



# COMMONWEALTH of VIRGINIA

Department of Health

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## MEMORANDUM

DATE: March 1, 2016

TO: Virginia State Board of Health

FROM: Marissa J. Levine, MD, MPH, FAAFP  
State Health Commissioner

SUBJECT: Virginia Department of Health Annual Report

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Enclosed for your review is the Annual Report of the Virginia Department of Health (Report), as set forth by Virginia Code § 32.1-14, titled *Virginia's Plan for Well-Being* (Plan).

Annually, the Board of Health is required to submit a report to the Governor and General Assembly that describes the status of three primary indicators: vital records and health statistics; analysis and summary of health care issues affecting the citizens of Virginia; and the health status and conditions of minority populations in the state. The Plan is a call-to-action for Virginians to create and sustain conditions that support health and well-being. It is a companion plan to Virginia's 2016 State Innovation Model Health Improvement Plan that calls for accountable care communities across the state to achieve the triple aim in health care: improving health care quality, improving the health of populations, and reducing the per capita cost of health care.

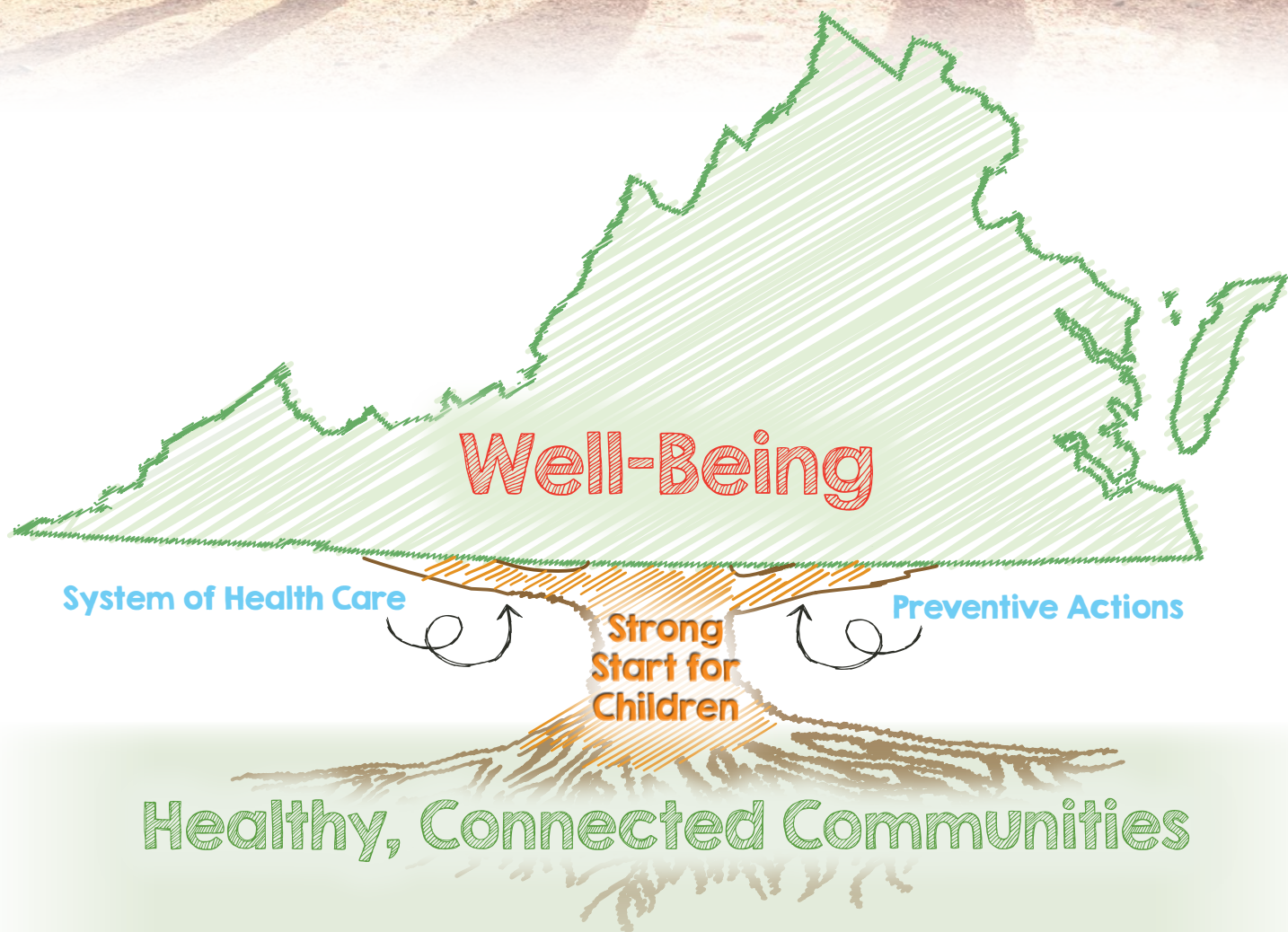
The Plan casts a broad vision of "well-being for all Virginians" by articulating four primary aims: creating healthy, connected communities; providing a strong start for our children; taking preventive actions to promote a healthy, long life; and ensuring we have a strong system of health care across the Commonwealth.

The Board of Health is requested to approve the Report at its March 17, 2016 meeting. Should the Board of Health approve the Report, it will be submitted to the Governor of Virginia and members of the General Assembly.

A photograph of a family walking away from the camera on a paved path. A woman in a red shirt and jeans is on the left, holding the hand of a small child in a red shirt. A man in a light-colored shirt and jeans is on the right, also holding the child's hand. The scene is backlit by a bright sun, creating a warm, golden glow and long shadows on the path.

# Virginia's Plan For Well-Being

2016-2020









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*Virginia's Plan for Well-Being* (The Plan) is a call to action for Virginians to create and sustain conditions that support health and well-being. Right now, in Virginia, many local communities are coming together to improve health. Communities, stakeholders, and partners can use this plan to build on work being done to assure clarity of effort and align scarce resources. The Plan lays out 13 priority goals that address issues significantly impacting the health and well-being of the people of Virginia. It provides a framework to guide the development of projects, programs, and policies to advance Virginians' health. From these goals, communities can choose one or two that represent a priority to them and around which they can focus efforts in the short term. The strategies in The Plan have been shown to be promising or best practices. The Plan also identifies some of the key community partners needed to achieve results.

*Virginia's Plan for Well-Being* is a companion plan to *Virginia's 2016 State Innovation Model Health Improvement Plan*, which calls for Accountable Care Communities in Virginia to achieve the triple aim in health care: improving health care quality; improving the health of populations; and reducing the per capita cost of health care. *The Virginia Center for Health Innovation* and the *Virginia Department of Health* are committed to tracking the progress of Virginia's health improvement and to annually report on specific measures identified in the two plans. Using population health data to evaluate our progress can help Virginians assess whether our systems and strategies are effective and can guide us to change course where needed.

Achieving population health improvement requires alignment, clarity and intentionality. Alignment includes coordination and collaboration of all sectors of the community: government, health care, education, businesses, community organizations including the faith community, and the public. Clarity refers to focused effort on issues that matter to people with corresponding measurable outcomes. Intentionality refers to designing our communities, policies and processes to specifically lead to improved outcomes in well-being, while avoiding unintended unhealthy outcomes. Virginians working together in alignment, with clarity and with a shared intention to improve the health of all Virginians provides the basis for success. Please join us in this effort - there is a role for everyone as we move Virginia toward becoming the healthiest state in the nation.



Marissa Levine, MD, MPH  
Virginia State Health Commissioner



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## VISION: WELL-BEING FOR ALL VIRGINIANS

### VIRGINIANS LIVE LONGER, HEALTHIER

lives today than ever before. Medical care is only part of the reason. Health begins where Virginians live, work, and play. Virginia's economy paves the way for its communities to create conditions for people to be healthy. Disinfecting drinking water, vaccinating people, controlling mosquitos and rodents, and tracking contagious illnesses keep once common diseases like measles and polio at bay. Passing laws to make transportation safer and to protect workers reduces injuries.

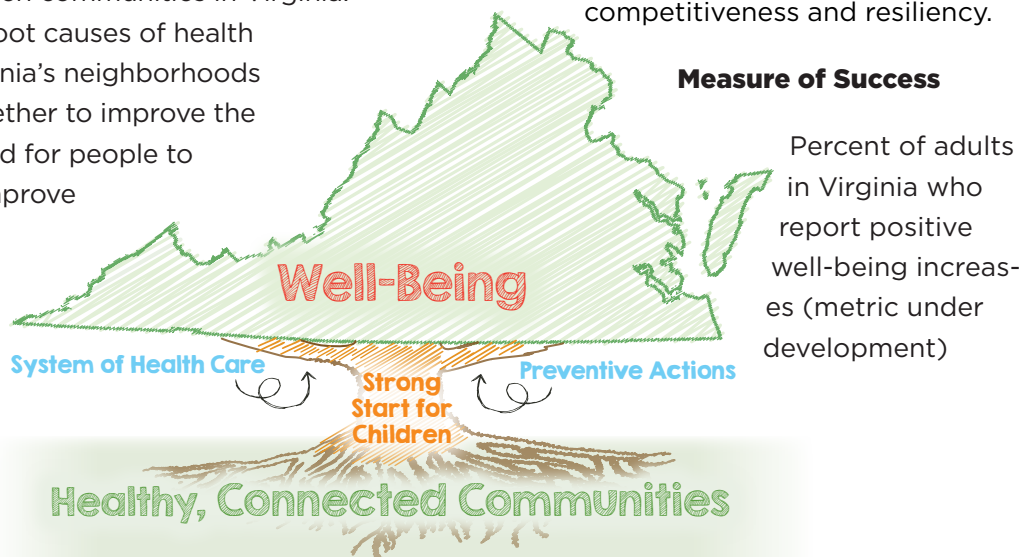
The definition of well-being is "a state characterized by health, happiness, and prosperity". It is valuable as a population outcome measure because it reflects how Virginians perceive their life is going. Well-being is dependent on having good physical and emotional health. Social circumstances, financial resources, and community factors also play important roles.

The opportunity for health begins with our families, neighborhoods, schools and jobs. There are striking differences in health within and between communities in Virginia. Uncovering the root causes of health inequities in Virginia's neighborhoods and working together to improve the conditions needed for people to be healthy will improve well-being for all Virginians.

This begins with the community

coming together to review local and state level data that reflect the health of the community. Examining trends and variation among subsets of the population can assist the state and communities in analyzing health outcomes and identifying priority issues to address.

*Virginia's Plan for Well-Being* lays out the foundation for giving everyone a chance to live a healthy life: (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 health care. The plan highlights specific goals and strategies on which communities can focus so the state can make measureable health improvement by 2020. *Virginia's Plan for Well-Being* is a call to action for all Virginians to work together to make Virginia the healthiest state in the nation. Improving well-being can lower health care costs and increase productivity, ultimately enhancing Virginia's competitiveness and resiliency.



## VIRGINIAN'S PLAN FOR WELL-BEING MEASURES

### VISION

By 2020, the percent of adults who report positive well-being increases (metric under development)

### AIM 1 » Healthy, Connected Communities

#### Goal 1.1: VIRGINIA'S FAMILIES MAINTAIN ECONOMIC STABILITY

By 2020, the percent of Virginia high school graduates enrolled in an institute of higher education within 16 months after graduation increases from 70.9% to 75.0%

By 2020, the percent of cost-burdened households in Virginia (more than 30% of monthly income spent on housing costs) decreases from 31.4% to 29.0%

By 2020, the Consumer Opportunity Index score in Virginia increases from 81.8% to 83.7%

By 2020, the Economic Opportunity Index Score in Virginia increases from 70.7% to 73.7%

#### Goal 1.2: VIRGINIA'S COMMUNITIES COLLABORATE TO IMPROVE THE POPULATION'S HEALTH

By 2020, the percent of Virginia health planning districts that have established an on-going collaborative community health planning process increases from 43% to 100%

### AIM 2 » Strong Start for Children

#### Goal 2.1: VIRGINIANS PLAN THEIR PREGNANCIES

By 2020, Virginia's teen pregnancy rate decreases from 27.9 to 25.1 pregnancies per 1,000 females ages 15 to 19 years

#### Goal 2.2: VIRGINIA'S CHILDREN ARE PREPARED TO SUCCEED IN KINDERGARTEN

By 2020, the percent of children in Virginia who do not meet the PALS K benchmarks in the fall of kindergarten and require literacy interventions decreases from 12.7% to 12.2%

By 2020, the percent of third graders in Virginia who pass the Standards of Learning third grade reading assessment increases from 69% to 80%

#### Goal 2.3: THE RACIAL DISPARITY IN VIRGINIA'S INFANT MORTALITY RATE IS ELIMINATED

By 2020, Virginia's Black Infant Mortality Rate equals the White Infant Mortality Rate

### AIM 3 » Preventive Actions

#### Goal 3.1: VIRGINIANS FOLLOW A HEALTHY DIET AND LIVE ACTIVELY

By 2020, the percent of Virginia adults who did not participate in any physical activity during the past 30 days decreases from 23.5% to 20.0%

By 2020, the percent of Virginia adults who are overweight or obese decreases from 64.7% to 63.0%

By 2020, the percent of Virginia households that are food insecure for some part of the year decreases from 11.9% to 10.0%

#### Goal 3.2: VIRGINIA PREVENTS NICOTINE DEPENDENCY

By 2020, the percent of adults aged 18 years and older in Virginia who report using tobacco decreases from 21.9% to 12.0%

## VIRGINIAN'S PLAN FOR WELL-BEING MEASURES

### **Goal 3.3: VIRGINIANS ARE PROTECTED AGAINST VACCINE-PREVENTABLE DISEASES**

**By 2020**, the percent of adults in Virginia who receive an annual influenza vaccine increases from 48.2% to 70%

**By 2020**, the percent of girls aged 13-17 in Virginia who receive three doses of HPV vaccine increases from 35.9% to 80%

**By 2020**, the percent of boys aged 13-17 in Virginia who receive three doses of HPV vaccine increases from 22.5% to 80%

### **Goal 3.4: CANCERS ARE PREVENTED OR DIAGNOSED AT THE EARLIEST STAGE POSSIBLE**

**By 2020**, the percent of adults aged 50 to 75 years in Virginia who receive colorectal cancer screening increases from 69.1% to 85.0%

### **Goal 3.5: VIRGINIANS HAVE LIFE-LONG WELLNESS**

**By 2020**, the average years of disability-free life expectancy for Virginians increases from 66.1 years to 67.3 years

**By 2020**, the percent of adults in Virginia who report adverse childhood experiences decreases (metric under development)

## **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**

**By 2020**, the percent of adults in Virginia who have a regular health care provider increases from 69.3% to 85.0%

**By 2020**, the rate of avoidable hospital stays for ambulatory care sensitive conditions in Virginia decreases from 1,294 to 1,100 per 100,000 persons

**By 2020**, the rate of avoidable deaths from heart disease, stroke, or hypertensive disease in Virginia decreases from 46.76 to 40.00 per 100,000 persons

**By 2020**, the rate of adult mental health and substance use disorder hospitalizations in Virginia decreases from 668.5 to 635.1 per 100,000 adults

**By 2020**, the percent of adults in Virginia who report having one or more days of poor health that kept them from doing their usual activities decreases from 19.5% to 18.0%

### **Goal 4.2: VIRGINIA'S HEALTH IT SYSTEM CONNECTS PEOPLE, SERVICES, AND INFORMATION TO SUPPORT OPTIMAL HEALTH OUTCOMES**

**By 2020**, the percent of health-care providers in Virginia who have implemented a certified electronic health record increases from 70.6% to 90.0%

**By 2020**, the number of entities in Virginia connected through Connect Virginia HIE Inc., the electronic health information exchange, and the national e-Health Exchange increases from 3,800 to 7,600

**By 2020**, the number of Virginia's local health districts that have electronic health records and connect to community providers through Connect Virginia increases from 0 to 35

### **Goal 4.3: HEALTH CARE-ASSOCIATED INFECTIONS ARE PREVENTED AND CONTROLLED IN VIRGINIA**

**By 2020**, the percentage of hospitals in Virginia meeting the state goal for prevention of hospital-onset *Clostridium difficile* infections increases from 36% to 100%



## AIM I: HEALTHY, CONNECTED COMMUNITIES

### WHERE VIRGINIANS LIVE AFFECTS

their health. Feeling safe, supported, and connected to family, neighborhood, and the community is critical for well-being. Place matters: the conditions in which people live, work, and play shape their health. For example, having safe, clean parks provides Virginians with recreational opportunities. This supports active living, which results in improved physical and emotional health. Conditions that foster well-being include:

- ➔ Safe, walkable neighborhoods
- ➔ Accessible public transportation
- ➔ Access to health care
- ➔ Employment opportunities with safe working conditions
- ➔ Quality educational systems
- ➔ Spaces for social gatherings and physical activity
- ➔ Clean air and water

Improving environmental and social conditions at the neighborhood level provides greater opportunity for all Virginians to be healthy. Communities can improve health by considering implications to health when developing policies and systems related to education, employment, housing, transportation, land use, economic development, and public safety.

The Virginia Department of Health has developed a Health Opportunity Index (HOI) to help communities understand the factors that lead to health so they can work to improve health outcomes for everyone. The HOI is a composite measure of the “social determinants of health”, factors that relate to a community’s well-being and the health status of its population. It is comprised of 13 indices in four categories:

**Environment:** (1) Air quality; (2) Population density; (3) Population churning; (4) Walkability

**Consumer Opportunity:** (1) Affordability; (2) Education; (3) Food accessibility; (4) Material deprivation

**Economic Opportunity:** (1) Employment; (2) Income inequality; (3) Job participation

**Wellness:** (1) Segregation; (2) Access to care

The HOI is calibrated with life expectancy, disability-adjusted life expectancy, and low birth weight measures, and is strongly predictive of key health outcomes. The HOI provides communities with a tool to identify areas and populations that are most vulnerable, giving Virginia an opportunity to develop strategic, targeted approaches to improve health and well-being.

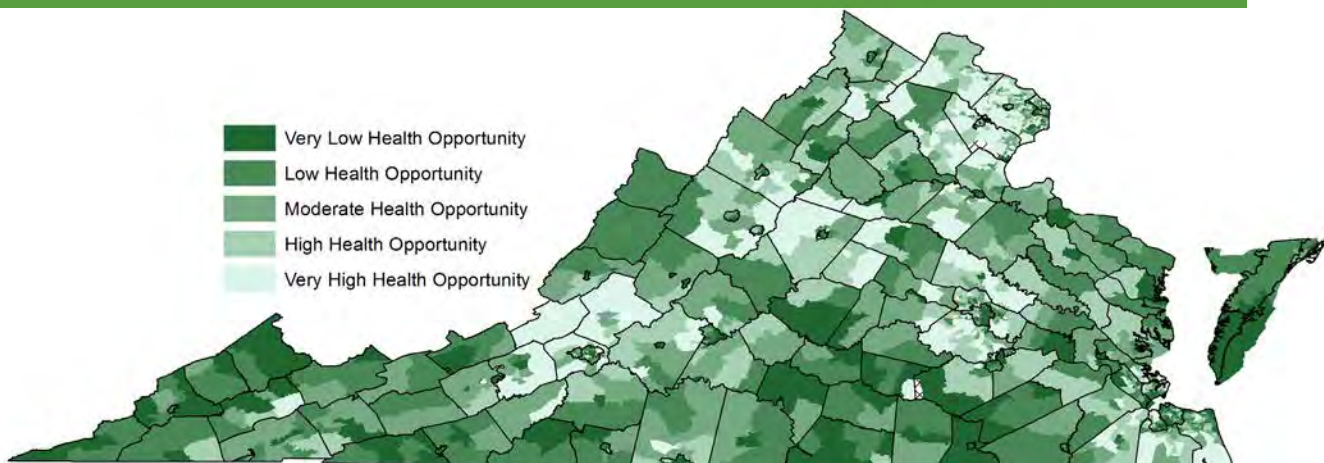
## Foundational Goals for Creating Healthy, Connected Communities

- ➔ Virginians receive a quality education
- ➔ Virginians complete job training or college after high school
- ➔ Virginians live in housing they can afford
- ➔ **Virginia's families maintain economic stability**
- ➔ Virginians are socially engaged
- ➔ Virginians have access to clean air and water
- ➔ Virginians have access to safe food
- ➔ Virginians are prepared to respond to manmade and natural disasters
- ➔ Virginians have access to quality emergency medical services
- ➔ Virginians are protected from fires
- ➔ Virginians are protected from crime
- ➔ Virginia's public transportation systems provide access to and from geographically isolated areas
- ➔ Virginia businesses partner with the community to address environmental and social drivers of workforce health
- ➔ **Virginia's communities collaborate to improve the population's health**

**During 2016-2020, Virginia is focusing attention on these foundational goals:**

**1.1 Virginia's families maintain economic stability**

**1.2 Virginia's communities collaborate to improve the population's health**



**Health Opportunity Index (HOI) - The HOI is a composite measure comprised of 13 indices that reflect a broad array of social determinants of health**

## AIM I: HEALTHY, CONNECTED COMMUNITIES 2020 FOCUS GOALS

### GOAL 1.1: VIRGINIA'S FAMILIES MAINTAIN ECONOMIC STABILITY

Health and poverty are inextricably linked; ill health not only affects the poor disproportionately, it is also associated with lower income.<sup>1</sup> Virginia is perennially one of the wealthiest states in the nation. Unfortunately, a wealth gap prevents some Virginians from experiencing equitable opportunities for optimal health and longevity. Reducing poverty and maintaining economic stability are vital to keeping all Virginians well. An education that prepares Virginians for today's job market provides increased opportunity for employment, which in turn improves access to stable housing, healthy food, transportation, and health care. Strategic investments in the physical and social infrastructure as well as investments in educational resources are important for sustained economic stability.

#### Strategies

- ➔ Provide alternative pathways to graduation and post-secondary training for disconnected youth and those with special needs
- ➔ Develop and use early warning systems to prevent failure and help at-risk students



- ➔ Develop school policies to assess and address physical, social, and environmental health barriers that impede learning
- ➔ Expand training and work-linked learning opportunities for youth
- ➔ Support opportunities for mid-career retraining
- ➔ Build affordable housing, and rehabilitate existing affordable housing to accommodate low-income families

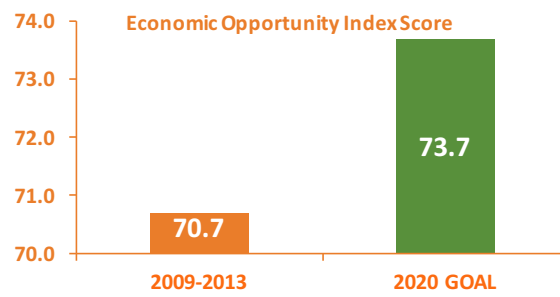
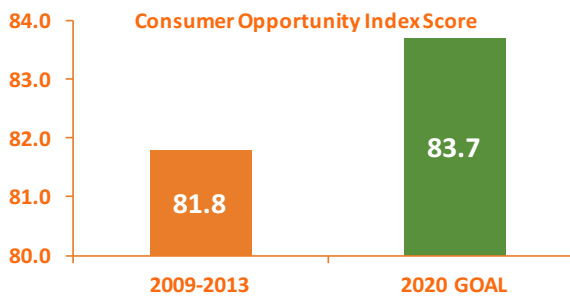
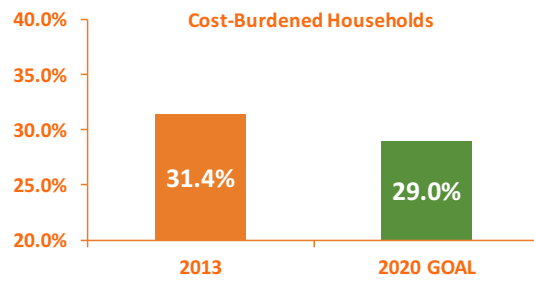
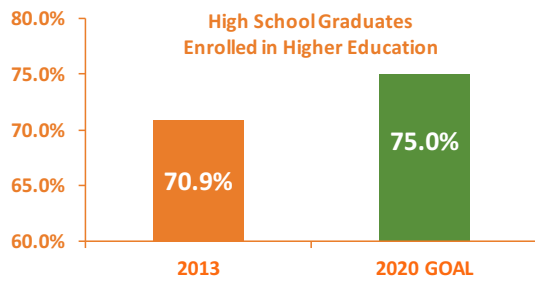
#### Key Community Partners

Community Organizations  
 Community Planners  
 Economic Development Agencies  
 Educators  
 Elected Officials  
 Employers  
 Families  
 Justice System





### Measures of Success



## AIM I: HEALTHY, CONNECTED COMMUNITIES 2020 FOCUS GOALS

### Goal 1.2: VIRGINIA'S COMMUNITIES COLLABORATE TO IMPROVE THE POPULATION'S HEALTH

Adopting a collaborative community approach to health assessment and planning supports population-level health improvement. Both state and community-level assessments are valuable to identify opportunities to achieve and maintain well-being in the Commonwealth. This process involves bringing together people from many sectors of the community to review data; identify priorities; develop goals and measurable objectives; and recommend evidence-based policies, programs, and actions for the community to pursue. The assessments include social, economic, and environmental data, such as the number of mothers who did not graduate from high school, in addition to health outcome data, like the number of people who have lung cancer.

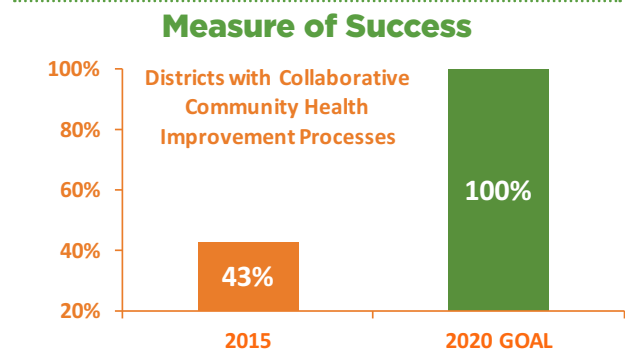
State and community health improvement plans can be a catalyst for empowering community action. They can be shared with elected officials, the health care community, governmental and community-based agencies, and the public. The information can foster the allocation of resources to areas that will maximize benefits to the collective health of the community.

### Strategies

- ➔ Establish collaborative health assessment and strategic health improvement planning processes throughout the Commonwealth that include public health, health care systems, and community partners
- ➔ Align health system community benefit programs with community health improvement plans
- ➔ Enhance data systems and public health information technology to collect, manage, track, analyze, and report state and county-level data for use in health assessments

**Key Community Partners**

- Community Organizations
- Educators
- Elected Officials
- Employers
- Families
- Health-Care Providers
- Hospital Systems
- Local Governments
- Public
- Public Health



## AIM 2: STRONG START FOR CHILDREN

**A CHILD'S HEALTH IS AFFECTED BY** biological influences, including nutrition, illness, and each parent's health, as well as environmental influences, including education and quality health and social services.<sup>2</sup> Compared to children without chronic health problems, children with chronic health problems have a greater risk of having poorer health outcomes and lower job status as adults.<sup>3,4</sup> Health-related factors affect school performance, and in turn academic success is associated with health outcomes during childhood and later in adulthood.<sup>5</sup> Investing in programs that lead to improved health for Virginia's children benefits everyone and reduces long-term costs to the Commonwealth.<sup>6</sup>

### Foundational Goals for Giving Children a Strong Start

- ➔ Virginians plan their pregnancies

- ➔ Virginians are as healthy as possible before becoming pregnant
- ➔ Pregnant women in Virginia receive recommended prenatal care services
- ➔ Virginia mothers breastfeed
- ➔ Virginia parents practice positive parenting
- ➔ Virginia fathers are engaged in family planning, health, parenting, and child development-focused activities
- ➔ Virginia infants and children are not exposed to secondhand smoke
- ➔ **Virginia's children are prepared to succeed in kindergarten**
- ➔ Virginia's adolescents choose not to engage in behaviors that put their well-being at risk
- ➔ **The racial disparity in Virginia's infant mortality rate is eliminated**

**During 2016-2020, Virginia is focusing attention on these foundational goals:**

- 2.1 Virginians plan their pregnancies
- 2.2 Virginia's children are prepared to succeed in kindergarten
- 2.3 The racial disparity in Virginia's infant mortality rate is eliminated



**AIM 2: STRONG START FOR CHILDREN**  
**2020 FOCUS GOALS**

**Goal 2.1: VIRGINIANS PLAN THEIR PREGNANCIES**

Comprehensive family planning and preconception health lead to improved birth outcomes, which are associated with better health and cognition as children mature. Family planning services include providing education and contraception. These services help families have children when they are financially, emotionally, and physically ready. Publicly-supported family planning services prevent an estimated 1.3 million unintended pregnancies a year in the United States. The trend toward having smaller families and waiting at least 24 months between pregnancies has contributed to better health of infants and children.<sup>7</sup> Preconception health services for females and males include health screenings, counseling, and clinical services that enable them to become as healthy as possible before pregnancy.<sup>8</sup>



- ➔ Educate women and men about the effectiveness of contraceptive methods and increase access to the most effective methods
- ➔ Expand access to and use of preconception health services

**Strategies**

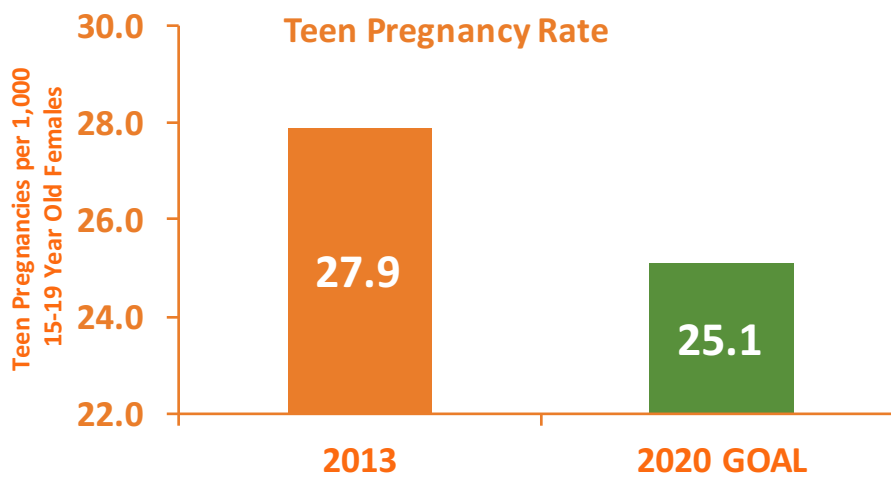
- ➔ Increase access to quality family planning services for all women of child-bearing age
- ➔ Expand evidence-based programs that promote healthy relationships

**Key Community Partners**

- Community Organizations
- Faith-based Communities
- Families
- Federally Qualified Health Centers
- Health-Care Providers
- Health Insurers
- Public Health
- Schools
- Social Services



**Measure of Success**



## AIM 2: STRONG START FOR CHILDREN

### 2020 FOCUS GOALS

#### Goal 2.2: VIRGINIA'S CHILDREN ARE PREPARED TO SUCCEED IN KINDERGARTEN

Succeeding or failing in school affects a child's well-being, self-esteem, and motivation. Being developmentally ready to learn and participate in classroom activities not only sets the stage for the kindergarten year but can have lifelong influence on well-being. According to a report by the University of Virginia's Curry School of Education, one out of three children in Virginia is not prepared to succeed in literacy, math, self-regulation, and/or social skills at the beginning of kindergarten. The report finds that "children who enter kindergarten behind their peers rarely catch up; instead, the achievement gap widens over time."<sup>9</sup> Investing in programs to prepare children to succeed in school prevents them from falling behind and dropping out of high school.

#### Strategies

- ➔ Increase developmental screening for childhood milestones and delays
- ➔ Increase enrollment of three to five year-old children in early childhood education programs that include quality educational components that address literacy, numeracy, cognitive development, socio-emotional development, and motor skills
- ➔ Increase the number of providers and educators who screen for adverse childhood events (ACEs) and are trained in using a trauma-informed approach to care
- ➔ Expand programs that help families affected by ACEs, toxic stress, domestic violence, mental illness, and substance abuse create safe, stable, and nurturing environments
- ➔ Expand programs that teach positive parenting and help parents fully engage with their children in productive ways
- ➔ Increase opportunities for fathers to be engaged in programs and services for their children

#### Key Community Partners

Businesses

Childcare Providers

Community Organizations

Educators

Families

Health-Care Providers

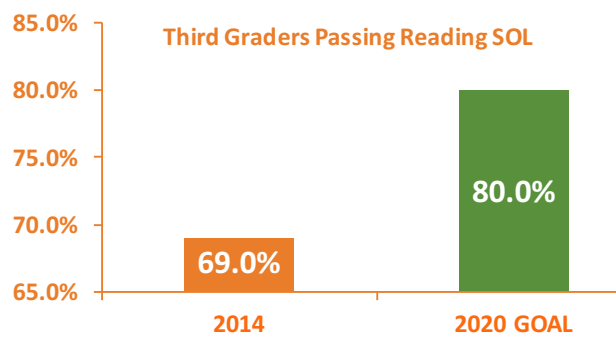
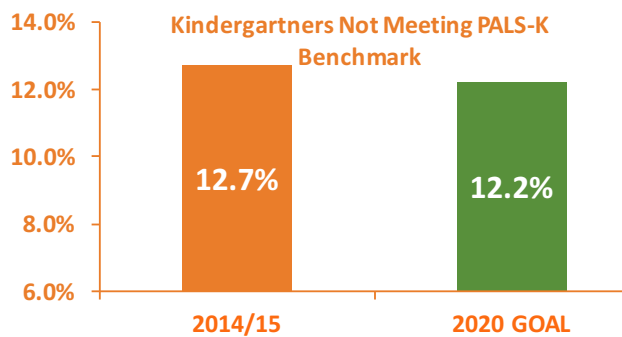
Public Health

Social Services





**Measures of Success**



## AIM 2: STRONG START FOR CHILDREN

### 2020 FOCUS GOALS

#### Goal 2.3: THE RACIAL DISPARITY IN VIRGINIA'S INFANT MORTALITY RATE IS ELIMINATED

The Commonwealth has made significant progress in helping its infants thrive; however, some communities have worse outcomes than others. If the rate at which black infants and white infants died were equal, Virginia would have the lowest infant mortality rate in the country. Giving everyone a chance to live a healthy life benefits not only those currently disadvantaged but the whole community. Closing this gap requires addressing the root causes of disparities throughout life. To achieve equity, all sectors of the community—from policy makers to grassroots community organizations to community members—must work together.

#### Strategies

- ➔ Eliminate early elective deliveries
  - ➔ Expand outreach to pregnant women and increase the number of group prenatal care classes
  - ➔ Implement policies that support women and their families in breastfeeding for at least six months
  - ➔ Expand home visiting and family support programs
- ➔ Form neighborhood collaboratives co-led by community members in under-resourced communities to identify obstacles and develop plans to address the root causes of health inequities
  - ➔ Increase the number of providers who screen postpartum women for depression and provide or refer for treatment

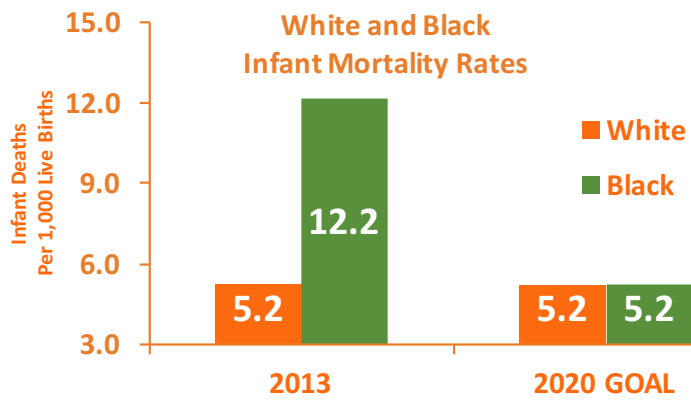
#### Key Community Partners

Community Organizations  
 Educators  
 Elected Officials  
 Families  
 Federally Qualified Health Centers  
 Health-Care Providers  
 Health Insurers  
 Hospital Association  
 Medical Societies  
 Mental Health Providers  
 Public Health  
 Social Services





**Measure of Success**





## AIM 3: PREVENTIVE ACTIONS

### A CULTURE OF HEALTH AND WELLNESS

is built on preventive actions. Virginia can substantially decrease the burden of disease and reduce health care spending by creating conditions that lead to health. Communities, health care systems, and individuals all have a role to play. For example, reversing Virginia's high prevalence of obesity will require (1) community design and policies that promote healthy eating and active living; (2) clinical interventions and education; and (3) individual behavior modification.

Policy makers can create the conditions that support the healthy choice becoming the easy choice. Fluoridating drinking water, developing walkable communities, and prohibiting smoking in public buildings are actions that prevent disease.

Clinical interventions that promote health include vaccination, cancer screenings, treatment for high blood pressure, dental cleanings, and early identification and treatment of persons addicted to substances. According to the Centers for Disease Control and Prevention (CDC), Americans receive preventive health

services “at about half the recommended rate”.<sup>10</sup> This results in complex, advanced disease that is more costly to treat.

Personal behaviors that prevent disease include not using tobacco; eating appropriately-sized portions; daily dental flossing; practicing safe sex; exercising regularly; and taking medicines as prescribed.

### Foundational Goals for Preventive Actions

- ➔ **Virginians follow a healthy diet and live actively**
- ➔ **Virginia prevents nicotine dependency**
- ➔ Virginia conducts comprehensive surveillance and investigation of diseases
- ➔ **Virginians are protected against vaccine-preventable diseases**
- ➔ Virginians are free from sexually transmitted infections
- ➔ Virginia prevents and controls animal diseases from spreading to people (for example, rabies and bird flu)





- ➔ In Virginia, injuries are prevented
- ➔ Virginians have good oral health
- ➔ Virginians have access to, can afford, and receive preventive clinical services

- ➔ **In Virginia, cancers are prevented or diagnosed at the earliest stage possible**
- ➔ **Virginians have lifelong wellness**

**During 2016-2020, Virginia is focusing attention on these foundational goals:**

- 3.1 Virginians follow a healthy diet and live actively**
- 3.2 Virginia prevents nicotine dependency**
- 3.3 Virginians are protected against vaccine-preventable diseases**
- 3.4 In Virginia, cancers are prevented or diagnosed at the earliest stage possible**
- 3.5 Virginians have lifelong wellness**

## AIM 3: PREVENTIVE ACTIONS

### 2020 FOCUS GOALS

#### Goal 3.1: VIRGINIANS FOLLOW A HEALTHY DIET AND LIVE ACTIVELY

Following a healthy diet and living actively have long-term health benefits. Maintaining a healthy weight is associated with improved quality of life and reduced risk of cardiovascular disease, diabetes, dementia, cancer, liver disease, and arthritis. Obesity results from a combination of factors: genetics; behavior; education; access to nutritious food; an environment that supports active living; and food marketing and promotion.<sup>11</sup>

A nutritious diet includes balancing the number of calories consumed with the number of calories the body uses. It is necessary for optimal growth and development of children.<sup>12</sup> Healthy eating is associated with improved thinking, memory, and mood among school children.<sup>13</sup> The inability to afford enough food for an active, healthy life is associated with poor health outcomes among children, adults, and the elderly.<sup>14</sup>

Living an active lifestyle supports wellness, improves mood, and reduces chronic disease. Among children, it alleviates depression, decreases body fat, creates stronger bones, and is even associated with better grades in school.<sup>15</sup> Among older adults, physical activity lowers the risk of falls, a leading cause of

injury. Factors that positively contribute to physical activity levels include higher income, enjoyment of exercise, and social support from peers and family. Factors that discourage adequate physical activity include a low income, lack of time, rural residency, and obesity.

Policies can be created and neighborhoods can be designed to support healthy eating and active living. People make decisions based on their environment; for example, a person may choose not to take a walk because there are no sidewalks. Creating opportunities in the community, child care, school, and workplace settings can make it easier to engage in physical activity and eat a healthy diet.

#### Key Community Partners

- Businesses
- Childcare Providers
- Community Organizations
- Community Planners
- Economic Development Agencies
- Educators
- Farmers
- Families
- Health-Care Providers
- Public Health





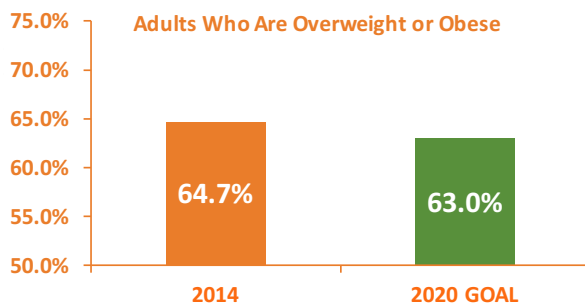
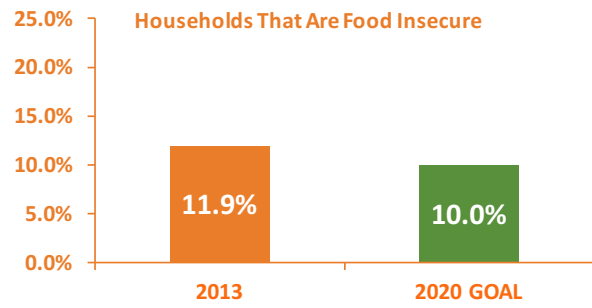
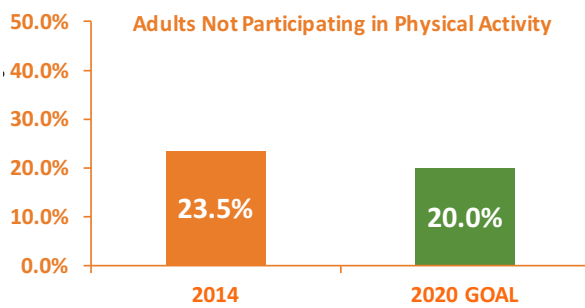
## Strategies

- ➔ Integrate health planning into local and regional comprehensive planning
- ➔ Adopt community designs that support active living, including concentrated mixed use development and bicycle- and pedestrian-friendly communities
- ➔ Expand opportunities during and after school for children to get healthy meals and the recommended amount of daily physical activity
- ➔ Create parks, recreation facilities or open space in all neighborhoods
- ➔ Increase access to healthy and affordable foods in all neighborhoods
- ➔ Implement organizational and programmatic nutrition standards and policies
- ➔ Expand programs and services to eliminate childhood hunger
- ➔ Help people recognize and make healthy food and beverage choices
- ➔ Increase the number of evidence-based employee wellness programs





**Measures of Success**



**AIM 3: PREVENTIVE ACTIONS**  
**2020 FOCUS GOALS**

**Goal 3.2: VIRGINIA PREVENTS NICOTINE DEPENDENCY**

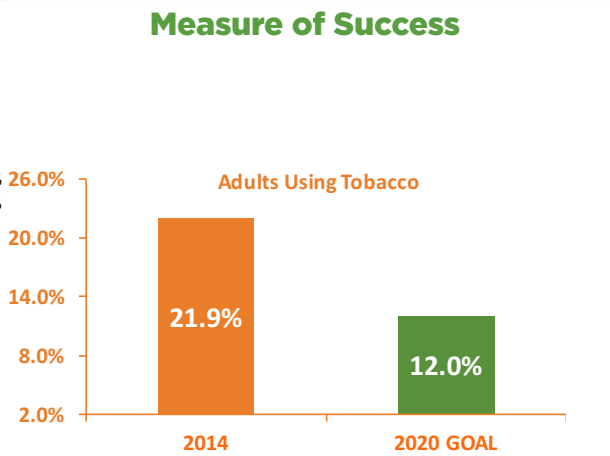
According to the CDC, “tobacco use is the single most preventable cause of death and disease in the United States.”<sup>16</sup> The Campaign for Tobacco Free Kids reports that health care costs in Virginia directly caused by smoking are \$3.11 billion a year.<sup>17</sup> Smoking is associated with heart disease, stroke, chronic lung disease, diabetes, bone disease, and many types of cancer. Tobacco accounts for 30% of all cancer deaths. Secondhand smoke causes heart disease, stroke, and lung cancer. It affects the health of infants and children by increasing the risk for asthma attacks, respiratory and ear infections, and Sudden Infant Death Syndrome.<sup>18, 19</sup>

**Key Community Partners**

- Academic Partners
- Businesses
- Elected Officials
- Faith-based Communities
- Health-Care Providers
- Health Insurers
- Public Health
- School Districts

**Strategies**

- ➔ Establish smoke-free policies and social norms
- ➔ Promote tobacco cessation and support tobacco users in quitting
- ➔ Prevent initiation of tobacco use





## AIM 3: PREVENTIVE ACTIONS

### 2020 FOCUS GOALS

#### Goal 3.3: VIRGINIANS ARE PROTECTED AGAINST VACCINE-PREVENTABLE DISEASES

Virginians who receive their recommended vaccines protect themselves from illness and protect others by decreasing the spread of disease. Virginia benefits from high childhood immunization rates. However, in two other areas, it lags behind. While the percent of adults receiving an annual flu vaccine has increased, it is still below the national goal. The area of most concern, however, is a low rate of adolescent vaccinations that prevent meningococcal meningitis and cancers caused by the Human Papillomavirus (HPV).

#### Strategies

- ➔ Use patient registries to identify patients due for vaccination and send them reminders
- ➔ Evaluate data from the Vaccines for Children program and target outreach to providers who have the opportunity to improve vaccination rates
- ➔ Evaluate data from the Virginia Immunization Information System to assess immunization coverage and develop targeted interventions to address gaps

#### Key Community Partners

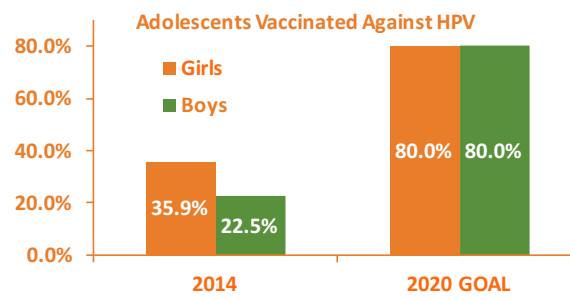
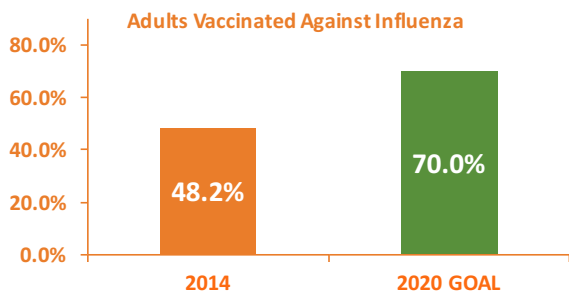
Families  
 Federally Qualified Health Centers  
 Health-Care Providers  
 Hospital Systems  
 Health Insurers  
 Medical Societies  
 Public Health

- ➔ Educate Virginians about the effectiveness of HPV vaccination in preventing HPV-associated cancers
- ➔ Increase the number of adolescents who receive well visits in patient-centered medical homes
- ➔ Establish policies to ensure health-care providers receive annual influenza vaccine





**Measures of Success**



## AIM 3: PREVENTIVE ACTIONS

### 2020 FOCUS GOALS

#### Goal 3.4: CANCERS ARE PREVENTED OR DIAGNOSED AT THE EARLIEST STAGE POSSIBLE

Cancer is the leading cause of death for Virginians. It is caused by changes to the genes that lead to the uncontrolled growth of specific cells in the body. There are many types of cancer, and the risks associated with each type vary. Preventive actions can keep some cancers from developing. These include not using tobacco, minimizing alcohol consumption, and vaccination against HPV and Hepatitis B. In some cases, when cancer does form, it can be identified early through evidence-based screenings, resulting in better treatment options and outcomes.

#### Strategies

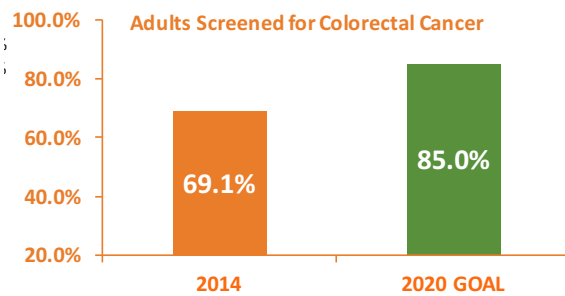
- ➔ Increase tobacco prevention and cessation programs
- ➔ Increase percent of medical practices that implement evidence-based client reminder systems to increase recommended cancer screenings for patients
- ➔ Increase the number of providers, lay health advisors, and volunteers trained in health literacy to provide one-on-one education in medical, community, worksite, and household settings to support people in seeking recommended cancer screenings
- ➔ Implement evidence-based strategies to reduce structural barriers to cancer screenings
- ➔ Implement provider assessment and feedback interventions to increase cancer screenings

#### Key Community Partners

Community Organizations  
Employers  
Families  
Federally Qualified Health Centers  
Health Care Providers  
Health Insurers  
Hospital Systems  
Lay Health Workers  
Medical Societies  
Public Health



**Measure of Success**





## AIM 3: PREVENTIVE ACTIONS

### 2020 FOCUS GOALS

#### Goal 3.5: VIRGINIANS HAVE LIFE-LONG WELLNESS

Nearly one out of every eight Virginians today is 65 or older. In two decades, almost one in every five will be. Preventive actions and support systems can result in people living in their own home and community safely, independently, and comfortably, regardless of age, income, or ability level.

#### Strategies

- ➔ Encourage construction of safe, congregate and retirement housing for the aging population
- ➔ Increase access to internet usage for aging Virginians
- ➔ Increase the number of fitness and physical therapy facilities that promote senior fitness
- ➔ Develop a statewide senior falls prevention program
- ➔ Implement community-wide value-neutral programs to support Virginians in planning in advance for future healthcare choices



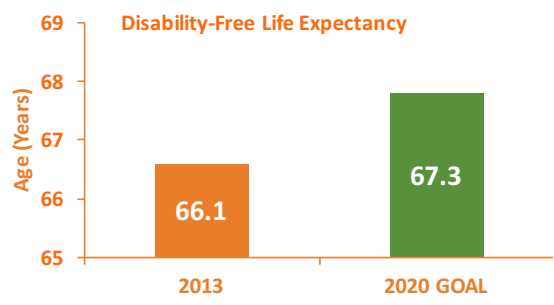
#### Key Community Partners

Academic Partners  
 Adult Daycare Providers  
 Area Agencies on Aging  
 Faith-based Communities  
 Businesses  
 Families  
 Health-Care Providers  
 Hospital Systems  
 Nursing Homes  
 Public Health  
 Senior Centers






**Measure of Success**





**AIM 4: SYSTEM OF HEALTH CARE****VIRGINIA IS HOME TO EXCELLENT**

providers and hospitals that deliver state-of-the-art health care services. However, like the rest of the United States, many health measures, including patient outcomes and quality, lag behind other developed countries. Health care spending in the United States is the highest in the world and continues to increase. Increased longevity and chronic health problems place new demands on the utilization of medical services and medical technology and contribute to higher spending.

The leading category of health care spending in Virginia is hospitalization. Many hospital stays can be avoided through prevention and primary care. In Virginia in 2013, there were 1,294 avoidable hospital stays for every 100,000 people. The rate ranges significantly across Virginia, from 233 to 6,934 per 100,000. A Kaiser Family Foundation poll

found that 40% of Americans were “very worried” about “having to pay more for their health care or health insurance”.<sup>20</sup> The challenge for Virginia is to improve health care quality by providing care that is safe, effective, patient-centered, timely, efficient, and equitable while controlling health care spending.

Meeting this challenge is difficult because health care is delivered across many disparate and independent settings and by many providers. The average Medicare beneficiary with chronic illness in the U.S. sees an average of 13 physicians a year.<sup>21</sup> The Commonwealth Fund Commission challenged health care systems to improve performance by 2020. Strategies include making patient’s clinical information available at the point of care through shared electronic health records and actively coordinating care across providers and settings.<sup>22</sup>





### **Foundational Goals for a System of Health Care**

- ➔ Health care in Virginia is affordable to families and businesses
- ➔ Virginia assures adequate regulation of health care facilities
- ➔ **Virginia has a strong primary care system linked to behavioral health care, oral health care, and community support systems**
- ➔ Virginians obtain, process, and understand basic health information and services needed to make appropriate health decisions
- ➔ **Virginia's health IT system connects people, services, and information to support optimal health outcomes**
- ➔ All health care professionals in Virginia are licensed and/or certified
- ➔ **Health care-associated infections are prevented and controlled in Virginia**

#### **2020 FOCUS GOALS**

- 4.1 Virginia has a strong primary care system linked to behavioral health care, oral health care, and community support systems**
- 4.2 Virginia's health IT system connects people, services, and information to support optimal health outcomes**
- 4.3 Health care-associated infections are prevented and controlled in Virginia**

## AIM 4: SYSTEM OF HEALTH CARE

### 2020 FOCUS GOALS

#### **Goal 4.1: VIRGINIA HAS A STRONG PRIMARY CARE SYSTEM LINKED TO BEHAVIORAL HEALTH CARE, ORAL HEALTH CARE, AND COMMUNITY SUPPORT SYSTEMS**

A primary care provider is an important point of entry into the complex health care delivery system. This is especially important for people living with chronic conditions like diabetes. As the number of Virginians with chronic disease increases, the need for patient-centered care coordination and programs to help them manage their medications and monitor their illness increases.

Untreated mental health disorders and substance misuse and abuse have serious impact on physical health and are associated with the prevalence, progression, and outcome of some of today's most pressing chronic diseases, including diabetes, heart disease, and cancer. Integrating behavioral health care, substance abuse prevention and treatment services, and primary care services produces the best outcomes and proves the most effective approach to caring for people with complex health care needs.<sup>23</sup>

Bringing together hospital systems, health care providers, insurers and community partners to develop shared strategies to

improve population health can lead to improved delivery systems and better coordination of care across settings.

#### **Strategies**

- ➔ Create Accountable Care Communities throughout Virginia, groups of health-care providers and community partners that voluntarily coordinate high quality care to ensure patients get the right care at the right time; avoid duplication of services; and prevent medical errors
- ➔ Incentivize payment for healthcare that leads to prevention and management of health and wellness rather than episodic treatment of disease
- ➔ Improve access to comprehensive primary care in patient-centered medical homes
- ➔ For patients with complex conditions, integrate primary care with behavioral health care, substance abuse services, and oral health care
- ➔ Increase the number of Virginia-certified community behavioral health clinics
- ➔ Expand telemedicine services in rural areas of Virginia



### Key Community Partners

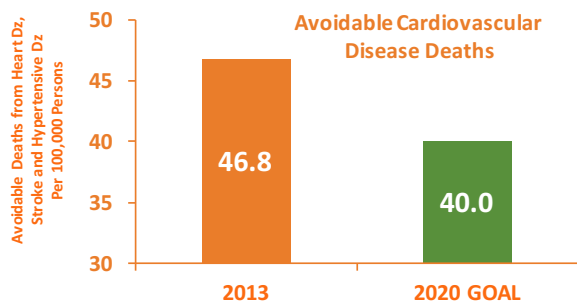
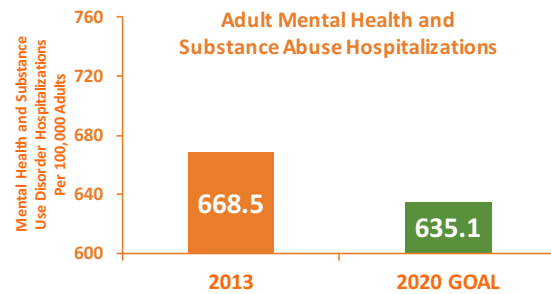
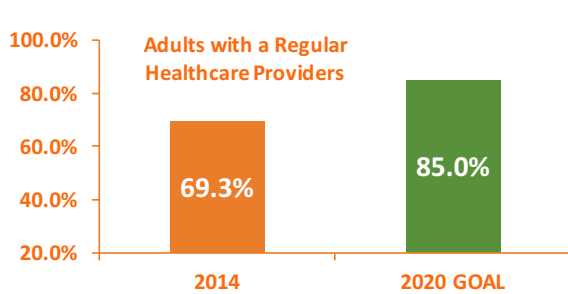
Businesses  
 Community Organizations  
 Faith-based Communities  
 Federally Qualified Health Centers  
 Health-Care Providers  
 Hospital Systems  
 Public Health

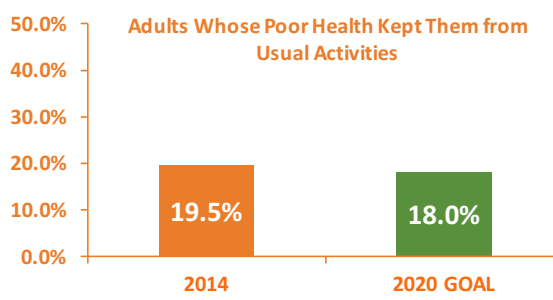
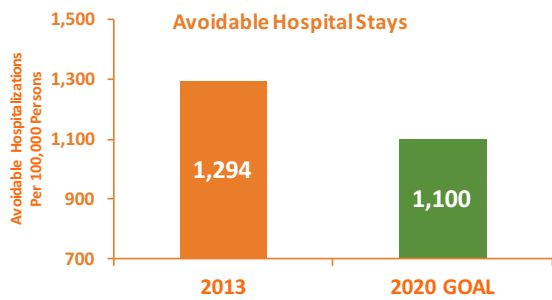
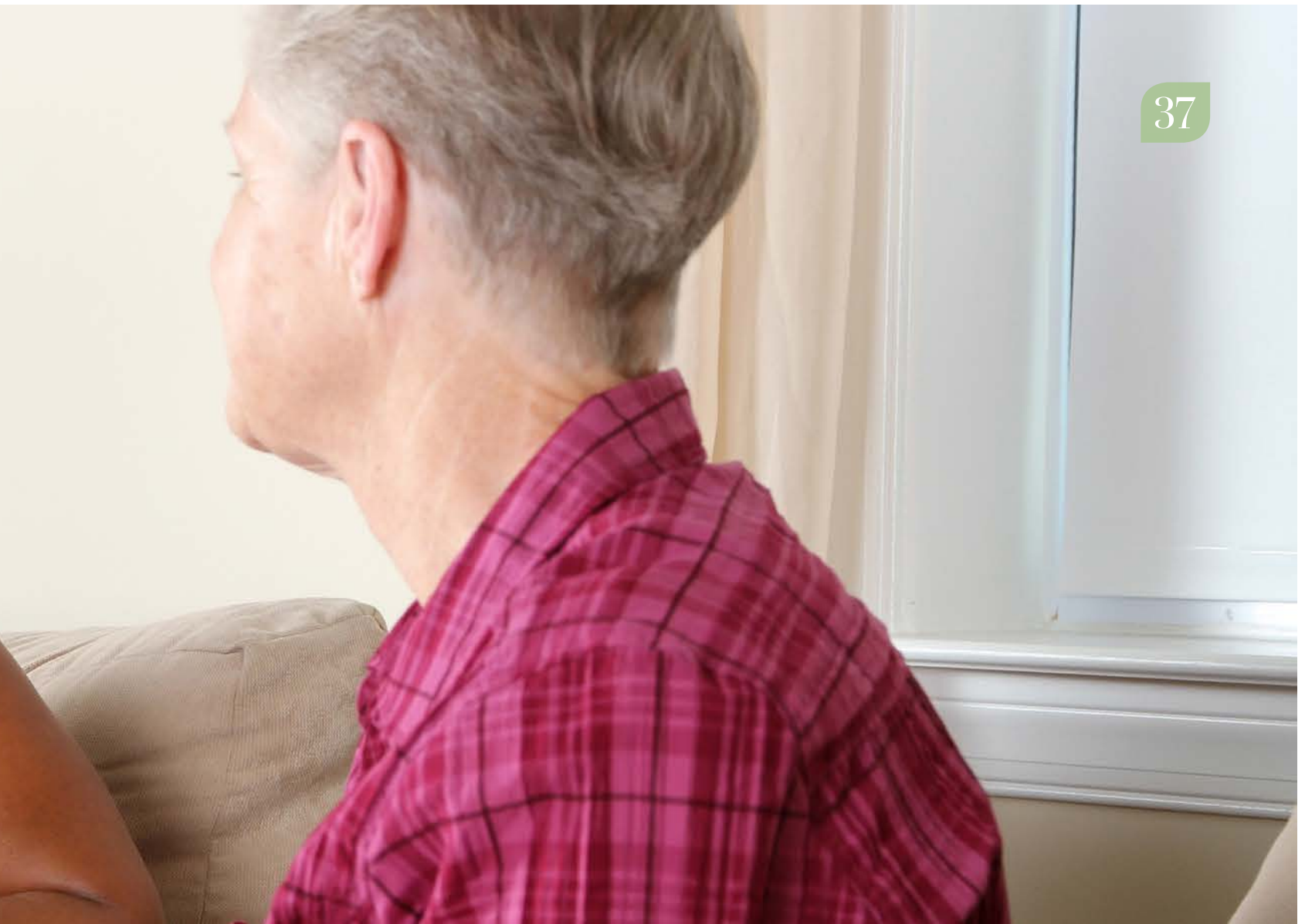
- ➔ Increase care coordination across providers and settings
- ➔ Expand adoption of the community health worker model by health care organizations
- ➔ Develop patient-centered health communications that have a positive impact on health, health care, and health equity
- ➔ Increase the number of providers who screen for nicotine use, including smokeless tobacco and e-cigarettes, and provide or refer for cessation services
- ➔ Expand access to and use of community-based programs for treatment of mental health disorders
- ➔ Promote drug-prescribing protocols in health care settings
- ➔ In primary care and other settings, increase use of the Screening, Brief Intervention, Referral and Treatment tool (an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs)
- ➔ Increase the number of providers who screen for domestic violence and refer victims to organizations that can assist them
- ➔ Educate Virginians about how to avoid wasteful or unnecessary medical tests, treatments and procedures





**Measures of Success**





## AIM 4: SYSTEM OF HEALTH CARE

### 2020 FOCUS GOALS

#### Goal 4.2: VIRGINIA'S HEALTH IT SYSTEM CONNECTS PEOPLE, SERVICES, AND INFORMATION TO SUPPORT OPTIMAL HEALTH OUTCOMES

Virginians and their health-care providers benefit from access to comprehensive, secure, easily accessible health information that can inform better decision making. Connect Virginia HIE, Inc. is the Commonwealth's health-information exchange designed to promote collaboration and information sharing between consumers, health-care providers, and purchasers of health care services. Developing the capacity to collect, analyze, and share population health information provides the opportunity for Virginia to create policies and systems to bring about meaningful health improvement for all Virginians.

#### Strategies

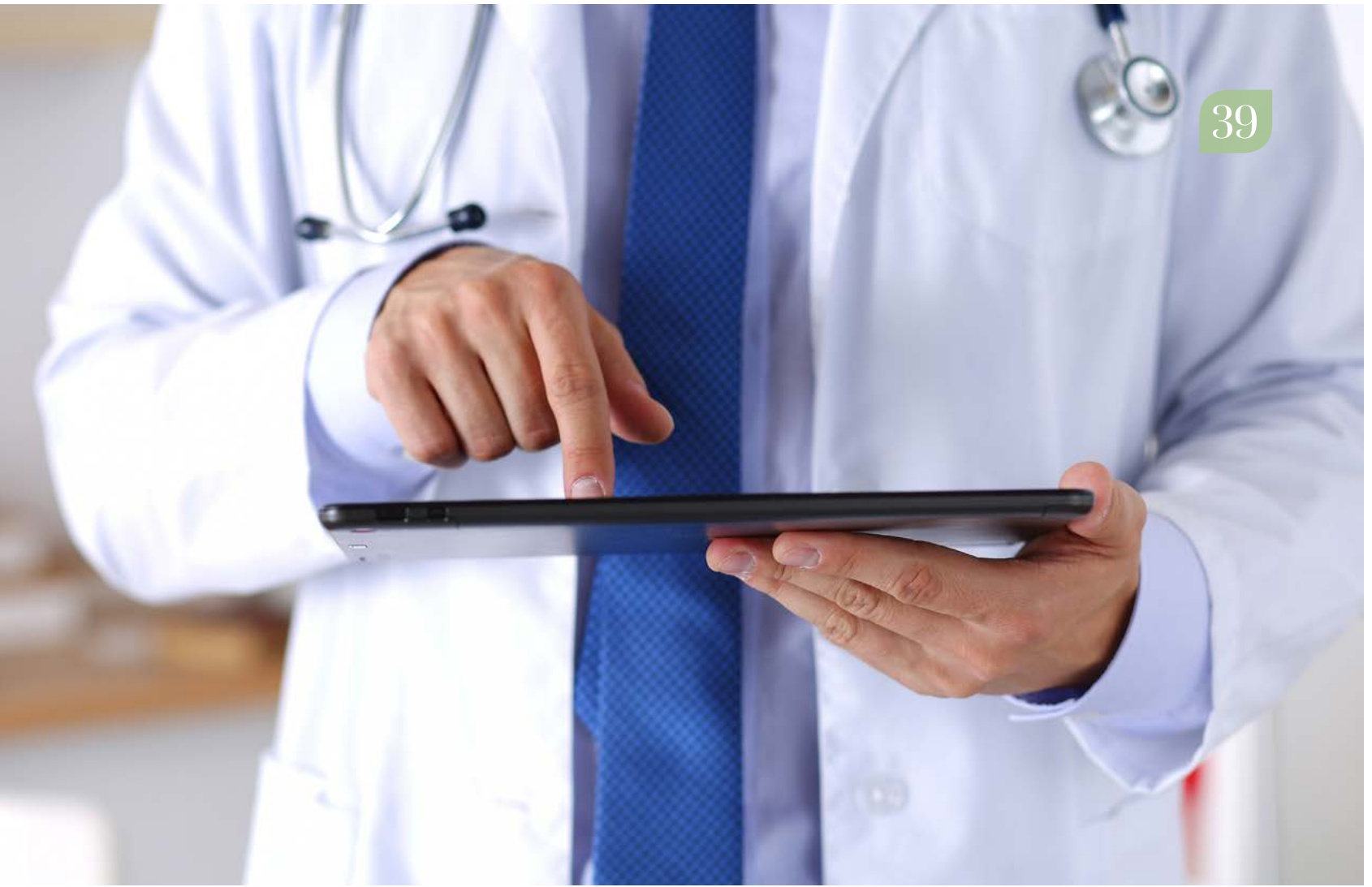
- ➔ Adopt electronic health records in all clinical and care coordination settings
- ➔ Expand the use of specific disease registries and reports (for example, patients with hypertension) by medical practices and hospital systems to evaluate and track patient outcomes and develop targeted interventions to improve patient outcomes

#### Key Community Partners

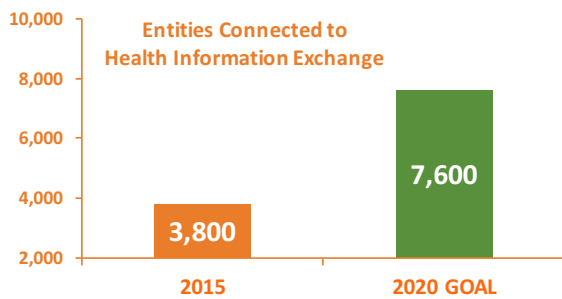
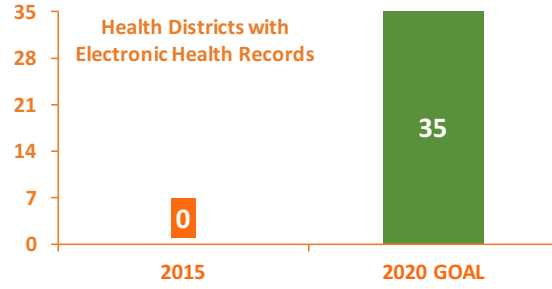
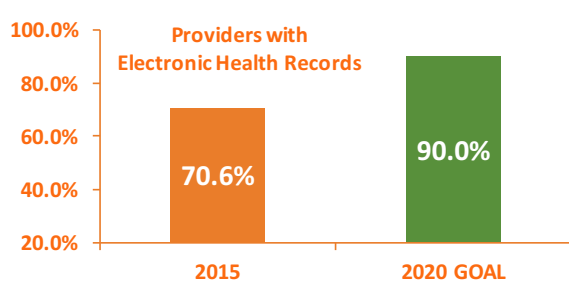
Businesses  
 Elected Officials  
 Federally Qualified Health Centers  
 Free Clinics  
 Health-Care Providers  
 Health Insurers  
 Hospital Systems  
 Public Health

- ➔ Connect providers, hospitals, and community partners through Connect Virginia HIE, Inc. to allow for statewide health information exchange
- ➔ Develop the capacity to create aggregated data reports through Connect Virginia HIE, Inc. that can be used to analyze and track population health measures
- ➔ Enhance public and private data systems and public health information technology to collect, manage, track, analyze, and report population health data
- ➔ Support Health Information Technology training opportunities and jobs





### Measures of Success



## AIM 4: SYSTEM OF HEALTH CARE

### 2020 FOCUS GOALS

#### Goal 4.3: HEALTH CARE-ASSOCIATED INFECTIONS ARE PREVENTED AND CONTROLLED IN VIRGINIA

Developing systems to assure patient safety has improved but remains an important goal in providing quality care. Health care-associated infections (HAIs), those resulting from the receipt of medical care in health care settings, are estimated to account for \$28 to \$45 billion in direct health care costs in the United States annually.<sup>24</sup> When health care facilities employ evidence-based prevention strategies, HAIs can be prevented and controlled. For example, *Clostridium difficile*, a type of bacteria that causes gastrointestinal illness, accounts for 12% of HAIs in hospitals.<sup>25</sup> Strategies to prevent spread include complying with hand hygiene guidelines, ensuring adequate cleaning and disinfection of the environment, and prescribing antibiotics appropriately.

#### Strategies

- ➔ Create a culture of safety in health care facilities that encourages effective communication between health-care providers, patients, and family members
- ➔ Perform hand hygiene frequently

#### Key Community Partners

Academic Partners

Businesses

Health-Care Providers

Hospital Systems

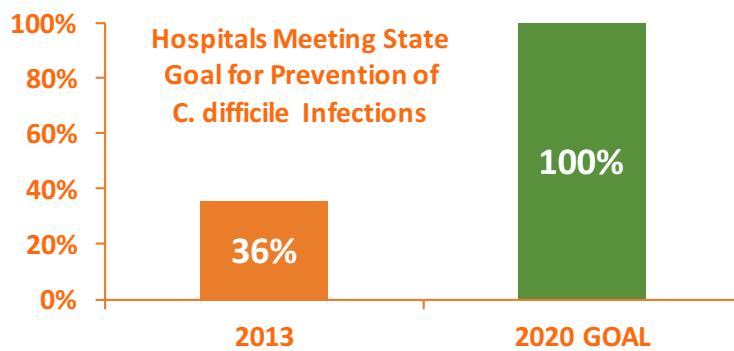
Insurers

Public Health

- ➔ Use antibiotics wisely to prevent bacteria from developing resistance to the drugs that are used to treat them
- ➔ Implement standard precautions in the care of all patients in all health care settings all of the time
- ➔ Use evidence-based methods to clean medical equipment and the health care environment
- ➔ Collect, analyze, and use data to engage healthcare providers in quality improvement activities
- ➔ Increase knowledge and practice of key prevention strategies for the various HAIs across and within healthcare settings
- ➔ Use health information systems to reinforce clinical practices that improve patient safety



**Measure of Success**





## REFERENCES

1. Organization, World Health (2002). *Health, Economic Growth and Poverty Reduction: Prevalence Trends*. Geneva: World Health Organization.
2. Council, National Research (2004). *Children's Health, the Nation's Wealth: Assessing and Improving Child Health*. Washington DC: National Academies Press.
3. Case, A. F. (2005). The Lasting Impact of Childhood Health and Circumstance. *Journal of Health Economics* , 365-389.
4. Bhutta, A. C. (2002). Cognitive and Behavioral Outcomes of School-Aged Children Who Were Born Pre-term: a Meta-Analysis. *Journal of the American Medical Association*, 728-737.
5. Health & Academics. (2015, September 1). Retrieved October 1, 2015, from Adolescent and School Health: [http://www.cdc.gov/HealthyYouth/health\\_and\\_academics/](http://www.cdc.gov/HealthyYouth/health_and_academics/)
6. Early Childhood Mental Health. (n.d.). Retrieved October 16, 2015, from Center on the Developing Child: <http://developingchild.harvard.edu/science/deep-dives/mental-health/>
7. Div. of Reproductive Health, N. C. (1999, December 3). Achievements in Public Health, 1900-1999: Family Planning. *Morbidity and Mortality Weekly Report*, pp. 1073-1080.
8. Information for Health Professionals Recommendations. (2014, September 2). Retrieved October 3, 2015, from Preconception Health and Health Care: <http://www.cdc.gov/preconception/hcp/recommendations.html>
9. Education, Curry School. (2014). *The Virginia Kindergarten Readiness Project Executive Summary & Legislative Report Fall 2014*. Charlottesville: University of Virginia.
10. Preventive Health Care. (2013, June 12). Retrieved November 5, 2015, from Gateway to Health Communication & Social Marketing Practice: <http://www.cdc.gov/healthcommunication/toolstemplates/entertained/tips/preventivehealth.html>
11. America's Health Rankings. (2015). Retrieved November 10, 2015, from United Health Foundation: <http://www.americashealthrankings.org/>
12. United States Department of Agriculture. (2010). *Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010*. Washington DC: United States Department of Agriculture.
13. Hoyland, A. D. (2009). A Systematic Review of the Effect of Breakfast on the Cognitive Performance of Children and Adolescents. *Nutrition Research Reviews* , 220-243.
14. Gunderson, C. Z. (2015). Food Insecurity and Health Outcomes. *Health Affairs*, 1830-1839.
15. MacLellan, D. D. (2008). Food Intake and Academic Performance Among Adolescents. *Canadian Journal of Dietetic Practice and Research*, 141-144.
16. Fellows, J. T. (2002). Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs-United States, 1995-1999. *Morbidity and Mortality Weekly Report*, 300-303.
17. Kids, Foundation for Tobacco Free (2015, September 25). *The Toll of Tobacco in Virginia*. Retrieved November 19, 2015, from Tobacco Free Kids: [http://www.tobaccofreekids.org/facts\\_issues/toll\\_us/virginia](http://www.tobaccofreekids.org/facts_issues/toll_us/virginia)
18. Prevention, Centers for Disease Control and (2015, October 1). *Health Effects of Cigarette Smoking*. Retrieved November 19, 2015, from Smoking & Tobacco Use : [http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/effects\\_cig\\_smoking/](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/)
19. Prevention, Centers for Disease Control and (2014, November 24). *Health Effects of Secondhand Smoke*. Retrieved November 15, 2015, from Smoking & Tobacco Use : [http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/secondhand\\_smoke/health\\_effects/](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/health_effects/)
20. Foundation, K. F. (2012, May 1). *How Much Does the U.S. Spend on Health and How Has It Changed?* Retrieved November 15, 2015, from Health Care Costs: A Primer: <http://kff.org/report-section/health-care-costs-a-primer-2012-report/>
21. Elhauge, E. (2010). *The Fragmentation of US Health Care*. Cambridge: Oxford University Press.
22. Fund, The Commonwealth (2009). *The Path to a High Performance U.S. Health System*. Commonwealth Fund Commission on a High Performance Health System.
23. Administration, Substance Abuse and Mental Health Services (2015, July 2). *Wellness Strategies*. Retrieved November 19, 2015, from Wellness: <http://www.samhsa.gov/wellness/strategies>
24. Scott, R. (2009). *The Direct Medical Costs of Health-care-Associated Infections in US Hospitals and the Benefits of Prevention*. Atlanta: Centers for Disease Control and Prevention.
25. Lessa, F. (2015). Burden of *Clostridium difficile* infection in the United States. *New England Journal of Medicine*, 825-834.





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