

HEALTH STATUS OF VIRGINIANS WITH DISABILITIES 2007 - 2009

An Analysis of Behavioral Risk Factor Surveillance System Data



2011

Virginia Health Promotion for People with Disabilities Project
Partnership for People with Disabilities
at
Virginia Commonwealth University

Health Status of Virginians with Disabilities 2007–2009

An Analysis of Behavioral Risk Factor
Surveillance System (BRFSS) Data



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Health Status of Virginians with Disabilities, 2007–2009

“Disability is part of human life, and an impairment or condition does not define individuals, their health, or their talents and abilities.”

—HealthyPeople.gov



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EXECUTIVE SUMMARY

The following report is based on data from the Behavioral Risk Factor Surveillance System (BRFSS) dataset. The dataset was developed and is managed by the Centers for Disease Control and Prevention (CDC), with collection and oversight of Virginia data through the Virginia Department of Health. The Virginia dataset for 2007–2009 contains records from 16,697 adults at least 18 years old who participated in a random telephone survey.

During 2007–2009, 17.6% of surveyed adults in Virginia reported that they were limited in some activities because of physical, mental, or emotional problems. The prevalence is about equal between men and women, but more prevalent among veterans, Native Americans, adults who are divorced or widowed, and people who are at least 65 years old. Over one-fourth of people with disabilities use special equipment, such as a walking cane, wheel-chair, adapted bed, or special telephone. In comparison to people who do not have a disability, people with disabilities in Virginia are more likely to live alone, have lower income, have less education, and were more often unemployed.

While most data analyses found that people with disabilities have greater health risks than people without disabilities, there were some areas in which rates were similar. Areas that show similar rates include having a personal doctor, having health insurance, men getting a PSA test, screenings for colorectal cancer and oral cancer, and seatbelt practices.

In other areas, people with disabilities show more positive health status than people without disabilities. These areas include receiving mental health treatment or medicine for emotional problems, lower alcohol consumption in last month, getting an annual checkup, cholesterol screening, and vaccines for the flu and pneumonia.

However, for most indicators studied, the health status of people with disabilities is worse than for people who do not have a disability. People with disabilities are more likely to perceive their health as only fair or poor, report more days in which physical and mental health was not good, and have more days in which poor health limited usual activities. They are more likely to show symptoms of anxiety and depression and to consider suicide, although they are less likely to plan or attempt suicide. People with disabilities tend to have a higher rate of chronic disease and health conditions (arthritis, asthma, cancer, cardiovascular disorders, high blood pressure, high cholesterol, and diabetes), and are also more likely to be physically inactive, obese, smokers, and heavy drinkers. They frequently have no dental insurance and are less likely to have visited a dentist or to have received regular professional teeth cleaning. Women with disabilities are less likely to get a routine mammogram and Pap test. People with disabilities also tend to have unmet health needs due to cost.



The following report details the differences between people with and without disabilities and the extent to which sex, race, age, and income may contribute to these disparities. This information offers a number of implications for improved health care disparities, systems change, and the promotion of health education, awareness, and access. The intent of the report is to highlight the issues that people with disabilities face, not only as a way to increase awareness, but to underscore the need for people with disabilities to be viewed individually instead of identifying them in terms of their disability.

Findings from this report will be used by Virginia's Health Promotion for People with Disabilities Project (HPPD) and Task Force as they engage in future activities related to health and disability. Based on the identified disparities between people with and without disabilities, HPPD strongly encourages other groups and organizations across Virginia to use the data to foster and expand health promotion priorities and activities that will enhance the lives of people with disabilities.



INTRODUCTION

The Virginia Health Promotion for People with Disabilities (HPPD) Project is funded through the National Center for Birth Defects and Developmental Disabilities at the Centers for Disease Control and Prevention (CDC). The HPPD Project is administered by the Partnership for People with Disabilities at Virginia Commonwealth University. The Partnership for People with Disabilities is a university center for excellence in developmental disabilities at Virginia Commonwealth University.

The mission of the HPPD Project and its Task Force is to “promote the health of people with disabilities, to prevent secondary conditions, and to eliminate disparities between people with and without disabilities in Virginia.” The HPPD Project works to improve the health of all individuals with disabilities by raising awareness of special healthcare issues and needs; by enhancing services and accessibility in the public health system; and by planning programs and activities that facilitate systems change. The HPPD Project is the first comprehensive statewide program that specifically promotes the overall health of individuals with disabilities and the importance of preventing secondary health related conditions.

The HPPD State Plan identifies the following as major focus areas for the HPPD Project and Task Force:

- Interacting with Existing Initiatives
- Access to Health Care
- Nutrition and Physical Activity
- Health Promotion and Outreach
- Data and Surveillance

The HPPD Project and Task Force will utilize this report as a resource for its continuing work in promoting health among people with disabilities, raising awareness, and reducing health care disparities. For more information, visit the Virginia Health Promotion for People with Disabilities website at www.hppd.vcu.edu or contact:

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DATA SOURCE

The following report is based on data from the Behavioral Risk Factor Surveillance System (BRFSS) dataset developed and managed by the Centers for Disease Control and Prevention (CDC). All states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands collect surveillance data on risk behaviors through monthly telephone interviews to randomly-selected households. In Virginia, the Virginia Department of Health has provided BRFSS data collection oversight and management since 1990.

The purpose of BRFSS is to collect data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases that affect the adult population. Factors assessed by the BRFSS include various health areas such as tobacco use, health care coverage, physical activity, and fruit and vegetable consumption. Data are collected through a random telephone survey of adults who are at least 18 years old. The BRFSS questionnaire has three parts--the core component, optional modules, and state-added questions.

The fixed core component is a series of questions about behaviors that affect health (e.g., tobacco use) and demographic characteristics. All state health departments must ask the core component questions without modifying the wording. The rotating core has two sets of questions, which are asked in alternating years by all states. The emerging core is a set of questions that are of current interest and which are piloted during one year.

Optional modules are sets of questions on specific topics that states elect to include on their questionnaires. Optional questions that were added during 2007–2009 to the Virginia BRFSS questionnaire and analyzed by disability status include the following modules: arthritis management (2007), heart attack and stroke (2007, 2009), intimate partner violence (2008), mental illness and stigma (2008), sexual violence (2008), and diabetes (2007–2009).

State-added questions are those developed by states and included in their questionnaires, but are not edited or evaluated by the CDC. State-added questions that were added to the Virginia BRFSS questionnaires during 2007–2009 and were analyzed by disability status include: testing for oral cancer (2007), neighborhood safety (2008), firearms in the home (2009), suicide (2009), dental insurance (2008), visit to dentist (2007), tooth loss (2007), and teeth cleaning (2007).

Data were weighted by the CDC to account for differing chances of selection by health districts and within households, and to adjust for disproportionate population demographics. For more information about BRFSS, visit <http://www.cdc.gov/brfss>. For more information about the Virginia BRFSS dataset, data requests, and methodology, visit <http://www.vahealth.org/brfss/data.htm>.



DEFINITION OF DISABILITY

Since 2004, a core BRFSS module included the question, “Are you limited in any way in any activities because of physical, mental, or emotional problems?” Responses were categorized as: “With disability,” “No disability,” “Don’t know,” or “Refused.” Missing, “Don’t know” and “Refused” responses were excluded from analyses.

Nationwide, the disability rate (adults who are limited because of physical, mental, or emotional problems) has increased nearly every year in the last decade, climbing from a median of 16.6% to 21.1%. In 2009, the national median rate was 18.7%, slightly higher than the rate of disability in Virginia.¹

The 2007–2009 BRFSS survey found that 17.6% of adults in Virginia have a physical, mental, or emotional disability. This prevalence is slightly lower than the Census finding of 21.3% of Virginia non-institutionalized civilians at least 21 years old who reported that they have a disability, as defined by having a sensory, physical, mental, self-care, go-outside-the-home, or employment disability.² The disability definitions used in the BRFSS and Census surveys are in contrast to the Americans with Disabilities Act Amendments Act (ADA) of 2008, which defines disability as having a “physical or mental impairment that substantially limits one or more of the major life activities of such individual, a record of such an impairment, or being regarded as having such an impairment.”

These various categorizations highlight the issues in defining disability in terms of activity limitation, history of condition, severity of impairment, social context, and self-acknowledgement. For example, the BRFSS question addresses any type of activity limitation while the ADA more narrowly defines disability in terms of a substantial limitation. Further, while the ADA recognizes that disability is sometimes not acknowledged by an individual, the BRFSS and Census definitions rely exclusively on self-reporting. In all of these definitions, the focus is on self-assessed limitation and not on accommodations and adaptations needed that may diminish barriers to health services, employment and other activities.

¹ Prevalence and Trends Data at www.cdc.gov/brfss.

² Census categories are not mutually exclusive. A “sensory disability” is a severe visual or hearing impairment and a “physical disability” substantially limits physical activities such as walking, climbing stairs, lifting, and carrying. A “mental disability” is difficulty with learning, remembering, or concentrating. People with “self-care disabilities” have a physical, mental, or emotional disability for at least six months that make it difficult in “dressing, bathing, or getting around inside the home.” People with “go-outside-the-home” disabilities have difficulty in “going outside the home alone to shop or visit a doctor’s office.” People with an “employment disability” have difficulty working at a job or business. *Review of Changes to the Measurement of Disability in the 2008 Community Survey* (2009) at www.census.gov.



ANALYSES

Data was obtained with permission from the Institutional Review Board at the Virginia Department of Health. The dataset is comprised of pooled data obtained through the 2007, 2008, and 2009 BRFSS questionnaires.

Descriptive and comparative analyses were performed using SPSS Complex Samples 18.0, utilizing a sampling plan that weights household and health district strata. Findings reflect weighted frequencies and unweighted analyses of variance.

For each health indicator, findings identify the status of adults in Virginia with comparisons between people with and without disabilities. Sub-populations include gender, age, race, and income. The report presents multiple bar and column charts to visually demonstrate the contrasts between people with and without disabilities, as well as gender, age, race, and income groupings.

Throughout the analyses, responses that were “Don’t know,” “Refused,” or missing were excluded. Filters were utilized to screen on indicators that pertain to a specific age or gender (for example, men at least 40 years of age who got a PSA test).

FINDINGS

Seven different factors were examined in terms of disability status—demographics, general health, mental health, health conditions and disease, preventive health care and tests, self-care and healthy behaviors, and violence. All data is about adults at least 18 years old who reside in Virginia who were randomly selected to participate in the BRFSS study.

Unless noted, findings are similar to 2004–2006 data. Areas in which findings markedly differ from 2004–2006 are described. When there are fewer than 25 respondents in a category, the analysis is not presented. This is most often the case for health conditions and experiences in which the survey found fewer than 25 people with disabilities who are Hispanic or other races (for example, Hispanic people with disabilities who have an asthma diagnosis). The report includes comparisons to national and state trends, based on 2009 national BRFSS findings, when available.³

³ See www.cdc.gov/brfss for national data and trends.



PREVALENCE OF DISABILITY

Over one in six adults in Virginia reported having a physical, mental, or emotional disability. In all, 17.6% ($N=3,768$) of the 16,697 survey respondents in the state reported on the 2007–2009 BRFSS survey that they are limited in some activity because of physical, mental, or emotional problems. The 2007–2009 BRFSS survey did not include questions about the severity, history, or type of disability, need or use of assistance or accommodations, or whether the disability was developmental or acquired. For this reason, people with disabilities consists of a very diverse group, such as a college student recovering from a car accident, a blind business man, an elderly woman with debilitating arthritis, a young mother with agoraphobia, an Army veteran with brain trauma, and a computer programmer who uses a wheelchair.

At a 17.6% prevalence rate, approximately 1.1 million Virginia adults 18 years and older had a disability in 2010.⁴ Of those reporting a disability, 28.2% indicated that they have a health problem that requires them to use special equipment (e.g., walking cane, wheelchair, adapted bed, or special telephone). In contrast, only 2.0% of people without disabilities require special equipment.

DEMOGRAPHICS

Figures 1–6 illustrate the disability status of adults in Virginia, by sex, age, veteran status, race, marital status, income, level of education, and employment. As can be seen, the presence of disabilities is more prevalent among people 65 years and older, veterans, Native Americans,⁵ and adults who are divorced or widowed. There is little difference between men and women.

Figure 1 presents the disability status of adults in Virginia. The chart shows that 17.1% of men and 18.1% of women have a disability. Over one in four veterans (25.4%) and adults at least 65 years old have a disability.

Figure 2 displays disability status and race. Over one in three Native Americans has a disability,⁴ a rate that is at least twice as high as any other race. Only 10.8% of Hispanic adults in Virginia reported having a disability, in contrast to 18.6% of White adults, 17.6%

⁴ Based on 2010 population of 6,147,347 adults at least 18 years old residing in Virginia (www.census.org).

⁵ Because only 127 Native Americans were part of the sample (of which 54 have disabilities), there is a larger standard error for this population. The prevalence of disabilities among Native Americans should be interpreted with caution.



Figure 1–Disability Prevalence by Sex, Age, and Veteran Status

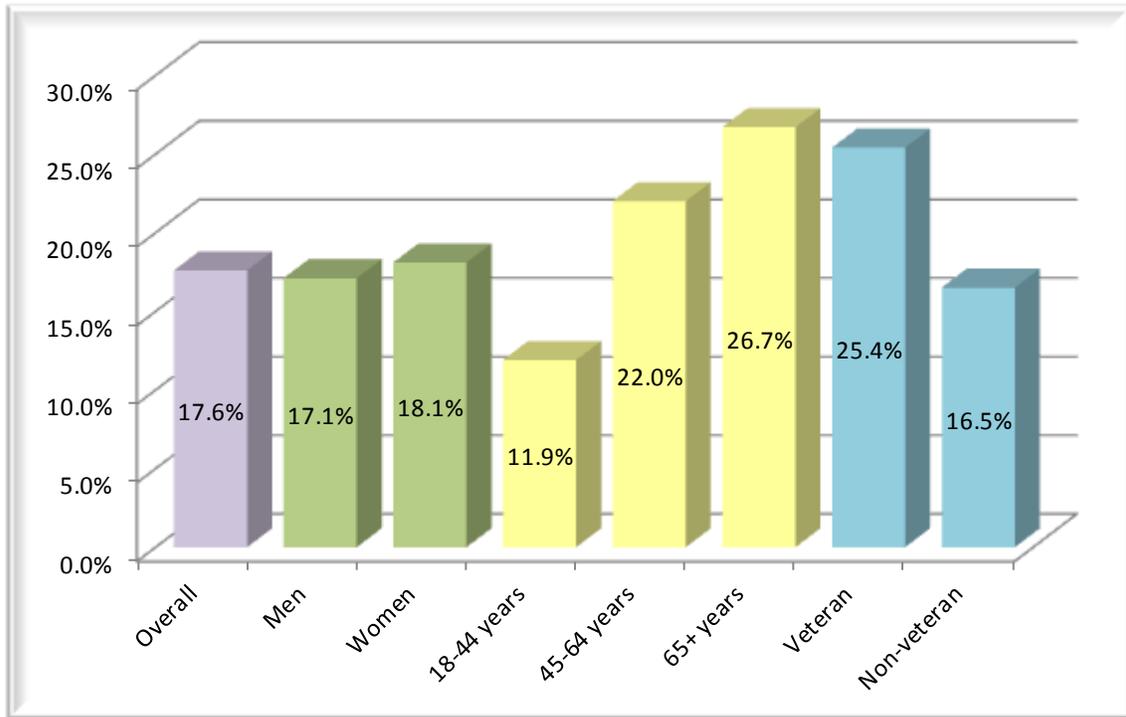
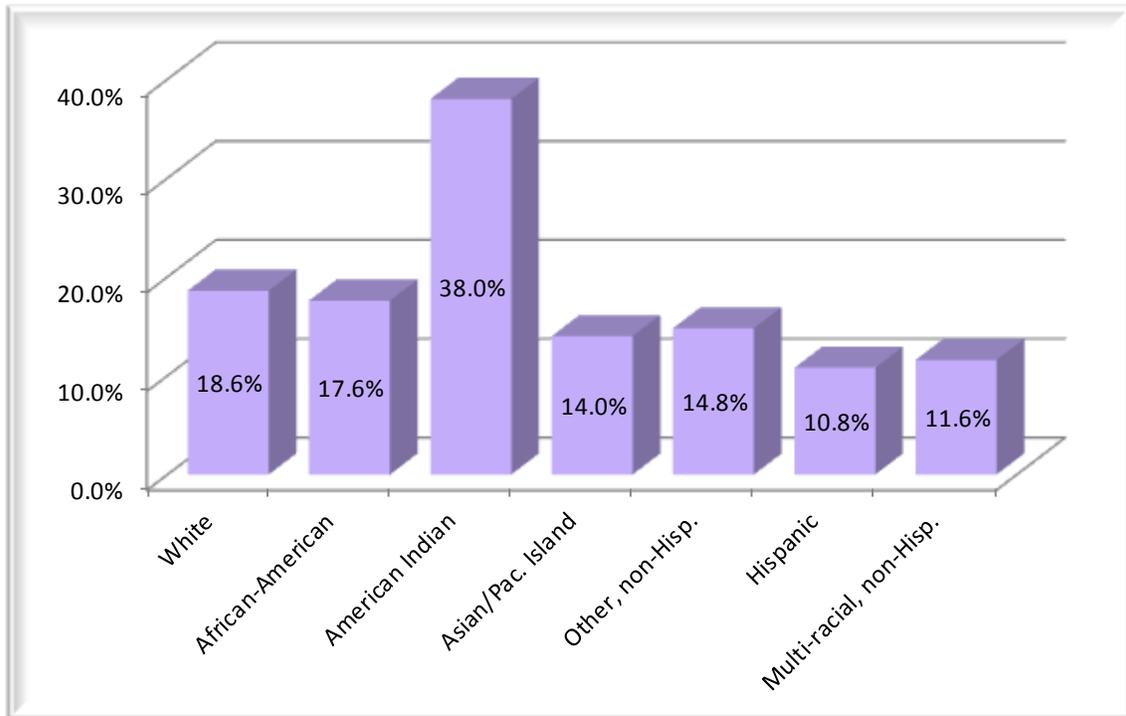


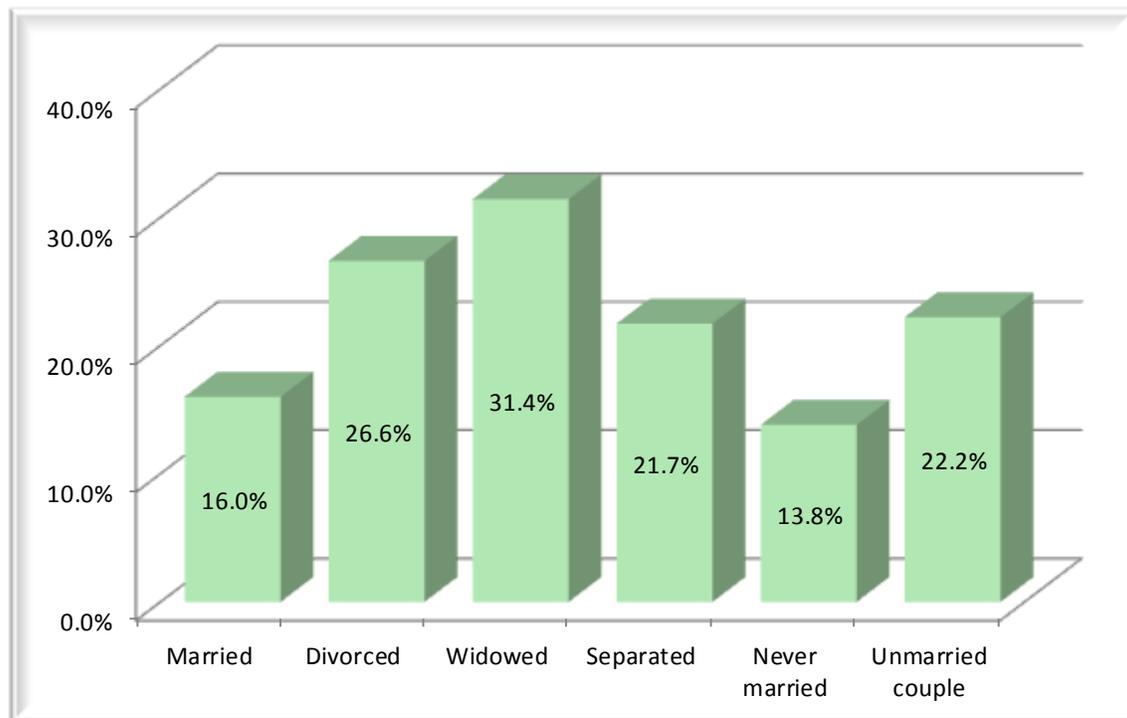
Figure 2–Disability and Race (N=16,181)



of African American adults, and 14.0% of Asian/Pacific Islander adults.⁶ Findings support Census findings that disability status is higher among Native Americans, but may not adequately represent the extent to which Hispanics in Virginia have disabilities.⁷ Disability rates for Whites, Native Americans, Hispanics, and other races are similar to 2004-2006 findings. The disability rate increased for African Americans (from 13.5% to 17.6%) and for Asian/Pacific Islanders (from 5.3% to 14.0%).

Figure 3 displays disability and marital status. Nearly one in three widowed adults (31.4%) has a disability, nearly twice the rate of married adults (16.0%). The higher rate of disability among widows is mostly attributable to age.⁸

Figure 3-Disability and Marital Status (N=16,350)



⁶ The low rate of disability among Hispanic adults is not wholly attributable to data collection; Spanish versions of the BRFSS survey have been utilized since 1997. There were 529 Hispanic adult respondents in the 2007-2009 BRFSS dataset (unweighted count).

⁷ 2000 Census data of adults 16-64 years old shows disability rates of 16.8% for Whites, 26.4% for African Americans, 27.0% for Native Americans, 16.9% for Asians, and 24.0% for Hispanics (*Disability Status: 2000 Census Brief*, www.census.gov).

⁸ According to the 2007-2009 Virginia BRFSS dataset, the median age of widows is 75 years old, compared to 54 years old for married adults.



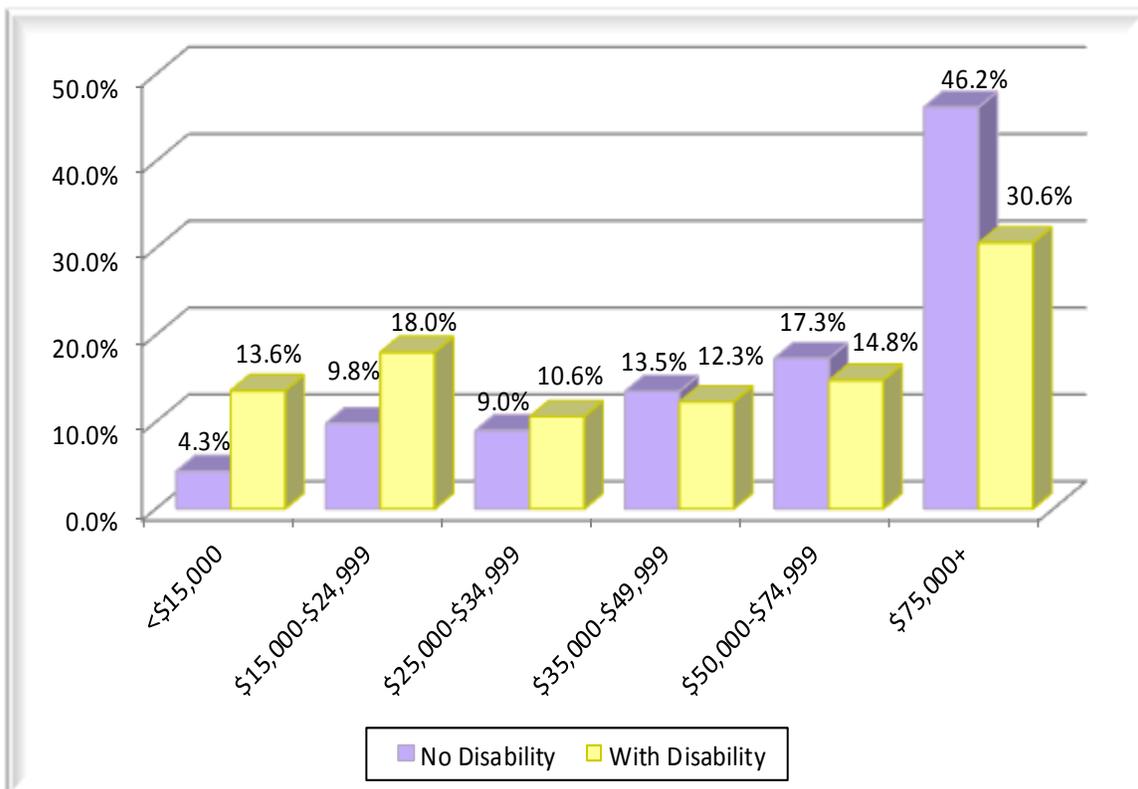
People with disabilities are slightly more likely to live alone than those who do not have disabilities. About one in four adults with disabilities (25.9%) lives alone, in contrast to 18.8% of adults without disabilities. Only 28.9% of adults with disabilities live with a child who is under age 18, in comparison to 45.3% of adults without disabilities.

During a 30-day time period, over one in four adults in Virginia (26.8%) cared for a friend or family member who has a health problem, long term illness, or disability. People with disabilities are more frequently in caregiver roles than people without disabilities (32.1% and 25.8%, respectively).

INCOME, EDUCATION, AND EMPLOYMENT

As shown in Figures 4-6, people with disabilities tend to earn less than people without a disability, and they tend to have less education and be unemployed. While nearly half of the respondent people without disabilities (46.2%) earn over \$75,000 annually, only 30.6% of people with disabilities are in this income category. Nearly twice as many people with disabilities earn less than \$35,000 in comparison to people who do not have a

Figure 4-Disability and Income (N=14,170)



disability (42.2% and 23.1% respectively). Further, people with disabilities are over three times more likely to have very low incomes (under \$15,000) as people without disabilities, a rate that has widened since 2000. The disparity in earnings between people with and without disabilities is a statistically significant ($p < .001$) difference.

Figure 5 shows that people with disabilities are more likely to have dropped out of school and less likely to have earned a college degree. Educational attainment of people with and without disabilities has improved slightly since 2000, when 16% of people with disabilities and 9% of people without disabilities had less than a high school degree.⁹

Figure 5-Disability and Level of Education (N=16,358)

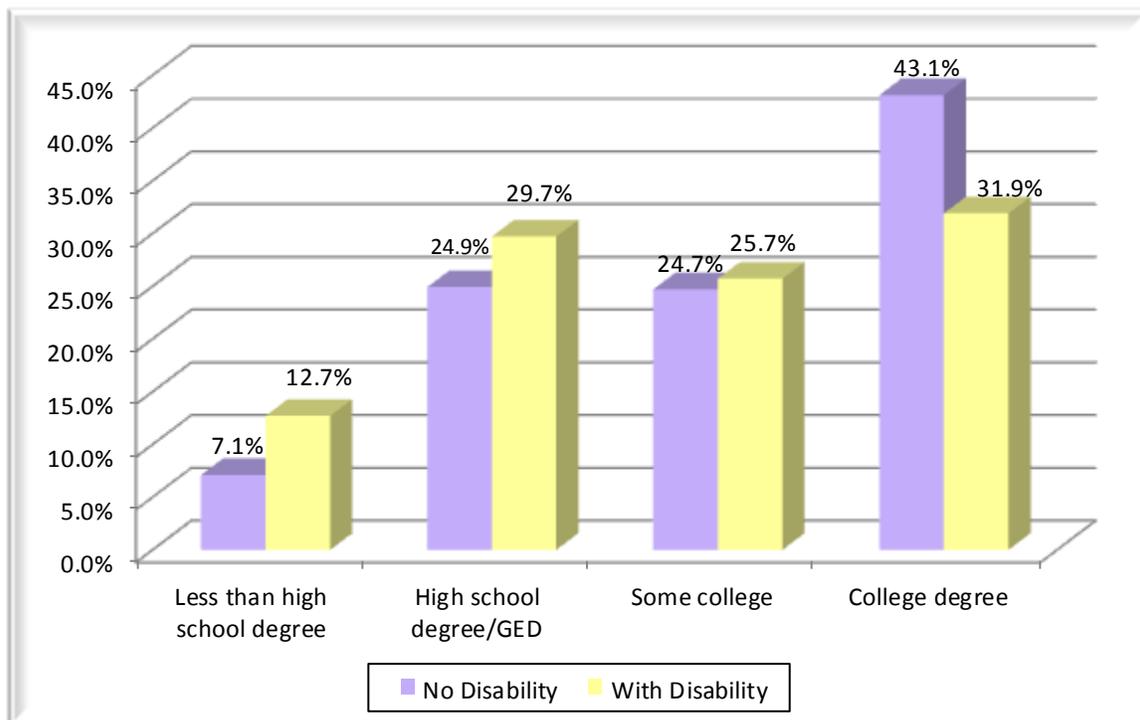
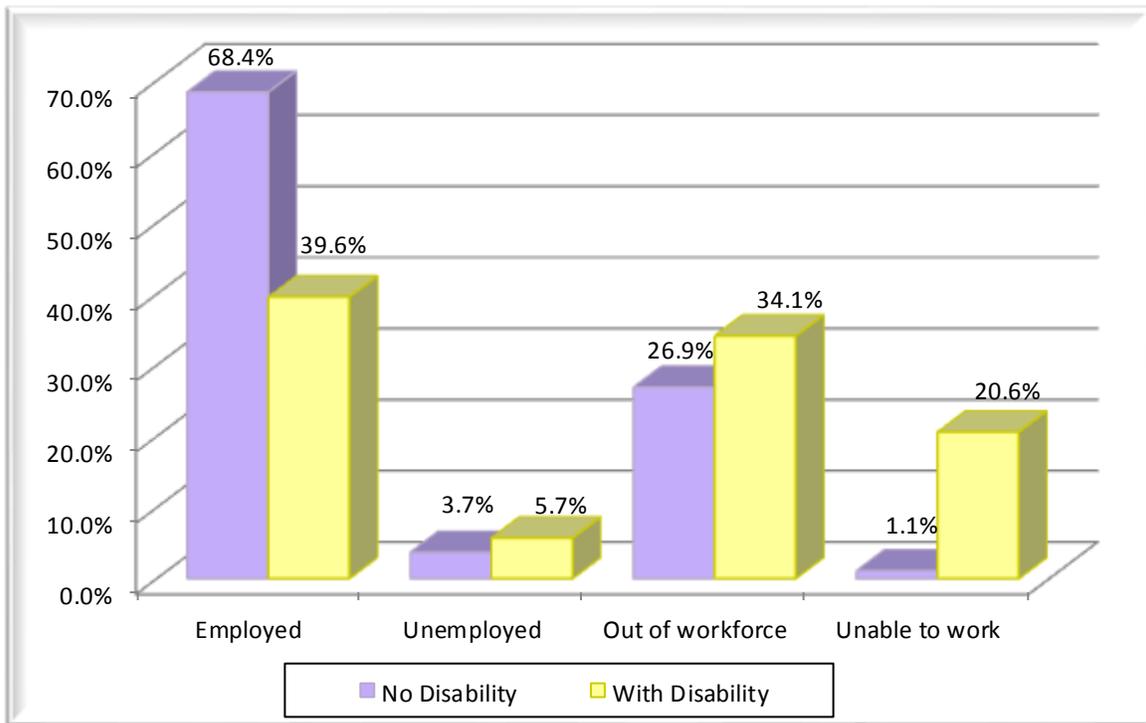


Figure 6 shows that people with disabilities are significantly ($p < .001$) more likely to be unemployed, out of the workforce, or unable to work than people without disabilities. “Employed” include respondents who are employed for pay or self-employed, while “unemployed” are adults who have been out of work. “Out of the workforce” includes students, homemakers, and retired individuals.

⁹ Virginia Commonwealth University. (2004). Disability Among Virginians: An Analysis of BRFSS Data 2000, 2001, 2002.



Figure 6–Disability by Employment Status (N=16,350)



Tables 1-3 show employment status and disability by sex, age, and race. The presence of a disability, particularly coupled with race, seems to have a much greater influence on employment status than sex. For example, Table 1 shows that men and women have a similar rate of being unemployed, and men with disabilities have a similar rate of unemployment as women with disabilities.

Table 1–Employment Status by Disability and Sex (N=16,417)

	Males		Females		TOTAL	
	No Disability	With Disability	No Disability	With Disability	No Disability	With Disability
Employed	77.6%	46.8%	59.6%	33.3%	68.4%	39.6%
Unemployed	3.5%	5.7%	3.9%	5.6%	3.7%	5.7%
Out of the workforce	18.0%	27.0%	35.4%	40.4%	26.9%	34.1%
Unable to work	0.9%	20.5%	1.2%	20.7%	1.1%	20.6%
Total	100.0%	100.0%	100.1%	100.0%	100.1%	100.0%

Among all age categories, the percentage of unemployed people with disabilities is about double the percentage of unemployed people who have no disability, and rates of employment are lower among people with disabilities across all age groups. (See Table 2.) For example, only 12.4% of people with disabilities who are at least 65 years old are employed, in contrast to 23.5% of 65+ year old adults who do not have a disability. As expected, the percentage of people with disabilities who are unable to work is much higher than the rates of people without disabilities who are unable to work. Employment rates for adults over 65 increased since 2004-2006 (from 14.9% to 23.5% for people without disabilities and from 9.6% to 12.4% for people with disabilities).

Table 2—Employment Status by Disability and Age (N=13,517)

	18-44 years old		45-64 years old		65+ years old	
	No Disability	With Disability	No Disability	With Disability	No Disability	With Disability
Employed	77.4%	61.6%	77.2%	44.4%	23.5%	12.4%
Unemployed	4.6%	7.8%	3.4%	6.7%	1.3%	2.8%
Out of the workforce	17.5%	11.9%	18.0%	19.5%	73.9%	75.1%
Unable to work	.5%	18.7%	1.4%	29.4%	1.3%	9.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3 reflects how race and presence of disability significantly ($p<.001$) affects employment rates. African American adults with disabilities have the highest rates of unemployment, and nearly three times as many African Americans without disabilities are employed (60.6%) in comparison to African Americans with disabilities (22.1%).

Table 3—Employment Status by Disability and Race (N=16,350)

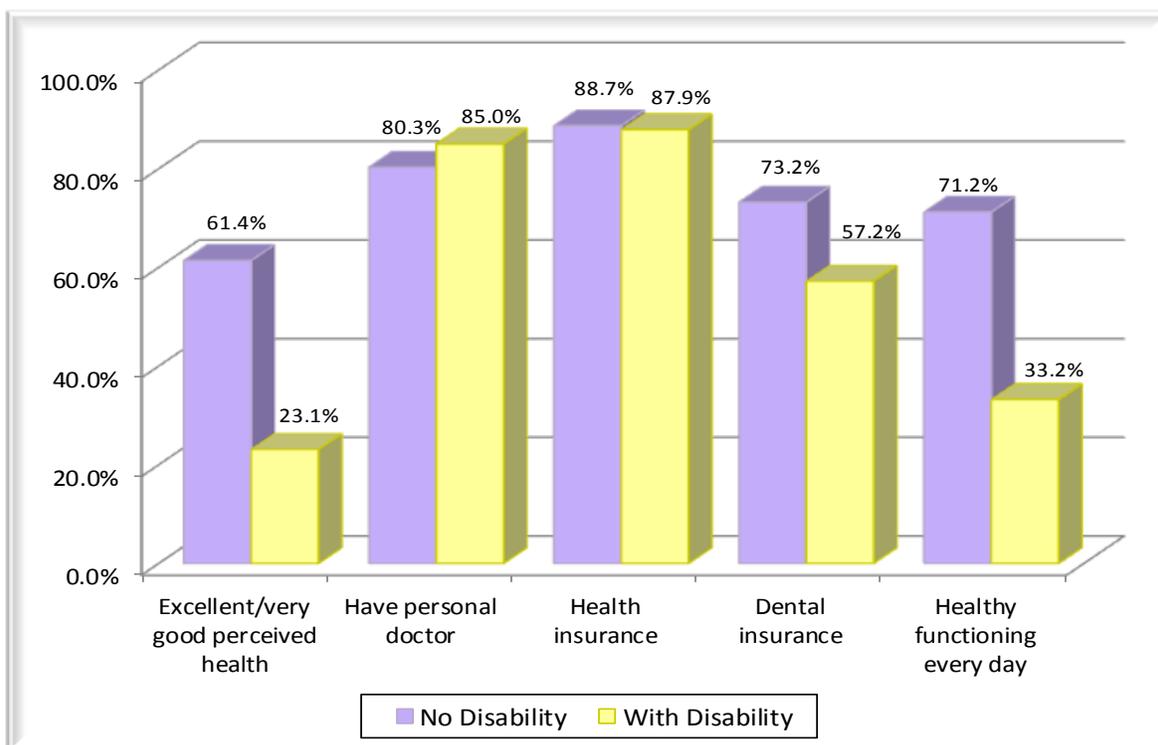
	White		African American		Hispanic		Other	
	No Disability	With Disability	No Disability	With Disability	No Disability	With Disability	No Disability	With Disability
Employed	60.2%	30.1%	60.6%	22.1%	67.1%	42.7%	68.7%	35.6%
Unemployed	2.6%	4.1%	4.8%	6.6%	5.3%	4.0%	5.2%	3.7%
Out of the workforce	36.1%	44.9%	29.0%	36.3%	25.6%	41.3%	24.8%	25.2%
Unable to work	1.1%	20.9%	5.6%	35.0%	2.0%	12.0%	1.3%	35.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



GENERAL HEALTH

General health characteristics were examined by disability in terms of perceived health, having a personal doctor, health and dental insurance, and healthy functioning. As shown in Figure 7, most people with and without disabilities have a personal doctor, health insurance, and dental insurance. While people with disabilities perceive worse health and functioning, their rates of having a personal doctor and having health insurance was similar to people without a disability, though they tended to lack dental insurance more often.

Figure 7—General Health Characteristics



PERCEIVED HEALTH STATUS

BRFSS respondents were asked, “Would you say that in general your health is ‘excellent,’ ‘very good,’ ‘good,’ ‘fair,’ or ‘poor?’” In response, over half of the adults surveyed in Virginia reported their health was “very good” or “excellent,” (52.6%); 29.6% indicated “good,” and 18.3% reported only “fair” or “poor” health. These rates are lower than national median rates of 56.0% “very good”/“excellent” perceived health; 29.9% “good,” and 14.2% “fair” or “poor” health.

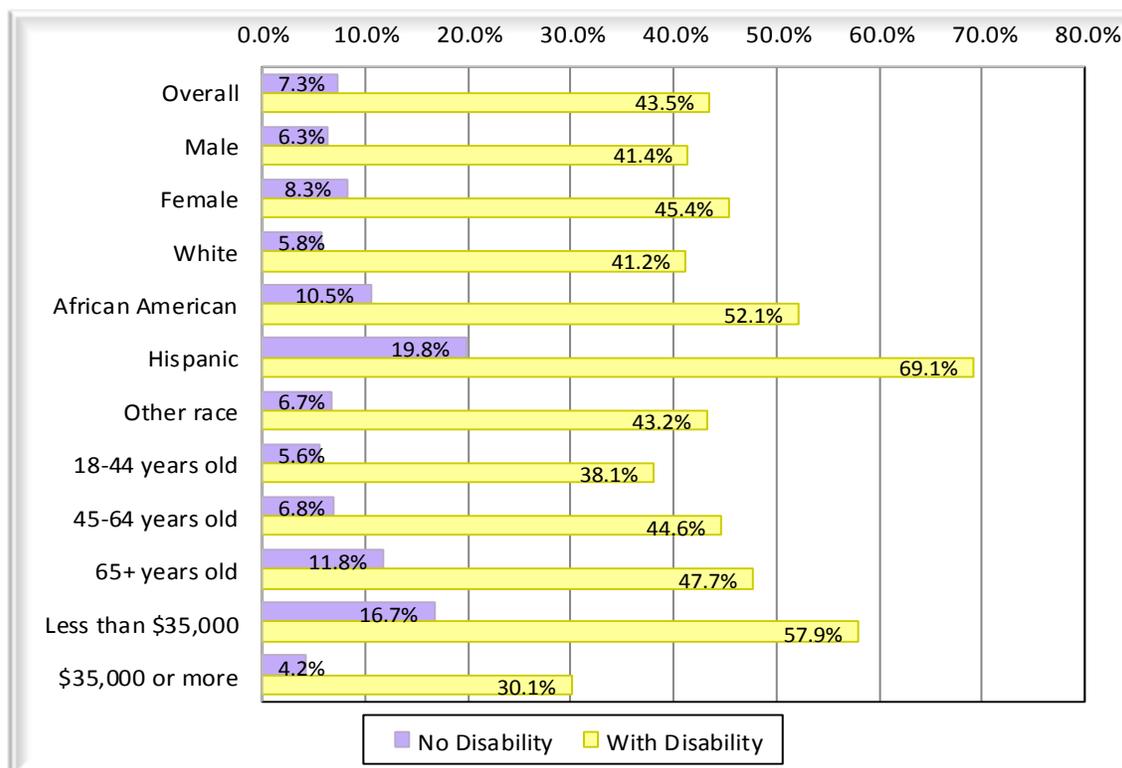
Figure 8 shows that the overall rate of fair or poor health is nearly six times greater among people with disabilities (43.5%) in comparison to individuals who do not have a



Health Status of Virginians with Disabilities, 2007–2009

disability (7.3%), a statistically significant ($p<.001$) difference. Among people who have disabilities, women and people 65+ years old tend to be more likely than others to report “fair” or “poor” health. However, rates of fair and poor health are disproportionately much higher among African Americans, Hispanics, and adults earning less than \$35,000.

Figure 8–Self-Reported Fair or Poor Health (N=16,256)



The proportion of people with disabilities who report only fair/poor health has increased, with the largest increases from 18-44 year old adults with disabilities. The percentage of 18–44 year olds with disabilities who reported “fair” or “poor” health increased from 27.6% in 2004–2006 to 38.1% in 2007–2009. Nationally, the rate of fair/poor perceived health has increased in the last decade, with more Virginians reporting poor health than in the past. In 1999, 2.3% of all adults in Virginia reported poor health in comparison to 3.8% in 2009.¹⁰

¹⁰ www.cdc.gov/brfss

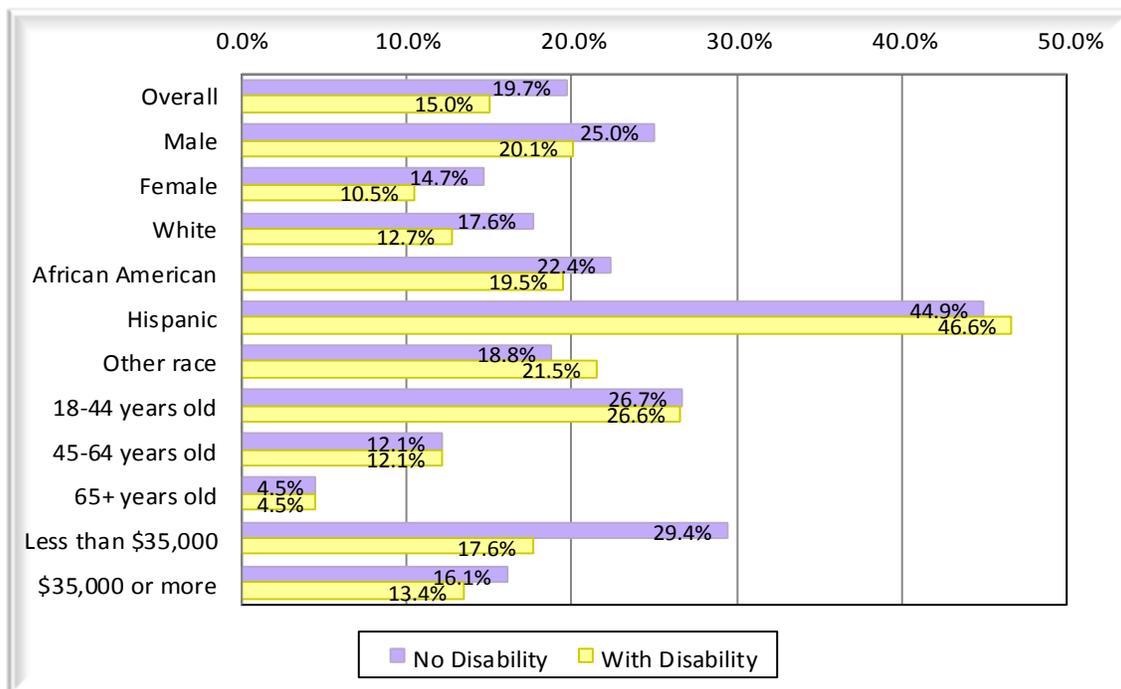


PERSONAL DOCTOR

While most adults (81.1%) have at least one person who they consider to be their personal doctor or health care provider, nearly one in five adults (18.9%) in Virginia does not have a personal doctor. People with disabilities are slightly more likely to have a doctor than those with no disability (85.0% and 80.3%, respectively).

Figure 9 indicates that adults who are Hispanic, 18-44 years old, and earn less than \$35,000 are most likely to lack a personal doctor.¹¹ **The number of African Americans with disabilities who lack a personal doctor increased from 6.0% in 2004–2006 to 19.5% in 2007–2009.**

Figure 9—No Personal Doctor (N=13,486)



Among people with disabilities, men are nearly twice as likely to lack a personal doctor as women (20.1% and 10.5%, respectively.) Among adults who earn less than \$35,000, 29.4% of those without a disability lack a personal doctor in contrast to 17.6% of those with a disability. However, among adults who earn more than \$35,000, there is little difference between people who have and do not have a disability.

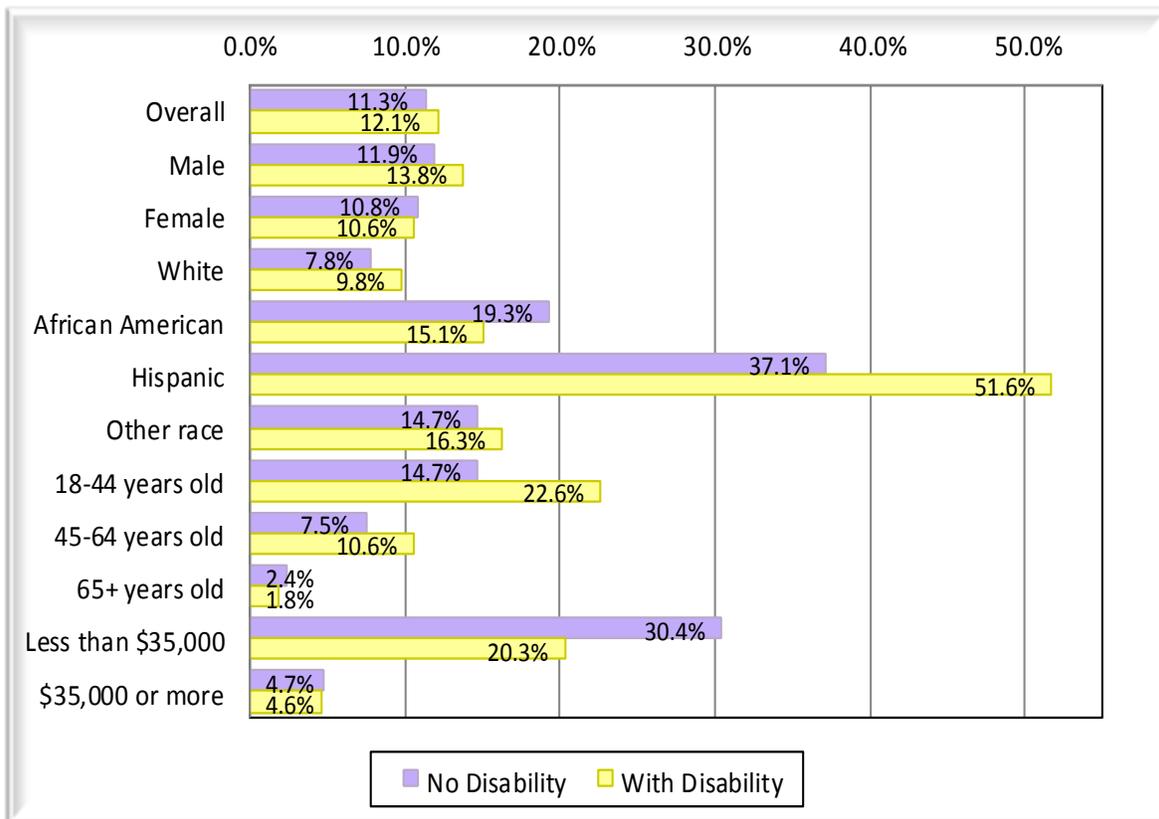
¹¹ Note: The number of respondents who are Hispanic or in an “Other” race category was lower than 50, so caution should be used in interpreting these findings.



HEALTH CARE COVERAGE

The majority (88.6%) of Virginians have some type of health care coverage, including health insurance, prepaid plans such as HMOs, and government plans like Medicaid. There was little difference between adults with disabilities (87.9%) and adults without disabilities (88.7%). In comparison to women, men were slightly more likely to lack health coverage. As shown in Figure 10, adults who are most likely to lack health care coverage include African Americans without a disability, Hispanics, 18–44 year olds with a disability, and individuals earning less than \$35,000. The rates of health care coverage are slightly better in Virginia than in other states. Nationwide, the median rate for health care coverage of 18-64 years olds was 83.1% in 2009, slightly lower than the 88.8% 2009 rate in Virginia.¹²

Figure 10–No Health Insurance (N=12,934)



Among people with disabilities, adults less than 45 years old and those earning less than \$35,000 were most likely to not have health care coverage. Adults with disabilities

¹² www.cdc.gov/brfss



who are 18–44 years old are about 11 times more likely to be uninsured as those who are at least 65 years old.

UNMET HEALTH NEEDS DUE TO COSTS

In response to the BRFSS survey question, “Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?” about one in eight adults in Virginia agreed. In all, a total of 11.9% of adults indicated they could not see a doctor because of costs, and people with disabilities had twice the rate as people without disabilities. In all, 20.6% of people with disabilities said they did not go to the doctor in the past 12 months because of cost, in comparison to 10.0% of people who do not have a disability. The difference is statistically significant ($p < .001$).

As shown in Figure 11, Hispanics, other races, adults under 45 years old, and those earning less than \$35,000 are most likely to have unmet health needs, with higher rates among people with disabilities. For example, 54.9% of Hispanic adults with disabilities could not afford to see a doctor during 2007-2009, a rate that is over twice as high as Hispanic adults who do not have a disability (25.7%).

DENTAL INSURANCE

In Virginia, nearly one in three adults (29.5%) lacks dental insurance. **While nearly half of people with disabilities (42.8%) have no dental insurance, one in four adults without a disability (26.8%) lack dental insurance.** As shown in Figure 12, adults who earn less than \$35,000, are at least 65 years old, and Hispanics are most likely to lack dental insurance, while those earning over \$35,000 were the most likely to have dental insurance.

Lacking dental insurance is associated with not visiting a dentist, poor dental hygiene, and loss of permanent teeth due to decay or disease. Of those who do not have dental insurance, only 52.1% had their teeth professionally cleaned in the last year, in comparison to 81.3% who have dental insurance. Similarly, 54.7% of those without dental insurance have had at least one permanent tooth extracted due to decay or disease, in contrast to 34.7% of those with dental insurance.

Frequency of professional teeth cleaning is also related to income, and people with disabilities have similar rates of teeth cleaning as those without disabilities when income is factored. For example, Table 4 indicates that among those who earn over \$35,000, the rates of not having their teeth professionally cleaned is similar between those with disabilities (18.5%) and those without disabilities (16.5%).



Figure 11–Unmet Health Needs Due to Cost (N=16,378)

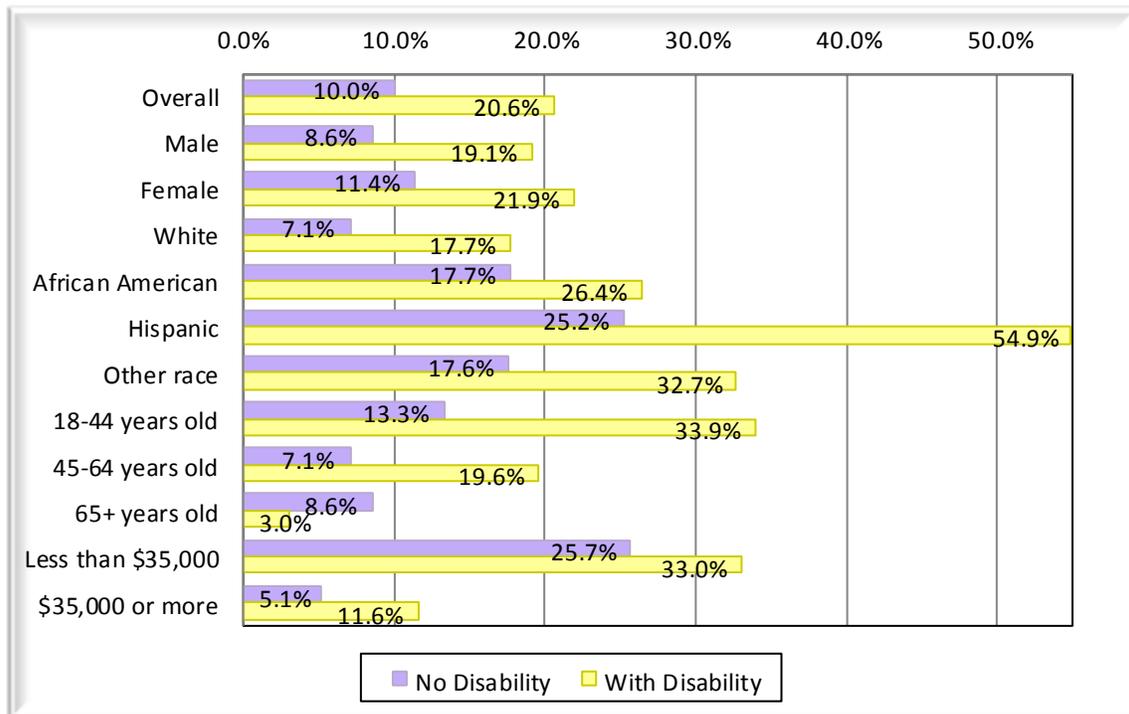


Figure 12–Lack of Dental Insurance (N=5,626)

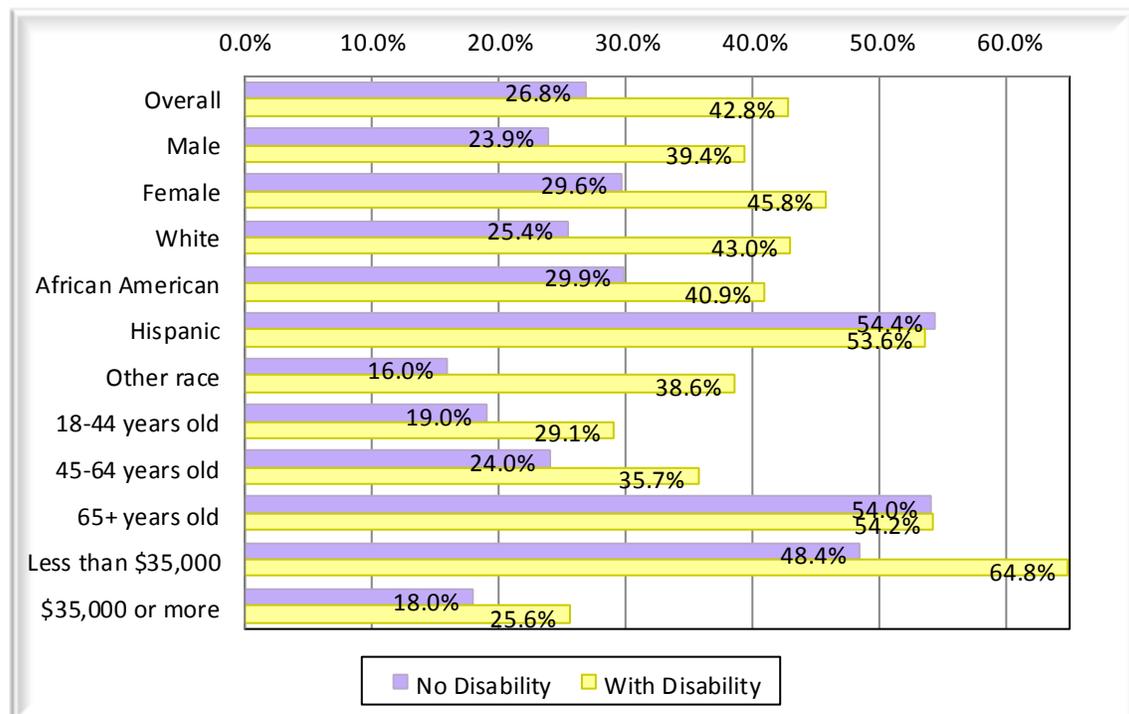


Table 4–Dental Insurance, Professional Cleaning, and Tooth Loss

	No Disability		With Disability	
	<\$35,000	\$35,000+	<\$35,000	\$35,000+
Among those without dental insurance:				
Teeth professionally cleaned 2+ years ago or never	63.8%	31.5%	67.7%	39.6%
At least one tooth extracted due to decay or disease	55.9%	42.9%	78.8%	65.1%
Among those with dental insurance:				
Teeth professionally cleaned 2+ years ago or never	23.3%	16.5%	51.6%	18.5%
At least one tooth extracted due to decay or disease	42.2%	30.0%	75.9%	46.7%

HEALTHY FUNCTIONING

BRFSS survey respondents were asked, “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your health not good?” In all, Virginia adults reported an average of 4.2¹³ days in which their health was not good, more than the national average, with only 62.8% of adults indicating “none.” In comparison, individuals in the United States reported an average of 3.4 physically unhealthy days and 3.6 mentally unhealthy days.¹⁴

There is a significant difference in days of unhealthy functioning based on health insurance access. Among those who have a health insurance plan, the average number of days in which their health was “not good” was 4.07 days in the previous month, significantly fewer ($p<.001$) than those who do not have health insurance (5.09 days in the previous month).¹⁵

When asked to estimate the number of days within the previous month in which their physical health was not good, people with disabilities were significantly ($p<.001$) less likely to report “none,” in comparison to people who have no disabilities (33.2% and 71.2% respectively). On average, people with disabilities had over five times more days (average=9.07) in which their physical health was not good, in comparison to people without disabilities (average=1.54). Figure 13 illustrates the weighted findings that compare people with and without disabilities. People with disabilities who earn less than

¹³ Unweighted averages.

¹⁴ www.healthypeople.gov

¹⁵ Unweighted averages.



\$35,000 show a particularly large number of days in which their physical health was not good (14.63 days in the last month).

In response to the question, “How many of the last 30 days did your poor health keep you from usual activities,” most people without disabilities (67.6%) said “none.” In contrast, about twice as many people with disabilities were limited in their activities due to poor health, a total of one-third of adults in Virginia with disabilities (36.2%). The difference between people with and without disabilities is statistically significant ($p < .001$).

Figure 14 shows the average number of days in the last month in which poor health restricted activities, based on disability status and demographics. The average number of days in which people with disabilities had activity restrictions increased from 6.90 days in 2004-2006 to 9.47 days in 2007-2009.

Figure 13–Average Days in Which Physical Health Was Not Good (N=16,309)

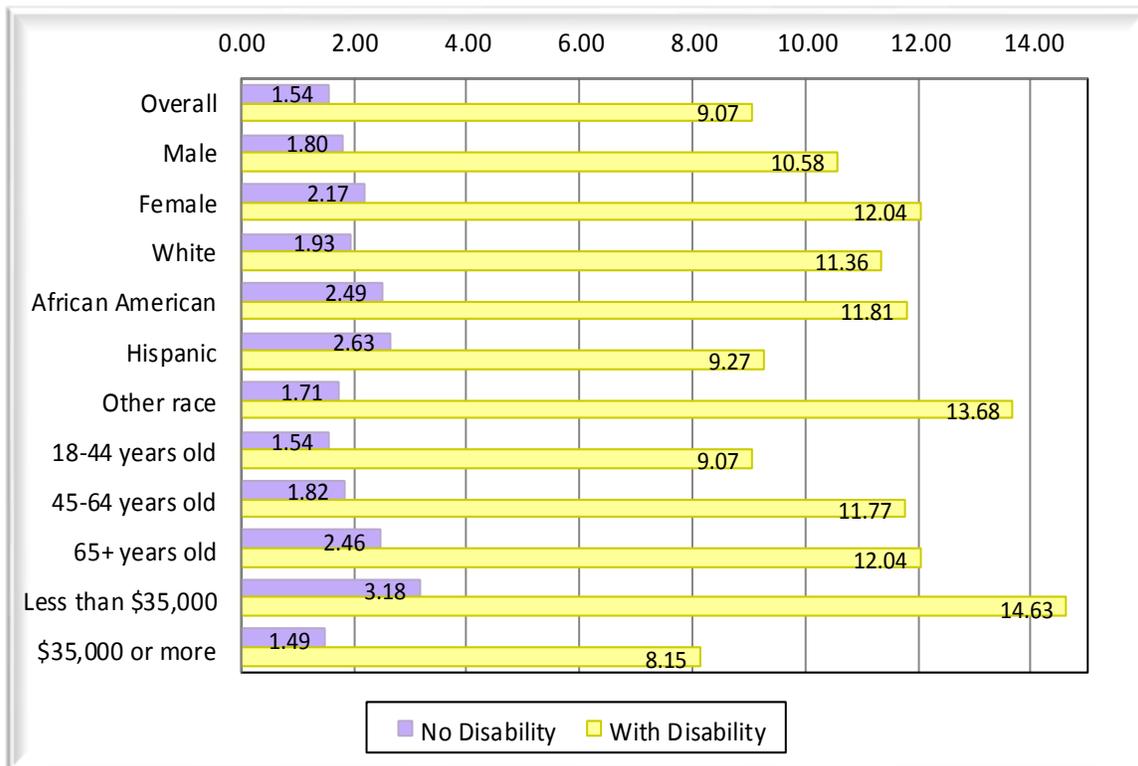
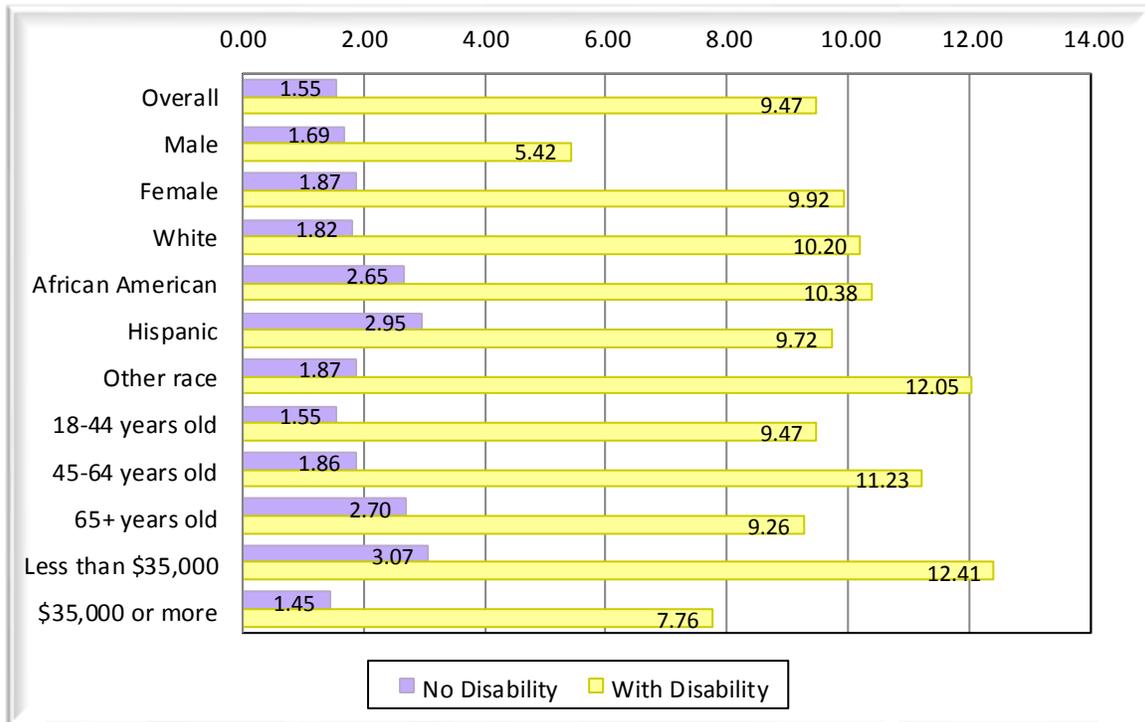


Figure 14–Average Days in Last Month in Which Poor Health Restricted Activities
(N=8,472)



MENTAL HEALTH

Mental health was studied in terms of mentally unhealthy days, treatment, anxiety and depression symptoms, and suicide. Findings show that people with disabilities tend to have more mental health issues than people without disabilities.

Social stigma about mental health issues and treatment seems to be decreasing. In response to the 2009 BRFSS survey statement, “Mental health treatment can help people live a normal life,” nearly all respondents (93.7%) agreed, with three-fourths of Virginia adults strongly agreeing (72.9%). About half of all surveyed adults slightly (34.7%) or strongly agreed (20.9%) that “People are generally caring towards people with mental illness.”¹⁶

¹⁶ Unweighted counts.

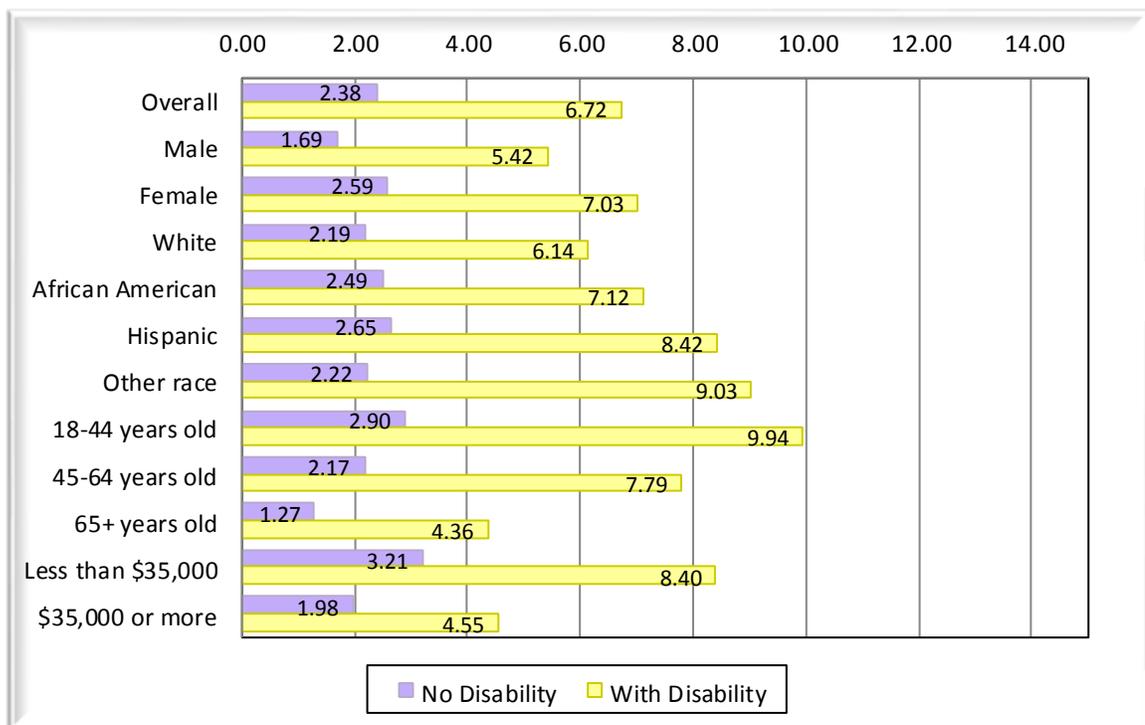


MENTAL AND EMOTIONAL HEALTH

Respondents were asked to estimate the number of days within the past month that their mental health was not good and their emotional problems led them to miss work. In all, 94.4% of people without disabilities, and 78.8% of people with disabilities, reported that they did not miss any work in the last 30 days due to an emotional problem. Among those who did miss work, people with disabilities reported an average of nearly seven days (6.72) in the past month in which their mental health was not good, about three times as many days as reported by people without disabilities (2.38). The difference in mentally unhealthy days based on disability status was statistically significant ($p < .001$).

Among people with disabilities, women, racial minorities, adults under 45 years old, and those earning less than \$35,000 have the most mentally unhealthy days, as shown in Figure 15. Women with disabilities, for example, have an average of 7.03 days within the past month in which their mental health was not good, in contrast to 5.42 days among men with disabilities and 2.59 days among women without disabilities.

Figure 15—Average Number of Mentally Unhealthy Days (N=16,414)

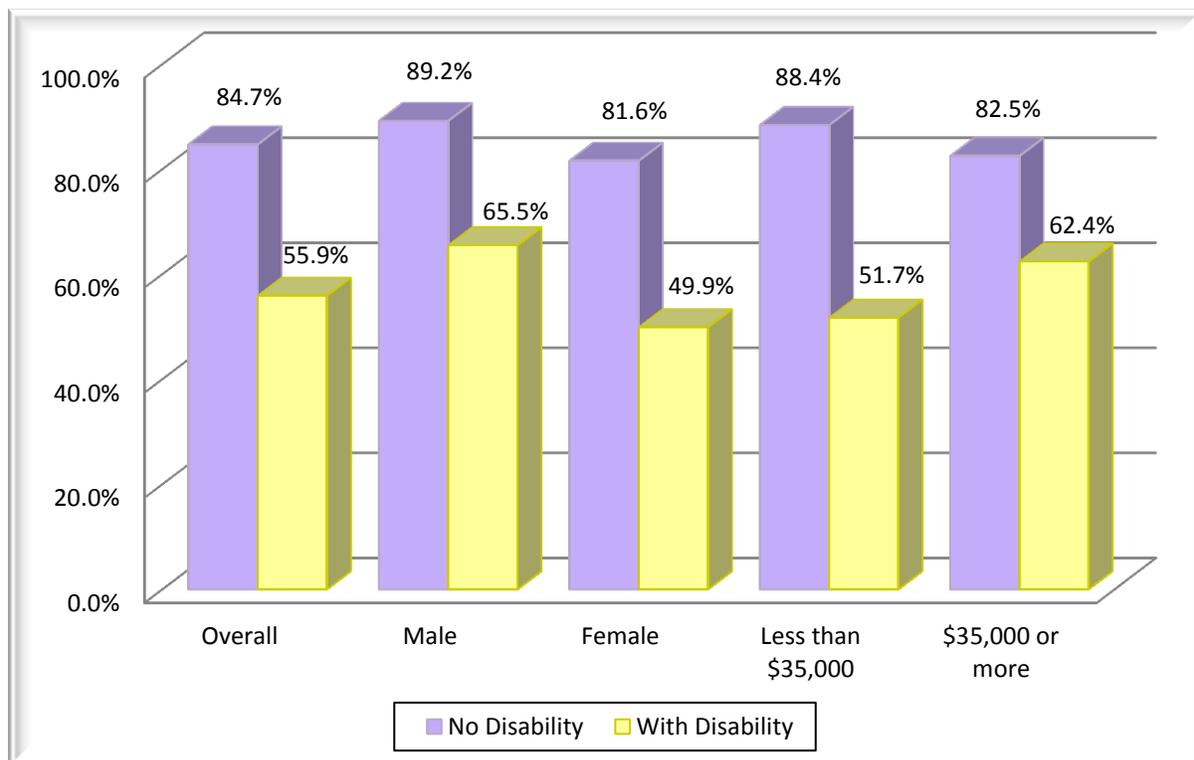


Among those who reported that they had at least one day in the last 30 days in which they felt their mental health was not good, people with disabilities are more likely than people without disabilities to receive medicine or treatment. Of people



with disabilities reporting that their mental health was not good recently, 44.1% are receiving medicine or treatment from a health professional for their emotional problems and 55.9% lack treatment or medicine. In contrast, 84.7% of people without disabilities reported that they lacked treatment/medicine for their emotional problems, as shown in Figure 16. In all, 72.6% of adults reporting at least one “not good” recent mental health day lack treatment or medicine. Breakdowns by race and age could not be accurately presented because of the small number of respondents in several respondent categories.

Figure 16–Lack of Mental Health Treatment or Medicine Among People Stating at Least One Mentally Unhealthy Day (N=1,715)



ANXIETY AND DEPRESSION

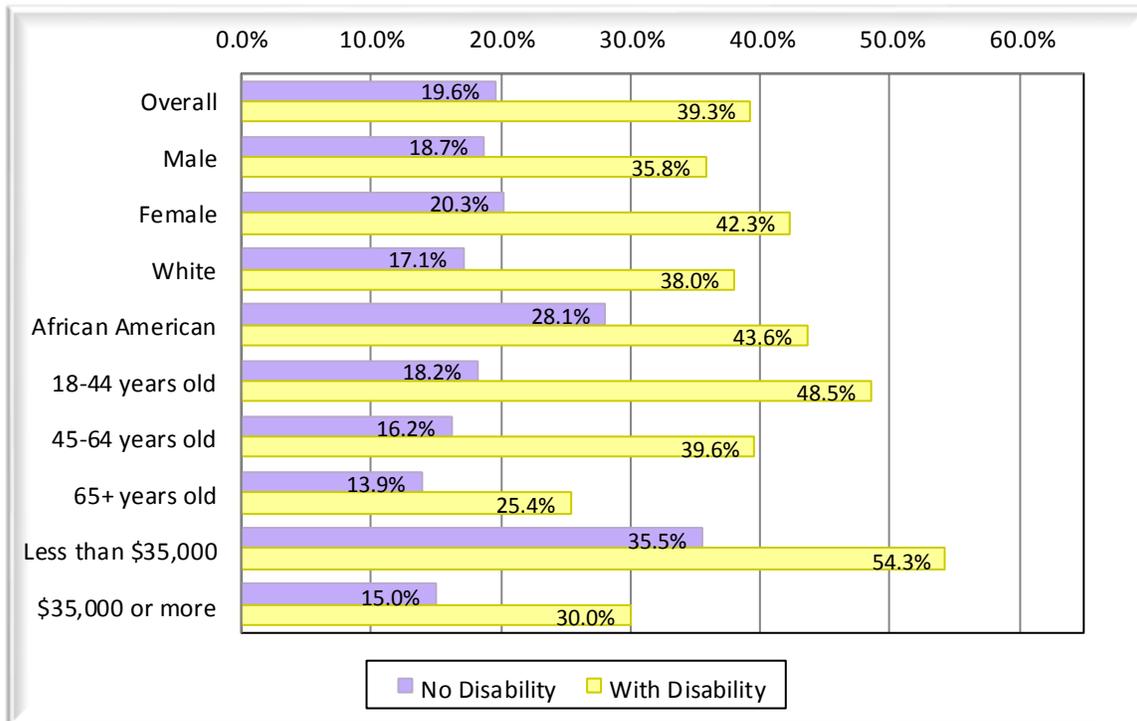
In 2009, respondents were asked to rate how many days in the last 30 days (“all,” “most,” “some,” “a little,” “none”) they felt nervous, hopeless, restless or fidgety, depressed, worthless, and that everything was an effort. Those who answered “all” or “most” to at least one of these were considered to have symptoms of anxiety and depression. In all, 22.9% of Virginia adults report symptoms of anxiety and depression.

In general, people with disabilities are more likely to report symptoms of anxiety and depression than people without disabilities. As shown in Figure 17, over one-third of people with disabilities (39.3%) show signs of anxiety or depression, in contrast to 19.5%



of people who do not have a disability. Similar to the data on mentally unhealthy days, anxiety and depression symptoms are more prevalent among women, African Americans, adults under 45 years old, and those earning less than \$35,000.

Figure 17—Symptoms of Anxiety and Depression (N=5,799)



SUICIDE

A small proportion of people with disabilities (7.2%) and people without disabilities (1.9%) considered suicide in the past 12 months. Among those who considered suicide, people with disabilities were less likely than those without a disability to have a suicide plan and attempted suicide. Among people with disabilities who considered suicide, 44.0% made a serious suicide attempt plan and 29.8% attempted suicide at least once. In contrast, 52.6% of those without a disability who considered suicide had a serious suicide plan and 54.3% attempted suicide at least once. About one in five respondents (18.6%) who attempted suicide had to be treated by a health care professional for an injury, poisoning, or overdose.



SOCIAL AND EMOTIONAL SUPPORT

In response to the question “How often do you get the social and emotional support you need?” most people without disabilities (83.0%) and people with disabilities (72.1%) indicated “always” or “usually,” with significantly higher ($p<.001$) rates among people without disabilities. However, there is no difference between people with and without disabilities in terms of responding “never” (4.0%). People who are at least 65 years old, earn over \$35,000, are married, and do not have a disability are more likely than others to indicate that they always get the social and emotional support needed. There is little difference based on race or gender.

Table 5–Social and Emotional Support (N=15,728)

Social/emotional support received	No Disability	With Disability	TOTAL
Always	51.8%	43.7%	50.4%
Usually	31.2%	28.4%	30.7%
Sometimes	10.2%	16.7%	11.4%
Rarely	2.7%	7.1%	3.5%
Never	4.0%	4.0%	4.0%
Total	99.9%	99.9%	100.0%

LIFE SATISFACTION

When asked “In general, how satisfied are you with your life?” nearly all (95.4%) responding adults indicated they are satisfied or very satisfied. However, people with disabilities are significantly ($p<.001$) more likely to be dissatisfied. People with disabilities are nearly six times more likely to indicate they are dissatisfied or very dissatisfied with their lives (14.2%) than people without disabilities (2.5%). People who are at least 65 years old, earn over \$35,000, are married, have at least a college education, and do not have a disability are more likely than others to indicate more satisfaction with their lives. There was little difference based on race, education, or gender.

Table 6–Life Satisfaction (N=15,868)

In general, how satisfied are you?	No Disability	With Disability	TOTAL
Very satisfied	52.8%	33.8%	49.3%
Satisfied	44.8%	52.1%	46.1%
Dissatisfied	2.1%	10.7%	3.6%
Very dissatisfied	.4%	3.5%	1.0%
Total	100.1%	100.1%	100.0%

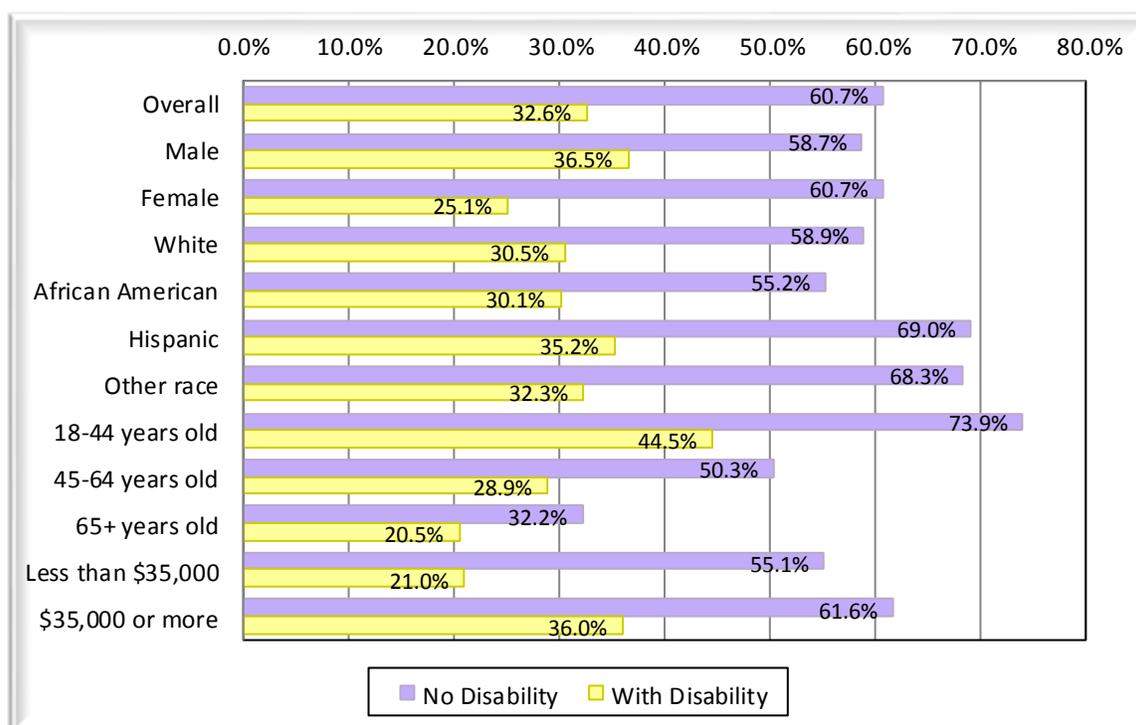


HEALTH CONDITIONS AND DISEASE

Respondents were asked if they had ever been told by a doctor, nurse, or other health professional if they had seven different types of health conditions or chronic disease—arthritis, asthma, cancer, cardiovascular disease, high blood pressure, high cholesterol, and diabetes. Figure 18 reflects the percentages of healthy adults in Virginia; i.e., those who have not been diagnosed with arthritis, asthma, cancer, cardiovascular disease, high blood pressure, high cholesterol, or diabetes. In all, slightly more than half the adults surveyed in Virginia (54.5%) have not been diagnosed with any of the seven targeted health conditions. Higher rates of healthy adults are found among people without disabilities, Hispanics, other races, adults 18-44 years old, and those who earn more than \$35,000.

There is a statistically significant difference ($p < .001$) between people with and without disabilities in terms of the presence of overall health conditions. Only one-third of people with disabilities (32.6%) have none of the seven targeted health conditions, in contrast to 60.7% of people without disabilities. People with disabilities have particularly high rates of arthritis, high blood pressure, and high cholesterol.

Figure 18—Healthy Adults (N=16,417)



ARTHRITIS

Respondents were asked, “Have you EVER been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?” Arthritis diagnoses include:

- Rheumatism, polymyalgia rheumatica
- Osteoarthritis (not osteoporosis)
- Tendonitis, bursitis bunion, tennis elbow
- Carpal tunnel syndrome, tarsal tunnel syndrome
- Joint infection, Reiter’s syndrome
- Ankylosing spondylitis, spondylosis
- Rotator cuff syndrome
- Connective tissue disease, scleroderma, polymyositis, Raynaud’s syndrome
- Vasculitis

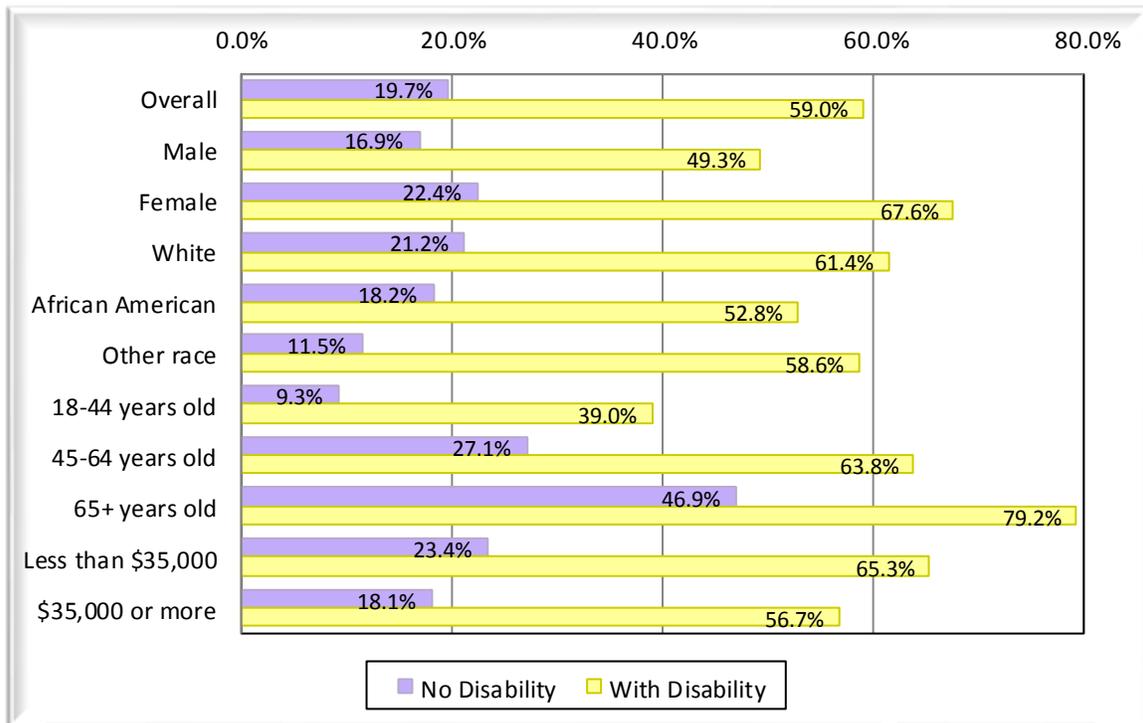
Those who said “yes,” were asked if they were “now limited in any way in any usual activities because of arthritis or joint syndrome?” On average, 26.3% of responding adults in Virginia reported a diagnosis of arthritis, similar to the national rate of 20.6% in 2009.¹⁷ More than one-third of the surveyed adults in Virginia (38.1%) who have arthritis indicated that they are now limited in their usual activities.

As shown in Figure 19, people with disabilities are about three times more likely to have an arthritis diagnosis (59.0%) than people without disabilities (19.7%). Among people with disabilities, arthritis prevalence is higher for women (67.6%) and people at least 65 years old (79.2%). African Americans with disabilities had a lower arthritis rate during 2007-2009 (52.8%) in comparison to 2004-2006 (65.4%).

¹⁷ www.cdc.gov/brfss



Figure 19–Arthritis (N=10,999)



Among adults who have a diagnosis of arthritis, people with disabilities have the most severe and debilitating symptoms, which may be the basis of their disability. Table 7 shows that in comparison to people without a disability, people with disabilities are about 13 times more likely to indicate that because of their arthritis, “I can hardly do anything I would like to do” and about 7 times more likely to report that arthritis affects them “a lot.” People with disabilities are slightly more likely to have taken an educational course about arthritis management and to have seen a doctor for joint symptoms.



Table 7–Effect of Arthritis

Among those who have been told by a health professional that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	No Disability	With Disability	TOTAL
Affects whether they work, type of work, or amount of work	12.4%	48.8%	26.3%
Limited in any of usual activities because of arthritis or joint symptoms	17.1%	72.9%	38.1%
Ever seen a doctor for joint symptoms	88.4%	93.0%	90.4%
Effect of arthritis: ¹⁸			
“A lot”	4.6%	34.2%	15.9%
“A little”	14.5%	30.1%	20.5%
“Not at all”	80.8%	35.7%	63.6%
Doctor suggested losing weight to help arthritis or joint symptoms	29.2%	44.7%	34.9%
Doctor suggested physical activity to help arthritis or joint symptoms	62.5%	66.8%	64.1%
Taken an educational course to manage problems related to arthritis	9.5%	17.2%	12.4%
Impact of arthritis today:			
“I can do everything I would like to do”	35.0%	6.6%	24.5%
“I can do most things I would like to do”	54.4%	37.3%	48.1%
“I can do some things I would like to do”	9.3%	39.7%	20.6%
“I can hardly do anything I would like to do”	1.3%	16.3%	6.8%

ASTHMA

Nationwide, a median of 13.5% of surveyed adults answered “yes” to “Have you ever been told you have asthma?”¹⁹ Similarly, a total of 13.6% of adults in Virginia have been told by a health professional that they have asthma, and people with disabilities have twice the prevalence of asthma as those without a disability (21.8% and 11.8%, respectively).

Among those who have been diagnosed with asthma, 62.8% still have asthma. This rate is higher among people with disabilities. Of people with an asthma diagnosis, 76.3% of people with disabilities and 57.4% of people without disabilities still have asthma. Women

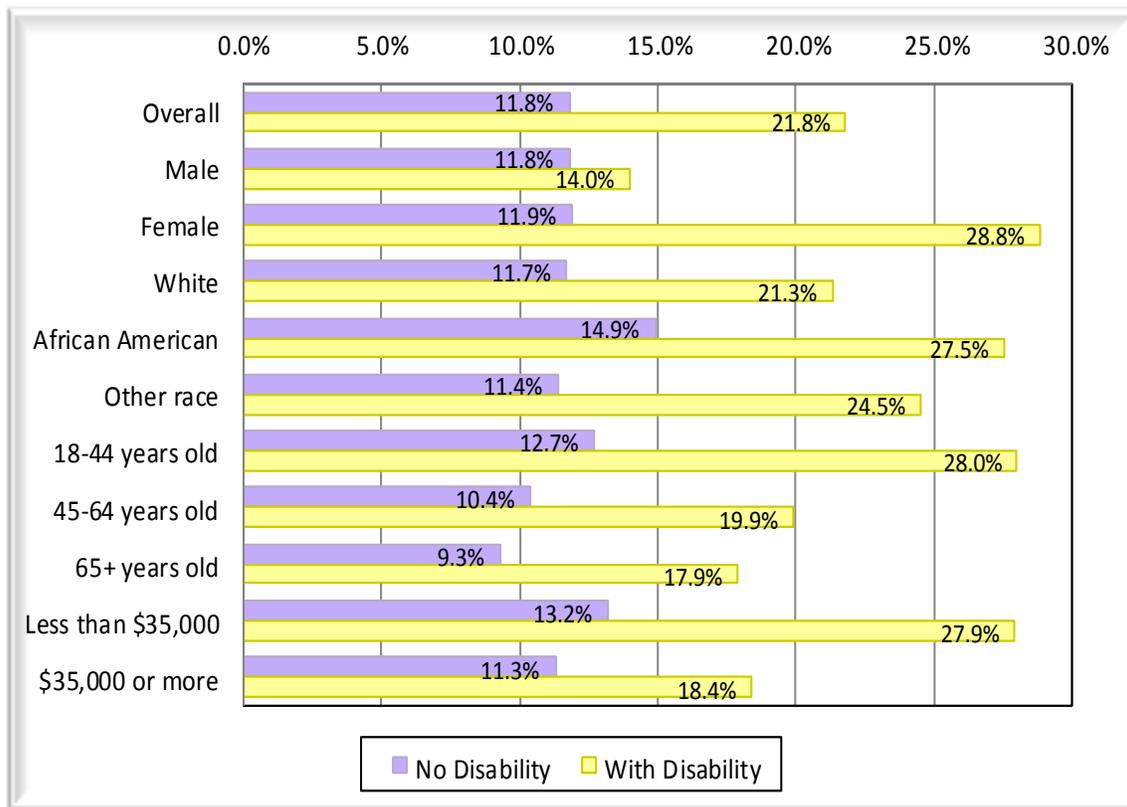
¹⁸ Based on the BRFSS survey question, “During the last 30 days, to what extent has your arthritis or joint symptoms interfered with your normal activities, such as going shopping, to the movies, or to religious or social gatherings?”

¹⁹ www.cdc.gov/brfss



with disabilities have twice the rate of asthma as men who have disabilities, but there is little difference among men and women without a disability.

Figure 20–Asthma (N=16,369)



Within every demographic category, people with disabilities are about twice as likely to have an asthma diagnosis as people who have no disability. Figure 20 demonstrates that for most race, age, and income categories, the prevalence of asthma is about twice as high among people with disabilities as those without disabilities. In comparison to 2004-2006, asthma prevalence increased during 2007-2009, rising from 6.4% to 11.8% for people without disabilities and from 16.0% to 21.8% for people with disabilities. The greatest increases were among African Americans and adults 18-44 years old.

Among people diagnosed with asthma, people with disabilities had the most severe symptoms. In comparison to people without disabilities with an asthma diagnosis, people with disabilities and asthma:

- Are more likely to have had at least one day of being unable to work or carry out usual activities in the last year (51.1% compared to 41.3%)



- Had an asthma attack in the last year (61.5% compared to 50.3%)
- Saw a doctor or other health professional in the last year for urgent treatment of worsening asthma symptoms (39.5% compared to 31.2%)
- Had asthma symptoms during the last 30 days (74.0% compared to 62.3%)
- Visited an emergency room or urgent care center because of asthma (22.8% compared to 13.9%)
- Used a prescription inhaler at least 30 times in the last 30 days during an asthma attack (14.3% compared to 8.2%)
- Were more likely to take prescription asthma medication (including inhaler) during the last 30 days (73.9% compared to 60.7%)
- Had at least one day in which asthma symptoms made it difficult to stay asleep (53.3% compared to 46.0%)
- Saw a doctor or other health professional in the last 12 months at least once for routine checkup for asthma (63.0% compared to 51.5%)

At the same time, people with disabilities were less likely to have been diagnosed as a child with asthma. Only 22.5% of people with disabilities who have an asthma diagnosis had childhood asthma, in contrast to 49.9% of people who do not have disabilities.

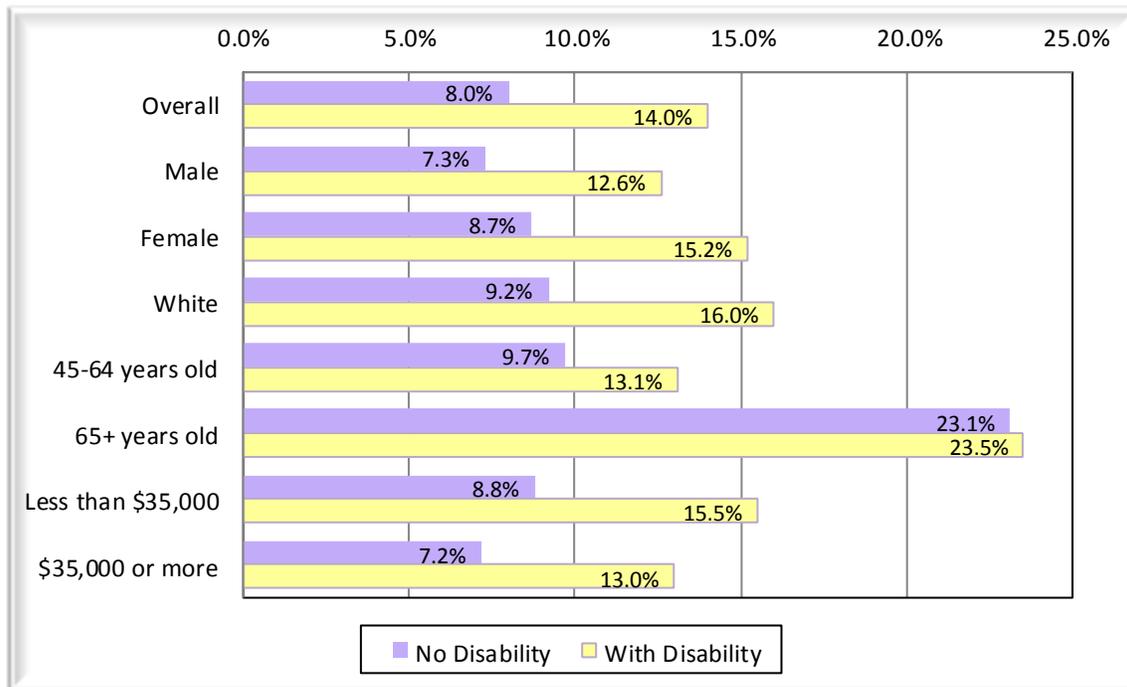
CANCER

In 2009, BRFSS respondents were asked, “Have you ever been told by a doctor, nurse, or other health professional that you had cancer?” Overall, 9.1% of adults in Virginia have been told by a health professional that they have cancer, with higher rates among people with disabilities (14.0%) than without disabilities (8.0%). As shown in Figure 21, this difference is reduced as people age, so there is little difference in cancer prevalence between people with and without disabilities who are at least 65 years old.²⁰

²⁰ There were fewer than 25 people with disabilities who had cancer and were Hispanic, other races, or 18-44 years old, so these categories were not reported.



Figure 21–Cancer (N=4,819)



Among adults who have been diagnosed with cancer, people with disabilities are more likely to be receiving cancer treatment and have physical pain due to cancer or treatment, and they are more likely to have colon cancer. Table 8 illustrates that among adults who have been diagnosed with cancer, people with disabilities are three times more likely to currently receive treatment for cancer than people without disabilities (21.6% and 7.0%, respectively) and are about twice as likely to be in physical pain due to cancer or cancer treatment (12.9% and 5.5%, respectively).

Table 8–Cancer and Disability

Among those who have been told by a health professional that they have some form of cancer	No Disability	With Disability	TOTAL
Currently receiving treatment for cancer—surgery, radiation therapy, chemotherapy, or chemotherapy pills	7.0%	21.6%	10.8%
Ever denied health insurance or life insurance coverage due to cancer	7.8%	6.0%	7.4%
Currently have physical pain due to cancer or cancer treatment	5.5%	12.9%	7.2%
Most commonly reported type of cancer:			
Breast	15.2%	16.8%	15.6%
Colon	4.6%	12.8%	6.7%
Prostate	11.5%	11.1%	11.4%
Skin cancer and melanoma	32.3%	28.6%	31.3%

CARDIOVASCULAR DISEASE

ANGINA, HEART ATTACK, STROKE

A total of 7.6% of adults in Virginia have been told by a health care professional that they showed symptoms of heart disease--a heart attack, stroke, and/or angina. In all, 3.8% of adults in Virginia have a diagnosis of angina or coronary heart disease; 3.9% had a heart attack; and 2.5% had a stroke. Findings are similar to 2009 median nationwide findings of 3.8% coronary disease, 4.0% heart attack, and 2.4% stroke.²¹ People with disabilities have a much higher prevalence of coronary disease, heart attacks, and strokes than people without disabilities.

Table 9—Angina, Heart Attack, and Stroke

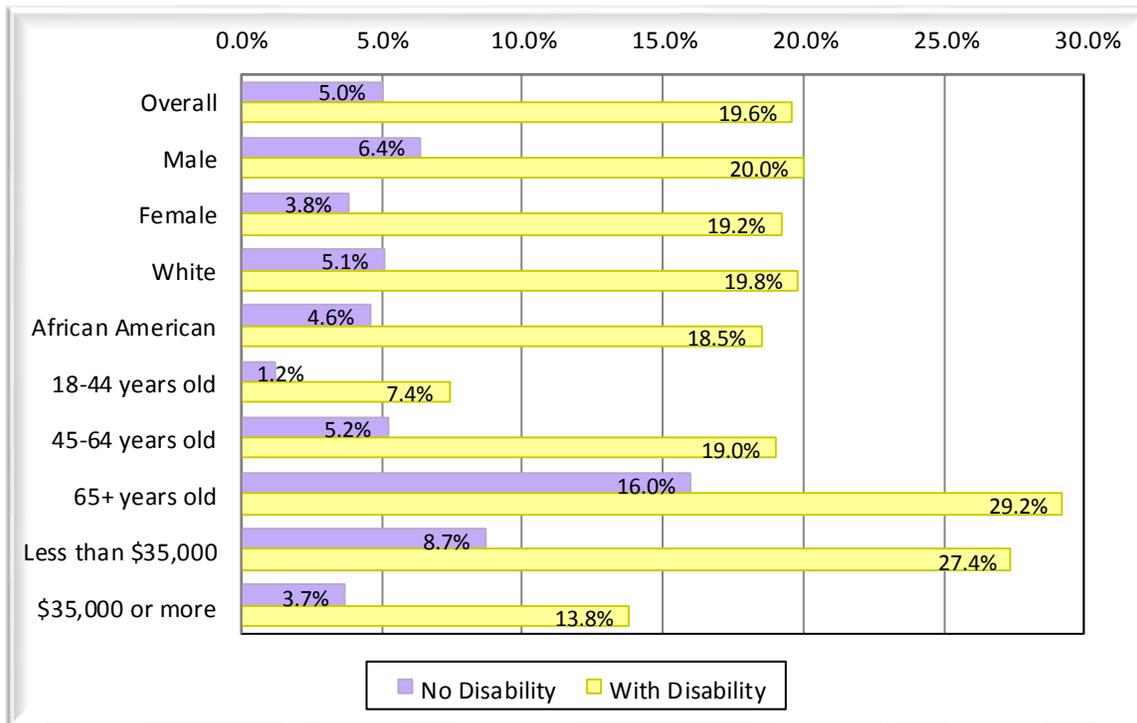
Told by a health professional that they have heart disease	No Disability	With Disability	TOTAL
Angina or coronary heart disease	2.6%	9.5%	3.8%
Heart attack (myocardial infarction)	2.5%	10.4%	3.9%
Stroke	1.4%	7.5%	2.5%

People with disabilities are nearly four times more likely to have had angina, a heart attack, or a stroke than people without disabilities (19.6% and 5.0%, respectively). People over age 65 were about ten times more likely to have a heart condition than those 18-44 years old (19.5% and 1.9%), with higher risk among people with disabilities. Figure 22 shows that heart conditions are more prevalent among adults 65+ years old and adults who earn less than \$35,000.

²¹ www.cdc.gov/brfss



Figure 22—Angina, Heart Attack, and Stroke (N=16,292)



HIGH BLOOD PRESSURE

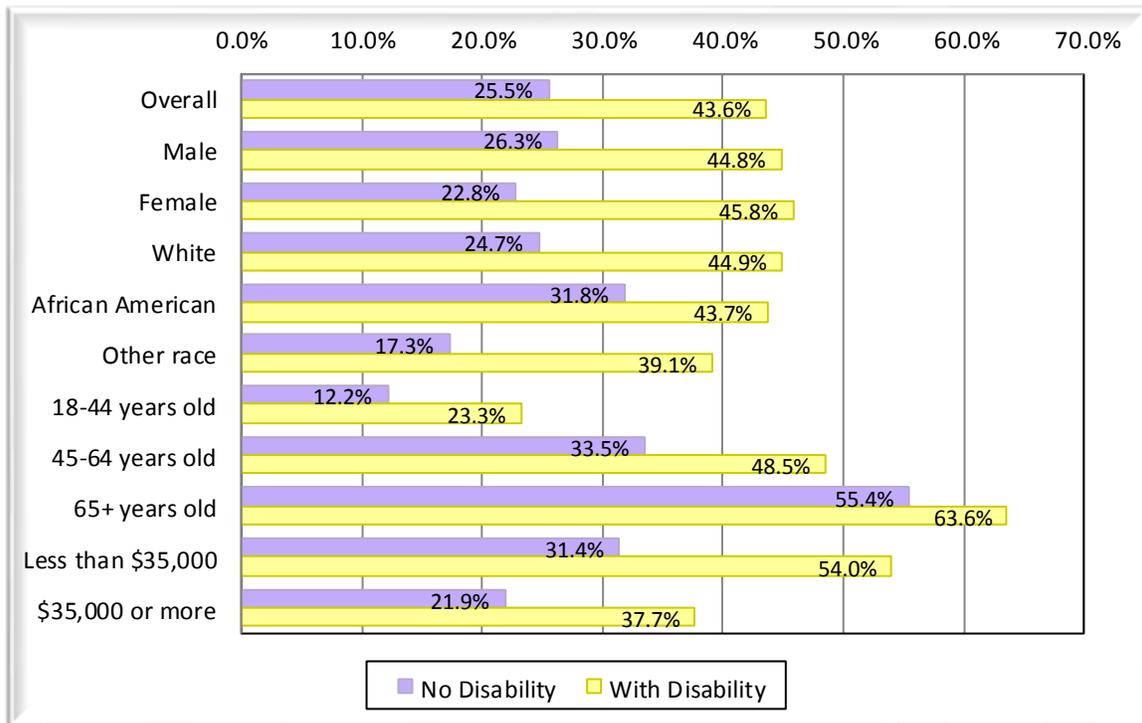
In 2007 and 2009, BRFSS respondents were asked, “Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure?” In all, over one in four adults in Virginia (28.0%) reported that they have high blood pressure, similar to the 2009 national median of 28.7%.²² Figure 23 demonstrates that high blood pressure rates are much higher among people with disabilities, people earning less than \$35,000, and adults at least 65 years old.²³ People with disabilities are nearly twice as likely to report high blood pressure as people with no disability. **The rates of African Americans with disabilities who have high blood pressure decreased since the 2004-2006 sample, from 57.9% to 43.7%.**

²² www.cdc.gov/brfss

²³ The small number (<1%) of female respondents who indicated their blood pressure was high only during pregnancy were excluded from this sample.



Figure 23–High Blood Pressure (N=10,870)



HIGH CHOLESTEROL

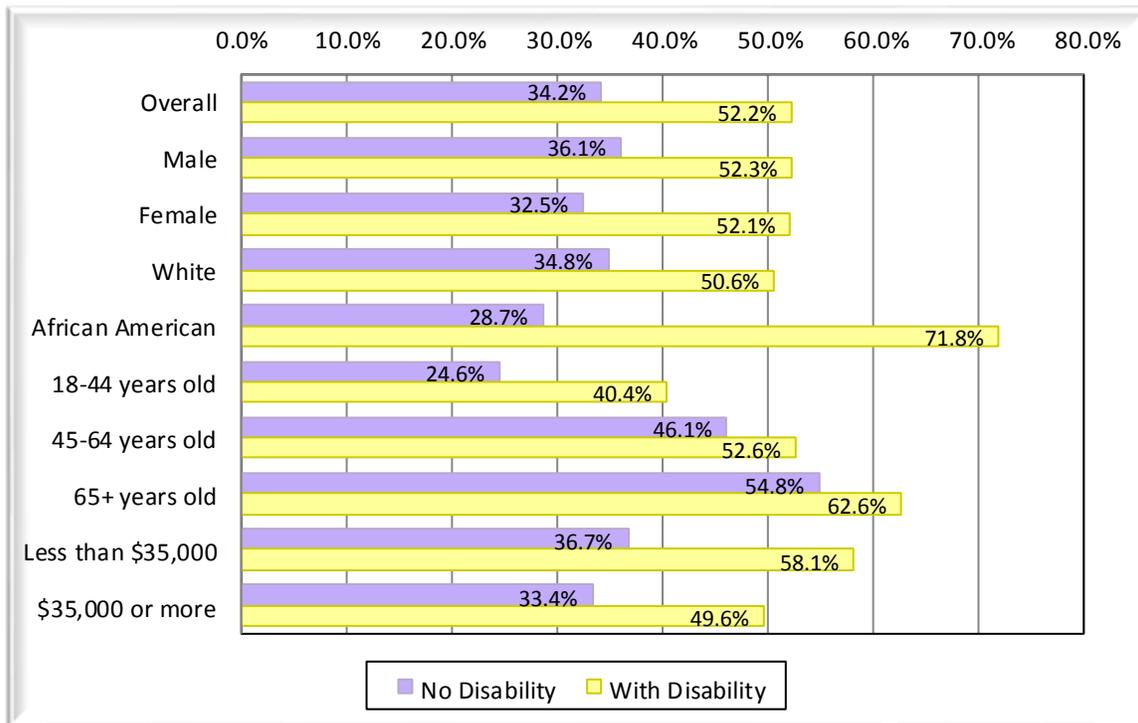
Over one-third of the adults in Virginia (37.5%) responded with “yes” to the 2007 and 2009 BRFSS survey question, “Have you EVER been told by a doctor, nurse, or other health professional that your blood cholesterol is high?” Virginia’s prevalence of high cholesterol is identical to the 2009 median of 37.5%.²⁴ As shown in Figure 24, high cholesterol is more prevalent among people with disabilities, African Americans, and people who are over 64 years old, but there is little difference by gender or income. High cholesterol is over twice as high in African Americans with disabilities as those without disabilities.

While African Americans with disabilities showed a decrease in high blood pressure prevalence since 2006, their prevalence of high cholesterol increased during that time period, rising from 44.7% of African Americans with disabilities, to 71.8%. At the same time, African Americans who do not have a disability had similar high cholesterol rates between 2004-2006 and 2007-2009 at 28.0% and 28.7%, respectively.

²⁴ www.cdc.gov/brfss



Figure 24–High Cholesterol (N=5,350)



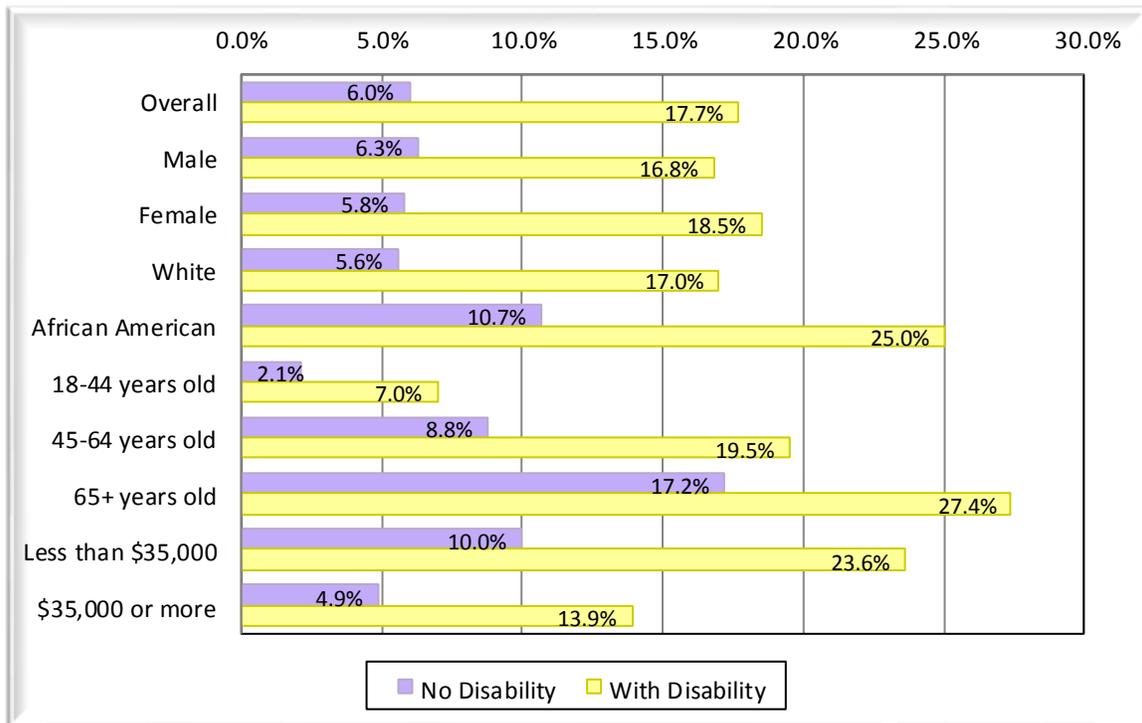
DIABETES

A national median of 8.4% of adults reported in 2009 that they have been told by a doctor or other health professional that they have diabetes.²⁵ Excluding women who had diabetes only during pregnancy, 8.1% of adults in Virginia were told by health care professionals they have diabetes. **People with disabilities have nearly three times the diabetes rate as people without disabilities (17.7% vs. 6.0%).** As shown in Figure 25, diabetes was also much more prevalent among African Americans, adults 65 years and older, and people earning less than \$35,000.

²⁵ www.cdc.gov/brfss



Figure 25–Diabetes (N=16,218)



Respondents in 2009 who reported a diabetes diagnosis were asked about taking insulin, whether diabetes has affected their eyes, and whether they have taken an educational class on diabetes. Among those who have been diagnosed with diabetes, people with disabilities are more likely to take insulin and to report that diabetes has affected their eyes.

About one-third (31.0%) of people with disabilities with a diagnosis of diabetes currently take insulin, a statistically significant difference ($p<.001$) from people without disabilities (23.9%). People without disabilities more often take an oral medication for diabetes (73.0%) than people with disabilities (62.2%), but the difference is not significant. A total of 24.5% of people with disabilities and 15.4% of people without disabilities were told by their doctor that diabetes has affected their eyes or they had retinopathy, a significant difference ($p<.001$). About half of both people with disabilities (54.1%) and people without disabilities (58.7%) have taken a class to learn how to manage their diabetes.



PREVENTIVE HEALTH CARE AND TESTS

“Regular health exams and tests can help find problems before they start. They also can help find problems early, when your chances for treatment and cure are better. By getting the right health services, screenings, and treatments, you are taking steps that help your chances for living a longer, healthier life. Your age, health and family history, lifestyle choices (i.e., what you eat, how active you are, whether you smoke), and other important factors impact what and how often you need services and screenings.” —Centers for Disease Control –www.cdc.gov

The 2007-2009 BRFSS survey addressed several preventive health care practices and tests, including getting a routine checkup, dental care, cholesterol testing, mammograms, Pap tests, colorectal cancer screening, other cancer screenings, and vaccinations. The following section details the findings by disability status, gender, race, age, and income.

Some preventive health care practices, such as getting a routine checkup, having cholesterol checked, and getting flu and pneumonia vaccines, are more prevalent among people with disabilities than people without disabilities. However, adults with disabilities are less likely to have their teeth professionally cleaned and women with disabilities are less likely to get a mammogram. Adults with health insurance are statistically significantly ($p < .001$) more likely to have had a recent checkup, cholesterol test, and colonoscopy, and women with health insurance are significantly ($p < .001$) more likely to have had a recent mammogram and Pap test.

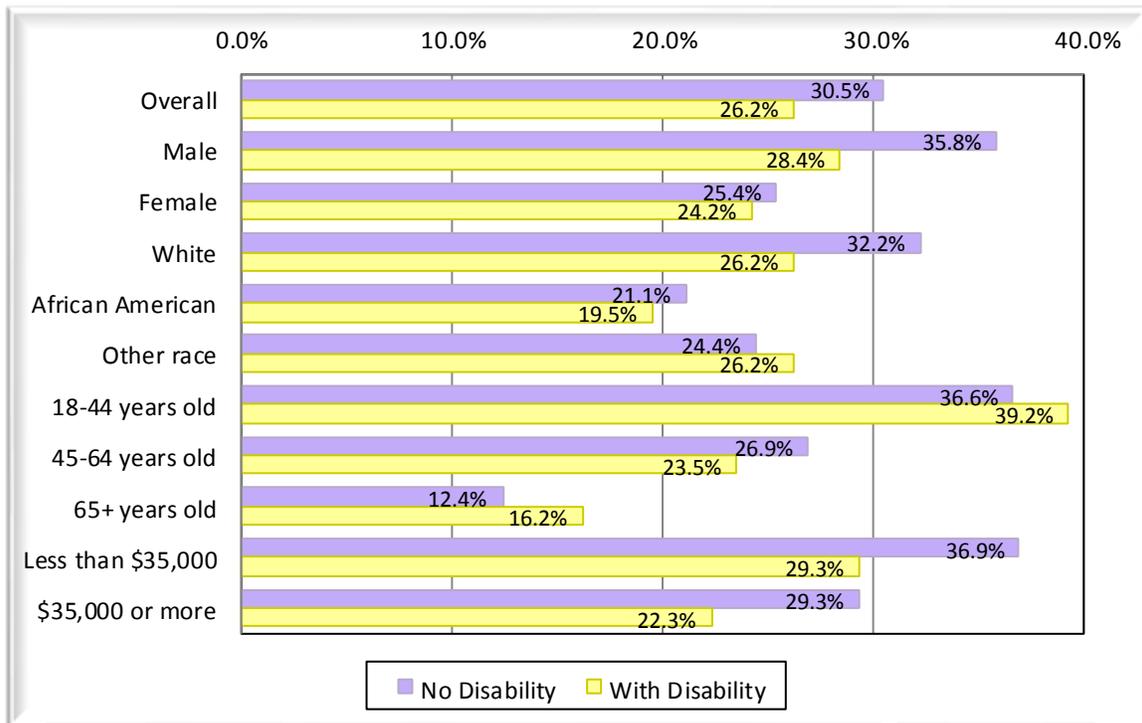
ROUTINE HEALTH CARE AND CHECKUPS

Annual checkups by a doctor or other health care professional are recommended. Most people with disabilities (74.8%) and people without disabilities (69.5%) had a routine checkup within the last year.

Figure 26 shows that among those who have not had a routine checkup in the last year, men, adults 18–44 years old, Hispanics, and people earning less than \$35,000 are more likely to need a checkup than other groups. Adults who are 65 years or older are about twice as likely to have had a checkup as adults 18–44 years old. While people with disabilities tend to have had routine checkups within the last year, nearly half of Hispanics with disabilities (47.4%) have not received routine checkups in comparison to only one-third (33.4%) of Hispanics without disabilities.



Figure 26–No Routine Checkup Within a Year (N=16,181)



DENTAL CARE

In 2008, BRFSS respondents were asked three questions about their dental care: 1) “How long has it been since you last visited a dentist or dental clinic for any reason?” 2) “How many of your permanent teeth have been removed because of tooth decay or gum disease?” (Include teeth lost to infection but do not include teeth lost for other reasons, such as injury or orthodontics) and 3) “How long has it been since you had your teeth cleaned by a dentist or dental hygienist?” The following narrative details the dental status of adults in Virginia, by disability, gender, race, age, and income, which reveals greater rates of tooth loss and less frequent dental visits and professional teeth cleanings among people with disabilities.

ANNUAL DENTAL VISITS

While most (75.9%) adults in Virginia made a dental visit in the previous year, about one in four (24.1%) have not visited a dentist, dental hygienist, or dental clinic in the previous twelve months. **The percentage of adults who visited a dentist declined from 82.0% in 2004-2006 to 75.9% in 2007-2009.** People without disabilities are significantly more likely ($p<.001$) to have visited a dentist, dental hygienist, or dental clinic in the last year than were people with disabilities (78.0% compared to 65.5%). The most



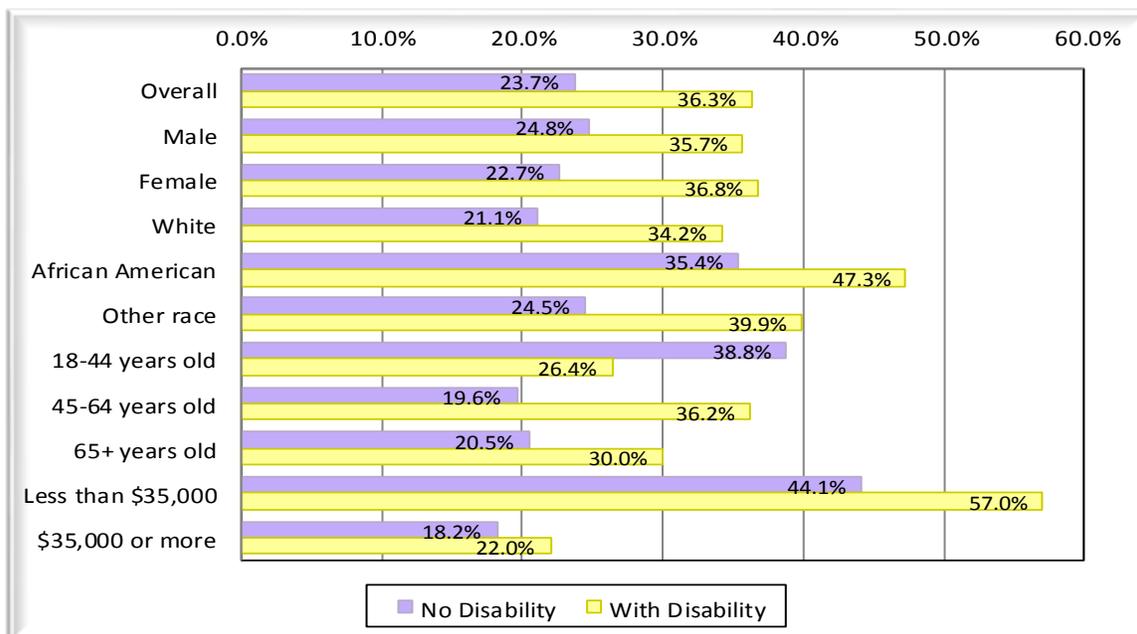
common reasons for not getting dental care included “no reason to go” (42.0%), cost (36.4%), or an emotional reaction (fear, apprehension, dislike, nervousness) to dentists (9.8%).

TEETH CLEANING

Similar to dental visit data, most adults (74.0%) had their teeth cleaned professionally in the last year, with 26.0% having their teeth cleaned two or more years ago, or never. **People with disabilities are significantly ($p<.001$) more likely to have gone over a year without professional teeth cleaning.**

Figure 27 shows that while less than one-fourth (23.7%) of people without disabilities had gone longer than a year for professional teeth cleaning, over one-third of people with disabilities have not had a professional teeth cleaning in the last year (36.3%). Twice as many people with disabilities have never had their teeth cleaned (14.9%) as people without disabilities (6.8%). African Americans and people earning less than \$35,000 are more likely to go without annual teeth cleanings.

Figure 27—Teeth Not Professionally Cleaned in Last Year (N=5,248)



TOOTH LOSS

Among adults who have not had their teeth cleaned in the last year, 47.7% have had at least one tooth extracted due to gum disease or decay. In contrast, only 36.9% who had



their teeth cleaned in the last year had tooth loss. The difference in tooth loss based on frequency of professional teeth cleaning is statistically significant ($p<.001$).

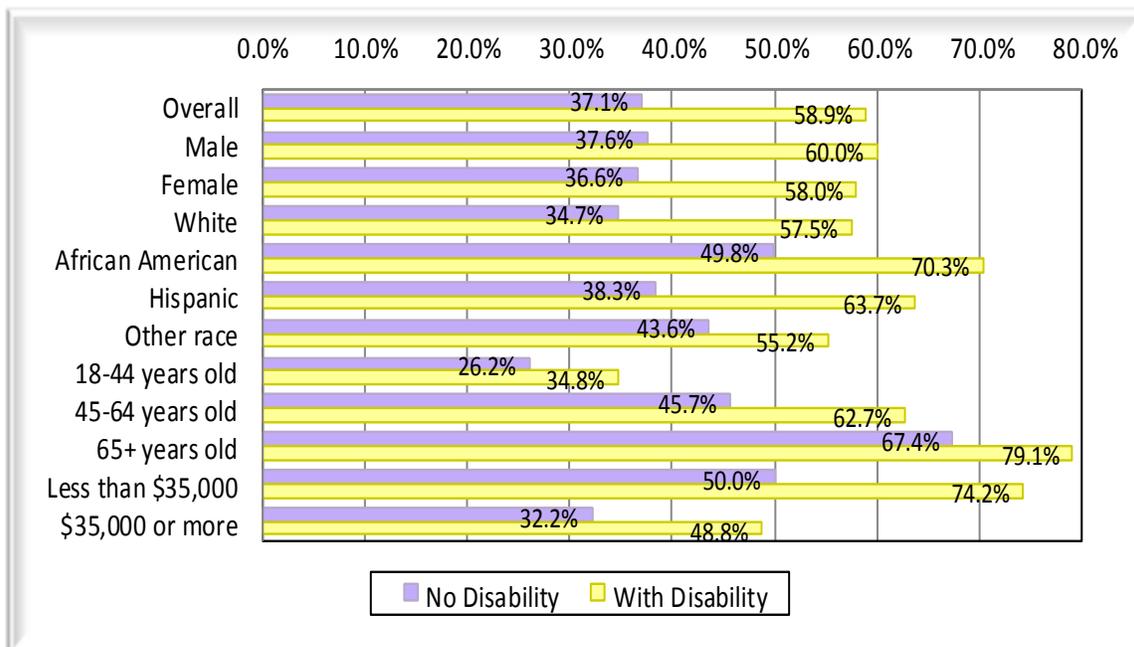
When asked how many permanent teeth have been removed due to tooth decay or gum disease (not including tooth loss due to injury or orthodontic work), 41.1% of adults indicated that they have lost at least one tooth. **Over half (58.9%) of people with disabilities had teeth extracted due to tooth decay or gum disease, a rate statistically significantly higher ($p<.001$) than people without disabilities (37.1%).**

Table 10-Tooth Loss

Permanent Teeth Removed Due to Tooth Decay or Gum Disease (not including tooth loss due to injury or orthodontics)	No Disability	With Disability	TOTAL
None	62.9%	41.1%	58.9%
1-5 teeth	27.3%	30.9%	28.0%
6+ teeth	6.5%	19.3%	8.9%
All	3.2%	8.7%	4.2%

Adults who are African American, Hispanic, at least 65 years old, or earn less than \$35,000 are more likely to have teeth extracted due to tooth decay or gum disease, particularly among people with disabilities. There is little difference between men and women. Over half of people with and without disabilities earning under \$35,000 (56.8%) had teeth removed, in contrast to 34.6% of those earning over \$35,000.

Figure 28-Tooth Loss Due to Decay or Disease (N=10,644)



CHOLESTEROL TESTING

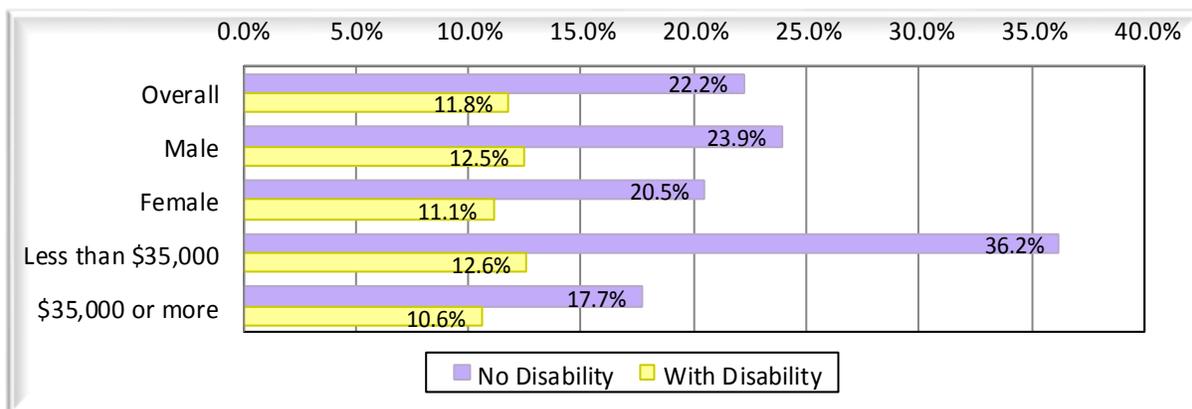
The National Cholesterol Education Program recommends a fasting blood test every five years for adults who are at least 21 years old to check cholesterol levels, more often if the results show high (>200 mg) cholesterol. —www.health.com

Most (79.6%) adults in Virginia have had their cholesterol tested within five years of the date of the survey, a rate slightly higher than the 77.0% national median.²⁶ People with disabilities are more likely to have had their cholesterol checked within five years than people without disabilities (88.2% in comparison to 77.8%).

Income levels seem to affect cholesterol screening as adults earning less than \$35,000 are nearly twice as likely not to have had their cholesterol checked (in over five years or never checked) as those earning more than \$35,000 (30.2% in comparison to 16.8%). Similarly, having health insurance coverage significantly ($p < .001$) affects getting cholesterol screenings. While 91.2% of adults who have health insurance coverage have had their cholesterol checked within the last two years, only 76.5% of adults without health insurance had their cholesterol checked in the previous two years.

Figure 29 presents the overall percentage of respondents who have not had their cholesterol checked in over five years, or have never had their cholesterol checked. Women are slightly more likely to have had a cholesterol screening within the last five years as men. Demographic breakdowns other than disability status, gender, and income could not be accurately reported because of the low number of respondents for this question.

Figure 29—Cholesterol Not Checked in Over Five Years or Never Checked (N=5,987)



²⁶ www.cdc.gov/brfss



MAMMOGRAMS

The National Cancer Institute recommends that women over age 40 have a mammogram screening every one to two years. — www.cancer.gov

The 2008 BRFSS survey asked women respondents if they have ever had a mammogram and if so, how long ago they had a mammogram. In all, 91.8% of women in Virginia who are at least 40 years old have received a mammogram and 94.8% have received a breast exam at some point in their lives. The majority had a mammogram and breast exam within the last year. Table 11 shows that women with disabilities are less likely to have had a mammogram or breast exam in the last year as women without disabilities. **Nearly twice as many women with disabilities have gone over five years without a mammogram or breast exam as women who do not have a disability.**

Table 11—Mammograms and Breast Examinations

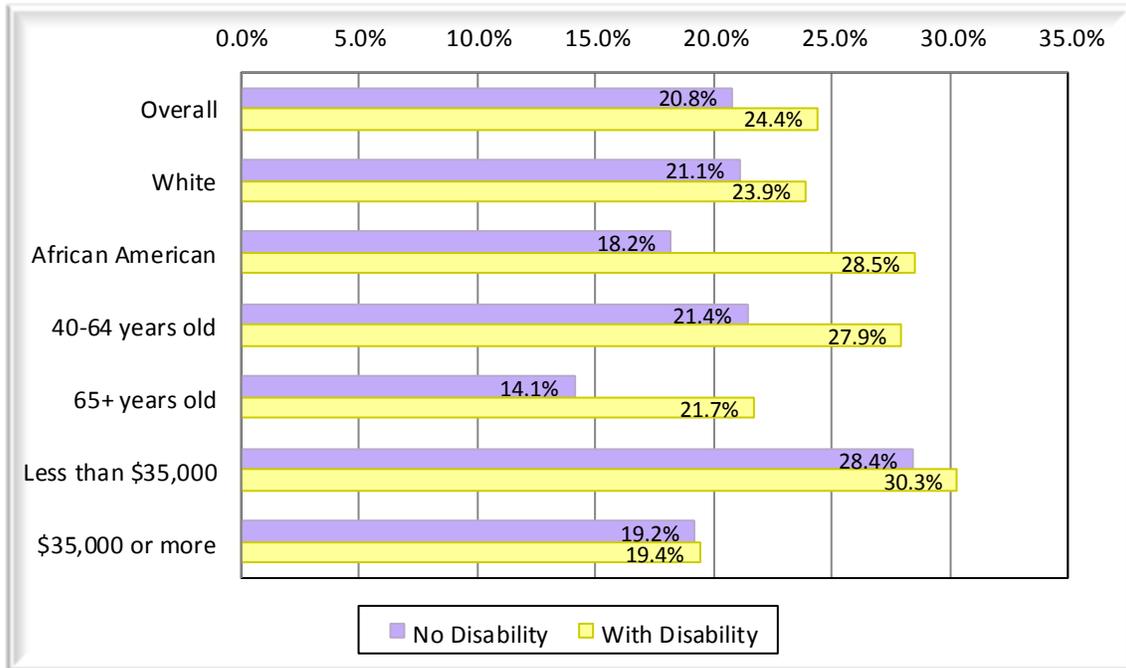
	No Disability	With Disability	TOTAL
Mammogram			
Within one year	71.1%	62.6%	69.0%
2–3 years	24.8%	29.4%	26.0%
5+ years	4.1%	8.0%	5.0%
Breast exam			
Within one year	73.8%	66.6%	72.1%
2–3 years	22.0%	26.3%	23.0%
5+ years	4.2%	7.1%	4.9%

Women are considered at risk if they are 40 years of age or older and have not had a mammogram in the last two years. Nationally, nearly one in four (24.0%) women at least 40 years old are considered at risk.²⁷ In Virginia, 21.7% of women at least 40 years old are at risk, with higher rates among women with disabilities (24.4%) than without disabilities (20.8%). Women who are less than 65 years old, are African American, or earn less than \$35,000 are more likely to not have had a mammogram in the past two years than other women. Figure 30 shows that 30.3% of women with disabilities who earn less than \$35,000 have not had a mammogram within the past two years, in comparison to 19.4% of women with disabilities who earn more than \$35,000.

²⁷ 2008 median rate at www.cdc.gov/brfss



Figure 30–At Risk (Women 40+ Who Have Not Had a Mammogram in the Past Two Years) (N=2,607)



PAP TESTS

The Centers for Disease Control recommends that women start getting Pap tests, a screening test for cervical cancer, at age 21 or within three years after first having sex. –www.cdc.gov

Most (92.6%) women in Virginia have had at least one Pap test in their lifetime. Women who are at least 18 years old and have not had a Pap test in the last three years are considered at risk. A total of 16.1% of women with no disability and 19.7% of women with disabilities have not had a Pap test within the past three years. About one-fourth (23.6%) of women who earn less than \$35,000 have not had a Pap test within the past three years, in contrast to only 9.4% of women who earn a higher income.

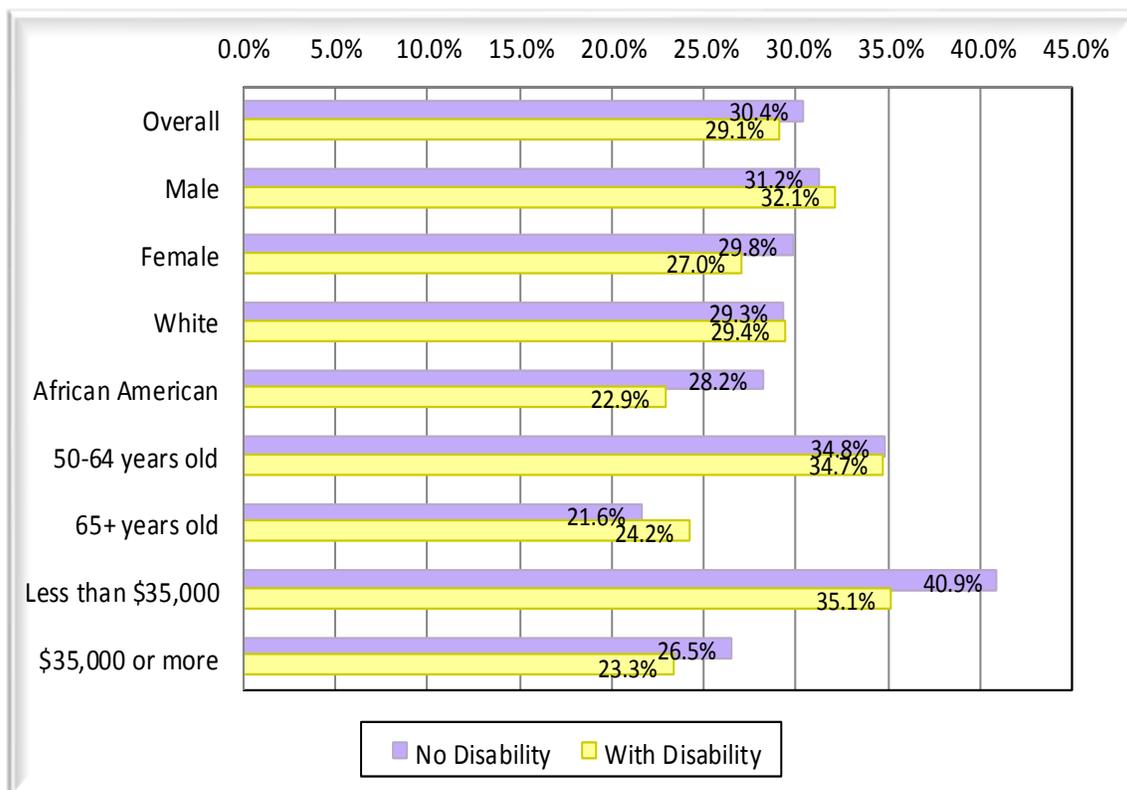


COLORECTAL CANCER SCREENING

The Centers for Disease Control recommends colorectal cancer screening for adults 50–75 years old through an annual blood stool test, a sigmoidoscopy every five years, or a colonoscopy every ten years. –www.cdc.gov

When asked about the last time they had a blood stool test, only one in five adults (21.4%) indicated that they had a blood stool test within the last two years. People with disabilities had a similar rate of getting a blood stool test as those without disabilities (23.2% and 20.8%, respectively). Adults who are over 50 years old and have not had a blood stool test within the past two years are considered at risk. Men without disabilities and adults who are 50–64 years old are most likely to not have had a blood stool test within the past two years. There is little difference based on race or income.

Figure 31–At Risk (Never Had Colon Endoscopy) (N=3,259)



When asked in 2008 if they have ever had a colonoscopy or sigmoidoscopy (colon endoscopy tests), 69.9% of all adults 50+ years old indicated that they had, with little difference between people with disabilities (70.9%) and people with no disability (69.6%).²⁸ The rate in Virginia is higher than the national median of 62.2% of adults 50+ who have had a colonoscopy or sigmoidoscopy.²⁸

Those who indicated that they had never had a colon endoscopy test are considered at risk for colon cancer. Figure 31 shows that among people at least 50 years old, 30.4% of people without disabilities and 29.1% of people with disabilities are most likely to not have had a colon endoscopy. This rate has decreased slightly since 2004, when 38.5% of people without disabilities and 32.8% of people with disabilities had not had a colon endoscopy. The prevalence improved particularly among African American adults and adults 50-64 years old who do not have disabilities. Among adults at risk, there is little difference by gender, but those who are 50-64 years old or earned less than \$35,000 were more likely to have not had a colon endoscopy than other adults in the sample.

OTHER CANCER SCREENINGS

The Centers for Disease Control recommends that 50–75 year old men get an annual prostate-specific antigen (PSA) blood test and digital rectal exam to test for prostate cancer, the second leading cancer among men. –www.cdc.gov

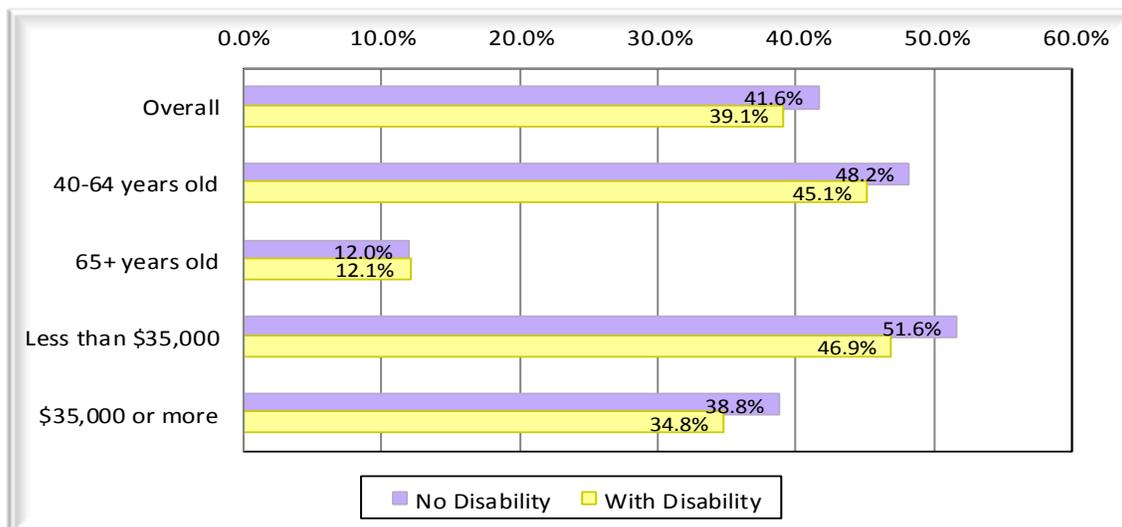
PSA TEST

In response to a 2008 survey question about frequency of receiving a prostate-specific antigen (PSA) test, 82.1% of all men at least 40 years old indicated that they had been tested at least once in their lifetime, with similar rates among men with disabilities (83.6%) and no disability (81.4%). However, only 59.0% have been tested in the last two years; i.e., a total of 41.0% of men in Virginia have not had a recent PSA test. This rate is slightly better than the national median of only 54.8% of men at least 40 years old who have had a PSA test within the last two years.

²⁸ www.cdc.gov/brfss



Figure 32–At Risk (Men 40+ Who Have Not Had a PSA Test Within Last Two Years)
(N=1,517)



As shown in Figure 32, 39.1% of men with disabilities and 41.6% of men without disabilities have not had a PSA test, a higher rate than the 2004-2006 rates of 31.1% of men with disabilities and 30.0% of men without disabilities.²⁹ Men with and without disabilities who are 40–64 years old or earn less than \$35,000 were found to lack having a PSA test much more often than men over 64 years old or who earn more than \$35,000. Analyses by race were limited due to the small number of respondents by each race category.

ORAL CANCER

The American Dental Association recommends annual screenings for oral cancer, particularly for adults over age 40 and smokers. — www.ada.org

Respondents were asked, “When was the last time you had a test for oral cancer in which a doctor or dentist pulls on your tongue, sometimes with gauze wrapped around it, and feels under the tongue and inside the cheeks?” Over half (52.6%) indicated they have never been screened for oral cancer, including 54.4% of people with disabilities and 52.3% of people without disabilities. Men, adults 18–44 years old, racial minorities, and those who earn less than \$35,000 are the most likely to have never received oral cancer screening. For example, 68.6% of people earning less than \$35,000 have never been screened for oral cancer, in contrast to only 46.0% of people earning more than \$35,000.

²⁹ Virginia Department of Health. (2009) *Health Status of Virginians with Disabilities 2004-2006*. Author.



VACCINATIONS

The Centers for Disease Control recommends that adults over age 18 get a flu vaccine annually and a pneumonia vaccine at least once in their lifetime. —www.cdc.gov

FLU VACCINE

Only 41.2% of adults in Virginia got a flu vaccine in the last year. **People with disabilities have higher rates of receiving a flu vaccine (51.4%) than people without disabilities (39.0%).** As shown in Figure 33, Hispanics, adults who earn less than \$35,000, and adults 18-44 years old are most likely to have had no flu vaccine in the past year. Rates of being immunized against the flu have increased since 2004-2006, particularly among adults 45-64 years old.

PNEUMONIA VACCINE

Only one in four adults (24.4%) in Virginia has ever had a pneumonia vaccine. Similar to flu vaccines, **people with disabilities are much more likely to have received a pneumonia vaccine (38.5%) than people without disabilities (21.4%).** Other racial categories, adults under 45, and adults earning over \$35,000 are most likely to not be immunized. There are statistically significant differences ($p < .001$) of getting a pneumonia vaccine, by presence of disability, race, age category, and income, but not by gender.



Figure 33—No Flu Vaccination in Past Year (N=16,297)

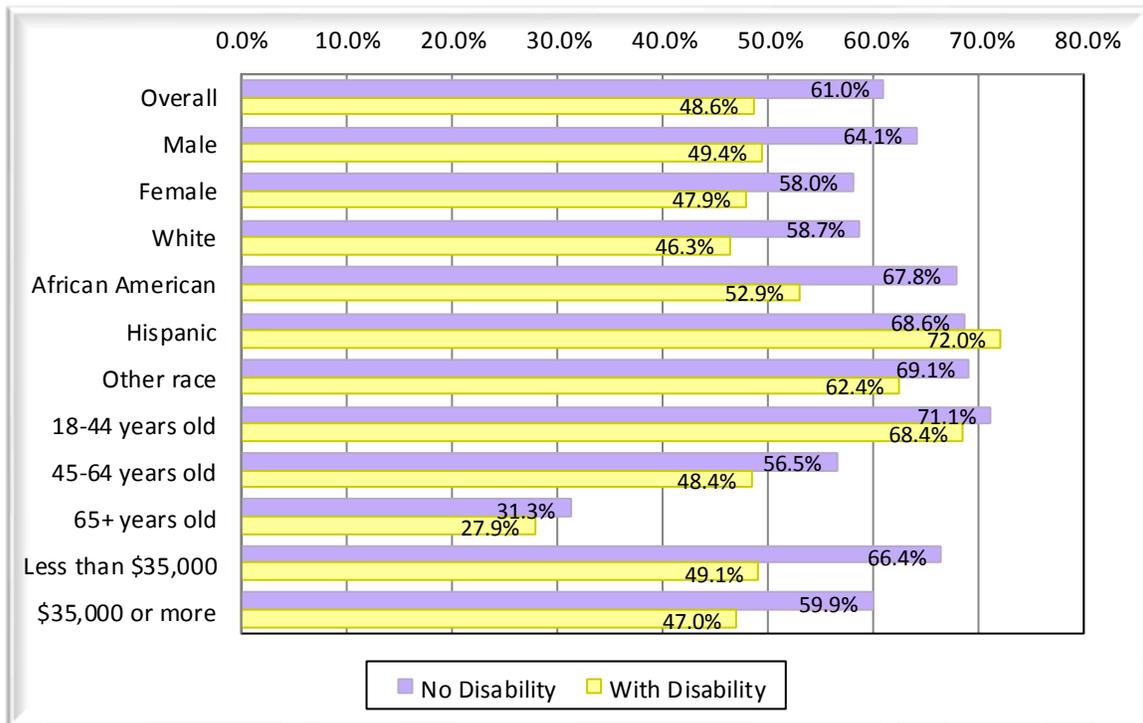
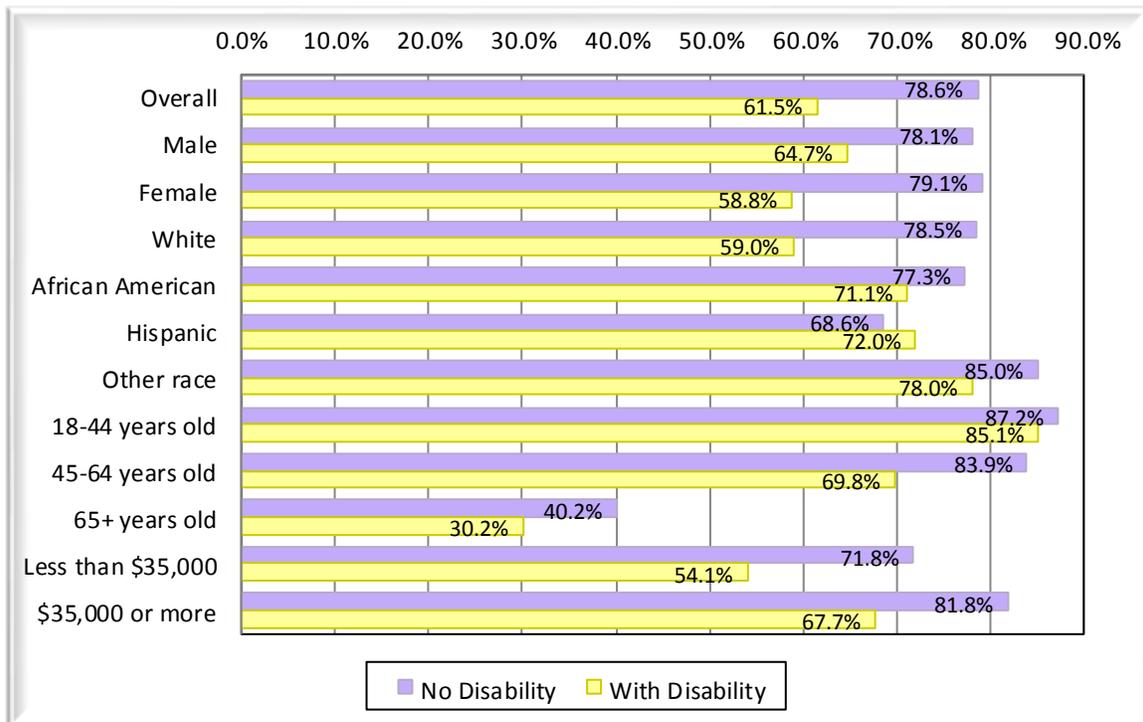


Figure 34—No Pneumonia Vaccination (N=15,253)



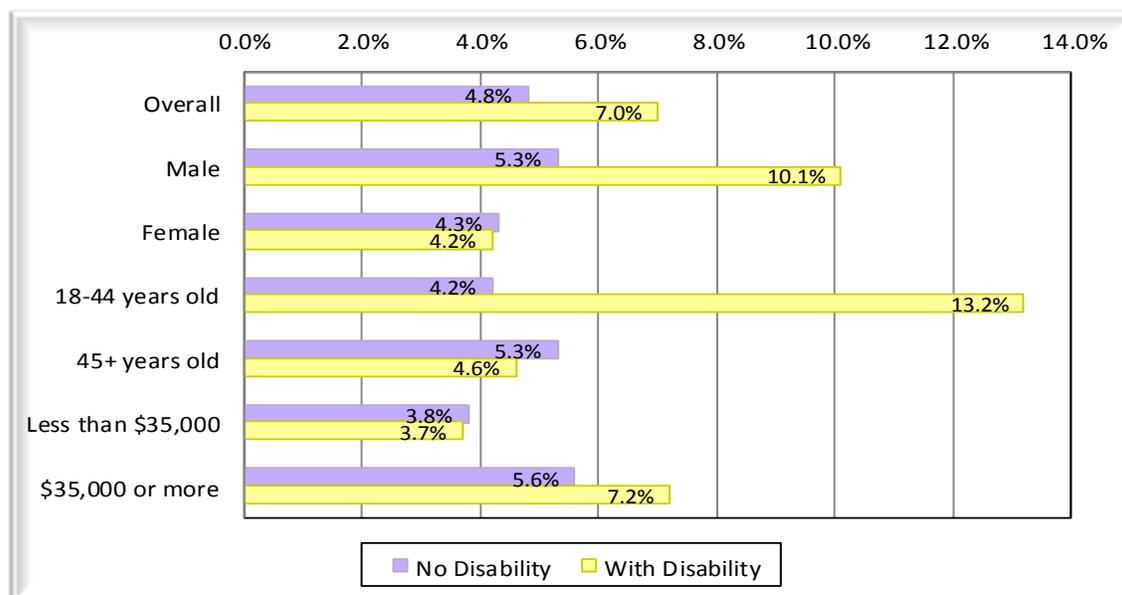
HEAVY DRINKING

The Centers for Disease Control recommends that men drink no more than two alcoholic drinks per day and women drink no more than one alcoholic drink per day. –www.cdc.gov

Heavy drinking is defined as having more than two drinks daily for men or having more than one drink daily for women. In 2009, 5.1% of adults in the United States and 5.4% of adults in Virginia were considered heavy drinkers.³⁰

During 2007–2009, people with disabilities were somewhat more likely to drink heavily than people without disabilities. As shown in Figure 36, 7.0% of people with disabilities drink heavily, in contrast to 4.8% of people without disabilities. **While people without disabilities maintained the same rate (4.8%) between 2004–2006 and 2007–2009, the rate of heavy drinking among people with disabilities almost doubled during that time, rising from 3.6% to 7.0%.** Much of this increase may be attributable to the increase in heavy drinking among adults 18–44 who have a disability. In 2004–2006, 4.5% of adults 18–44 with a disability were heavy drinkers, which increased to 13.2% in 2007–2009.

Figure 36–Heavy Drinking (N=16,071)



³⁰ www.cdc.gov/brfss



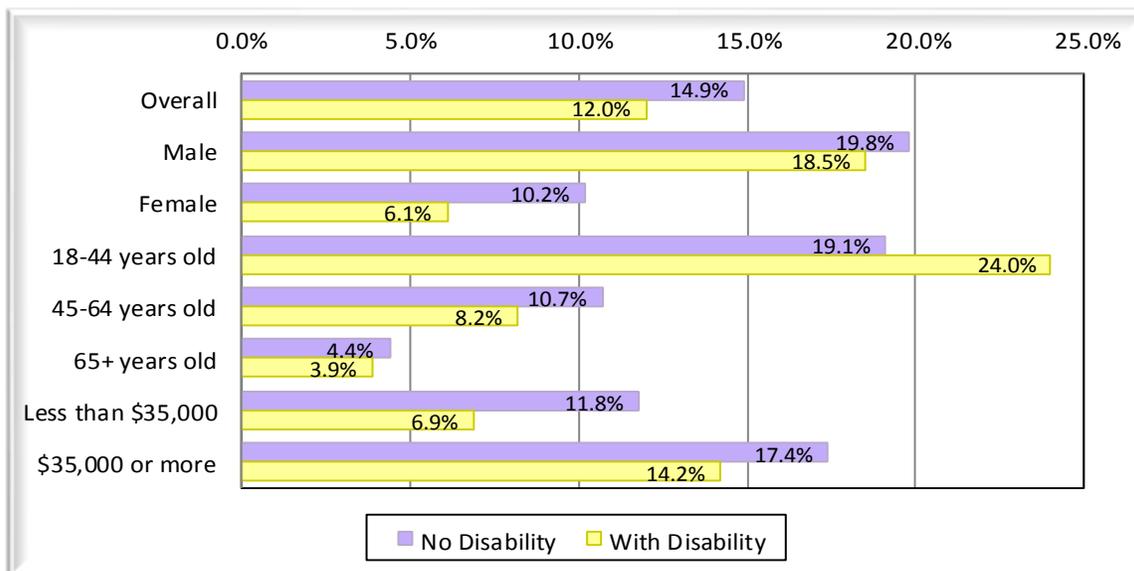
Men with disabilities are almost twice as likely to be heavy drinkers (10.1%) as men who have no disability (5.3%), but there was nearly no difference between women with and without disabilities (4.2% and 4.3%, respectively). **The rate for heavy drinking among adults 18–44 years old who have a disability (13.2%) is almost three times as high as the rate for older adults with a disability (4.6%) as well as three times as high as the rate for adults the same age who do not have a disability (4.2%).**

BINGE DRINKING

Binge drinking is defined as men having five or more drinks on one occasion or women having four or more drinks. In 2009, 15.8% of adults in the United States and 13.5% of adults in Virginia were considered binge drinkers.³¹

Figure 37 illustrates that 14.9% of people without disabilities and 12.0% of people with disabilities are binge drinkers. Between 2004–2006 and 2007–2009, rates of binge drinking decreased from 25.3% to 14.9% for people without disabilities and from 22.6% to 12.0% for people with disabilities.³² In comparison to people without disabilities, people with disabilities have higher rates of heavy drinking yet slightly lower rates of binge drinking. The exception is adults who are 18–44 years old with a disability; they are more likely to binge drink than other adults without a disability and are much more likely to binge drink than adults in other age groups.

Figure 37–Binge Drinking (N=16,202)



³¹ www.cdc.gov/brfss

³² Virginia Department of Health. (2009). *Health Status of Virginians with Disabilities 2004-2006*. Author.

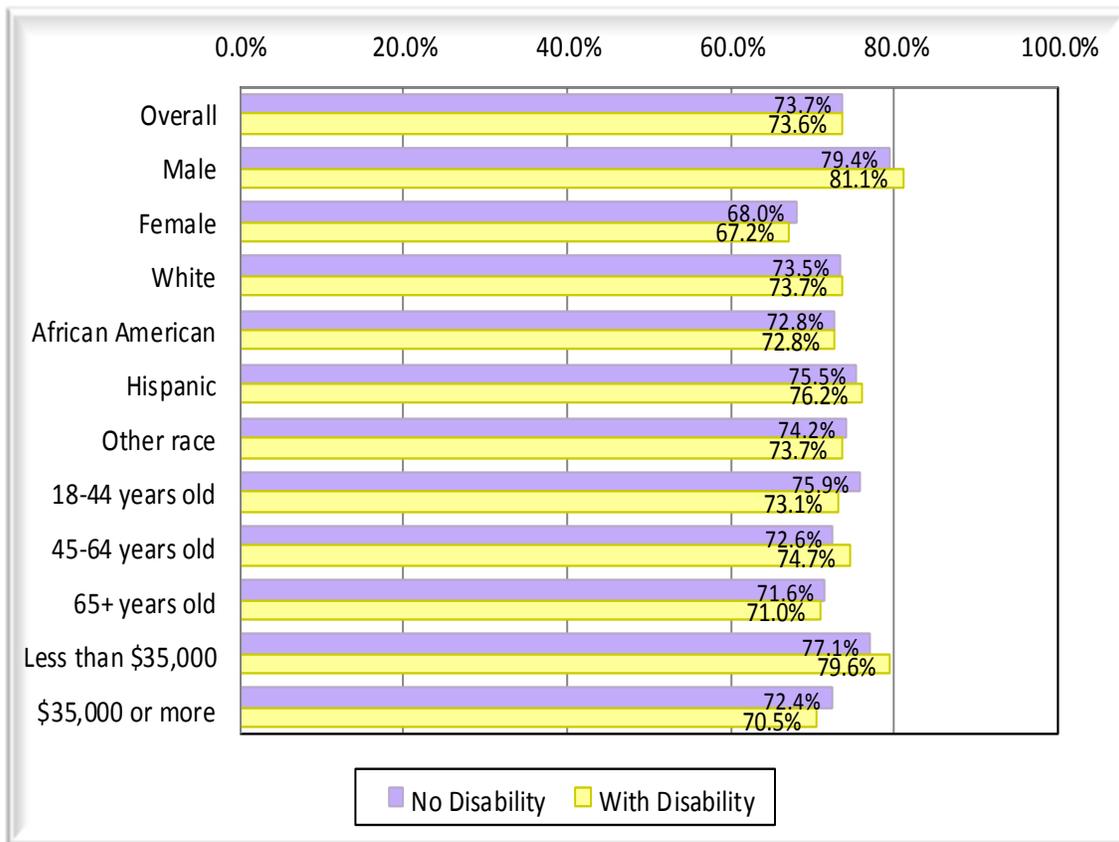


NUTRITION

In 2007 and 2009, BRFSS respondents were asked a series of questions about their eating habits, particularly how often they consumed fruits, fruit drinks, and vegetables. Responses are classified as either meeting or not meeting the recommended five fruits and vegetables a day. Less than one in three adults (28.4%) in Virginia consumes the recommended number of fruits and vegetables and 71.6% do not meet the recommended amount. Nearly half (45.1%) of adults eat two or fewer fruits and vegetables daily.

As shown in Figure 38, there is nearly no difference between people with disabilities (73.6%) and people with no disability (73.7%). Women are less likely than men to be at nutritional risk, and adults earning over \$35,000 are less likely than lower income groups to be at nutritional risk. There is little difference between age and race groups.³³

Figure 38—Eat Fewer Than Recommended Fruits and Vegetables (N=6,067)



³³ Note: The sample “Hispanics with disabilities who eat fewer than recommended number of fruits and vegetables” had a very low respondent rate (n=15 unweighted count) and wide 95% confidence interval (51.6–91.6%), so findings should be interpreted with caution.

EXERCISE AND PHYSICAL ACTIVITY

The Centers for Disease Control recommends that adults get 150 minutes of moderate intensity aerobic exercise week and do muscle-strengthening activities twice a week. –www.cdc.gov

Respondents were asked “During the past 30 days, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?” and responses were classified as either participating in exercise or not participating in exercise. In 2009, 76.2% of the national median and 77.7% of adults in Virginia participated in exercise. Virginia’s rate of exercise is higher than the rate in 35 other states.³⁴

While more than three out of every four adults in Virginia (77.7%) exercised in the previous month, people with disabilities were much less active. In all, only 61.9% of people with disabilities participated in exercise, in contrast to 81.0% of people who do not have a disability. **In comparison to people without disabilities, twice as many people with disabilities do not engage in exercise (19.0% vs. 38.1%), a statistically significant ($p<.001$) difference.**

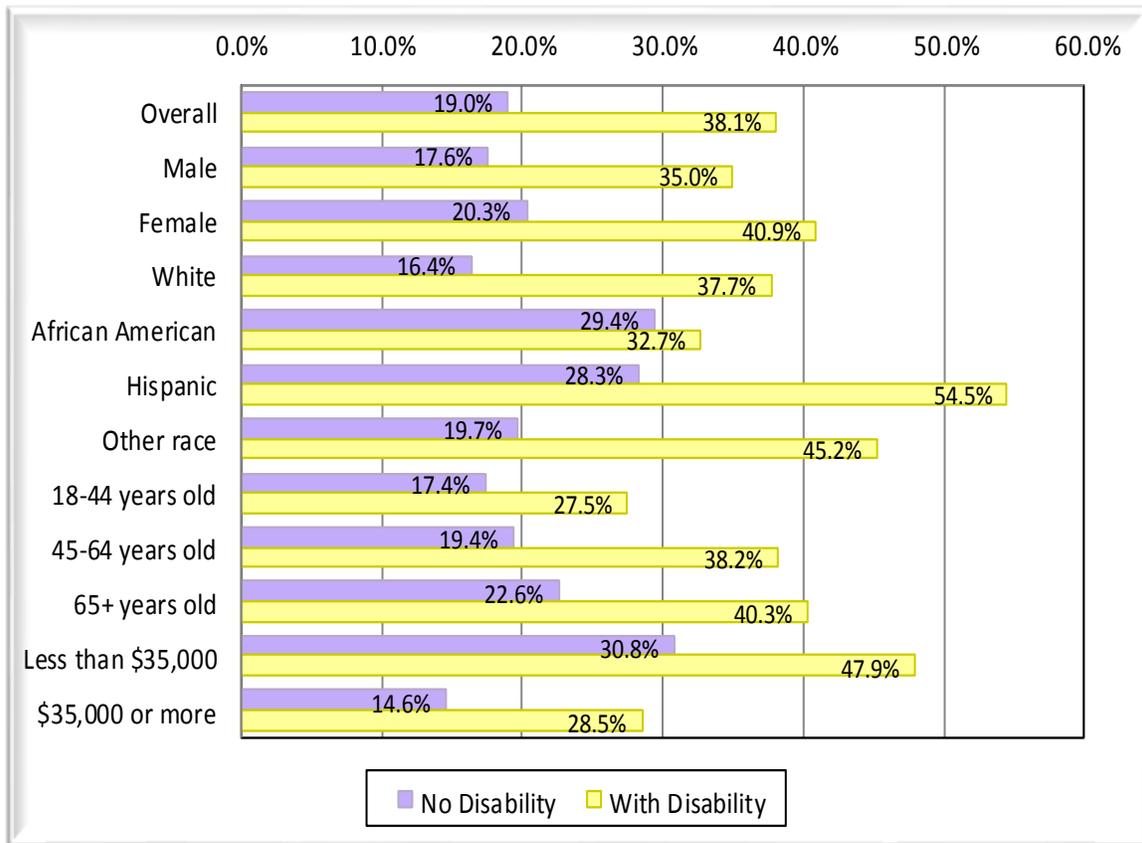
Figure 39 shows that lack of exercise is much more prevalent among people with disabilities, particularly people with disabilities who are women, African American, Hispanic, other races, at least 65 years old, or earn less than \$35,000. In contrast to other races in which there is a wide discrepancy in exercise participation based on disability status, there is little difference between African American adults with and without disabilities.

Another series of questions were asked in 2007 and 2009 about how often respondents participated in moderate activity (such as gardening, vacuuming, bicycling, and brisk walking) and vigorous activity (such as running, aerobics, and heavy yard work) during the week. Responses were categorized as being either physically active or inactive. Only 37.1% of people with disabilities participate in at least 30 minutes of moderate physical activity 5–7 days each week or vigorous activity for at least 20 minutes/day for 3–7 days each week. In contrast, half of people without disabilities (52.0%) participated in moderate or vigorous physical activity as frequently.

³⁴ www.cdc.gov/brfss



Figure 39—No Exercise in Previous Month (N=16,402)



OBESITY

Utilizing self-reported height and weight, the Body Mass Index (BMI) was calculated for all respondents. Overweight is considered to be a BMI of 25-29; obese is a BMI of 30 or more. Adults with a BMI under 25 are categorized as neither obese nor overweight. As shown in Table 12, over one-fourth of adults in Virginia (25.6%) are considered obese and 35.8% are overweight. Virginia rates are similar to 2009 median national rates of 26.9% obesity and 36.2% overweight.³⁵ **Over one-third of people with disabilities (36.4%) are obese, in contrast to only 23.2% of people without disabilities.**

³⁵ www.cdc.gov/brfss

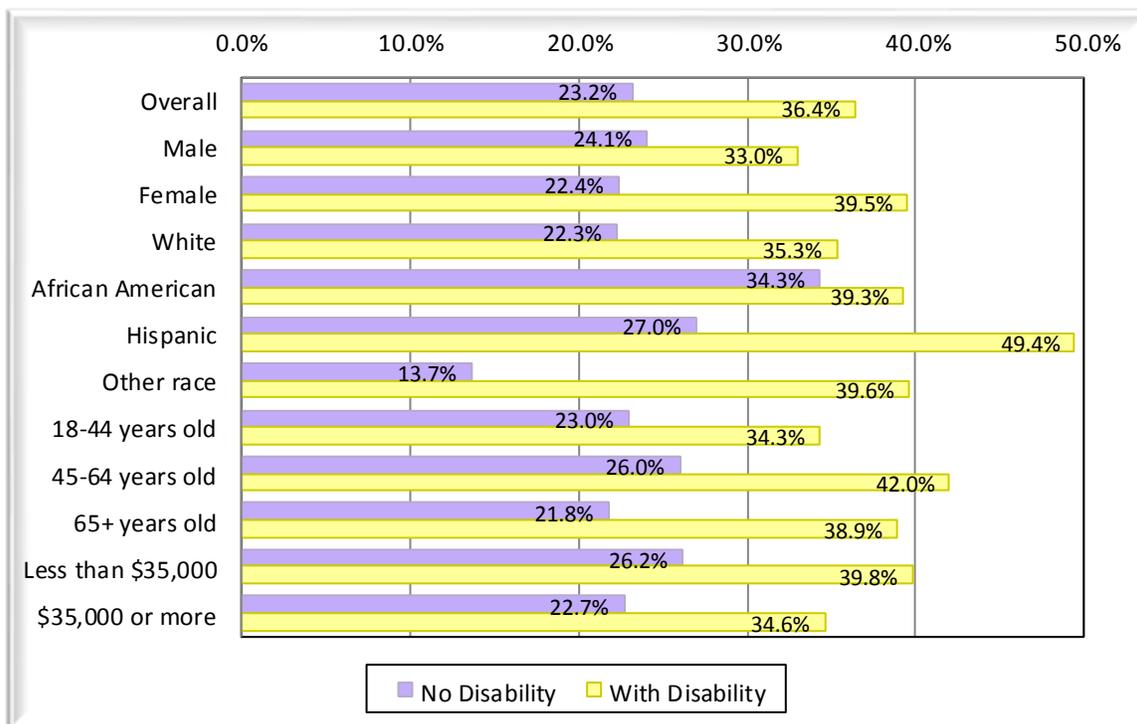


Table 12–Body Mass Index (BMI) Results

	No Disability	With Disability	TOTAL
Neither overweight or obese	40.3%	30.7%	38.6%
Overweight	36.4%	33.0%	35.8%
Obese	23.2%	36.4%	25.6%

Among adults with disabilities, women, African Americans, Hispanics, adults who earn less than \$35,000, and 45–64 year olds tend to be obese more frequently than other demographic groups. Unlike other race categories, African Americans have a similar rate of obesity among people with and without disabilities. **The rate of obesity decreased since 2004–2006 for African Americans with disabilities (dropping from 49.4% to 39.3%), yet increased for adults who are at least 65 years old (rising from 29.5% to 38.9%).**

Figure 40–Obesity (N=15,653)



FIRE ESCAPE AND SMOKE DETECTORS

Less than one-half of adults in Virginia (42.7%) have a fire escape plan. People with disabilities are slightly less likely to have a fire escape plan than people without disabilities (41.6% compared to 47.9%, respectively). Among those who do have a fire escape plan, nearly half have never practiced the plan (43.9%).



Three out of four adults in Virginia (78.0%) have purposely tested (or someone else tested) the smoke detectors in their home within the last year. People with disabilities (81.2%) are slightly more likely to have tested the smoke detectors as those without a disability (77.2%).

Table 13–Fire Escape Plan

	No Disability	With Disability	TOTAL
Have a detailed fire escape plan	47.9%	41.6%	42.7%
In home fire escape plan:			
At least one way to exit every room	85.2%	85.7%	85.6%
Identified a specific meeting place outside of residence	80.1%	75.3%	79.2%
How often do you practice your fire escape plan?			
At least once a year	46.5%	39.2%	42.8%
Less than once a year	10.4%	14.0%	13.3%
Never	43.1%	46.8%	43.9%

TOBACCO USE

Nearly one in five adults (18.0%) in Virginia smokes cigarettes, with a statistically significantly ($p<.001$) higher rate among people with disabilities (24.8%) as people without disabilities (16.5%). Table 14 compares tobacco use by disability status. While most people without a disability have never smoked (60.8%), less than half of people with disabilities have never smoked (45.1%). Smoking rates in Virginia are similar to the 2009 median national rates of 17.8% current smokers and 25.5% former smokers.³⁶

Table 14–Tobacco Use

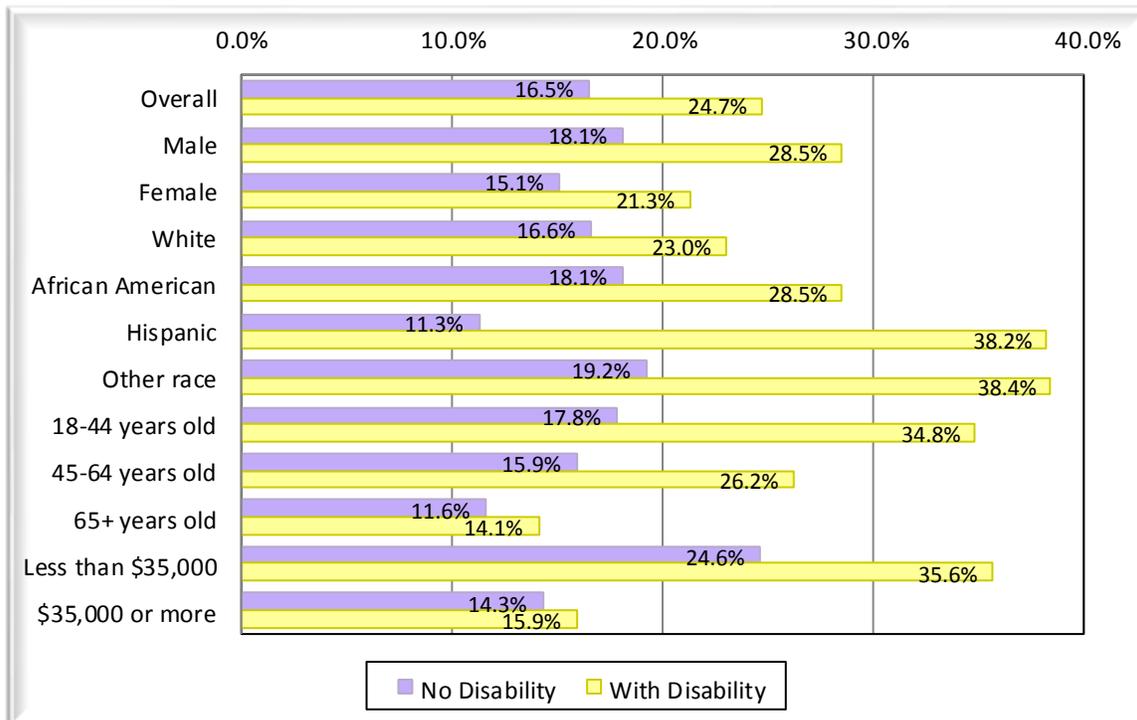
	No Disability	With Disability	TOTAL
Current smokers (smoke daily and have smoked \geq 100 cigarettes)	12.2%	19.2%	13.4%
Current smokers (smoke only some days)	4.3%	5.6%	4.6%
Former smoker	22.6%	30.2%	23.9%
Never smoked	60.8%	45.1%	58.1%

³⁶ www.cdc.gov/brfss



Among people with disabilities, rates of smoking are higher among men than women (28.5% vs. 21.3%) and twice as high among adults earning less than \$35,000 than earning more (35.6% vs. 15.9%). Rates are also higher among Hispanics, other races, and adults 18-44 years old.

Figure 41—Current Smokers (N=16,328)



SEATBELT PRACTICES

In response to the survey question, “How often do you use seatbelts, driving or riding?” most adults in Virginia (84.0%) indicated “always,” with little difference between individuals with a disability (83.4%) and those without a disability (84.1%). Only 1.4% of adults never use a seatbelt.

SKIN CANCER PREVENTION

When asked “When you go outside on a sunny summer day for more than one hour, how often do you use sunscreen or sunblock?” nearly half of all adults (44.8%) indicated that they “always” or “almost always” use sunscreen or sunblock. In comparison to people without disabilities, people with disabilities are less likely to use sunscreen (39.9% vs. 45.7%), and are more likely to “never” use sunscreen (21.7% vs. 12.5%).



VIOLENCE

Violence was studied in terms of firearms in the home, neighborhood safety, physical violence by an intimate partner and sexual violence by an intimate partner. “Intimate partner violence” is defined as violence between two people in a close relationship, including current and former spouses and dating partners.

Findings from the 2007-2009 Virginia BRFSS dataset found that people with disabilities were less likely to report feeling safe in their neighborhoods and they were more likely to have experienced intimate partner physical and sexual violence.

FIREARMS

Over one-third of the adults in Virginia (37.8%) keep some firearms in or around their home, with little difference between people with disabilities (38.1%) and people without disabilities (37.7%). However, people with disabilities are more likely to keep those firearms loaded than people without disabilities (35.5% vs. 28.7%) and are more likely to keep the firearms unlocked (61.9% vs. 57.1%).

NEIGHBORHOOD SAFETY

When asked “How safe from crime do you consider your neighborhood to be?” nearly one-third of adults in Virginia (30.8%) reported that they feel “extremely safe” and over half (58.9%) reported feeling “quite safe.” People with disabilities were less likely to feel “extremely safe” as people who do not have a disability (25.9% vs. 32.0%).

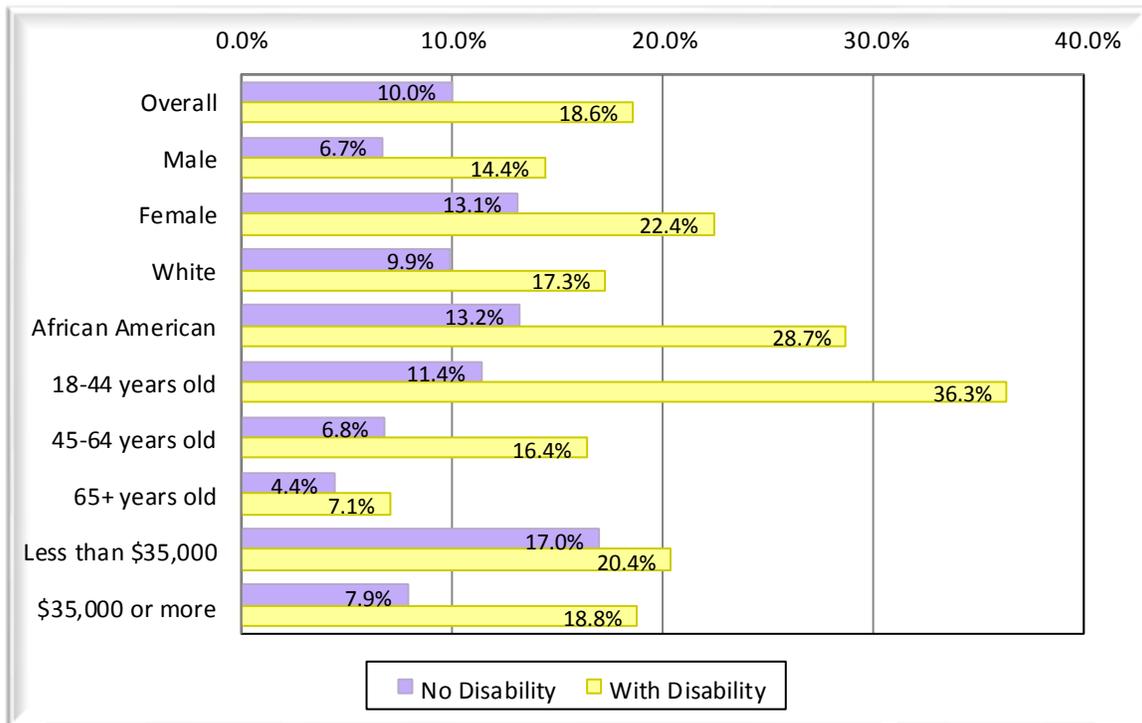
PHYSICAL VIOLENCE

In 2007, BRFSS respondents in Virginia were asked, “Has an intimate partner EVER hit, slapped, pushed, kicked, or physically hurt you in any way?” **In Virginia, 11.5% of adults said they experienced intimate partner physical violence, with much higher rates among people with disabilities (18.6%) than people who do not have a disability (10.0%).** The rate of physical violence is nearly twice as high among women as men (14.8% vs. 8.0%) and nearly twice as high among adults earning less than \$35,000 as those earning a higher income (17.9% vs. 9.4%).

Among people with disabilities, rates of intimate partner violence are higher among women, African Americans, and adults younger than 45 years old. There is little difference among people with disabilities by income. Figure 42 demonstrates that for the race and age categories presented, the rate of physical violence by an intimate partner is about twice as high among people with disabilities as people who do not have a disability.



Figure 42—Ever Survived Physical Violence by an Intimate Partner (N=4,809)



SEXUAL VIOLENCE

In 2007, BRFSS survey respondents in Virginia were asked, “Has an intimate partner EVER had sex with you after you said or showed that you didn’t want to or without your consent?” In all, 5.2% of adults in Virginia have been a victim of sexual violence, primarily violence towards women. **People with disabilities were twice as likely to have been victimized as people who do not have a disability (9.2% and 4.4%, respectively).**³⁷

Table 15 presents findings about sexual violence among people with and without disabilities. People with disabilities are more likely to experience non-consensual sexual situations than people without a disability, but have lower rates of attempted sex.

³⁷ Note: Because of the limited sample, the number of respondents was not adequate for demographic data analyses.



Table 15–Sexual Violence in Last Year (N=4,983)

Sexual Violence in Last Year	No Disability	With Disability	TOTAL
Has anyone exposed you to unwanted sexual situations that did not involve physical touching (for example: sexual harassment, someone exposing self)	2.9%	1.7%	1.9%
Has anyone touched sexual parts of your body after you said or showed that you didn't want them to or without your consent (for example: being groped or fondled)?	0.7%	3.0%	1.1%
Has anyone ATTEMPTED to have sex with you after you said or showed that you didn't want to or without your consent, BUT SEX DID NOT OCCUR?	15.6%	10.5%	14.2%
Has anyone HAD SEX with you after you said or showed that you didn't want to or without your consent?	6.6%	11.5%	8.1%

BRFSS FINDINGS AND HEALTHY PEOPLE 2010 AND 2020

HEALTHY PEOPLE 2010

Since 1990, Healthy People, managed by the Office of Disease Prevention and Health Promotion within the U.S. Department of Health and Human Services, has established ten-year objectives for improving the health of all adults and children in the United States. Its mission is to establish benchmarks and monitor progress in order to encourage cross-sector collaboration, guide consumers in making informed health decisions, and measure the impact of prevention initiatives. For more information about Healthy People, see www.healthypeople.gov.

Table 16 utilizes 2007-2009 BRFSS data to report on the status of Virginians meeting eleven selected Healthy People (HP) 2010 health objectives. A thumbs up symbol (👍) indicates that the prevalence meets or exceeds the 2010 objective, while a thumbs down symbol (👎) indicates that the objective was not met.



Table 16-Health Indicators by Disability Compared to Healthy People 2010 Goals

2010 Objective	Disability	No Disability	HP 2010 Goal
Health Care Access and Status			
Adults under 65 with health insurance	85%☹	88%☹	100%
Adults with usual primary care provider	85%☺	80%☹	85%
Heart Disease and Stroke			
Adults with high blood pressure	44%☹	26%☹	16%
Adults with high blood cholesterol	52%☹	34%☹	17%
Cancer			
Women 18 and older who received a Pap test in past 3 years	80%☹	84%☹	90%
Adults 50 and older who ever received a colonoscopy or sigmoidoscopy	71%☺	70%☺	50%
Women over 40 who received a mammogram within last 2 years	76%☺	79%☺	70%
Weight Control and Exercise			
Adults who are obese	36%☹	23%☹	15%
Adults who engage in no leisure time physical activity	38%☹	19%☺	20%
Smoking			
Current smokers	25%☹	17%☹	12%
Immunizations			
Adults 65 and older had flu vaccine in past 12 months	72%☹	69%☹	90%

☺ = Meets or exceeds the HP2010 goal. ☹ = Falls below the HP2010 goal.

Among both people with and without disabilities, only two of the eleven objectives were reached—adults 50 and older who ever received a colonoscopy or sigmoidoscopy, and women over 40 who received a mammogram within last two years. Adults with no disability also met the Healthy People 2010 objective of engaging in leisure physical activity. People with disabilities also met the objective of having a personal doctor or primary care provider.



HEALTHY PEOPLE 2020

One goal of Healthy People 2020 is to “promote the health and well-being of people with disabilities.” Disability-related objectives were developed in order to improve opportunities for people with disabilities to be included in public health activities, receive timely health services and interventions, interact without barriers, and participate in everyday life activities.

Of the three disability-related Healthy People 2020 objectives that can be tracked with BRFSS data, Virginia has already met two of the 2020 targets. As shown in Table 17, the unemployment rate among people with disabilities is substantially lower in Virginia than the HP 2020 target, and the rate of employment is higher. On the other hand, only 72.1% of people in Virginia who have disabilities report sufficient social and emotional support, lower than the national goal of 76.5%.³⁸

Table 17–Healthy People 2020 Target Goals and People with Disabilities in Virginia

2020 Objective	Virginia	Nation	HP 2020 Goal
Reduce unemployment among people with disabilities	5.7%	14.5%	13.1%
Increase employment among people with disabilities	39.6%	19.2%	21.1%
Increase the proportion of adults with disabilities who report sufficient social and emotional support	72.1%	69.5%	76.5%

³⁸ Sufficient social and emotional support is defined as respondents indicating “always” or “usually” in response to the BRFSS survey question, “How often do you get the social and emotional support you need?”



CONCLUSION

The 2007–2009 Behavioral Risk Factor Surveillance System (BRFSS) identified a number of findings about people with disabilities who live in Virginia. However, while the BRFSS survey data provided an opportunity to shed light on the health status of people with disabilities, the data also raised questions about people with disabilities who were sampled. How severely are their daily lives limited? What types of disabilities do they have? Are the disabilities permanent or temporary, acquired or developmental? To what extent is the disability a result of a health issue (for example, cardiovascular disease and cancer)? To what extent can accommodations improve the health, mental health, and employment status of people with disabilities?

The *Health Status of Virginians with Disabilities 2007–2009* reports findings about several variables by disability status as well as demographic variables. Throughout the analyses, disability status is typically only one factor influencing the results. Income, health insurance, gender, race, and age often contribute to data findings as much as disability status. Other variables that may contribute to findings include education, area of the state, type of location (suburban, urban, rural), availability of medical and mental health specialists, living situation, and social support.

During 2007–2009, 17.6% of adults in Virginia reported that they are limited in some activity because of physical, mental, or emotional problems. The prevalence is about equal in men as women, but more prevalent among veterans, Native Americans, adults who are divorced or widowed, and people who are at least 65 years old. Over one-fourth of people with disabilities use special equipment, such as a walking cane, wheelchair, special bed, or special telephone. In comparison to people who do not have a disability, people with disabilities in Virginia are more likely to live alone, have lower income, have less education, and are more often unemployed.

Areas in which people with disabilities **are similar** to people who do not have a disability include:

- Having a personal doctor
- Having health insurance
- Getting certain cancer screenings (oral and colorectal cancer screenings, PSA test for males)
- Eating the recommended amounts of fruits and vegetables
- Engaging in binge drinking
- Using seatbelts consistently



Compared to people without disabilities, those with disabilities demonstrated a statistically **higher frequency of positive health practices** related to the following areas:

- Getting an annual checkup
- Receiving mental health treatment or medication for an emotional problem
- Getting blood cholesterol levels checked within the last five years
- Getting a flu vaccine annually and a pneumonia vaccine
- Limiting routine alcohol consumption

Compared to people without disabilities, those with disabilities either demonstrated a statistically **lower frequency of positive health practices, or reported more health disparities**, related to the following areas:

- Having dental insurance
- Having unmet health needs due to cost
- Perceiving their health as poor or fair
- Reporting more days in which their physical and mental health was not good
- Reporting more days in which their poor health limited usual activities
- Reporting more symptoms of anxiety and depression
- Considering suicide (though they are less likely to plan or attempt suicide)
- Having sufficient social and emotional support
- Reporting less life satisfaction
- Having chronic disease/secondary health conditions (arthritis, asthma, cancer, and diabetes)
- Having cardiovascular risk factors (heart condition, high blood pressure, and high cholesterol)
- Visiting a dentist and getting teeth professionally cleaned routinely, and having teeth extracted due to gum disease or tooth decay
- Getting routine mammograms and Pap tests for women
- Drinking more heavily on occasion (though less likely to drink routinely)
- Participating in physical activity outside of work
- Being obese
- Having a fire escape plan



- Smoking cigarettes
- Using sunscreen
- Feeling safe in their neighborhood
- Being victimized by intimate partner violence and sexual violence

Findings show a wide discrepancy in health status based on race, particularly among Hispanic and African Americans who have disabilities. In comparison to other race and ethnic categories, Hispanics with disabilities have higher rates of perceived poor health, unmet health needs due to cost, and obesity, and are much less likely to have health or dental insurance or a personal doctor. Hispanics with disabilities are also less likely to receive routine checkups or flu shots, or to exercise routinely. African Americans with disabilities have greater rates of unemployment and are more likely to have asthma, diabetes, high cholesterol, and symptoms of anxiety and depression. African Americans with disabilities are also less likely to visit a dentist, and African American women with disabilities have lower rates of getting mammograms and Pap tests.

For the most part, 2007-2009 findings are similar to 2004-2006 findings. The differences include higher perceived fair/poor health and higher rates of activity restrictions among people with disabilities during 2007-2009. Rates of heavy drinking increased among adults with disabilities, particularly among those who are 18-44 years old. African Americans with disabilities show comparatively lower rates of arthritis, but an increase in asthma prevalence.

This report details the differences between people with and without disabilities and the extent to which sex, race, age, and income may also contribute. This information offers a number of implications for reducing health care disparities, fostering systems change, and promoting health education, awareness, and access. The intent of the report is to highlight the issues that people with disabilities face, not only to increase awareness, but to underscore the need for people with disabilities to be viewed as persons first instead of identifying them in terms of their disability.

Recommendations:

- The health status of people with disabilities who have low income is dramatically worse than people who do not have a disability and earn a high income. Greater accessibility and availability of adaptations for health care and services can open doors to people with disabilities and improve health status, educational achievement, employment opportunities, and income, while also providing needed health insurance.
- While the BRFSS data is a rich and valuable dataset, comprised of multiple variables on behaviors, conditions, and demographics, it is limited in presenting



the issues that people with disabilities face. Additional BRFSS questions related to unmet service and health care needs, caregiver involvement, severity of disability, communication, adaptations, living situations, accommodations, and history of impairment will provide greater understanding of people with disabilities. The 2010 and 2011 state-added questions about type of disability, disability-related activity limitations, and assistance needed is a very promising next step.

- BRFSS telephone surveys are designed to be answered by the adult who answers the home telephone, a practice that may often de-select people with disabilities, particularly those with hearing or communication impairments. Other ways to reach people with disabilities, including those in congregate living situations, need to be explored.
- People with disabilities often have health conditions and are physically inactive and nutritionally deficient. More intensive and widespread health care promotion, education, and awareness needs to be extended to people with disabilities as well as to their health care providers, family members, caregivers, and educators. Accessible public health fairs, sport and exercise events, and parks and recreational programs can be opportunities for greater participation by people with disabilities.
- Health promotion campaigns for people with disabilities should target areas in which people with disabilities are faring worse than people without disabilities. Areas to be considered include: increased healthcare access, increased physical activity, decreased alcohol consumption (particularly among adults 18-64), tobacco cessation, nutrition awareness, intimate partner violence and sexual violence, and greater rates of women with disabilities getting Pap tests and mammograms.

LIMITATIONS

While BRFSS data has allowed an opportunity to better understand the health behaviors and risks of people with disabilities, issues with the survey design and data collection methodology limit the ability to generalize findings to all people with disabilities in the state. These issues include:

- All data are self-reported and not verified by medical records or testing. Respondents may perceive their level of activity limitation either more or less favorably than how a secondary source, such as healthcare professional, would assess the situation.



- The lack of a universal, standard definition of disability limits the ability to compare BRFSS findings to other disability health surveys and research.
- The definition of disability as having activity limitations does not fully describe people with disabilities, particularly those who have an “invisible disability” or mental health concern. Selected potential respondents may not want to admit having a socially stigmatizing disability.
- Because disability status is confined to the one question, it is unclear whether respondents with temporary functioning restrictions consider themselves disabled. Similarly, people with disabilities who have adaptive devices may not consider their activities limited.
- BRFSS is limited to households with telephones. While telephone surveys to cell phone users are being piloted, there are no mechanisms to invite participation among people with communication, intellectual, or hearing impairments or who do not have a telephone because of financial or social factors.
- People who reside in assisted living facilities, congregate care, and long term hospitals are not sampled in the BRFSS study. As a result, the sample is less representative of people with disabilities and the more severe health conditions and behaviors are under-reported.
- There are no BRFSS survey questions about children with disabilities.





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