

## **Chronic Disease Burden in Virginia:**

Chronic diseases took a toll on the Commonwealth in terms of deaths, hospitalizations, and costs. According to state **vital statistics** for 2009:

- Cancer, heart disease, cerebrovascular disease (stroke), and chronic lower respiratory diseases were the top four leading causes of death for adults (in descending order) in Virginia.
- Diabetes was the eighth leading cause of death for that year.
- Altogether, these five diseases accounted for more than 35,000 deaths, or 55% of the total number of deaths, in one year alone.
- An estimated 492,000 adults, or 8.2% of the population, have diagnosed diabetes, and 268,000 adults, or 5.2% of the population, have diagnosed pre-diabetes, based on self-reported health behavior survey data (BRFSS 2009). However, data from BRFSS and NHANES (National Health and Nutrition Examination Survey) data which is based on clinical information, CDC estimates that nearly 844,000 Virginia adults aged 20 years and older (13.8% of the adult population) have diagnosed or undiagnosed diabetes, and nearly 2.2 million (35% of the adult population) has diagnosed or undiagnosed pre-diabetes.
- Seven percent (7%) or 418,000 adults reported having cardiovascular disease (i.e., coronary heart disease or angina) or an associated event (e.g., previous heart attack, stroke). Over 1.6 million adults (27.5% of the population) reported having diagnosed hypertension, and 1.8 million adults (36.7% of the population) had diagnosed high cholesterol.
- An estimated 2.6 million adults (44.3% of the population) have smoked cigarettes during their lifetime, including 1.14 million (19%) adults who currently smoke -- 73% of whom smoke daily. If you include adults who currently use smokeless tobacco either alone or in combination with cigarettes, 1.3 million adults are at risk for disease, death and disability attributed to their tobacco use.

- Nearly 1.5 million adults (25.5% of the population) are obese (i.e., body mass index, or BMI  $\geq$  30), and an additional two million adults (35.1%) of the population are considered at risk for obesity (i.e. “overweight” or BMI  $\geq$  25 but less than 30).
- Over 1.3 million adults (21.9% of the population) did not engage in any leisure-time physical activity (outside of work) in the past 30 days. Almost half (48.6%) of adults reported not engaging in sufficient amounts of either moderate physical activity (30+ minutes for five or more days per week) or vigorous physical activity (20+ minutes for three or more days per week) in the past 30 days.
- Three out of four (72.7%) adults consumed less than five servings of fruits and vegetables per day on average.

### **Risk Factors for Chronic Disease among Children and Youth:**

Additional findings on behaviors among children and youth in Virginia that put them at risk for developing chronic disease include the following:

- One-third (33%) of youth aged 12 to 17 years reported having tried smoking, according to the 2009 Virginia Tobacco Survey. Thirteen percent of all youth respondents (19.7% of high school students and 3.6% of middle school student) smoked in the 30 days prior to the survey. Using school enrollment data, these results translate into an estimated 85,000 youth in Virginia who smoked in the month prior to the survey.
- The 2007 National Survey of Children’s Health (NSCH) found 31% of children aged 10-17 years in Virginia to be either overweight or obese. A more recent state survey conducted by the Virginia Foundation for Healthy Youth in 2010 indicated that 22% of youth aged 10-17 years were overweight or obese. According to the 2008 Pediatric Nutrition Surveillance System (PedNSS), 39.1% of children in Virginia aged 2-5 years from low income families participating in the WIC program are either overweight or obese.
- The 2007 NSCH also found that 35.5% of children and youth aged 6-17 years did not participate in vigorous physical activity on four or more days in the week prior to the survey.

## **Health Disparities in Chronic Disease:**

Based on analyses of the most current data from adult and youth health behavior surveys, the Virginia Cancer Registry, and the Virginia Center for Health Statistics, the following disparities existed in chronic disease and risk factor prevalence in Virginia:

- With the exception of smoking, chronic diseases and associated risk behaviors were more prevalent in older adults.
- With the exception of arthritis, chronic diseases like cancer and cardiovascular diseases (including high cholesterol) tended to afflict men more so than women.
- Males and whites were more likely to report having a history of cardiovascular disease or cardiovascular event (e.g., heart attack, stroke).
- However, rates of death from heart disease, heart attack, and stroke were highest among black males. Second to black males, white males had high rates of heart disease deaths. Black females were second to black males in regards to heart attack and stroke deaths.
- Diabetes was more common among blacks than whites. Diabetes deaths were highest among black males, next followed by black females.
- Cardiovascular disease, diabetes, arthritis were more prevalent among adults with less education and adults living in low income households.
- Obesity and physical inactivity were more prevalent in racial minority groups, especially blacks and/or Hispanics, and in lower socioeconomic groups. Obesity is a significant risk factor for developing diabetes.
- Men were more likely to smoke cigarettes and less likely to eat fruits and vegetables. However, women were more sedentary.
- Chronic diseases and certain risk behaviors were correlated with inability to work, even among adults under the age of 65 years.

- Adults who reported limitations in their usual activities tended to be older and come from the lower end of the socioeconomic spectrum.
- Lack of healthcare coverage and lack of access to primary health care (i.e., having a primary care provider) was inversely related to having a chronic disease. It is hypothesized that adults with access to healthcare are more likely to be screened and diagnosed in a timely manner, unlike uninsured individuals who may have undiagnosed health problems or be at risk for developing chronic diseases.
- Poor access to health care did correlate with risk behaviors like smoking, no physical activity, and poor nutrition, and with lack of cancer screening for breast, cervical and colorectal cancers.
- Persons living in Appalachian counties in Virginia had significantly higher rates of chronic diseases and risk factors. These counties are noted for having a greater proportion of their population living in poverty and with lack of access to health care.
- In addition to local health districts in the far southwest area of the state (e.g., Lenowisco, Cumberland Plateau, Mount Rogers), districts in the central (e.g., Crater, Piedmont), south-central (e.g., Southside), and eastern (e.g., Eastern Shore) parts of Virginia have high rates of chronic disease and risk factor prevalence and experience high rates of deaths from heart disease, stroke, cancer, and diabetes. These districts are noted to be less densely populated and have a large proportion of their population that is medically underserved than other areas of the state.
- Obesity rates among youth aged 10-17 years were highest in the southwest and south central regions of the state. NSCH data indicates that children from low income, single-parent homes are more likely to be overweight or obese.

### **Virginia school policies and practices (School Health Audits)**

- Only 54.3% of public secondary schools in Virginia have comprehensive tobacco prevention policies that protect students, staff, and visitors from secondhand smoke inside and outside of school buildings, according to 2010 findings from the CDC School Health Profiles.

- Thirteen percent of schools always offer fruits and (non-fried) vegetables in school vending machines, school stores, and during school events, and 46% do not sell sugar sweetened beverages (e.g., soda, fruit drinks, sports drinks), candy, and non-low fat salty snacks and baked goods.
- Forty-six percent require all students in grades 6 through 12 to participate in physical education classes.