Virginia Department of Health

Plan for Well-Being Annual Update 2020

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	Virginia's Plan For Well-Being Measures*	2020 GOAL	2016 Baseline	2017 Update	2018 Update	2019 Update	2020 Update	Trend
	Well-Being: Percent of Adults in Virginia Who Report Positive Well-Being	70%	68% (2016)	68% (2016)	66.80% (2017)	73.30% (2018)	68.30% (2019)	
AIM 1 » Healthy, Connected Communities	Percent of High School Graduates Enrolled in an Institution of Higher Education Within 16 Months After Graduation	75.0%	70.9% (2013)	72.0% (2014)	72.0% (2015)	77.7% (2018)	N/A	
	Percent of Cost-Burdened Households (More Than 30% of Monthly Income Spent on Housing Costs)	29.0%	31.4% (2013)	31.0% (2015)	30.0% (2016)	28.5% (2017)	27.5% (2019)	
	Consumer - Health Opportunity (Townsend Material Deprivation Index)	3.93	4.06 (2014)	4.08 (2015)	4.03 (2016)	3.94 (2017)	4.3 (2018)	
	Economic - Health Opportunity (Gini Income Inequality Index)	38.90	39.20 (2014)	39.56 (2015)	39.81 (2016)	39.91 (2017)	40.13 (2018)	
	Percent of Health Planning Districts That Have Established an On-going Collaborative Community Health Planning Process	100.0%	43.0% (2015)	82.8% (2016)	88.0% (2017)	97.0% (2018)	97% (2019/2020)	
AIM 2 » Strong Start for Children	Pregnancies Per 1,000 Females Ages 15 to 19 Years Old	25.1	27.9 (2013)	24.9 (2014)	20.9 (2016)	19.7 (2017)	19.2 (2018)	
	Percent of Children Who Do Not Meet the PALS-K Benchmarks in the Fall of Kindergarten and Require Literacy Interventions	12.2%	12.7% (2014-2015)	13.8% (2015-2016)	15.9% (2017-2018)	17.0% (2018-2019)	15.7% (2019-2020)	
	Percent of Third Graders Who Pass the Standards of Learning Third Grade Reading Assessment	80.0%	69.0% (2014-2015)	75.4% (2015-2016)	74.6% (2016-2017)	71.0% (2018-2019)	N/A	
	Black Infant Deaths Per 1,000 Black Live Births	5.2	12.2 (2013)	11.1 (2015)	10.7 (2016)	9.6 (2017)	9.7 (2018)	
AIM 3 » Preventive Actions	Percent of Adults Who Did Not Participate In Any Physical Activity During the Past 30 Days	20.0%	23.5% (2014)	25.1% (2015)	23.3% (2016)	22.0% (2018)	25.3% (2019)	
	Percent of Adults Who Are Overweight or Obese	63.0%	64.7% (2014)	64.1% (2015)	65.5% (2016)	66.3% (2018)	66.4% (2019)	
	Percent of Households That Are Food Insecure For Some Part of the Year	10.0%	11.9% (2013)	11.2% (2015)	10.6% (2016)	10.2% (2017)	9.9% (2018)	
	Percent of Adults Who Currently Use Tobacco	12.0%	21.9% (2014)	16.5% (2016)	17.9% (2017)	17.3% (2018)	16.4% (2019)	
	Percent of Adults Who Receive an Annual Influenza Vaccine	70.0%	48.2% (2014-2015)	46.0% (2015-2016)	47.9% (2016-2017)	50.6% (2018-2019)	55.7% 2019-2020	
	Percent of Adolescent Girls (13-17 Years Old) Who Receive Two Doses of HPV Vaccine	80.0%	--	41.1% (2016)	68.0% (2017)	60.1% (2018)	52.5% (2019)	
	Percent of Adolescent Boys (13-17 Years Old) Who Receive Two Doses of HPV Vaccine	80.0%	--	37.4% (2016)	50.4% (2017)	55.6% (2018)	57.8% (2019)	
	Percent of Adults Ages 50-75 Years Old Who Receive Colorectal Cancer Screening	85.0%	69.1% (2014)	70.3% (2016)	70.3% (2016)	70.1% (2018)	Not asked in 2019	
	Average Years of Disability-Free Life Expectancy	67.3	66.1 (2013)	66.0 (2014)	68.0 (2016)	67.9 (2017)	67.9 (2018)	
	Percent of Adults Who Report at least One (1) Adverse Childhood Experience (ACEs)	45.0%	--	60.4% (2016)	61.2% (2017)	60.7% (2018)	62.8% (2019)	
AIM 4 » System of Health Care	Percent of Adults Who Have a Regular Health-care Provider	85.0%	69.3% (2014)	71.1% (2015)	71.7% (2016)	71.0% (2018)	70.2%% (2019)	
	Avoidable Hospital Stays for Ambulatory Care Sensitive Conditions Per 100,000 Persons	1,100	1,294 (2013)	1,151 (2014)	1,277 (2016)	1,330 (2017)	1,224 (2018)	
	Avoidable Deaths from Heart Disease, Stroke or Hypertensive Disease Per 100,000 Persons	40.0	59.97 (2013)	45.99 (2015)	45.94 (2016)	47.07 (2018)	46.03 (2019)	
	Mental Health and Substance Use Disorder Hospitalizations Per 100,000 Adults	635.1	668.5 (2013)	760.4 (2015)	803.4 (2016)	795.3 (2017)	796.5 (2019)	
	Percent of Adults Who Report Having One or More Days of Poor Health That Kept Them From Doing Their Usual Activities During the Past 30 Days	18.0%	19.5% (2014)	19.0% (2015)	20.9% (2017)	23.3% (2018)	23.8% (2019)	
	Percent of Heath-care Providers Who Have Implemented a Certified Electronic Health Record	90.0%	70.6% (2014)	73.4% (2015)	82.0% (2016)	86.0% (2017)	86.0% (2017)	
	Number of Entities Connected Through Connect Virginia HIE Inc., and the Electronic Health Information Exchange, and the National e-Health Exchange	7,600	3,800 (2015)	4,832 (2016)	6,289 (2017)	5,107 (2018)		
	Number of Local Health Districts That Have Electronic Health Records and Connect to Community Providers Through Connect Virginia	35	0 (2015)	0 (2016)	0 (2017)	0 (2018)	0 (2019)	
	Percent of Hospitals That Meet the State Goal for Prevention of Hospital-onset *Clostridium difficile* Infections	100%	64.9% (2015)	65.4% (2016)	82.1% (2017)	87.2% (2018)	96.2% (2019)	

**Virginia's Plan for Well-Being 2016–2020 and Technical Report can be found online at http://virginiawellbeing.com under Measures.*

INTRODUCTION

The COVID-19 pandemic has consumed public health for most of 2020; however, the work towards health improvement in general remains. This annual report summarizes information regarding the progress towards goals and objectives in Virginia's State Health Improvement Plan, known as the Plan for Well-Being. *This report does not provide a comprehensive review of the COVID-19 response, which is summarized independently in the Commissioner's Report delivered to the Board of Health during its December 2020 meeting.*

The Plan for Well-Being outlines a path for improving the health and well-being of Virginians through four aims, 13 goals, and 29 measures. Virginia's Plan for Well-Being lays out the foundation for giving everyone a chance to live healthy life by: (1) Factoring health into policy decisions related to education, employment, housing, transportation, land use, economic development, and public safety; (2) Investing in the health, education, and development of Virginia's children; (3) Promoting a culture of health through preventive actions; and (4) Creating a connected system of healthcare. The measure of success is that the percent of adults in Virginia who report positive well-being increases.

The 2020 Annual Report indicates the updated figure for each measure in The Plan, with the most current data available. In some instances, this report also includes additional analysis of metrics, to better understand any disparities or trends in subpopulations. The accompanying technical document provides detail on values, data sources, and descriptions of each measure. Notably, many of the data sources for The Plan have a natural lag and are data from years prior to 2020.

Of the 29 measures, when compared to baseline measures reported in 2016, 15 show improvement, although at different degrees. Of these, three measures (Disability-Free Life Expectancy, Percent of High School Graduates Enrolled in an Institution of Higher Learning, and Teen Pregnancy Rates) have exceeded the goal that was originally set forth in The Plan. The remaining 14 measures persist as areas of needed focus, in that they have evidenced little to no change, or in some cases, have decreased further away from the intended goal. Some measures show fluctuating trend; the below categorization reflects comparison from the 2016 baseline to 2020 values.

Improving Measures:

- *Percent of High School Graduates Enrolled in an Institution of Higher Education within 16 months after graduation**
- Percent of Cost Burdened Households
- Consumer Opportunity: Townsend Material Deprivation Index
- Percent of Health Districts that Have Established a Collaborative Community Health Planning Process
- Pregnancies Per 1,000 Females Ages 15-19 years old
- Black Infant Deaths Per 1,000 Black Live Births
- Percent of Households That Are Food Insecure for Some Part of the Year
- Percent of Adults Who Currently Use Tobacco
- Percent of Adolescent Girls Who Receive Two Doses of HPV Vaccine
- Percent of Adolescent Boys Who Receive Two Doses of HPV Vaccine
- Percent of Adults Who Receive an Annual Influenza Vaccine
- Average Years of Disability Free Life Expectancy
- *Percent of Healthcare Providers Who Have Implemented a Certified Electronic Health Record*
- *Number of Entities Connected through Connect Virginia, HIE, and The Electronic HIE and the National e-Health exchange*
- Percent of hospitals that meet the State Goal for Prevention of Hospital-Onset *Clostridium difficile* Infections

Areas of Needed Improvement (Little to no change or moving away from the goal):

- Percent of Adults Who Report Positive Well Being
- Economic Opportunity Index: Gini Income Inequality Index
- Percent of Children who do not meet the PALS-K Benchmark
- *Percent of Third-Graders who pass the Standards of Learning Reading Assessment*
- Percent of Adults Who Did Not Participate in Any Physical Activity During the Past 30 days
- Percent of Adults who are Overweight or Obese
- *Percent of Adults Who Receive a Colorectal Cancer Screening*
- Percent of Adults who Report at least one Adverse Childhood Experience (ACE)
- Percent of Adults who have a regular health care provider
- Rate of Avoidable Hospital Stays for Ambulatory Care Sensitive Conditions
- Rate of Avoidable Deaths from Heart Disease, Stroke or Hypertensive Disease
- Rate of Mental Health and Substance Use Disorder Hospitalizations
- Percent of Adults Who Report Having 1+ Days of Poor Health that kept them from doing their usual activities
- Number of local health districts that have an electronic health record (EHR)

**Italicized measures are those that had no data available for the 2020 update. Trend was assessed based on the last available data*.

WELL-BEING

Well-being is an indicator of life satisfaction, defined as living an ideal life in excellent conditions and having the important things desired in life. This measure gives us a general context to the areas of improvement and focus within the four aims of the Plan for Well-Being. Well-being in Virginia remained relatively steady between 2016-2019; in 2018, over 73% of adults reported positive well-being. In 2019, that number dropped slightly to 68.30%, which is slightly below the PFWB's goal of 70% by 2020.

AIM 1 — Healthy, Connected Communities

Goal 1.1: Virginia's Families Maintain Economic Stability

Economic stability for families is a critical aspect of health and well-being as individuals and in communities. Social conditions that promote equitable economic stability include education, affordable housing, employment, transportation, and adequate income. In many ways, Virginia families and communities are improving yet inequalities exist and should remain areas of focus.

- In 2019, the percentage of high school graduates enrolled in an institution of higher education within 16 months after graduation was 77.7%, exceeding the PFWB's 2020 goal of 75%. This data has not been reported by the Department of Education (DOE) for 2020.
- The percentage of cost-burdened households (more than 30% of monthly income spent on housing costs) has increased slightly to 27.5% in 2019 from the 28.5% in 2017 but we are lower than the PFWBs 2020 goal of 29%.
- The Townsend Material Deprivation Index score increased from 3.94 in 2017 to 4.30 in 2018, indicating that unemployment, overcrowding, non-car ownership, and non-home ownership has marginally improved.
- The Gini Income Inequality Index for 2018 is 40.13. This indicates that income inequality slightly increased.

"Cost-burdened households" are those that spend more than 30% of their monthly income on housing costs. The cost of basic needs matters for financial security and housing is often one of the largest expenses families face. Low-income households are more likely to have larger portions of their income spent on housing, which can make it difficult to meet other basic needs.[2] Table 1 indicates that of those households making less than $20,000 per year, 80.86% are considered cost-burdened, compared to only 6.81% of households that earn $75,000 or more. The majority (69.52%) of these higher earning households spend less than 20% on housing costs as a percent of their household income. The overall statewide percentage of cost-burdened households may be generally decreasing, but these data by income level indicate there is significant disparity and inequity when it comes to affordable housing in Virginia.

Table 1 Cost Burdened Households
Data Source: American Community Survey, 1-Year Estimates, 2019

Total Population			
Income Level	**Less than 20%**	**20-29%**	**30% or more**
Less than $20,000	7.91%	11.23%	80.86%
$20,000 to $34,999	20.81%	16.40%	62.78%
$35,000 to $49,999	29.75%	23.33%	46.92%
$50,000 to $74,999	40.10%	31.10%	28.79%
$75,000 or more	69.52%	23.67%	6.81%

Table 2: Cost Burdened Households
Data Source: American Community Survey, 1-Year Estimates, 2019

Owners Only			
Income Level	**Less than 20%**	**20-29%**	**30% or more**
Less than $20,000	14.12%	15.36%	70.52%
$20,000 to $34,999	35.46%	18.36%	46.19%
$35,000 to $49,999	42.56%	20.09%	37.34%
$50,000 to $74,999	50.12%	24.59%	25.29%
$75,000 or more	71.55%	21.62%	6.83%

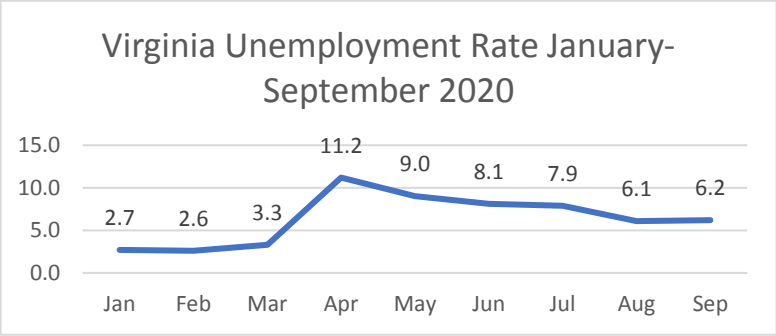
Table 3: Cost Burdened Households Owner
Data Source: American Community Survey, 1-year Estimates, 2019

Renters Only			
Income Level	**Less than 20%**	**20-29%**	**30% or more**
Less than $20,000	3.38%	8.23%	88.39%
$20,000 to $34,999	4.90%	14.28%	80.83%
$35,000 to $49,999	12.84%	27.59%	59.56%
$50,000 to $74,999	23.25%	42.06%	34.69%
$75,000 or more	61.66%	31.59%	6.75%

Job losses as a result of the COVID-19 Pandemic continues to impact some Virginians ability to afford housing costs:

- Households most impacted by job losses are more likely to be renters. Conversely, industries that have been relatively less impacted include workers that are more likely to be homeowners. About 44% of workers in the Leisure & Hospitality sector are homeowners, compared to 73% of workers in the Professional & Technical Services sector. [1]
- Virginia unemployment rates reached a high of 11.2% in April as a result of COVID-19 but have continued to decrease to 6.2% in December (Figure 1).
- The number of households that have little or no confidence in their ability to pay their next rent or mortgage payment on time in Virginia during the pandemic was highest (24%) in July 2020 and lowest (16%) in October 2020 (Table 4).
- Nearly half of adults living in households with children birth to age 17 reported that they or a household member experienced a loss of employment income since March 13, 2020 (Table 5)

Figure 1 Virginia Unemployment Rate
Data Source: U.S Bureau of Labor Statistics, 2020



[1] https://virginiarealtors.org/2020/05/20/state-of-virginias-economy-update-in-the-midst-of-covid-19/

Table 4 Adults living in households with children who have little or no confidence in their ability to pay their next rent or mortgage payment on time in Virginia
Data Source: Population Bureau Analysis of U.S Census Household Pulse Survey, 2020

Location	TimeFrame	Data
Virginia	Apr 23-May 12, 2020	20%
Virginia	May 7-May 19, 2020	23%
Virginia	May 14-May 26, 2020	19%
Virginia	May 21-Jun 2, 2020	17%
Virginia	May 28-Jun 9, 2020	17%
Virginia	Jun 4-Jun 16, 2020	17%
Virginia	Jun 11-Jun 23, 2020	18%
Virginia	Jun 18-Jun 30, 2020	18%
Virginia	Jun 25-Jul 7, 2020	22%
Virginia	Jul 2-Jul 14, 2020	24%
Virginia	Jul 9-Jul 21, 2020	22%
Virginia	Aug 19-Sep 14, 2020	21%
Virginia	Sep 2-Sep 28, 2020	19%
Virginia	Sep 16-Oct 12, 2020	16%

Through a new state program, Virginia Housing, (formerly the Virginia Housing Development Authority) is administering relief for renters experiencing financial difficulties due to the COVID-19 pandemic. Through the Virginia Rent and Mortgage Relief Program (RMRP), eligible landlords can apply on behalf of their tenants to receive financial assistance for past-due rental payments dating back to April 1, 2020.[2]

Table 5: Adults living in households with children who lost employment income since March 13, 2020 in Virginia
Data Source: Population Reference Bureau Analysis of U.S Census Household Pulse Survey, 2020

Location	Timeframe	Data
Virginia	Apr 23-May 12, 2020	49%
Virginia	May 7-May 19, 2020	53%
Virginia	May 14-May 26, 2020	52%
Virginia	May 21-Jun 2, 2020	48%
Virginia	May 28-Jun 9, 2020	43%
Virginia	Jun 4-Jun 16, 2020	40%
Virginia	Jun 11-Jun 23, 2020	43%
Virginia	Jun 18-Jun 30, 2020	49%
Virginia	Jun 25-Jul 7, 2020	53%
Virginia	Jul 2-Jul 14, 2020	53%
Virginia	Jul 9-Jul 21, 2020	48%
Virginia	Aug 19-Sep 14, 2020	52%
Virginia	Sep 2-Sep 28, 2020	49%
Virginia	Sep 16-Oct 12, 2020	46%

Goal 1.2: Virginia's Communities Collaborate to Improve the Population's Health

All local health districts continue to participate in some form of a community health assessment and community health improvement process. As a result, this has enabled better understanding of the capacity and resources needed to address priority health issues and populations. In addition, we have been able to identify issues that are common in communities in communities throughout the commonwealth. The issues identified across a majority of community health assessments include obesity, smoking, behavioral health,

[2] Virginia Housing: https://www.vhda.com/BusinessPartners/PropertyOwnersManagers/Pages/RMRP.aspx

chronic diseases, as well as integrated healthcare, continuum of care and strategies to address cultural, economic, geographic and racial health disparities.

Partnering for a Healthy Virginia

Partnering for a Health Virginia (PHV) was founded by VDH and the Virginia Hospital and Healthcare Association (VHHA) to impact population health efforts and activities. The goal of PHV is to ensure that every Virginian has a fair and equitable opportunity to achieve optimal health, making Virginia the healthiest state in the nation. Partnering for a Healthy Virginia is Virginia's state-level population health improvement collaborative and continues to grow and expand partnerships, including stakeholders from local health districts, hospitals, community health coalitions, businesses, and foundations. In 2020, PHV continued its work towards population health improvement. In late 2020, CARES Relief Funds were awarded to support the implementation of an electronical referral system to connect patients to needed social services. This need was identified through PHV's E-Referral committee as a tool to help address health-related social needs by more efficiently connecting patients to needed services to improve their health.

Population Health Assessment and Improvement Learning Collaborative

Under PHV, a Population Health Assessment and Improvement Learning Collaborative was formed to bridge local health departments and hospitals together on assessing and improving the health and well-being with their communities. In 2019-2020, PHV Collaborative members learned best practices and strengthened partnerships through trainings, webinars and peer sharing. A key achievement of the PHV Collaborative was the development of a core set of indicators to be analyzed in every hospital and health department needs assessment. In the upcoming year, the group will work to design a portal to house core indicators, and continue to support members in the following areas:

1. Strategic collaboration
2. Internal team strategy
3. Data development
4. Obtaining community input
5. Efficient formats for reporting
6. Effective strategies for action planning
7. Evidence-informed intervention models
8. Effective strategies for evaluation
9. Addressing social determinants of health
10. Innovative ways to engage in community assessment and improvement despite COVID-19 related barriers.

State Health Assessment and Improvement Plan (SHA-SHIP)

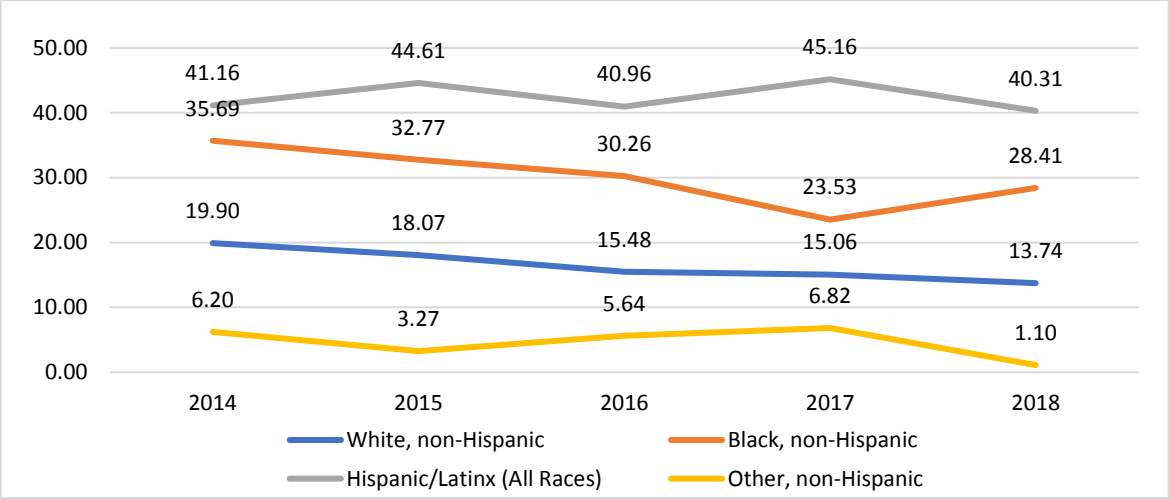
The State Health Assessment and Improvement Plan process kicked off with a meeting of a multisector Advisory Council at the end of 2019. Due to staffing vacancies and the COVID-19 pandemic, the assessment will continue through 2021 using a framework grounded in health equity. The Advisory Council will assess the Commonwealth's primary health problems and identify strategies to address the root causes. This work will continue to be supported by PHV. The goal is to introduce the next version of the Plan for Well-Being in January 2022. The pandemic has given us the opportunity to learn best practices for conducting assessments utilizing virtual tools. As a result, VDH will be able to reach a wider audience and obtain rich and timely data to assess how the pandemic has affected Virginians.

AIM 2 — Strong Start for Children

Goal 2.1: Virginians Plan Their Pregnancies

Teen pregnancy continues to decline, reaching an all-time low at 19.2 per 1,000 females ages 15 to 19 years old (2019). There continues to be a disparity in teenage pregnancy rates by race (figure 2) between black and Hispanic teens and their white counterparts.

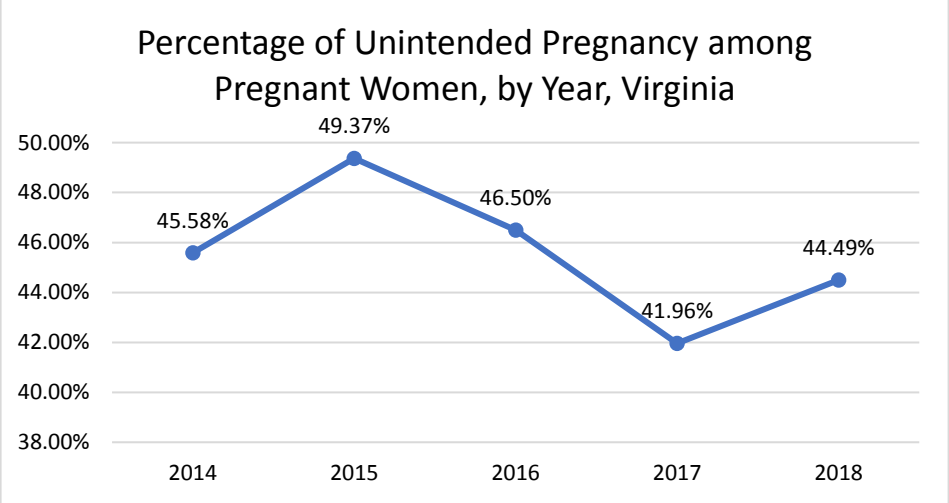
Figure 2: Teenage Pregnancy by Race, Rates per 1,000 Females Age 15-19 Years
Data Source: Virginia Department of Health, Vital Statistics



VDH attributes the decline in teen pregnancy rates to many influences, including education and contraception. During SFY20, VDH offered numerous adolescent health initiatives to increase access to positive youth development programs and medically accurate sex education, both of which work to lower unintended pregnancies among teens. Specifically, VDH launched a sexual health text line to allow youth across the Commonwealth to text their sexual health questions to a trained health educator. VDH also worked to launch a new comprehensive sex education program, which will begin in SFY21.

In 2018, less than half (44.49%) of women reported that they were not trying to get pregnant at the time that they did (Figure 2). This percentage has decreased since 2016, when the rate was 46.50%.

Figure 3: Percentage of Unintended Pregnancy
Data Source: Virginia Pregnancy Risk Assessment Monitoring



The VDH Title X family planning program continues to offer confidential family planning services at approximately 150 clinical locations throughout the Commonwealth to patients regardless of ability to pay. All Title X clinics offer a broad range of contraceptive methods on a sliding scale.

The Virginia Long Acting Reversible Contraception (LARC) Initiative added six new agencies to its network of providers, bringing the total number of providers to eighteen. Any uninsured person under 250% of the federal poverty level can make an appointment at any of these eighteen funded organizations and receive a hormonal IUD or implant at no cost. In SFY21, the program was expanded to include all FDA-approved methods of contraception.

Goal 2.2: Virginia's Children Are Prepared to Succeed in Kindergarten

Children not meeting the PALS-K benchmarks in the fall of Kindergarten decreased during the 2019-2020 school year to 15.7% from the 2018-2019 school year rate of 17%. This is still below the PFWB 2020 goal of 12.2%. This measure is an indicator of Kindergarten readiness, placing an emphasis on preschool enrollment and participation during the early childhood years. The Virginia Department of Health continues to support the connection between health and education. VDH serves on many cross-agency committees, including the Leadership Council for Home Visiting, and the School Readiness Committee of the Governor's Children's Cabinet; these groups address the myriad of drivers that impact children's health, including school readiness and food security.

The Plan also monitors the percentage of third graders who pass the Standards of Learning (SOL) reading assessment. This measure has shown minimal improvement, from 69% (2014-2015) to 71% (2018-2019). The downward trend in the kindergarten measure and the stagnant nature of the third-grade metric are consistent with the national decline in reading proficiency. There are cultural, social and economic factors that contribute to this disparity, and VDH will continue to collaborate with the Virginia Department of Education and other partners. The state canceled this year's SOLs after the U.S. Department of Education granted Virginia a waiver, relieving the state of its requirements under Every Student Succeeds Act, the federal government's primary K-12 education law.

Goal 2.3: The Racial Disparity in Virginia's Infant Mortality Rate is Eliminated

The infant mortality rate among Black infants has improved from 12.2 in 2013 to 9.12 deaths per 1,000 Black live births in 2018. This decrease is an encouraging trend; however, there is still disparity in comparison to the infant mortality rate among White infants. In 2018, there were 4.66 deaths per 1,000 White live births, thus perpetuating the disparity.

Figure 4: Infant Mortality Rate per 1,000 Live Births
Data source: Virginia Department of Health, Division of Vital Statistics

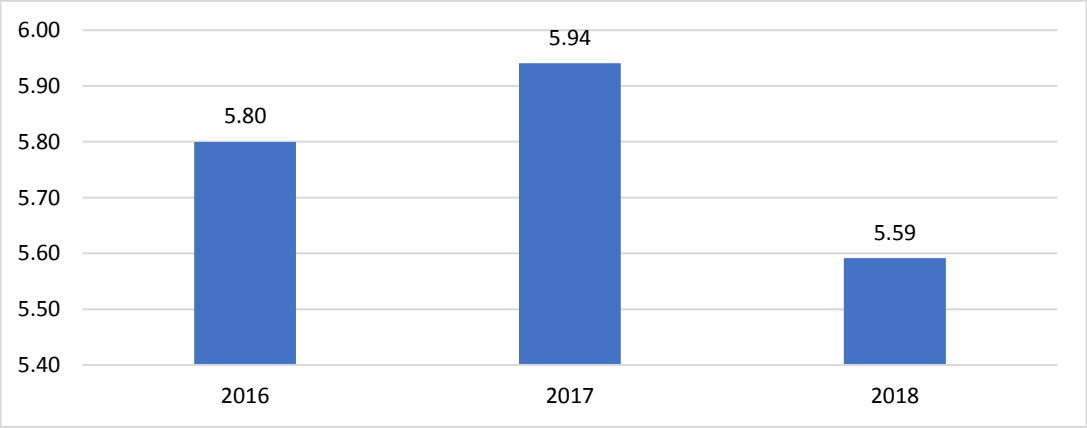
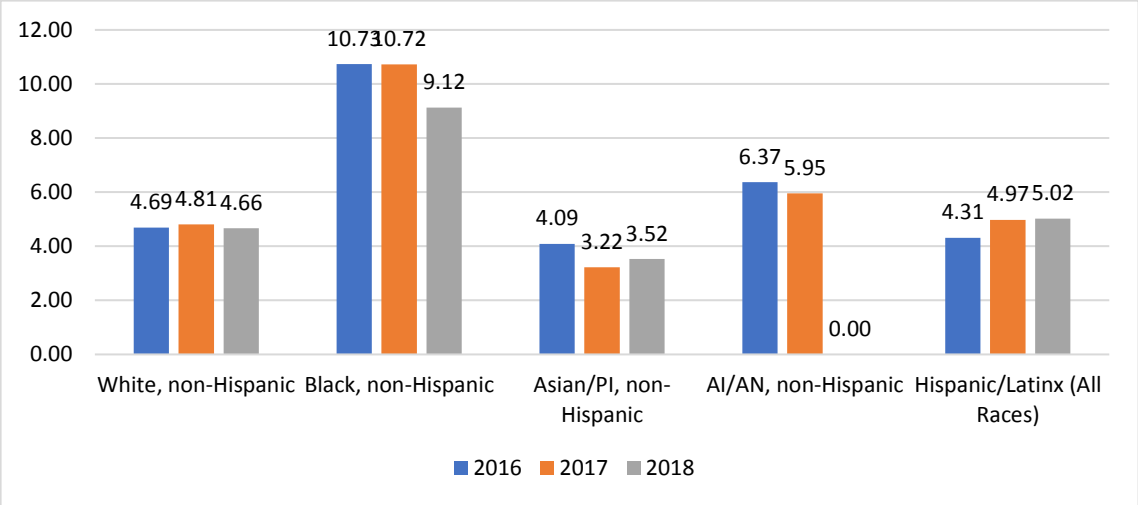


Figure 5: Infant Mortality Rate per 1,000 Live Births by Race
Data Source: Virginia Department of Health, Division of Vital Statistics

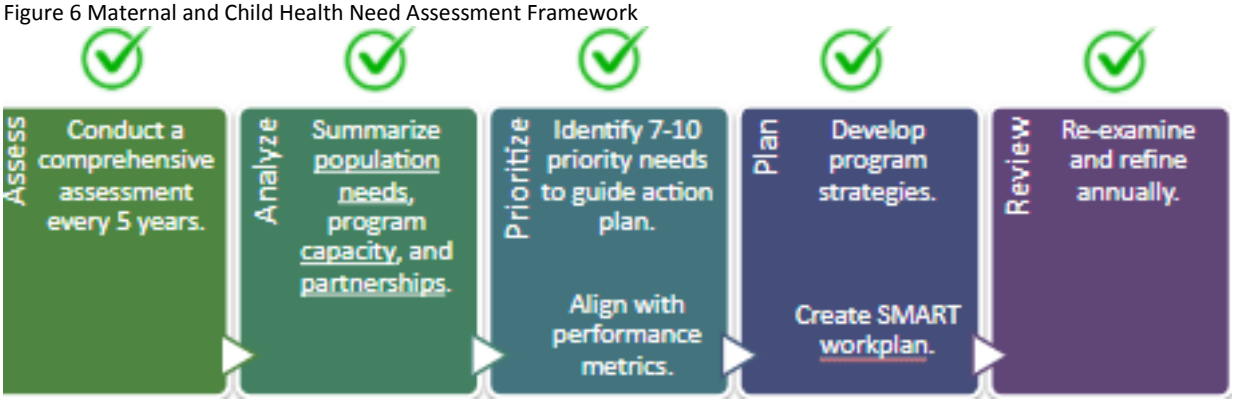


- VDH is partnering with the Virginia Hospital and Healthcare Association to improve equity in maternal health outcomes by undertaking quality improvement in targeted hospitals through the development of hospital-community partnerships and addressing upstream social determinants of health that have a direct effect on the quality of care.
- Virginia Neonatal Perinatal Collaborative (VNPC) – Current efforts focus on providing evidence based care to infants with neonatal abstinence syndrome, advancing antibiotic stewardship and maternal hemorrhage.
- There are currently two related doula initiatives administered through the 2020 General Assembly. The first is exploring a state doula registry (VDH led) and certification model and the second is tasked with completing a doula reimbursement rate study for which a DMAS led state workgroup on Medicaid reimbursement has been formed. State agencies are in collaboration with each other and community based organizations to see these both to fruition.

Notable Accomplishments

In 2020, VDH completed the five-year assessment as required by the Title V block grant (figure 6). In addition to quantitative data, the team conducted qualitative assessments in the form of key informant interviews and focus groups throughout the state. On the surface, Virginia seems to be an overall healthy state, with high rankings compared to other states in the country, and consistent metrics that rank positively when compared to the U.S. However, intentional disaggregation and focus on special population groups throughout the needs assessment process revealed disparities. While there are strengths in the MCH population groups, there are also needs. Virginians experience disparities in overall mental and physical health, and struggle with navigating essential medical, reproductive, mental, and dental health services. Health disparities caused by racism, health insurance bias and discrimination, language and culture responsiveness, and regional funding inequities further expand the health gap. Access to key social and community supports such as childcare, employment opportunities, transportation, and general financial well-being arose as an issue across population domains. There is a wide opportunity to address these issues by creating a culture of health, normalizing health-seeking behaviors, and full engagement of key stakeholders in all population domains for policy and program influence.

Figure 6 Maternal and Child Health Need Assessment Framework



2021-2025 Priorities

Upstream / Cross-Sector Strategic Planning: Eliminate health inequities arising from social, political, economic, and environmental conditions through strategic, nontraditional partnerships.

Community, Family, & Youth Leadership: Provide dedicated space, technical assistance, and financial resources to advance community leadership in state and local maternal and child health initiatives.

Mental Health: Promote mental health across MCH populations, to include reducing suicide and substance use.

Finances as a Root Cause: Increase the financial agency and well-being of MCH populations.

Racism: Explore and eliminate drivers of structural and institutional racism within Office of Family Health Services (OFHS) programs, policies, and practices to improve maternal and child health

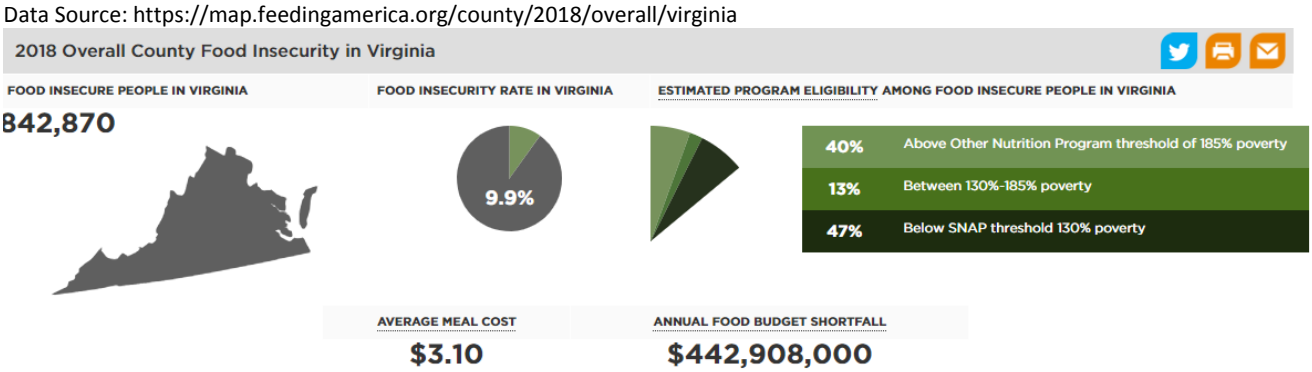
AIM 3: Preventive Actions

Goal 3.1 Healthy Diet/Physical Activity

Prevention and health promotion are key disciplines in public health. Reducing the burden of chronic diseases and conditions requires living an active, healthy lifestyle. Health behaviors can be positively influenced by policy, system and environmental change strategies when funding and capacity align. Trends include:

- The percentage of adults who did not participate in any physical activity during the past 30 days has ~~decreased~~ from 23.5% in 2014 to 25.3% in 2019.
- Overweight and obesity among adults continues to slightly increase; from 64.7% in 2014 to 66.4% in 2019.
- Food insecurity is improving as 9.9% of households in 2018 (figure 7) report scarcity for some part of the year, compared to 11.9% in 2013.

Figure 7 Food Insecurity Virginia, 2018
Data Source: https://map.feedingamerica.org/county/2018/overall/virginia



The Child and Adult Care Food Program (CACFP) provides nutritious meals and snacks that contribute to the wellness, healthy growth, and development of young children, and the health and wellness of older adults and

chronically impaired disabled persons. Participating institutions receive reimbursement by serving these nutritious meals to eligible individuals who are enrolled for care at participating child and adult care centers. CACFP also provides meals and snacks to children and youth who participate in afterschool care programs or reside in emergency shelters.

The United States Department of Agriculture (USDA) Food and Nutrition Services (FNS) administers the CACFP through grants to States. The Virginia Department of Health (VDH) administers the CACFP in Virginia and the Virginia Department of Education (VDOE) administers the At-Risk Afterschool Meals Program. Independent and Sponsoring Organizations enter into agreements with their administering State agency to assume administrative and financial responsibility for CACFP operations. Care centers have the option to participate either under a sponsoring organization or independently in direct agreement with the Virginia Department of Health (VDH). The partnerships that VDH and the CACFP have made, specifically with VDSS, has increased our ability to reach audiences that we have previously not been able to access. The CACFP has been included in the Governor's Roadmap to End Hunger as a key component of child nutrition expansion in the Commonwealth In 2020, the amount of meals served within the CACFP decreased by 10 million from the previous year due to the COVID-19 pandemic. The amount of funding received for the CACFP is directly correlated to the amount of meals served in the Program. 19,517,890 meals were served in FY2020 (this amount may increase due to organizations still processing claims).

In 2019, half of adult Virginians (50%) meet CDC's recommendations for physical activity, 150 minutes (or vigorous equivalent minutes) a week. Those with less than a high school (32.1%) diploma were more at risk than those with a college degree (52.1%)or a graduate degree (58.5%) for not meeting these requirements. This is an important health behavior that is a factor pertaining to chronic disease development and management (Table 6). Analyzing overweight/obesity data by race (Table 7) indicates that there is racial disparity in adults who are overweight or obese, with 75.4% of Black/Non-Hispanic Adults who are overweight/obese as compared to 65.9% of White Non-Hispanic Adults.

Table 6 : Adults that participated in 150 minutes (or vigorous equivalent minutes) of physical activity per week, by Educational Level, 2019
Data Source: Virginia Behavioral Risk Factor Surveillance Survey

	Sample Size	Weighted Counts	Weighted Percent (%)	LowerCL	UpperCL
Virginia	4,517	2,924,919	50.0	48.5	51.5
< H.S.	174	191,661	32.1	27.2	36.9
H.S. or G.E.D.	840	618,713	43.0	40.0	46.1
Some College	1,173	899,788	52.1	49.3	54.8
College Graduate	2,325	1,212,904	58.5	56.3	60.8

Table 7: Adults who are Overweight or Obese by Race, Virginia, 2019
Data Source: Virginia Behavioral Risk Factor Surveillance Survey

	Sample Size	Weighted Counts	Weighted Percent (%)	LowerCL	UpperCL
Virginia	6,168	3,986,747	66.4	65.0	67.8
White/Non-Hispanic	4,441	2,543,510	65.9	64.3	67.5
Black/Non-Hispanic	1,051	841,603	75.4	72.5	78.3
Hispanic	252	258,797	66.8	60.4	73.1
Other/Non-Hispanic	301	268,843	50.0	43.3	56.7

Figure 8: Adults who are Overweight or Obese by Income, 2019
Data Source: Virginia Behavioral Risk Factor Surveillance Survey

	Sample Size	Weighted Counts	Weighted Percent (%)	LowerCL	UpperCL
$15,000 or less	207	131,465	39.6	34.0	45.3
$15,000 to less than $25,000	424	241,774	37.9	33.9	41.9
$25,000 to less than $35,000	252	165,288	36.3	31.6	41.1
$35,000 to less than $50,000	349	227,696	35.1	30.9	39.4
$50,000 or more	1,310	893,271	29.2	27.4	31.0

To promote consumption of a healthy diet, VDH has implemented strategies across the lifespan through strategic partnerships with Child Care Aware of Virginia, Virginia Early Childhood Foundation, and Virginia Breastfeeding Coalition:

- VDH has established the Virginia Breastfeeding Friendly Recognition Program and recognized 63 early care and education (ECE) settings and 37 workplaces for their effort in providing breastfeeding friendly environments for families so that they may continue breastfeeding after returning to work. This work has impacted over 5,000 families in Virginia.
- To increase the consumption of water, fruits, vegetables, and other healthy foods VDH partnered with Child Care Aware of Virginia by offering focused training and technical assistance to expand healthy eating best practices to ECE programs. 17 ECE sites completed the Child Nutrition Model in GO-NAPSACC.

Additional notable efforts in 2020 include:

- The Chief Movement Officer (CMO) Cadre, a cohort of 28 trained health and physical activity teachers who provide onsite training/technical assistance to teachers on how to incorporate physical activity through movement opportunities, provided training across 16 local education agencies (LEAs) throughout the state. Efforts focused on LEAs with high rates of childhood obesity that then received technical assistance and training on how to improve school wellness policies that result in increased physical activity and improve health outcomes. During 2020, 451 classrooms and over 11,000 students were reached, and 621 teachers received training on how to incorporate brain boosts and academic accelerators into the classroom.

- Virginia Walkability Action Institute (VWAI): The 2020 VWAI funded ~~new five~~ local/regional multi-sector teams to pursue policy, systems, and environmental changes and interventions to improve population health and reduce chronic disease risk and burden through increased access to physical activity, with a primary focus on walking and walkability. The following local health districts participated: Central Shenandoah, Central Virginia, Fairfax, Portsmouth, and Prince William. Due to the COVID-19 pandemic, VWAI was held virtually. Virtual engagement included monthly webinars featuring national and international subject matter experts on health equity, social determinants of health, transportation justice, community engagement, active routes to school, aging in place, and tactical urbanism. As of 2018, the VWAI has trained 10 teams, representing 12 localities. Action plans and special projects implemented by VWAI teams have the potential to impact over 865,000 Virginians.

- Due to the COVID-19 pandemic, there was an increased use of telehealth and telemobile technology within National Diabetes Prevention Programs (NDPP) and Diabetes Self-Management Education and Support (DSMES) programs. Over 65% of DPP and DSMES programs continued their curriculum virtually and corresponding programs were able to sustain weight loss and retention.

Goal 3.2: Virginia Prevents Nicotine Dependency

Tobacco use rates have declined from 21.9% in 2014 to 16.4% in 2019 (Virginia BRFSS, 2019). This is a notable improvement; however, uptake of electronic-cigarettes or other electronic "vaping" products continue to rise. Approximately 20% (21.6%; BRFSS, 2019) of all Virginians have used an electronic tobacco product, with 6.4% of adults reporting current use of an electronic vapor product (Virginia Adult Tobacco Survey, 2019). Table X shows the trend of cigarette smoking and electronic vapor product use.

Regional differences in smoking exist: southwest (19.8%), central (14.9%), northwest (14.1%), eastern (16.2%), and northern (8.6%) (BRFSS, 2019; Figure 10). These differences are also true for electronic tobacco products: southwest (9.1%), central (5.3%), northwest (6.9%), eastern (7.9%), and northern (4.1%) (Virginia Adult Tobacco Survey, 2019). In addition to regional disparities, males were more likely to report both e-cigarette and cigarette use, and e-cigarette use was highest among young adults ages 18-34 (15.8%; Virginia Adult Tobacco Survey, 2019), with use decreasing with age. Cigarette smoking was more prevalent among those with a H.S. degree or less (BRFSS, 2019).

Figure 9 Current Cigarette and E-cigarette Use Over Time
Data Source: 2019 BRFSS; 2019 Virginia Adult Tobacco Survey
Note. E-cigarette data collection began in 2016. The sample size was smaller in 2019 than other years

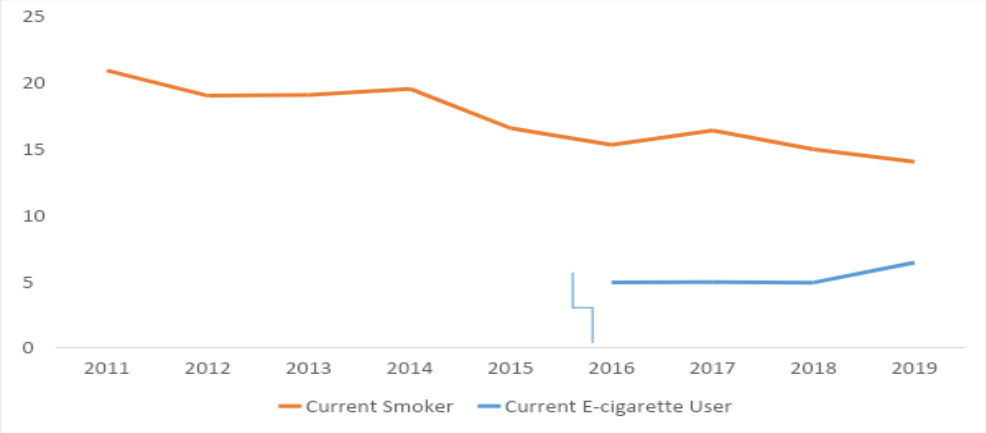
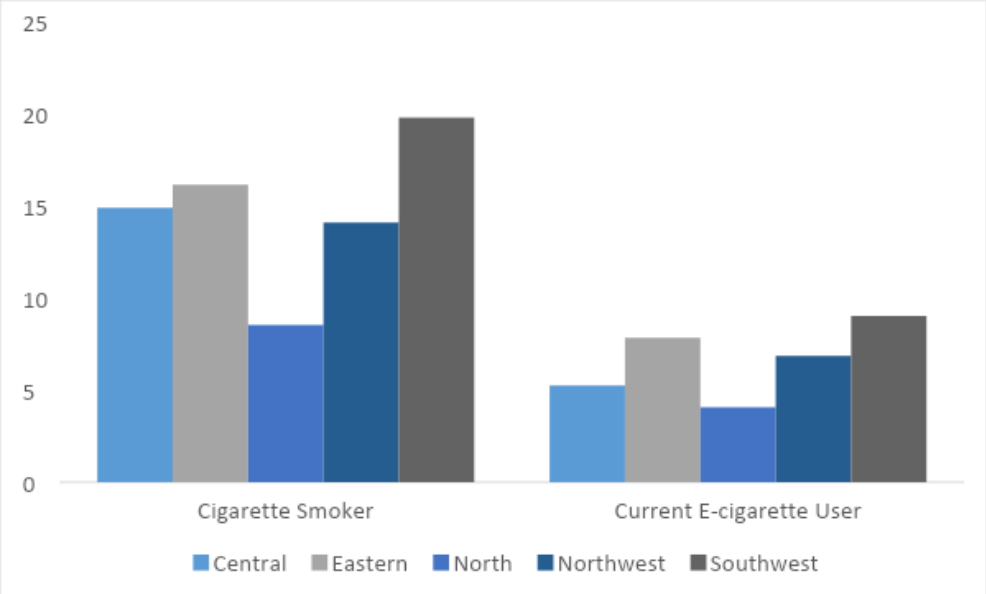


Figure 10 Regional Differences in Current Cigarette and E-Cigarette Users
Data Source: 2019 BRFSS; 2019 Virginia Adult Tobacco Survey



The Tobacco Control Program (TCP) was awarded a five-year Cooperative Agreement from the CDC in June 2020. This new agreement will increase the focus on providing nicotine use prevention and cessation services to behavioral health clients, increase outreach to youth and young adults regarding electronic nicotine products, and establish a lead agency for working with a select disparate population in the Commonwealth.

In October 2020, TCP in collaboration with Augusta Health, sponsored the first Virginia focused Tobacco Treatment Specialist Training Program. This training was presented by the Duke-University of North Carolina training program via an interactive, virtual platform. The program is nationally accredited and individuals who completed the course are eligible to receive 27.75 Continuing Medical Education hours. Of the 53 registrants, 27 were with a local Health District or the Office of Family Health Services. There were also participants from other organizations such as a Community Services Board, VCU, EVMS as well as five other states.

Goal 3.3: Virginians Are Protected Against Vaccine-Preventable Diseases

Early childhood vaccination rates have fallen 22% since the pandemic- March 2020. The underserved population has been one of the hardest hit with vaccine rates declining due to the lack of available resources. The potential of outbreaks due to decreased vaccination rates will result in increased childhood illnesses, decreased school attendance and decreased learning. To mitigate the decline, school nurses are encouraged to join the Medical Reserve Corps (MRC) to establish drive thru immunizations for their school community. The MRC and VDH have developed a streamlined training course for school nurses to become MRC volunteers.

The new vaccination requirements for Virginia, following the CDC guidelines, will take effect in July 2021. 6th grade boys and girls will be required to have the HPV vaccine. Tdap administration changes from 6th grade to 7th grade. School nurses are reaching out to their families to spread the word of the new vaccine requirements. The school nurses were encouraged to participate in professional development regarding HPV – movie presentation and panel discussion.

The Human Papillomavirus (HPV) contributes to various forms of cancer in both men and women, including cervical, penile, and oropharyngeal cancers. Vaccination against HPV is the most effective way to prevent HPV related infection and cancers. The 2019 National Immunization Survey-Teen (NIS-Teen) reports the percentage of youth ages 13-17 years old receiving HPV vaccination. In Virginia, HPV vaccination has increased to 57.8% in males compared to 50.8% in 2018. Meanwhile, in 2019 there was a slight decrease in vaccination of girls with 52.5% of girls up to date in comparison to 59.1% in 2018. To continue the upward trend of HPV vaccination coverage for boys and girls, VDH implements a multifaceted approach to provider engagement and community education. Through a partnership with the Cancer Action Coalition of Virginia (CACV), VDH co-leads the Virginia HPV Immunization Task Force (VHIT). Taskforce actions have included a bi-annual provider educational workshop, a focus on HPV vaccination as cancer prevention through community and professional screenings and discussion of “Someone You Love,” (a film chronicling the journeys of women with cervical cancer), and enhanced partnerships with schools and parent-teacher associations to facilitate access to HPV immunizations in the school setting. A media campaign about the importance of HPV vaccination was developed in 2019 and deployed to targeted areas of the Commonwealth with low HPV immunizations rates. Additionally, VDH maintains an HPV immunization website, including an educational video and connection to the National HPV Roundtable, among other resources.

Goal 3.4: Cancers Are Prevented or Diagnosed at the Earliest Stage Possible

The colorectal cancer screening rate among Virginians aged 50-75 years old was 70.1% in 2018, according to the most recently available data from the Behavioral Risk Factor Surveillance Survey. The Virginia Department of Health collaborates with health systems to implement evidence-based interventions aimed at increasing colorectal cancer screening rates among patient populations. Past partners have included eight Federally

Qualified Health Centers (Blue Ridge Medical Center, Clinch River Health Services, Central Virginia Health Services, Eastern Shore Rural Health Systems, Greater Prince William Community Health Center, Johnson Health Center, New Horizons Healthcare and Southwest Virginia Community Health Services) and a non-profit health system (Bon Secours Hampton Roads). All partner health systems experienced increased screening rates among their patient population since initiation of the project in 2015, although some health systems' monthly screening rates declined during spring 2020 due to the Coronavirus pandemic causing many to forego preventive care visits.

The Virginia Colorectal Cancer Roundtable (VACRCRT), a priority workgroup of the Cancer Action Coalition of Virginia, reconvened in 2020 in alignment with the National Colorectal Cancer Roundtable's (NCCRT) 80% in Every Community initiative. This effort emphasizes the use of evidence-based colorectal cancer screening activities that respond to individualized needs, barriers, and motivations within individual communities. The Roundtable has established three subcommittees – foundational, policy, and clinical. Previously, the VACRCRT, in collaboration with VDH, hosted six Colorectal Cancer Roundtables throughout Virginia during 2016 – 2017 in conjunction with the NCCRT's 80% by 2018 campaign.

Goal 3.5: Virginians Have Life-Long Wellness

The opportunity to live well into old age is dependent on many factors. Developing a disability is natural and the average point at which an individual may expect to live a life free from disability remains unchanged from 2017 and is still at 67.9 years.

Adverse childhood experiences (ACEs) are associated with many chronic diseases, mental and behavioral disorders, violence and victimization, and other significant social risks. Roughly 62.8% of adults in Virginia reported at least one ACE in 2019, which is a slight increase from 2018 (60.7%). This means that three out of five adults lived, prior to 18 years old, with someone who was depressed or mentally ill, was a problem drinker or alcoholic, used illegal drugs or abused prescription medicine, was incarcerated or served time, had parents who separated or divorced, or witnessed abuse or neglect in the home (including sexually and emotionally). When compared by income level, there are higher reports of ACEs among those making less than $25,000 per year, when compared to those making more than $50,000 per year this is indicative of the chronic stress and trauma that many families face, especially among those who do not have economic stability.

- The Crater Health District continues to work with community partners to educate care providers and laypersons the opportunity to learn about Trauma Informed Care.
- VDH serves on the Governor's Trauma-Informed Leadership Team (TILT); the TILT focuses on developing a statewide dashboard of short and long-term children and family resiliency metrics, recommending agency legislation and budget requests, and fulfilling the work of the "Linking Systems of Care" project.

AIM 4 — System of Health Care

Goal 4.1: Virginia Has a Strong Primary Care System

Strengthening health systems is an effective way to manage the population's health. Connecting people to adequate and available healthcare is important for managing chronic diseases, mental health and substance use disorders. Many of these data points below pre-date Virginia's more recent expansion of Medicaid; as this significant policy change has more time to take root, one would expect many of these metrics to improve with an increased access to health care for more Virginians.

- The percent of adults who have a regular primary care provider is 70.2%.
- Avoidable hospital stays for ambulatory care sensitive conditions (per 100,000 adults) decreased to 1,224 in 2018 from 1,330 in 2017.
- Hospitalizations due to mental health and substance use disorders (per 100,000 adults) showed a slight increase from to 795.3 in 2017 from 796.5% in 2019.

- Avoidable deaths from heart disease, stroke or hypertensive disease (per 100,000 adults) decreased from 47.07 in 2018 to 46.03 in 2019.
- The percent of adults whose poor health kept them from doing their usual activities for one or more days in the past months increased slightly from 23.3% in 2018 to 23.8% in 2019.

Goal 4.2: Virginia's Health IT System Connects People, Services and Information to Support Optimal Health Outcomes

Health technology and informatics advance integration and interoperability of data and care, which can be leveraged to ensure Virginia prevents hospital readmissions and premature death.

- While still a goal of VDH, no local health district has yet implemented an electronic health record system to be able to connect with local healthcare providers or transfer information via the HIE.

Virginia Stroke Systems Task Force (VSSTF)

The 2018 General Assembly passed legislation, to require the VDH to implement systems for data collection and information sharing, apply evidence-based guidelines for community-based follow-up care, and implement quality improvement initiatives to improve the quality of stroke care. Under this legislation, through the VSSTF, VDH has convened the Virginia Stroke Care Quality Improvement Advisory Group to provide recommendations for quality improvement across the Commonwealth related to establishing stroke metrics and improving data collection for the prevention and management of strokes. VDH assessed, in partnership with the Virginia Stroke Coordinators Consortium, Virginia hospitals' level of stroke certification by The Joint Commission (TJC), Det Norske Veritas (DNV), and Healthcare Facilities Accreditation Program (HFAP). The varying levels of stroke certification among Virginia hospitals not only indicates a hospital's stroke care capabilities, but also their ability to utilize health system information technology to collect and report stroke quality improvement data for the improvement of stroke outcomes.

- The statewide age-adjusted stroke mortality rate per 100,000 population steadily increased from 36.70 in 2014 to 38.82 in 2018.
- The statewide age-adjusted stroke hospitalization rate per 100,000 population decreased from 246.90 in 2014 to 238.19 in 2018.
- As of January 1, 2020, 59 out of 93 (63.4%) Virginia hospitals are certified by TJC, DNV, and HFAP. From highest level of stroke certification to lowest, 6 hospitals are certified Comprehensive Stroke Centers (CSC), 2 hospitals are certified Thrombectomy Capable or Primary Stroke Center (PSC) +, 46 hospitals are PSC only, and 5 hospitals are Acute Stroke Ready Hospitals (ASRH), and 34 hospitals with no stroke certification.

Clinical Community Linkages

Through a partnership with the Virginia Hospital and Healthcare Association (VHHA) Foundation, VDH has used an EHR and social determinants of health data-driven approach to identify high burden areas with disparities in diabetes, chronic kidney disease, and cardiovascular disease hospitalizations. VDH continues to work with multi-sectoral partners to create sustainable interventions and supports that reduce the development of chronic disease and disease-related complications of Virginians by linking them to social supportive services and clinical care.

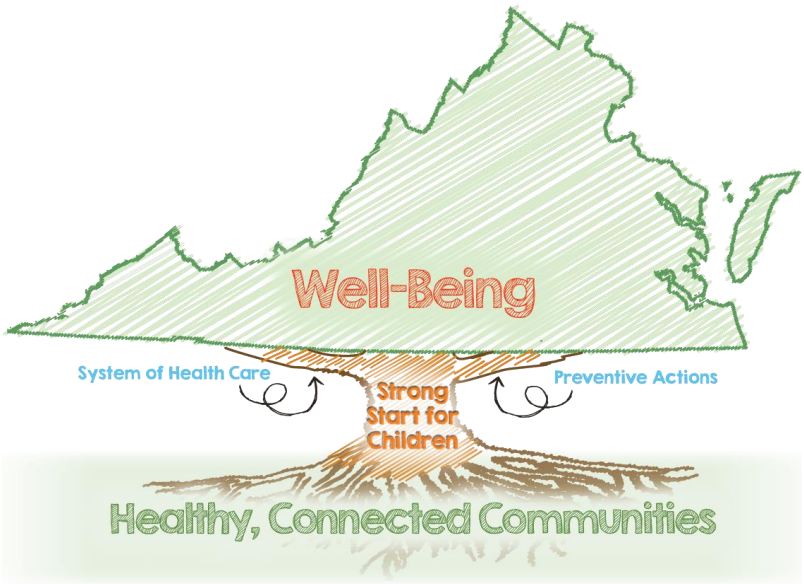
In 2020, through the VDH-funded VHHA Foundation/HealthBegins Upstream Learning Collaborative, five hospitals were funded to design and implement Upstream Quality Improvement Campaigns to address upstream health-related social needs for patients in your communities using HealthBegins' Stepwise Approach to Moving Upstream. Hospital teams represented Inova, Virginia Commonwealth University Health System, Carilion, Augusta Health and Ballad. Teams addressed social determinants of health-related barriers to diabetes management which included connecting patients to community resources and integrating Community Health Workers into their health systems to provide ongoing patient support, education, and clinical-community linkages.

Goal 4.3: Health Care-Associated Infections Are Prevented and Controlled in Virginia

Preventing healthcare-associated infections (HAI) is a priority across the entire healthcare system in Virginia. There has been a marked increase in the percentage of hospitals that are meeting the state goal for the prevention of hospital-onset *Clostridioides difficile* infections, from 64.9% in 2015 to 96.2% in 2019.

In 2015, Virginia reporting regulations were revised to expand the amount of data acute care hospitals share with VDH; this led to a greater focus on the prevention of *C. difficile* infections. *C. difficile* prevention was adopted as a priority by VDH, the Virginia HAI Advisory Group, and VHHA. VDH shares data quarterly with VHHA to track statewide progress, and annually with the HAI Advisory Group to set reduction goals. VDH sent Targeted Assessment for Prevention reports to hospitals quarterly to help identify facilities and units where additional infection prevention and control resources may be needed to reduce HAIs, including *C. difficile*. VDH partnered with Virginia Health Information to create a two-page *C. difficile* educational flyer using all available statewide data; it was shared with providers and consumers via social media and the websites of both organizations. Statewide efforts have also focused on antibiotic stewardship; decreased antibiotic use leads to reductions in *C. difficile*.

As of 2019, 99% of Virginia hospitals had met all seven core elements of hospital antibiotic stewardship programs. Collectively, Virginia acute care hospitals have surpassed the Health and Human Services 2020 National HAI Action Plan goal of achieving a 30% reduction in hospital-onset *C. difficile* infections for the past two years. However, there is still work to be done. The 100% goal has not been met, and *C. difficile* still causes significant morbidity and mortality for Virginians. In 2019, 1,155 hospital-onset *C. difficile* infections were reported statewide.



Virginia's Plan for Well-Being

2016-2020

Annual Report, 2020

Virginia Department of Health
109 Governor Street
Richmond, VA 23219
www.vdh.virginia.gov

Background

This information below serves as an annual report to *Virginia's Plan for Well-Being*, the Commonwealth of Virginia's state health improvement plan for 2016-2020. The plan has four aims:

1. Healthy, Connected Communities
2. Strong Start for Children
3. Preventive Actions
4. System of Health Care

Within this framework, the plan lays out 13 goals and 29 measures of success. This document describes the measures and status of indicators for review.

Vision: Well-Being for All Virginians

Well-Being

Measure Percent of adults in Virginia who report positive well-being; Baseline: 68% (2016).

2020 Update 68.30% (2019)

2020 Goal 70%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The four-item Satisfaction with Life Scale (SWLS) asks respondents to indicate how much they agree with the four following statements on a scale from 1 (strongly agree) to 5 (strongly disagree): (1) "In most ways my life is close to ideal," (2) "The conditions of my life are excellent," (3) "I am satisfied with my life," and (4) "So far I have gotten the important things I want in life." Responses to the four SWLS questions are dichotomized into those indicating positive well-being (e.g., agree/strongly agree) and those indicating negative well-being (e.g., disagree/ strongly disagree). For overall SWLS, adults responding agree or strongly agree to all four questions (score = 4), are considered positive. Data collection for the SWLS scale began in 2016 as part of Virginia's Behavioral Risk Factor Surveillance System.

The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don't know/not sure, refused, or missing are removed from the numerator and denominator in all estimates.

AIM 1 — Healthy, Connected Communities

Goal 1.1 Virginia's Families Maintain Economic Stability

1.1 A High School Graduates Enrolled in Higher Education

Measure Percent of Virginia high school graduates enrolled in an institute of higher education within 16 months after graduation; Baseline: 70.9% (2013).

2020 Update No data to report from the Department of Education. 2019 update was 77.7%

2020 Goal 75%

Data Source Virginia Postsecondary Enrollment Reports. Virginia Department of Education.

Description The percent of Virginia high school graduates who:

1. Graduated within five years of entering high school,
2. Earned a standard or advanced studies diploma, and
3. Were enrolled in an institute of higher education within 16 months of graduation.

This measure follows a cohort of students who entered ninth grade in the same year.

1.1 B Cost-Burdened Households

Measure Percent of cost-burdened households in Virginia (more than 30% of monthly income spent on housing costs); Baseline: 31.4% (2013).

2020 Update 27.5% (2019)

2020 Goal 29.0%

Data Source American Community Survey. U.S. Census Bureau.

Description This measure is calculated by dividing the number of Virginians that spent more than 30% of their monthly income on rent, mortgage, or housing without a mortgage by the number of occupied housing units in Virginia. The numerator is housing cost as a proportion of total income in a given year. The data are from the American Community Survey 1-Year Estimates. This is a point-in-time annual survey.

1.1 C Consumer Opportunity Index Score

The Health Opportunity Index (HOI) is being recalculated. In lieu of the consumer opportunity index score, we calculated the Townsend Material Deprivation Index Score as a measure of economic stability.

1.1 Townsend Material Deprivation Index Score

Measure Townsend Material Deprivation Index score in Virginia; Baseline: 3.98 (2009-2013).

2020 Update 4.3 (2013-2018)

2020 Goal 3.93

Data Source The Virginia Department of Health created the Townsend Index utilizing the following data sources**:** U.S. Census, American Community Survey, and 5-Year Estimates.

Description The Townsend deprivation index is a measure of material deprivation, which is one of the indices of the Virginia Health Opportunity Index. Townsend Index is calculated using a combination of four census variables at census tract level:

1. **Unemployment**: Percentage of all people who are economically active who are unemployed.
2. **Overcrowding**: Percentage of households that are overcrowded, Persons per room is a measure of how many people are in the house per room, any number over 1 is classed as overcrowded as that would mean there is more than one person per room.
3. **Non-car Ownership**: Percentage of households that do not own a car or van.
4. **Non-home Ownership:** Percentage of households that are not owner-occupied

The value represents the geometric mean of all the above listed four variables. This is necessary because poor performance in any dimension is directly reflected in the geometric mean. In other words, a high unemployment in one dimension is not linearly compensated for anymore by low percentage in another dimension. The geometric mean reduces the level of substitutability between dimensions and at the same time ensures that a 1 percent increase in the percent of, say, unemployment has the same impact on the final value as a 1 percent increase in the Overcrowding. Thus, as a basis for comparisons of best indicators, this method is also more respectful of the intrinsic differences across the dimensions than a simple average. The state score represents the median county score.

1.2 D Economic Opportunity Index Score

The Health Opportunity Index (HOI) is being recalculated. In lieu of the economic opportunity index score, we calculated the Gini Income Inequality Index Score as a measure of economic stability.

1.2 Gini Income Inequality Index Score

Measure Gini Income Inequality Index score in Virginia; Baseline: 38.9 (2009-2013).

2020 Update 40.13 (2013-2018)

2020 Goal 38.9

Data Source The Virginia Department of Health utilizes the U.S. Census American Community Survey Data on income dispersion

Description The Gini Index is a summary measure of income inequality. The Gini coefficient incorporates the detailed shares data into a single statistic, which summarizes the dispersion of income across the entire income distribution.

The Gini coefficient ranges from zero, indicating perfect equality (where everyone receives an equal share), to 100, perfect inequality (where only one recipient or group of recipients receives all the income). The Gini Index indicator is calculated at the census-tract level and the median is selected.

Goal 1.2 Virginia's Communities Collaborate to Improve the Population's Health

1.2 Districts with Collaborative Community Health Improvement Processes

Measure Percent of Virginia health planning districts that have established an on-going collaborative community health improvement process; Baseline: 43.0% (2015).

2020 Update 97% (2019-2020)

2020 Goal 100%

Data Source Virginia Department of Health.

Description The measure is calculated by dividing the number of health districts in Virginia that report that a collaborative community health improvement process is established in their health planning district divided by 35 (total number of health planning districts).

AIM 2 — Strong Start for Children

Goal 2.1 Virginians Plan Their Pregnancies

2.1 Teen Pregnancy Rate

Measure Teen pregnancy rate per 1,000 females, ages 15 to 19 years, in Virginia; Baseline: 27.9 (2013).

2020 Update 19.2 (2018)

2020 Goal 25.1

Data Source Virginia Vital Records and Health Statistics Electronic Birth Certificates, Fetal Death Certificates, Induced Termination of Pregnancy Certificates. Virginia Department of Health.

Description This metric is created using live birth data from the electronic birth certificate as reported by birth facilities, Induced Termination of Pregnancy (ITOP) data as reported by ITOP facilities, fetal death data as reported by medical providers and the number of female teens (15-19 years of age) from the National Center for Health Statistics population estimates.

Goal 2.2 Virginia's Children Are Prepared to Succeed in Kindergarten

2.2 A Kindergartens Not Meeting Phonological Awareness Literacy (PALS-K) Benchmark

Measure Percent of children in Virginia who do not meet the PALS-K benchmarks in the fall of kindergarten and require literacy intervention; Baseline: 12.7% (2014-2015).

2020 Update 15.7% (2019--2020)

2020 Goal 12.2%

Data Source Phonological Awareness Literacy Screening – Kindergarten Results. Virginia Department of Education.

Description The Phonological Awareness Literacy Screening – Kindergarten (PALS-K) is conducted in the fall of each school year and identifies kindergarten students who are at risk for reading difficulties. The tool measures children's knowledge of several literacy fundamentals: phonological awareness, alphabet recognition, concept of word, knowledge of letter sounds, and spelling. The PALS-K is an assessment of literacy readiness and is not a comprehensive measure of school readiness. PALS-K is the state-provided screening tool for Virginia's Early Intervention Reading Initiative (EIRI) and is used by 99% of school divisions in the state on a voluntary basis.

2.2 B Third Graders Passing Reading Standards of Learning (SOL) Assessment

Measure Percent of third graders in Virginia who pass the Standards of Learning third grade reading assessment; Baseline: 69.0% (2014-2015).

2020 Update 2020 Update not available due to SOLS being ~~waved~~ as a result of COVID-19. 2019 update was 71% (2018-2019)

2020 Goal 80.%

Data Source Virginia Standards of Learning Results. Virginia Department of Education.

Description The Standards of Learning (SOL) for Virginia Public Schools establish minimum expectations for what students should know and be able to do at the end of each grade. All items on SOL tests

are reviewed by Virginia classroom teachers for accuracy and fairness, and teachers also assist the state Board of Education in setting proficiency standards for the tests.

Goal 2.3 **The Racial Disparity in Virginia's Infant Mortality Rate is Eliminated**

2.3 Infant Mortality Rate by Race

Measure Black infant mortality rate in Virginia per 1,000 live births by race; Baseline: 12.2 (2013).

2020 Update 9.7 (2018)

2020 Goal 5.2

Data Source Virginia Vital Records and Health Statistics Electronic Birth Certificates and Electronic Death Certificates. Virginia Department of Health.

Description Virginia's infant mortality rate is calculated by dividing the number of deaths of children under one year of age by the number of live births to mothers living in the state. The resulting number is multiplied by 1,000 to compute the rate.

AIM 3 — Preventive Actions

Goal 3.1 **Virginians Follow a Healthy Diet and Live Actively**

1.1 A Adults Not Participating in Physical Activity

Measure Percent of Virginia adults 18 years and older who do not participate in any physical activity during the past 30 days; Baseline: 23.5% (2014).

2020 Update 25.3% (2019)

2020 Goal 20.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults 18 years and older who reported that they did not participate in any physical activity other than their regular job during the past 30 days. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

3.1 B Adults Who Are Overweight or Obese

Measure Percent of Virginia adults 18 years and older who are overweight or obese; Baseline: 64.7% (2014).

2020 Update 66.4% (2019)

2020 Goal 63.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description	The percent of Virginia adults 18 years and older who reported a body mass index (BMI) greater than 25. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey asks respondents what their height and weight are. BMI is then calculated based on reported height and weight. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

3.1 C Households That Are Food Insecure

Measure	Percent of Virginia households that are food insecure for some part of the year. Baseline: 11.9% (2013).
2020 Update	9.9% (2018)
2020 Goal	10.0%
Data Source	*Map the Meal Gap* utilized the Current Population Survey, and American Community Survey from the U.S. Census Bureau.
Description	Feeding America's *Map the Meal Gap* analyzes the relationship between food insecurity and indicators of food insecurity, and child food insecurity (poverty, unemployment, median income, etc.) at the state level.

Goal 3.2 Virginia Prevents Nicotine Dependency

3.2 Adults Using Tobacco

Measure	Percent of Virginia adults aged 18 years and older who report using tobacco. Baseline: 21.9% (2014).
2020 Update	16.4% (2019)
2020 Goal	12.0%
Data Source	Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.
Description	The percent of Virginia adults 18 years and older who report that they have smoked at least 100 cigarettes in their lifetime and currently smoke tobacco on at least some days, use chewing tobacco, use snuff and/or use snus. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

Goal 3.3 Virginians Are Protected Against Vaccine-Preventable Diseases

3.3 A Adults Vaccinated Against Influenza

Measure	Percent of Virginia adults 18 years and older who received an annual influenza vaccine. Baseline: 48.2% (2014-2015).
2020 Update	55.7% (2019-2020)
2020 Goal	70%

Data Source National Immunization Survey. Centers for Disease Control and Prevention.

Description The percent of Virginians 18 years of age and older who received an annual influenza vaccine. The Centers for Disease Control and Prevention analyzed the National Immunization Survey-Flu and the Behavioral Risk Factor Surveillance System to estimate national and state level flu vaccination coverage. Influenza vaccination status is based on self-reported data and not validated with medical records.

3.3 B Adolescents Vaccinated Against HPV

Measure Percent of girls aged 13-17 in Virginia who receives three doses of HPV vaccine and percent of boys aged 13-17 in Virginia who receive three doses of HPV vaccine. Girls Baseline: 35.9% (2014), Boys Baseline: 22.5% (2014).

This measure has been updated for the 2018 Annual Report to reflect changes in CDC methodology. The above measure is no longer used. The updated measure is below:

Percent of girls ages 13-17/Percent of boys age 13-17 in Virginia who are "up to date" (UTD) in the HPV vaccine series. This can be met with two or three doses, depending on the age of initiation of the vaccine series. Girls UTD baseline (2016): 41.1%; Boys UTD Baseline (2016): 37.4%

2020 Update Girls (UTD): 52.5%% (2019), Boys (UTD): 57.8% (2019)

2020 Goal Girls and Boys: 80.0%

Data Source National Immunization Survey-Teen. Centers for Disease Control and Prevention.

Description The percent of Virginia adolescents aged 13-17 (girls and boys reported separately) who received three doses of human papillomavirus (HPV) vaccine (two doses are recommended as of 2016). The National Immunization Survey-Teen (NIS-Teen) is an ongoing, annual survey of children, whose parents/guardians are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. Doses of vaccines administered are verified by providers through a mailed survey to the girls' immunization providers.

Goal 3.4 Cancers Are Prevented or Diagnosed at the Earliest Stage Possible

3.4 Adults Screened for Colorectal Cancer

Measure Percent of Virginia adults aged 50 to 75 years who receive colorectal cancer screening. Baseline: 69.1% (2014).

2020 Update 70.1% (2018)

2020 Goal 85.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults, ages 50 to 75 years, who report receiving a colorectal cancer screening test based on the most recent guidelines (fecal occult blood test, proctoscopy, colonoscopy, or sigmoidoscopy). The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey

is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates. Data collected in even years: 2014, 2016, 2018, etc.

Goal 3.5 Virginians Have Life-Long Wellness

3.5 A Disability-Free Life Expectancy

Measure Average years of disability-free life expectancy for Virginians; Baseline: 66.1 (2013).

2020 Update 67.9 (2018)

2020 Goal 67.3

Data Source U.S. Census Intercensal Population File Vintage 2014, Virginia Vital Records and Health Statistics Electronic Death Certificates, and the American Community Survey. Virginia Department of Health.

Description Disability-free life expectancy (DFLE) was calculated for Virginia census tracts by adding the estimates of the proportion of individuals with disabilities by tract and age group to the abridged life table estimates of mortality and population used for creating life expectancy (LE) estimates. The life table with the proportion of disabled individuals was the input for the analysis using the Chiang II methodology with Silcock's adjustment for calculation of LE and Sullivan's methods for DFLE. The disabled population proportion was defined for this study as answering yes to any one of the six disability questions (2009-2013 aggregate) in the American Community Survey. Significant consideration was given to disability chosen, small area analysis problems, and how to share the analysis for best impact. At the tract level, data censorship was considered when unusual population distributions were encountered. Minimum population size requirements were met to reduce large standard errors. DFLE estimates were added to a multiple linear regression model with social determinants of health as the explanatory variables.

3.5 B Adults with Adverse Childhood Experiences

Measure Percent of adults in Virginia who report at least one (1) adverse childhood experience; Baseline: 60.4% (2016).

2020 Update 62.8% (2019)

2020 Goal 45%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description Adverse childhood experiences (ACEs) include verbal, physical, or sexual abuse, as well as family dysfunction (e.g., an incarcerated, mentally ill, or substance-abusing family member; domestic violence; or absence of a parent because of divorce or separation). The ACE score is a measure of cumulative exposure to particular adverse childhood conditions. Exposure to any single ACE condition is counted as one point. If an adult experienced none of the conditions in childhood, the ACE score is zero. Points are totaled for a final ACE score. The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention

(CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

AIM 4 — System of Health Care

Goal 4.1 Virginia Has a Strong Primary Care System Linked to Behavioral Health Care, Oral Health Care, and Community Support Systems

4.1 A Adults with a Regular Health Care Provider

Measure Percent of adults 18 years and older who have a regular health care provider; Baseline: 69.3% (2014).

2020 Update 70.2% (2018)

2020 Goal 85.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults who report that they have at least one personal healthcare provider for ongoing care. The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

4.1 B Avoidable Hospital Stays

Measure Rate of avoidable hospital stays for ambulatory care sensitive conditions in Virginia per 100,000 persons; Baseline: 1,294 (2013).

2020 Update 1,224 (2018)

2020 Goal 1,100

Data Source Virginia Inpatient Hospitalization. Virginia Health Information.

Description The measure is the Agency for Healthcare Research and Quality's Prevention Quality Overall Composite (PQI #90) in Virginia. It includes hospitalizations that could have been prevented through high quality outpatient care, including uncontrolled diabetes, short-term diabetes complications, long-term diabetes complications (including amputated limbs), chronic obstructive pulmonary disease, high blood pressure, heart failure, chest pain, adult asthma, dehydration, pneumonia, and urinary tract infections. The number of hospital stays is provided for every 100,000 people who reside in that area.

4.1 C Avoidable Cardiovascular Disease Deaths

Measure Rate of avoidable deaths from heart disease, stroke, or hypertensive disease in Virginia per 100,000 persons; Baseline: 59.97 (2013).

2020 Update 46.03 (2019)

2020 Goal 40.0

Data Source Virginia Vital Records and Health Statistics Electronic Death Certificates. Virginia Department of Health.

Description Deaths included were those caused by cardiovascular disease, including chronic rheumatic heart disease (ICD 10 codes I05-I09), hypertension (ICD codes I10, I12, I15), ischemic heart disease (ICD 10 codes I20-I25), and cerebrovascular disease (ICD 10 codes I60-I69). An age-adjusted formula for population was used, truncating the years over 75, and then reformatting to the new million population for those age ranges.

4.1 D Adult Mental Health and Substance Abuse Hospitalizations

Measure Rate of adult mental health and substance abuse hospitalizations in Virginia per 100,000 adults; Baseline: 668.50 (2013).

2020 Update 796.5 (2019)

2020 Goal 635.1

Data Source Virginia Inpatient Hospitalization. Virginia Health Information.

Description Diagnosis codes to include for mental health and substance abuse hospitalizations were selected based on criteria developed by the Healthcare Cost and Utilization Project. The case definition used excluded discharges related to maternity stays and individuals under the age of 18. Population denominators were derived from midyear Census estimates provided by the National Center for Health Statistics.

4.1 E Adults Whose Poor Health Kept Them from Usual Activities

Measure Percent of adults 18 years and older in Virginia who reported having one or more days of poor health that kept them from doing their usual activities; Baseline: 19.5% (2014).

2020 Update 23.8% (2019)

2020 Goal 18.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description Percent of Virginia adults who reported having one or more days of poor health (physical health or mental health) and reported that poor health kept them from doing usual activities. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults, who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

Goal 4.2 Virginia's Health IT System Connects People, Services and Information to Support Optimal Health Outcomes

4.2 A Providers with Electronic Health Records

Measure Percent of health care providers in Virginia who have implemented a certified electronic health record; Baseline: 70.6% (2014).

2020 Update 86.0% (2017)

2020 Goal 90.0%

Data Source National Electronic Health Records Survey. Centers for Disease Control and Prevention.

Description Data are from the National Electronic Health Records Survey (NEHRS). NEHRS, which is conducted by the National Center for Health Statistics and sponsored by the Office of the National Coordinator for Health Information Technology, is a nationally representative mixed mode survey of office-based physicians that collects information on physician and practice characteristics, including the adoption and use of EHR systems. Using a physician database, email addresses of sampled physicians were identified. Sampled physicians that did not have an email match were asked to complete the survey by mail or phone. Among those with email addresses, respondents were randomly assigned to one of four groups: an invitation to take the web survey through email, US mail, both, or no web survey option. Nonresponse to the web survey resulted in 3 mailings of the questionnaire followed by phone contacts.

4.2 B Entities Connected to Health Information Exchange

Measure Number of entities in Virginia connected through Connect Virginia HIE Inc., the electronic health information exchange, and the national e-Health Exchange; Baseline: 3,800 (2015).

2020 Update **N/A** 2019 Update 5,107 (2018)

2020 Goal 7,600

Data Source Connect Virginia HIE, Inc.

Description Connect Virginia HIE, Inc. is the statewide health information exchange (HIE) for the Commonwealth of Virginia. The HIE uses secure, electronic, internet-based technology to allow medical information to be exchanged by participating entities. Connect Virginia reports the number of entities in Virginia connected on a quarterly basis.

4.2 C Health Districts with Electronic Health Records

Measure Number of Virginia's local public health districts that have electronic health records and connect to Connect Virginia, Virginia's Health Information Exchange; Baseline: 0 (2015).

2020 Update 0 (2019)

2020 Goal 35

Data Source Virginia Department of Health.

Description Count of Virginia's local public health districts (total of 35) that have electronic health records and connect to Connect Virginia, Virginia's Health Information Exchange.

Goal 4.3 Health Care-Associated Infections Are Prevented and Controlled in Virginia

4.3 Hospitals Meeting State Goal for Prevention of *C. difficile* Infections

Measure Percent of hospitals in Virginia meeting the state goal for prevention of hospital-onset *Clostridium difficile* infections; Baseline: 64.9% (2015).

2019 Update 96.2% (2019)

2020 Goal 100.0%

Data Source National Healthcare Safety Network. Centers for Disease Control and Prevention.

Description The percent of Virginia hospitals that meet the state goal for prevention of hospital-onset *C. difficile* laboratory-identified events. The state goal is a standardized infection ratio ≤ 0.7, which aligns with the goal of the Department of Health and Human Services National Healthcare-Associated Infections Action Plan.