not the physicians. As such it behooves our hospitals to make certain that all consultants caring for a patient are informed about a patient discharge and are asked about what their follow up should be. I provide a lot of consultative services. I see my patients/consults every day. It is NOT uncommon that I will make my rounds and find out that my consult patient has been discharged! No formal follow up, no requests for post-hospital wound care orders. Our discharge planners rely upon our hospitalists to contact each and every consultant and do this. This task would be better performed by the discharge planner assigned to the specific patient.
<ul style="list-style-type: none"> • As a college, and community partner, all issues and concerns impact the welfare of our institution and area.
<ul style="list-style-type: none"> • Call Center for South Hampton Roads Area of VA. • Safety Net Providers help but weak on human resources and grants funding for dental • More visability for ODU School of Dental Hygiene Care Clinic where we can see many underserved individuals. • Transportation issues

- To reduce costs and improve population health in our communities, healthcare systems and health providers should look to work more closely with cities, funders, and public health on changing policy, systems, and environments. For example, developing job-training programs taking at-risk youth through paid internships that will funnel into jobs in healthcare, or working with civic leagues and Departments of Planning to build and sustain community gardens in public housing or low-income communities, or working with public health and schools to educate city council members on the benefits of increasing tobacco taxes.
- Workforce development
- Feel free to contact me if you have any questions regarding any of my responses. [*phone number redacted*]
- I write as the ED of a statewide organization, so my lens is not as specific to Hampton-Roads as i would like to best fill out this survey - but i see your community making great strides to collaborate and work collectively to improve health outcomes. my niche is oral health integration and the importance of including oral health as part of comprehensive health care (improving diabetes outcomes, early childhood health, and reducing pain and use of the ED for avoidable conditions).

Community Focus Group Session Findings

Community Focus Groups were carried out for greater insight from diverse stakeholders. Focus groups were often drawn from existing hospital and community groups or sought from other populations in the community, including representatives of underserved communities and consumers of services.

Two Sentara Norfolk General Hospital focus group sessions were held in July 2016. The number of participants ranged from 10 to 15. SNGH also used information from the City of Norfolk Department of Public Health Community Health Needs Assessment, which followed the Mobilizing for Action through Planning and Partnerships (MAPP) process that engaged city and community partners.

1. Sentara Norfolk General Hospital Employee Advisory Council
2. Sentara Norfolk General Hospital Patient and Family Advisory Council

A series of questions were asked during each focus group. A brief summary of the key findings for each topic is presented below.

Topic	Key Findings
<p>What are the most serious health problems in our community?</p>	<ul style="list-style-type: none"> • Diabetes and high blood pressure are big concerns. Symptoms of high blood pressure are frequently overlooked. Diabetes is an epidemic in the US. • Mental health is an area of concern. People are afraid to ask for help. There are too many hoops to jump through to get the necessary help. It can be daunting, particularly when considering finances. There are a lot of work days lost in our area due to mental health issues and too frequently people refuse care. • Care coordination needs improvement. Transitions from the hospital are a particular concern, especially for the elderly. Discharge instructions are often difficult for patients and their families to understand. The instructions are too lengthy/redundant and may even be contradictory in various sections. Discussions about discharge plans need to occur earlier so patients and families can adjust their schedules for pick up times and to be with the patient after discharge. Care coordination roles need to be clarified. • We have a transient community with a lack of family support/resources. • Obesity is another large concern, impacting many areas of the body. Education needs to lead to behavioral change. • Sickle cell disease is an issue that is often forgotten.
<p>Who/what groups of individuals are most impacted by these problems?</p>	<ul style="list-style-type: none"> • Elderly • Uninsured • Low/no income • Uneducated • Newly insured who find that the cost of premiums is high and may not understand insurance • Patients frequently do not understand healthcare Charity programs • Diverse community with varying cultural beliefs and primary languages • Veterans who are dishonorably discharged

<p>What keeps people from being healthy? In other words, what are the barriers to achieving good health?</p>	<ul style="list-style-type: none"> • Access to health care – affordability, convenience, communication barriers • Proper nutrition, including a lack of grocery stores in some areas. Produce is expensive. Store layouts may not promote healthy choices. Junk food is often at the doors. • Early age care and early education. Nutrition/health for young kids. • Lack of focus on prevention to avoid health problems • Lack of pharmaceutical support • WIC focuses on processed foods and there is a lack of home cooked meals. Need more community outreach and teaching about what is good and healthy. Need to educate the community about cost effective, healthy eating. People know ramen noodles are affordable, but they offer a lack of nutrition. • Lack of cohesive care coordination for discharge from hospital and transitions in care. • Lack of free clinics and dental services with regular walk-in care. Also, lack of awareness of the breadth of services available in clinics. • Lack of trauma prevention outreach. • If people do not use a computer, they are likely unaware of outreach activities.
<p>What is being done in our community to improve health and to reduce the barriers/what resources exist in the community?</p>	<ul style="list-style-type: none"> • There are free clinics in most area cities. Many churches have clinics. Pharmacies have clinics. • There needs to be an easy resource guide that stays up to date and is accessible to the public. • Use schools to educate kids about healthy behaviors. Kids can teach their parents about healthy plates • The Kroc Center is still out of financial reach for some people. Some insurances offer gym memberships for free to seniors. However, we need to do a better job in ensuring that seniors are aware of this benefit. • Many resources are only for residents of a particular area. Need to ensure that providers take socioeconomics into consideration when making a referral (i.e., a Norfolk resource may not be appropriate for a Virginia Beach resident). • Use civic leagues to increase communication about healthcare resources.
<p>What more can be done to improve health, particularly for those individuals and groups most in need?</p>	<ul style="list-style-type: none"> • Affordable senior living is needed for all levels of care. There needs to be more senior prescription drug payment assistance. Some resources exist but we need one flyer or central repository for a senior to know they can receive discounted drugs at one location on Monday and at another location on Tuesday, etc. • Need more emphasis on nutrition during pregnancy and prenatal care. • Dental care is expensive, even with insurance. Need more payment plans and alternatives if people lack financial resources. • Hearing aids are expensive. Need more insurance coverage for these. • Need insurance coverage for diabetic shoes. • Communicate Emergency Department wait times so patients can make better decisions. • Improve discharge education. A nurse could discuss and highlight the most important sections of the discharge summary before the patient leaves.

V. APPENDIX

An evaluation of the progress toward the implementation strategies is included in the following pages.

Sentara Community Health Needs Assessment Implementation Strategy

2015 Year End Report

Hospital: Sentara Norfolk General Hospital

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

In support of Sentara’s 2014 goal to “demonstrate community benefit in the communities we serve”, 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 Deb Anderson at dkanders@sentara.com within 15 days of the close of each quarter.

Health Problem	Three Year Implementation Strategies	Progress
All		
1.1	Ensure Norfolk community agencies have access to the completed community needs assessment data. <ul style="list-style-type: none"> • Post assessment on SNGH website Distribute assessment to agencies	<ul style="list-style-type: none"> • Posted on sentara.com
1.2	Continue to actively participate in community-based organizations to work collaboratively to improve health.	<ul style="list-style-type: none"> • Collaborating with the Norfolk Healthcare Collaborative which includes leaders from the City of Norfolk, Bon Secours, CHKD, EVMS, and Lake Taylor to improve the obesity epidemic • Developed mission, vision, nutrition guidelines and timelines for implementation.

Health Problem	Three Year Implementation Strategies	Progress
		<p>Implemented healthy standards including nutrition labeling, healthy food marketing, healthy retail and patient menus, and healthy beverages.</p> <ul style="list-style-type: none"> • Announced the initiative to the community via a collaborative press conference • Developing a logo to increase awareness of the collaborative and promote healthy living initiatives • Shared Sentara’s Healthy Edge vending criteria. Criteria being adopted by other centers. • Participating in the collaborative Norfolk Community Health Assessment.
1.3	Continue to operate the ACC clinic in support of the overall community.	<ul style="list-style-type: none"> • ACC to collaborate with Community Health and Prevention to eliminate health barriers and promote access for indigent patients to on-site screenings and self-learning programs • Provided approximately 15,000 visits, including 3,000 new patients. Over 7,000 prescriptions and requests were processed and sent to participating drug companies for a 3 month supply. • Community Health coaches will be supporting ACC patients with a goal to reduce readmissions • Seeking new opportunities for ACC patients to call the After Hours Nurse Advice line after 5pm if there is a question about their discharge instructions from the hospital or have concerns about an illness. • ACC patient will attend SNGH 9-hour Diabetes Outpatient Classes to receive education to improve their health. • In 2015, approximately 14,000 visits delivered, which included 3,000 new patients. Over, 52,400 prescription requests were processed, and sent to participating drug companies for 793 patients, who received a 3-month supply. • Collaborating with SNGH Care Coordination and ED departments to reduce ACC hospital admissions and re-admissions. • By 2nd Quarter 2016 the ACC will offer free Spirometer, HgA1C, Chem-8, and Ultra Sound screenings to diagnosis and treat underserved Adult comorbid health conditions early. • Continuing to seek ACC grant opportunities to provide BIPAP & CPAP DME for

Health Problem	Three Year Implementation Strategies	Progress
		indigent patients
1.4	Offer community health programs and free screenings at sites throughout the hospital's service area to improve convenient access for residents.	<ul style="list-style-type: none"> • Partnering with Komen Tidewater and EVMS Surgery to offer free mammograms and clinical breast exams to qualified uninsured patients. 161 women screened. 1 cancer identified to date and patient undergoing treatment. • Offered free head and neck/thyroid (99 screened, 15 abnormal), prostate, (56 screened, 7 abnormal) and skin (46 screened, 7 abnormal) cancer screenings. • Partnered with the American Heart Association to improve cardiac education and awareness focused on Heart Attack and Stroke • Provided free heart health screenings (blood pressure, EKGs) to the Senior Citizens Group at 1st Baptist Church. Of the 245 people screened, 8 were sent to the hospital immediately due to significantly high blood pressures.
1.5	Partner with EVMS Institute to develop a collective impact model that will focus on poverty and its implications in our community.	<ul style="list-style-type: none"> • The United for Children program collaboration with the United Way of South Hampton Roads, Norfolk Public Schools, EVMS M. Foscue Brock Institute for Regional and Global Health, among other partners received Norfolk City Council approval to expand the PB Young Elementary school "summer school" and "after school" programs by 5 additional schools over the next 3 years, prioritizing the highest at risk Norfolk neighborhoods. This recommendation of the Youth Education Poverty Commission sub-committee was expedited for implementation ahead of the formal Poverty plan publication due to the outstanding results of the PB Young Pilot. Tidewater Elementary School was added as the 2nd location. SNGH leadership has guided United for Children expansion to Tidewater elementary and our employee United Way campaign supported fund raising designated to this effort. • The Poverty Commission published a report to include key tactics associated with youth education and career development in support of 1.6 below. • Update from the Norfolk Poverty Commission city budget planning meeting: <ul style="list-style-type: none"> ○ \$1M funded to initiative a housing trust fund (50% goes toward new affordable housing inventory, 40% toward voucher subsidies) ○ \$1M funded to continue development of the Norfolk Public Schools Career and Technical High School

Health Problem	Three Year Implementation Strategies	Progress
		<ul style="list-style-type: none"> ▪ Shelly Cohen and Pat Evans are on the Healthcare Academy advisory panel ▪ Crissie Hall-Reichert is on the IT Academy advisory panel ▪ Estimated total cost to develop is \$64M- looking for federal, state, city and private funding (maritime industry to support the Maritime Academy, they are coming our way for funding support of healthcare academy) ▪ \$1.4M appropriated in 2016 budget year for a new Indigent Housing Trust Fund ○ **\$250k funded to continue expansion of United For Children summer school and enrichment programs. Total of four schools in Summer 2016 ○ \$50k toward an education program for the owners of private day care centers (early childhood development) ○ \$50k toward neighborhood revitalization programs ○ \$75k seed money for development of a career options web site (career ladder's/lattices) and a Norfolk Public Schools education program ○ Early Childhood development in support of Newborn screening and referral program through expansion of home visiting services received a large increase to \$150K in 2016
1.6	Develop early intervention strategies for middle school children that will put them on track for a strong career path.	<ul style="list-style-type: none"> • Partner with the National Coalition of Black Women to utilize their community initiative "Elite Academy" to educate middle school children on STEM (Science, Technology, Engineering and Math) • Elite Academy continues in the 3rd quarter with 30 students regularly in attendance. 100% of the "at risk" children successfully graduated to the next grade level and the average collective grade on their report card is a B. This is in stark contrast to 3 years ago when 80% of these students were averaging a D – F and were at risk of dropping out of school and/or being held back • City of Norfolk allocated \$40k in 2016 for partnering with Hampton Roads employers to document career pathways and develop education content for Norfolk Public Schools. Sentara leadership collaborating with City leadership on this project.

Health Problem	Three Year Implementation Strategies	Progress
1.7	Continue to work with SMART Beginnings to identify high risk discharge babies and provide the resources to prepare them for kindergarten.	<ul style="list-style-type: none"> • SNGH went live with the Care Connection screening/referral program on 7/15/2014. Stats through the end of September indicate the following: <ul style="list-style-type: none"> • 4th Qtr 2015: Total Patients Screened: 699 Total Patients Qualified: 562 Total Patients Accepted: 381 (67.8%) Total Patients Declined: 161 (28.65%) Total Patients Missed: 20 <p>**Based on this, 80.4% of our patients screened positive. Of those, 67.8% accepted referral to program.</p>
1.8	Work in conjunction with Norfolk Public Schools for the support and development of strategies related to Norfolk High Schools	<ul style="list-style-type: none"> • Work in collaboration with Norfolk Public Schools, Barry Bishop and Chuck McPhillips from the Greater Norfolk Corp. to assist in the design of the proposed Career and Technical High School SNGH clinical and IT leaders are serving and development advisors engaged in the design of the physical plant and the integrated curriculum of the health care and information systems academies. • Sentara clinical and environmental support leaders are in the process of developing career pathways for high school students enrolled in the new Norfolk Public Schools Open Campus High School (Magic Johnson Foundation) to enable high school GED graduates opportunities to train in entry level environmental services and nursing assistant fields as an entry into what many of our employees turn into a career path to become a nurse, X-ray tech, physical therapist etc
Problem #2: Obesity/Nutrition/Fitness		
2.1	Promote healthy practices by encouraging employees to participate in Walk at Work, hospital-based Weight Watchers classes, hospital-based fitness classes, and the employee gym membership.	<ul style="list-style-type: none"> • Walk at work signs and map posted throughout the hospital • Weight Watchers invitation emails sent to employees • Zumba classes offered • Free gym membership available to employees • Boot camps available to employees for a small fee
2.2	Coordinate a healthy choices menu for our patients and employees	<ul style="list-style-type: none"> • Implemented Healthy Dining Standards for our patients and employees • Cafeteria renovations will support initiatives to make healthy choices easy for employees and visitors • Collaborate with Subway to promote “healthy choices” as part of the Biggest Loser Collaborative nationwide

Health Problem	Three Year Implementation Strategies	Progress
		<ul style="list-style-type: none"> Implement new café menu with focus on healthy living. Standard 50% of entrée meals under 500 calories Initiate Farmers markets quarterly to focus on healthy options that are locally farmed.
2.3	<p>Continue to offer fitness programs to employees and the community</p> <ul style="list-style-type: none"> Build upon the YMCA relationship with Sentara’s Rehab Network Build and expand the Cardiac Rehab program 	<p>YMCA relationship -</p> <ul style="list-style-type: none"> New transitions program offered at Suffolk, Elizabeth City, Indian River, Hilltop, Great Bridge, Blocker, and Mt Trashmore Rehab programs include exercise physiologist-led small group and individual programs. Post therapy, diabetic, cardiac Marketing Sentara Rehab Network services to Sentara Cancer Network Promoting direct access to physical therapy – evaluation without a physician’s order Fall balance screening program at any therapy center <p>Cardiac Rehab-</p> <ul style="list-style-type: none"> Communicated CMS expanded Medicare coverage to the medical community and to the general public Define “bridge” solution for discharge to enrollment period Create a “wellness” center approach with offerings such as Yoga, one on ones with a dietician, seminars, etc Results YTD reflect a 23% increase in Cardiac Rehab referrals over the past 60 days. Expanded education to the various Advanced Heart Failure programs (Port Warwick, SPA & SHH) to enhance awareness of Cardiac rehab for defined population of patients. Met with YMCA leadership to explore feasibility of collaborating for Phase III Cardiac Rehab patients. Terri Edwards agreed to follow up on this system wide initiative. To date however, YMCA is concerned they will not be able to match charge. Instituted a dietician to meet with every outpatient cardiac rehab patient including those patients who come electively for the maintenance program of cardiac rehab to re-educate on “healthy eating choices”.
2.4	Continue with the development and growth of Sentara’s Bariatric Program to include the	<ul style="list-style-type: none"> The Sentara Comprehensive Weight Loss Solutions Center relocated at the end of March 2013. The Center now includes 2 full-time and 2 part-time bariatric surgeons,

Health Problem	Three Year Implementation Strategies	Progress
	<p>launch of a center that brings together both Medical and Surgical Services</p>	<p>a medical bariatrician, a bariatric psychologist, an APC for medical weight loss, a director of operations, a practice manager, a nurse practitioner, an RN, program coordinator with bariatric certification, an RN clinical coordinator with bariatric certification, a registered dietitian, a clinical exercise specialist, a research coordinator, 3 LPNs, 2 patient navigators, 2 receptionists, 2 referral coordinators, and a retail sales associate.</p> <ul style="list-style-type: none"> • Opened a retail store within the practice which provides an on-site option for our patients to purchase products which have been vetted by the providers of the practice to aid in their weight loss journey. These products include vitamins, supplements, healthy food and drink options, books, and exercise equipment. We continue to review our inventory and product offerings for the Retail Store to provide the best options possible for our patient base. • Recidivism continues to be a significant problem in the world of bariatric surgery. There are some patients who never lost what they had intended, but many more who were initially successful only to regain some, if not all, of their lost weight. To address this we are offering a comprehensive, “Back on Track” program. • Our providers and staff continue to participate in community events held by local organizations to market the program and all of it’s’ offerings. • The program’s Dietitian is now participating in the SMG Neurology ALCS monthly clinic at SPAH. • Last fall, we hosted the First Annual Sentara Comprehensive Weight Loss Solutions Obesity Conference. This was a CME event targeting health care professionals in Southeastern Virginia/Northeastern North Carolina. Assessing opportunity to start group visits in SMG PCP practices. It was well attended and we are reviewing the pros and cons of the event in order to improve for next year’s event. • www.sentaraweightloss.com • Continue to work with Marketing colleagues to analyze patient access portals to programs and implement strategies to prevent fallout and loss of patient interest. • Offering Nutritional Counseling packages similar to our exercise packages to bring more options to those patients seeking more education on managing a proper diet. • Offering Online Information Sessions to our patients to widen our patient access portal to our surgery program. • Planning for First Annual Walk for a Healthier Tomorrow. We will invite both patients and staff to walk at Mount Trashmore for a 5k walk/run. • We have completed a couple luminary site visits where we have hosted other organizations to discuss the program’s success and how we designed our program

Health Problem	Three Year Implementation Strategies	Progress
		<p>and came to be in existence.</p> <ul style="list-style-type: none"> • We became a site for the Buy Fresh Buy Local program which supports the local fresh food initiative within the Hampton Roads community and Community Supported Agriculture (CSA) program. • We have resumed planning for the 2nd Annual SCWLS Obesity Conference. • Dr. Wohlgemuth and Jeanne Sander, RN both participated in giving presentations at the Virginia Bariatric Society (VBS) Conference. Dr. Wohlgemuth also gave a talk during community health night at Sentra Halifax hospital. • The program will be featured in an article in the National Bariatric publication called, “Bariatric Times”. • The Exercise Specialist and Program Dietitian have been making site visits to PCP offices to inform the community physicians of our offerings
Problem #3: Behavioral Health/Depression/Substance Abuse		
3.1	<p>Collaborate with community and agencies to identify needs in psychiatric services and develop action items to close gaps.</p> <ul style="list-style-type: none"> • Continue to meet with community providers of psychiatric services to explore opportunities for collaboration to meet community needs • Create a resource guide of existing community resources <p>Identify gaps in psychiatric services and evaluate feasibility for additional services</p>	<ul style="list-style-type: none"> • Participating in VHHA monthly meetings to stay apprised of state-level changes • SMG psychiatry services - 3rd psychologist at 1080 First Colonial Road office in July/August. 2 more at Little Neck and NDC offices • Participating in the executive HPRV regional meeting with psychiatry providers and CSB’s for the region to identify community resources and needs. • Panel expert at 33rd Forum on aging on March 3rd, 2015. Focus for panel was be aging and behavioral health. • Sentara Behavioral Health Services corporate sponsor for the Suicide/Depression out of Darkness walk in September 2015. Fundraising at SNGH \$1,300 with a team of walkers including Women’s Health staff. • Assessing opportunities to increase specialty mental health support to cancer patients
3.2	<p>Support and implement as appropriate the system Behavioral Health strategic plan as it relates to our community</p>	<ul style="list-style-type: none"> • Integrate PERs (crisis screeners) via telehealth in LifeCare facilities. • Sentara Healthcare PERS team began at SNGH on September 1st, 2014. • Specialize psych units at each facility. SNG likely to maintain adult general, substance abuse, ECT, and potentially gero • Successful transition from CSB prescreening to Sentara PERS prescreening. Admissions in September were all from a Sentara ED or medical unit. • Initial meeting for on unit community sponsored Alcoholics Anonymous –further meetings to schedule so we can implement a continuum of care with AA beginning in hospital and then referring them to the community program on discharge.

Health Problem	Three Year Implementation Strategies	Progress
		<ul style="list-style-type: none"> Behavioral Health HPT reviewing and exploring program standardization and specialization to increase/improve program specialties and meet the needs of Hampton Roads BH community needs. Standardizing direct admission process for Sentara Healthcare to streamline admission process for patients that have been seen by a provider. Bypassing Emergency Room Medical Clearance. Addition of a 3rd LCSW to assist with family conferences to identify and strategize a strong after care plan. Methodology of treating family and not just patient.
3.3	Continue to operate a behavioral health unit that supports acute patient demand.	<ul style="list-style-type: none"> Licensed for 34 beds. Operating 24 beds. EVMS hired 5th resident who is assigned to the ED Monday-Friday 8 AM- 5PM to facilitate admissions from the ED. Actively exploring addition of fourth Attending to increase census to full licensed bed capacity. Hope to increase census on 8B
3.4	Implement process to improve assessment of obstetric patients who are at risk for post-partum depression.	<ul style="list-style-type: none"> Screening tool implemented on all postpartum moms prior to discharge Education completed to EVMS residents and mother/baby staff. Implemented a Postpartum Depression Support Group Behavioral Health Unit of Choice for pregnant and post-partum patients. Continued collaboration between psychiatry and OB/GYN.
Problem #4: Heart Disease		
4.1	Support and implement as appropriate the system Cardiac Services Strategic Plan as it relates to our community.	<ul style="list-style-type: none"> Dedicate more resources to community based services which do not have an obvious source of economic return (e.g., education, identifying and managing at-risk populations, etc.) Continue to enhance our community outreach initiatives that are embedded in our strategic plan. Initiatives begun in the following: <ol style="list-style-type: none"> Added more outreach locations (Port Warwick & SPA) Added cardiologists to defined areas to improve community access – Kitty Hawk, Williamsburg & Franklin Begun assessing and integrating cardiac services at SAMC Regionalize TAVR – Williamsburg Expanded CTA imaging as a satellite – SVBGH & SWRMC Expanded access to EP services in the Williamsburg/Careplex community – Dr. Grammes <p>Based on the Board of Regents mandate requiring hands-only instruction in</p>

Health Problem	Three Year Implementation Strategies	Progress
		cardiopulmonary resuscitation (CPR) and instruction in the use of automated external defibrillators (AEDs) in senior high schools; the Cardiac team will be collaborating with targeted high schools in Norfolk to teach high school student “hands only CPR” and correct use of AEDs. This initiative to begin in November 2016 in collaboration with the AHA.
4.2	Work with Community Health and Prevention to provide on-site screenings and self-learning programs.	<ul style="list-style-type: none"> • Develop community outreach programs (Yoga, Healthy Cooking, etc) • Heart Awareness Month - February "28 days of Heart" > 200 participants in SHH lobby event, social media facts throughout month • Systemizing community events throughout Hampton Roads, Blue Ridge, Northern Virginia markets • Formal Community “wellness” center proposal and pro forma in draft. Plan to finalize by July <p>In an effort to promote “health & wellness” the system cardiac program will expand to include the development and roll-out of the Dean Ornish Model which will be open to any member of the Hampton Roads community. This model offers a blend of exercise, diet & nutrition, Yoga etc. Sentara Princess Ann will initiate this program with the goal being to put it in strategic locations that benefit all of Hampton Roads.</p>
4.3	Participate in the American Heart Association Run-Walk for Health	<ul style="list-style-type: none"> • Planning for Q3 <p>Participated in the Annual American Heart Walk on October 10, 2015. In addition to free giveaways, focus was on sharing educational materials related to heart attack (911 initiatives).</p>
4.4	Sponsored Pulmonary Artery Hypertension awareness walk	<ul style="list-style-type: none"> • Over 200 participants at Sentara Heart Hospital annual PAH walk to provide support and awareness for the community of Hampton Roads
Problem #5: Cancer		
5.1	Support and implement as appropriate the system Cancer Strategic Plan as it relates to our community	<ul style="list-style-type: none"> • System strategic plan approved in 2015 Q4.
5.2	Partner with EVMS on Head and Neck Collaboration	<ul style="list-style-type: none"> • Head and Neck screening events in 2014 and 2015. Included a tobacco cessation counselor to the screening event in 2015. Local ENT and EVMS head and neck surgeons collaborated to provide first head and neck screening on the Peninsula. 99 patients screened, 15 abnormal

Health Problem	Three Year Implementation Strategies	Progress
		<ul style="list-style-type: none"> • Added a community education event with 3 surgeons and 1 endocrinologist speaker in 2015. • Implemented psychosocial distress screening program in 2013. Program expanded system-wide and recognized as a strong model during the Commission on Cancer reaccreditation visit. • EVMS recruited additional surgeon in 2013 • Identified and collecting key quality metrics • Collaborating on clinical trials and discussing opportunities to collaborate on translational research • Educating the community and providers about the specialized Head and Neck care available at SNGH/EVMS. Only Multidisciplinary team in Hampton Roads • New thyroid cancer support group started in September 2014 (only one in region) • Evaluating participation with other large institutions in the Thyroid Cancer Care Collaborative • Drs. Karakla and Lieb presented at the American College of Surgeons' meeting in 2014 • Offering tobacco cessation programs in 2015 • Implementing a Second Opinion Clinic • Hired a new NP to care for patients throughout the continuum of care.
5.3	Develop comprehensive Thoracic program	<ul style="list-style-type: none"> • Multidisciplinary tumor conference and quality review committee • Participated in community events to include Race for Breath, Shine a Light and WVEC Live Chat in 2014. Participated in Race for Breath and provided lung cancer screening and tobacco cessation educational materials to all race participants in 2015. • Opened a NCI cooperative group clinical trial • Assessing multidisciplinary clinic approach • New NP navigator oriented. Intake/ancillary orders process developed. Surgical follow-up clinic implemented. • Collaborating with system to prepare for CT Lung Screening Program • Offering tobacco cessation programs in 2015
5.4	Continue to provide Navigator service to help newly diagnosed cancer patients navigate through the health care system	<ul style="list-style-type: none"> • In 2015, expanded navigation to all oncology disease sites. Expanded navigation in 2014 Q2 to include breast, liver, and pancreatic. Expanded in 2014 Q3 to include thoracic. • Tech navigation pilot proved successful for diagnostic breast patients. • Implemented psychosocial distress screening program in SNGH RadOnc to ensure

Health Problem	Three Year Implementation Strategies	Progress
		patients have access to appropriate resources in 2014
5.5	Work with Community Health and Prevention to provide on-site screenings and self-learning programs	<ul style="list-style-type: none"> ● Collaborated with Community Health and Prevention to increase mammography screening rates through the American Cancer Society/Walmart grant ● Tobacco cessation materials available on Sentara.com ● Community Health and Prevention is assisting with community awareness of cancer screening event opportunities
5.6	Continue to hold community cancer screenings	<ul style="list-style-type: none"> ● In 2015, offered free head and neck/thyroid (99 screened, 15 abnormal), prostate (56 screened, 7 abnormal), and skin (46 screened, 7 abnormal) cancer.
5.7	Increase community awareness of cancer support groups	<ul style="list-style-type: none"> ● Utilizing new SNGH Facebook page ● Providing information at health fairs ● Incorporating into individualized breast education plan ● Provided information to behavioral health social workers for referrals as appropriate ● Started a new leukemia and lymphoma support group. ● Started a new thyroid cancer support group ● Implemented a new caregiver support group on Facebook based upon feedback from caregivers that support is needed but it's difficult to go somewhere to meet.
5.8	Enhance the role of the SNGH Cancer Patient and Family Advisory Council	<ul style="list-style-type: none"> ● 2 committee members are liaisons to SNGH PFAC ● Provided feedback on psychosocial distress tool, survivorship celebration and breast, liver and pancreatic education, offerings in gift shop and Sentara to Home, RadOnc healing environment, PFAC recruitment plans and brochure, patient satisfaction opportunities for improvement and new rounding tool script
5.9	Seek grant opportunities to provide breast cancer screenings for indigent patients	<ul style="list-style-type: none"> ● Received a grant from American Cancer Society to provide 50 free screenings.in 2014 ● Partnering with Komen Tidewater and EVMS Surgery to offer free mammograms and clinical breast exams to qualified uninsured patients in 2015 ● Continued collaboration with Every Woman's Life and the Sentara Breast Evaluation Program to provide care for indigent breast patients ● Applied for a colorectal screening grant through the Virginia Department of Health in 2014. ● Collaborating with EVMS on a colorectal screening grant proposal in 2015
6.0	Create a Cancer Rehab program	<ul style="list-style-type: none"> ● Cancer therapy/exercise screening program started 2014. ● Providing lymphedema support garments to uninsured patients.