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BACKGROUND

The Virginia Board for People with Disabilities (VBPD) is a subcontractor for Virginia Commonwealth University’s Partnership for People with Disabilities (VCU PPD) on Project Living Well, a Project of National Significance that was awarded federal funding by the Administration for Community Living. Project Living Well was established with the purpose of “implementing a replicable and sustainable model of: 1) evidence-based and informed capacity building strategies that will increase knowledge and skills of people with disabilities and their supporters and generate policy change; and 2) community monitoring that will align and augment disparate monitoring and quality initiatives to improve the identification of health and safety risks for people with disabilities.” Project Living Well will be implemented over a five-year period, from federal fiscal year 2018 through 2022.

As a result of this subcontract, VBPD began developing a trend report to track service provision and quality of life outcomes regarding people with developmental and other disabilities. The disability services system in Virginia spans numerous state agencies and other organizations, making it difficult to holistically monitor. VBPD hopes that this report helps policymakers, advocates, and the general public easily track performance over time and identify areas for improvement across the disability services system. VBPD also strives to align the trend report indicators with those used in VBPD’s assessments of disability service areas, which discuss the policy implications of key quantitative and qualitative information.

VBPD plans to release one trend report for each of five selected service categories as they are completed. These service categories are Early Intervention, Housing, Education, Employment, Health and Community Supports. After this first round of release, VBPD will determine the frequency for updating the trend report based on data availability and staff resources, but intends to update the trend report for a given topic at least once every four years. Similarly, VBPD updates its assessment of disability service areas once every four years for a given topic.

Across the United States, people with disabilities experience worse health outcomes than people without disabilities. For example, they are more likely to suffer from diabetes, cardiovascular disease, or depression. They are also less likely to report good physical or mental health.

Many of these differences in health
outcomes are avoidable. People often assume that the differences are caused by the disability itself, and are therefore unavoidable. While this is likely true in some cases, it is only part of the story. Some health measures should be similar across groups of people, regardless of disability status. For example, there is no reason someone with a disability should be utilizing routine preventive care, such as medical check-ups and cancer screenings, less often than someone without a disability. Similarly, there is no reason someone with a disability should be engaging less often in healthy behavior, such as healthy eating or abstaining from smoking, than someone without a disability. Yet they do, indicating that factors other than the disability itself are involved.

Social determinants of health contribute to many of the differences in health outcomes between people with and without disabilities. Social determinants of health are, according to the Centers for Disease Control and Prevention, conditions in the environments in which people are born, live, learn, work, and play that affect a wide range of health, functioning, and quality-of-life outcomes. Researchers estimate that social determinants of health account for 80 to 90% differences in health outcomes, according to the National Academy of Medicine, while medical care explains only about 10 to 20% of differences in health outcomes.

In the case of people with disabilities, social determinants of health take many forms including discrimination, financial inaccessibility, physical inaccessibility, and communications inaccessibility. Teachers and employers may discriminate against people with disabilities, which in turn limits their income levels and makes it difficult for them to afford health care, housing, or transportation. Medical professionals may also discriminate against people with disabilities by, for example, assuming that they are not sexually active, that healthy behavior is not important for them, or that their lives are less valuable. Many medical offices are in buildings that people with disabilities cannot physically access, or rely on medical equipment that is not physically accessible to people with disabilities. Healthcare professionals do not know how to communicate respectfully with people who are deaf or hard of hearing, who are blind or vision-impaired, or who have intellectual disabilities. While the research literature has identified these barriers to healthcare nationally, little data exists on their prevalence in Virginia.

These barriers persist despite several laws that aim to ensure healthcare access for people with disabilities. The 1990 Americans with Disabilities Act and, to a more limited extent, Section 504 of the Rehabilitation Act of 1973

a) prohibit discrimination by medical providers on the basis of disability status;

b) require medical providers to ensure equal access by providing equal services to people with disabilities; making reasonable modifications to practices, policies, and procedures; and providing auxiliary aids and services; and

c) require new medical facilities to adhere to accessible design standards, but older medical facilities are only required to remove architectural barriers when “readily achievable.”

The 2010 Affordable Care Act further supported healthcare access for people with disabilities by prohibiting discrimination based on disability status, requiring health insurers to cover pre-existing conditions, and allowing states to expand Medicaid eligibility. The Affordable Care Act also recognized health disparities among people with disabilities and required “federally conducted or supported health care or public health program, activity or surveys” to collect and report data on disability status. Data collection has since expanded, but nonetheless remains limited.
STATEMENT OF VALUES

The Virginia Board for People with Disabilities (VBPD), as Virginia’s Developmental Disability Council, advises the Governor, the Secretary of Health and Human Resources, legislators, and other groups on issues important to people with disabilities in the Commonwealth. The Virginia Commonwealth University Partnership for People with Disabilities (VCU PPD), as Virginia’s University Center for Excellence in Developmental Disabilities, connects academic research and service delivery systems to improve the quality of life for people with disabilities in the Commonwealth.

As the product of organizations that are tasked to advocate for people with disabilities, help improve the service system, and advise the structure that governs it, this trend report is driven by a core set of beliefs and principles, which can be distilled into three categories:

QUALITY

People with disabilities should receive quality services and supports which enhance their lives. Quality services and supports should indicate a recognition that

- all people have inherent dignity regardless of gender, race, religion, national origin, sexual orientation, or disability status;
- people with disabilities should be presumed capable of obtaining a level of independence and make informed choices;
- people with disabilities have the right to self-determination and should be included in the decision-making processes that affect their lives; and
- all people, including people with disabilities, are valued for contributing to the diversity of the Commonwealth.

Additionally, quality services and supports

- should be provided in the most integrated setting appropriate to each person’s needs and desires;
- should provide freedom from abuse and neglect; and
- should be fiscally responsible.

SATISFACTION

Enhancing the satisfaction and wellbeing of people with disabilities should be a central goal of the disability services and supports system. Wellbeing includes feelings of happiness and feelings of autonomy. Because people with disabilities are experts in their own wellbeing, personal satisfaction metrics should be considered whenever possible in system evaluation efforts. Satisfaction of family members who act as caretakers or legal guardians should also be considered when available.

ACCESSIBILITY

Essential services and supports must be physically and programmatical accessible to people with disabilities, regardless of characteristics such as, but not limited to, the nature of their disability, their income, or where they live.
Health Trends

The Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and Affordable Care Act offer protections for people with disabilities to access healthcare. Despite these protections, Virginians with disabilities have had substantially worse health outcomes than Virginians without disabilities. Research shows that health disparities are largely a result of social determinants of health which, for people with disabilities, can include discrimination and financial, physical, and communicative inaccessibility of health care services. Consequently, many of these differences in health outcomes can be prevented. Because of limited available data, the data discussed in this trend report pertains to adults.

KEY

↑ Increase that is desirable
↓ Decrease that is desirable
↑ Increase that is undesirable
↓ Decrease that is undesirable
↑ Increase that is neutral
↓ Decrease that is neutral
↔ Little to no change
N/A No data available

Quality

Most indicators of health access and health outcomes for Virginians with disabilities improved slightly, in the most recent year for which data is available. However, they are worse than in earlier years. Virginians with disabilities also consistently had worse health outcomes than Virginians without disabilities. For example, they were twice as likely to have diabetes and four times more likely to have a stroke. Additional data is needed to better identify, monitor, and understand health outcomes of people with disabilities over time.
<table>
<thead>
<tr>
<th>QUALITY INDICATOR</th>
<th>1 YEAR TREND</th>
<th>4 YEAR TREND</th>
<th>8 YEAR TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a Complete Physical Exam within Past 12 Months</td>
<td>↑</td>
<td>↓</td>
<td>N/A</td>
</tr>
<tr>
<td>Had a Dental Exam within Past 6 Months</td>
<td>↓</td>
<td>↓</td>
<td>N/A</td>
</tr>
<tr>
<td>Had a Flu Vaccine within Past 12 Months</td>
<td>↑</td>
<td>↑</td>
<td>N/A</td>
</tr>
<tr>
<td>Had a Pap Test within Past 3 Years</td>
<td>↑</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Had a Mammogram within Past 2 Years</td>
<td>↑</td>
<td>↓</td>
<td>N/A</td>
</tr>
<tr>
<td>Had a Colonoscopy within Past 10 Years</td>
<td>↑</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Diabetes Rate</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Heart Disease Rate</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Stroke Rate</td>
<td>↑</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Obesity Rate</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Current Smoker Rate</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Depression Rate</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Most Virginians with disabilities reported being in good health. About two-thirds of Virginians receiving developmental disabilities (DD) waiver services reported excellent or very good health in recent years, up from about half in earlier years. Nearly one-third of Virginians with disabilities reported having poor physical and mental health, and the percentage slightly decreased in the most recent year. However, Virginians with disabilities were substantially more likely than Virginians without disabilities to report poor physical and mental health.

<table>
<thead>
<tr>
<th>SATISFACTION INDICATOR</th>
<th>1 YEAR TREND</th>
<th>4 YEAR TREND</th>
<th>8 YEAR TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Excellent/Very Good Health</td>
<td>↓</td>
<td>↓</td>
<td>N/A</td>
</tr>
<tr>
<td>Reported Poor Physical Health for At Least 14 of Past 30 Days</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Reported Poor Mental Health for At Least 14 of Past 30 Days</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Available data indicates that people with disabilities are less able to access healthcare than people without disabilities. Most Virginians with disabilities had healthcare coverage, but they were less likely to have healthcare coverage than people without disabilities. A declining percentage of Virginians with disabilities were unable to see a doctor due to cost, but this percentage was nearly three times higher than that of Virginians without disabilities. Additional data is needed to assess the extent to which physical, communication, and programmatic barriers exist.

<table>
<thead>
<tr>
<th>ACCESSIBILITY INDICATOR</th>
<th>1 YEAR TREND</th>
<th>4 YEAR TREND</th>
<th>8 YEAR TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had Healthcare Coverage</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Unable to See Doctor Due to Cost</td>
<td>↓</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

When interpreting this trend summary, it is important to note that all trends are based on the most recent data available at the time of trend report development. As a result, some indicator trends may be based on data that is older or newer than other indicator data. Data, years for which data was available, and further discussion of each indicator’s trends are included on the indicator summary pages in the trend report. Additionally, the trend arrows are based on the percentage change over time. Please note that changes less than one percent are deemed “about the same” and indicated with “↔.” This threshold does not indicate statistical significance, so it is possible that fluctuations greater or less than one percent were due to random chance. More information on how the trend summary was determined is included in the Data Sources & Limitations section. Additionally, because the list of indicators for this trend report is extensive, not every indicator is discussed in this trend summary. For more information on indicators not discussed, as well as their data sources, please see their indicator summary.
HEALTH
Quality Indicator
SUMMARIES
The following quality indicators are based on Virginians aged 18 and older receiving Medicaid Developmental Disability (DD) waiver services. These indicators reflect the performance of Virginia’s disability and health services provided through the Medicaid program. Virginia and national performance are compared in 2017 through 2019:

- Had a Complete Physical Exam within Past 12 Months
- Had a Dental Exam within Past 6 Months
- Had a Flu Vaccine within Past 12 Months
- Had a Pap Test within Past 3 Years
- Had a Mammogram within Past 2 Years
- Had a Colonoscopy within Past 10 Years
QUALITY INDICATOR SUMMARIES

Had a Complete Physical Exam within Past 12 Months

WHO:
Percentage of Virginians receiving Developmental Disability (DD) waiver services aged 18 or older who had a complete physical exam within the past 12 months, compared to the national average.

The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

HOW:
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of Virginians with DD who were receiving at least one publicly funded service (other than case management).

WHEN:
Data is reported by state fiscal year.

People with DD, in Virginia and Nationally, Who Had a Complete Physical Exam within the Past 12 Months

<table>
<thead>
<tr>
<th>State Fiscal Year</th>
<th>VA</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>83%</td>
<td>86%</td>
</tr>
<tr>
<td>2018</td>
<td>81%</td>
<td>87%</td>
</tr>
<tr>
<td>2019</td>
<td>82%</td>
<td>89%</td>
</tr>
</tbody>
</table>


WHAT ARE THE TRENDS?
Most Virginians receiving DD waiver services had a physical exam within the past 12 months, although the percentage declined in recent years. The percentage for Virginians with DD who had the exam ranged from 81% in 2018 to 90% in 2013. Although a majority of Virginians with DD waivers had an exam, fewer Virginians had this exam than people in other states, according to the national average.
WHO:
Percentage of Virginians receiving Developmental Disability (DD) waiver services aged 18 or older who had a dental exam in the past 6 or 12 months, compared to the national average. The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

HOW:
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of Virginians with DD who were receiving at least one publicly funded service (other than case management).

WHEN:
Data is reported by state fiscal year.

WHAT ARE THE TRENDS?
The percentage of Virginians with DD waivers who had a dental exam within the past six months declined to about one-third in recent years. From state fiscal years 2013 to 2019, about 30 to 40% of Virginians with DD services had dental exams within the last six months, and about 30 to 35% had exams within the past seven to 12 months. Up to 37% did not have dental exams within the past year. For 2016, reported data may be inaccurate due to missing dental data for at least 25% of Virginians with DD. In 2017 and 2018, fewer Virginians with DD had dental exams than people with DD in other states. Virginia’s lower rates of dental exams were likely due to limited Medicaid coverage. In Virginia, Medicaid only covered some medically necessary oral surgeries for adults aged 21 and older. Additional limited dental benefits through Medicaid went into effect in July 2021.

People with DD, in Virginia and Nationally, Who Had a Dental Exam within the Past 6 and 12 Months

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>29%</td>
<td>40%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>2014</td>
<td>28%</td>
<td>42%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>2015</td>
<td>35%</td>
<td>39%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>2016</td>
<td>32%</td>
<td>40%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>2017</td>
<td>29%</td>
<td>37%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>2018</td>
<td>27%</td>
<td>36%</td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>2019</td>
<td>33%</td>
<td>33%</td>
<td>33%</td>
<td>33%</td>
</tr>
</tbody>
</table>

QUALITY INDICATOR SUMMARIES

Had a Flu Vaccine within Past 12 Months

**WHO:**
Percentage of Virginians receiving Developmental Disability (DD) waiver services aged 18 or older who received a flu vaccination within the past 12 months, compared to the national average.

The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

**HOW:**
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of Virginians with DD who were receiving at least one publicly funded service (other than case management).

**WHEN:**
Data is reported by state fiscal year.

---

**People with DD, in Virginia and Nationally, Who Had a Flu Vaccine within the Past 12 Months**

<table>
<thead>
<tr>
<th>Year</th>
<th>VA</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>76%</td>
<td>87%</td>
</tr>
<tr>
<td>2014</td>
<td>87%</td>
<td>85%</td>
</tr>
<tr>
<td>2015</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>2016</td>
<td>87%</td>
<td>76%</td>
</tr>
<tr>
<td>2017</td>
<td>87%</td>
<td>74%</td>
</tr>
<tr>
<td>2018</td>
<td>88%</td>
<td>72%</td>
</tr>
</tbody>
</table>


---

**WHAT ARE THE TRENDS?**

Most Virginians with DD waivers received a flu vaccine. Vaccination rates ranged from 76% in 2013 to 91% in 2015. More Virginians with DD appear to have received flu vaccines than people with DD in other states in 2017 through 2019. This comparison may contain inaccuracies, however, because at least 25% of case management records for Virginians with DD were missing flu vaccination data in years 2016 through 2019. Records with missing data were excluded from the final reported data.
**Who:**
The percentage of women receiving Developmental Disability (DD) waiver services aged 21 or older who had a pap test within the past three years, compared to the national average. Pap tests detect cervical cancer.
The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

**How:**
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of women with DD aged 21 or older who were receiving at least one publicly funded service (other than case management).

**When:**
Data is reported by state fiscal year.

---

**Women with DD, in Virginia and Nationally, Who Had a Pap Test in Past 3 Years**

<table>
<thead>
<tr>
<th>Year</th>
<th>VA</th>
<th>US</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>55%</td>
<td>63%</td>
<td>Pap tests detected more women in US than VA.</td>
</tr>
<tr>
<td>2018</td>
<td>52%</td>
<td>57%</td>
<td>Pap tests detected more women in US than VA.</td>
</tr>
<tr>
<td>2019</td>
<td>53%</td>
<td>56%</td>
<td>Pap tests detected more women in US than VA.</td>
</tr>
</tbody>
</table>


**What are the trends?**
Since state fiscal year 2017, about half of Virginian women with DD waivers aged 21 or older had a pap test done within the past three years. Fewer Virginian women with DD had pap tests than women with DD in other states, for each of the three years for which data was available.
WHO:
Percentage of women receiving Developmental Disability (DD) waiver services aged 40 or older who had a mammogram in the past two years, compared to the national average. Mammograms are x-rays to detect breast cancer.

The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

HOW:
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of women with DD aged 40 or older who were receiving at least one publicly-funded service (other than case management).

WHEN:
Data is reported by state fiscal year.

WHAT ARE THE TRENDS?
The majority of Virginian women with DD waivers aged 40 and older had a mammogram in the past 2 years. The mammogram rate ranged from 63% in 2018 to 76% in 2013 and 2015. In 2016, at least 25% of respondents had missing data from their case management records, so they were excluded from the sample. From 2018 to 2019, the percentage increased 4 percentage points (or +6.3%) to 67%, but was still lower than the rate in earlier years. In 2017 through 2019, fewer Virginian women with DD had mammograms than women with DD in other states.
Had a Colonoscopy within Past 10 Years

**WHO:**
Percentage of Virginians receiving Developmental Disability (DD) waiver services aged 50 or older who had a colonoscopy within the past 10 years. Colonoscopies are colorectal cancer screening exams.

The national average is weighted. 35 to 38 states participated in the National Core Indicator (NCI) In-Person Survey from 2017 through 2019.

**HOW:**
Data was collected from Department of Behavioral Health and Developmental Services (DBHDS) case management records. Records belonged to the files of Virginians with DD aged 50 or older who were receiving at least one publicly-funded service (other than case management).

**WHEN:**
Data is reported by state fiscal year.

---

**Virginians with DD, in Virginia and Nationally, Who Had a Colonoscopy within Past 10 Years**

<table>
<thead>
<tr>
<th>Year</th>
<th>VA</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>28%</td>
<td>35%</td>
</tr>
<tr>
<td>2019</td>
<td>32%</td>
<td>37%</td>
</tr>
</tbody>
</table>


**WHAT ARE THE TRENDS?**
In recent years, fewer than one-third of Virginians with DD receiving waiver services had a colonoscopy in the preceding 10 years. The rate has increased each of the three years for which data is available, from one-quarter of Virginians with DD in state fiscal year 2017 to 32% in 2019. In each of these years, Virginia reported fewer people with DD who had colonoscopies than other states.
The following quality indicators are based on Virginians with any disability aged 18 or older. This population may include people with developmental disabilities, people with age-related disabilities, and more. Both people with and without health coverage are included.

These indicators highlight the difference in outcomes between Virginians with disabilities and without disabilities. These differences demonstrate the need for coordinated efforts in tackling both increased access to preventive care and supports to maintain healthy habits:

- Diabetes Rate
- Heart Disease Rate
- Stroke Rate
- Obesity Rate
- Current Smoker Rate
- Depression Rate
**WHO:**
The percentage of Virginians with disabilities aged 18 or older who ever had diabetes, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

**HOW:**
The Virginia Department of Health asked people in a phone interview, “Have you ever been told by a doctor that you have diabetes?” Respondents were categorized as not having diabetes if they reported not having diabetes, only had diabetes during pregnancy, or had prediabetes or borderline diabetes. Interview data was used to estimate prevalence rates.

**WHEN:**
Interviews are conducted annually. The CDC publishes data one year later.

---

**Diabetes Rates in Virginia, by Disability Status**

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>16.3%</td>
<td>6.9%</td>
</tr>
<tr>
<td>2017</td>
<td>16.2%</td>
<td>7.0%</td>
</tr>
<tr>
<td>2018</td>
<td>16.0%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>


---

**WHAT ARE THE TRENDS?**

Virgians with disabilities were more than twice as likely to have diabetes as Virginians without disabilities. About 16% of Virginians with disabilities had diabetes in recent years, while only 7% of Virginians without disabilities reported the same. These trends have been fairly steady in recent years.
**WHO:**
The percentage of Virginians with disabilities aged 18 or older who ever had heart disease, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

**HOW:**
The Virginia Department of Health asked people in a phone interview, “Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease?” People who said “yes,” or said they’ve had a heart attack were counted as ever having heart disease. Interview data was used to estimate prevalence rates.

**WHEN:**
Interviews are conducted annually, and the CDC typically publishes data one year later.

**WHAT ARE THE TRENDS?**
Virginians with disabilities were about three times more likely to have heart disease than Virginians without disabilities. Between 2016 and 2018, the percentage of Virginians with disabilities who had heart disease ranged from 10.5% to 12.3%, while it ranged from 3 to 4% percent for Virginians without disabilities. From 2017 to 2018, the percentage of Virginians with disabilities decreased by 1.3 percentage points (or -10.6%), but was still higher than the 2016 rate.

**Heart Disease Rates in Virginia, by Disability Status**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>10.5%</td>
<td>3.7%</td>
</tr>
<tr>
<td>2017</td>
<td>12.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>2018</td>
<td>11.0%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

**WHO:**
The percentage of Virginians with disabilities aged 18 or older who ever had a stroke, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

**HOW:**
The Virginia Department of Health asked people in a phone interview, “Has a doctor, nurse, or other health professional ever told you that you had a stroke?” Respondents who replied “yes,” were counted as ever having a stroke. The interview data was used to estimate prevalence rates.

**WHEN:**
Interviews are conducted annually, and the CDC typically publishes data one year later.

---

**Stoke Rate**

**Stroke Rates in Virginia, by Disability Status**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>5.6%</td>
<td>1.4%</td>
</tr>
<tr>
<td>2017</td>
<td>6.2%</td>
<td>1.4%</td>
</tr>
<tr>
<td>2018</td>
<td>6.6%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>


**WHAT ARE THE TRENDS?**
Virginians with disabilities were at least four times more likely to have a stroke than Virginians without disabilities. About 6 to 7% of Virginians with disabilities reported ever having a stroke between 2016 and 2018, compared to fewer than 2% of Virginians without disabilities. From 2017 to 2018, the percentage of Virginians with disabilities who reported ever having a stroke increased by 0.4 percentage points (or +6.5%).
WHO:
The percentage of Virginians with disabilities aged 18 or older who are obese, based on their body mass index, compared to Virginians without disabilities.

Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

HOW:
The Virginia Department of Health asked people in a phone interview, “About how tall are you without shoes?” and “About how much do you weigh without shoes?” Responses were used to determine body mass index (BMI), and BMIs 30.0 or greater were considered obese. Excluded from analysis were people who: were pregnant, 8 feet or taller, less than 3 feet tall, weighed less than 50 pounds, weighed 650 pounds or greater, had a BMI less than 12, or had a BMI 100 or greater. Interview data was used to estimate prevalence rates.

WHEN:
Interviews are conducted annually. The CDC publishes data one year later.

WHAT ARE THE TRENDS?
Virginians with disabilities were more likely to be obese than Virginians without disabilities. Since 2016, more than one-third of Virginians with disabilities were obese, based on their body mass index, while only about 27% of Virginians without disabilities were obese. Between 2016 and 2018, the percentage of Virginians with disabilities who were obese ranged from 35.2% to 40.3%. From 2017 to 2018, the percentage of Virginians with disabilities who were obese decreased by 1.2 percentage points (or -3%), but was still higher than the 2016 rate.
**WHO:**
The percentage of Virginians with disabilities aged 18 or older who are current smokers, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

**HOW:**
The Virginia Department of Health asked people in a phone interview, “Have you smoked at least 100 cigarettes in your entire life” and “Do you now smoke cigarettes every day, some days, or not at all?” “Current smokers” were people who said they smoked at least 100 cigarettes in their lifetime and smoked every other day or some days. “Former smokers” were people who smoked at least 100 cigarettes in their lifetime but did not smoke at all at the time of the interview. Interview data was used to estimate prevalence rates.

**CURRENT SMOKER RATES IN VIRGINIA, BY DISABILITY STATUS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>26.9%</td>
<td>12.7%</td>
</tr>
<tr>
<td>2017</td>
<td>27.0%</td>
<td>13.7%</td>
</tr>
<tr>
<td>2018</td>
<td>25.4%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

**WHEN:**
Interviews are conducted annually. The CDC publishes data one year later.

**WHAT ARE THE TRENDS?**
Virginians with disabilities are more likely than people without disabilities to be a smoker. From 2016 to 2018, about one in four Virginians with disabilities were current smokers, compared to only about 12-14% of Virginians without disabilities. From 2017 to 2018, the percentage of Virginians with disabilities who were current smokers decreased 1.6 percentage points (or -5.9%).

Depression Rate

**WHO:**
The percentage of Virginians aged 18 or older who were ever diagnosed with depression, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

**HOW:**
The Virginia Department of Health asked people in a phone interview, “Has a doctor, nurse, or other health professional ever told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?” Respondents who said “yes” were counted as ever having depression. Interview data was used to estimate prevalence rates.

**WHEN:**
Interviews are conducted annually. The CDC publishes data one year later.

---

**Depression Rates in Virginia, by Disability Status**

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>38.4%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2017</td>
<td>42.4%</td>
<td>13.2%</td>
</tr>
<tr>
<td>2018</td>
<td>40.8%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

*Calendar Year*

**WHAT ARE THE TRENDS?**
Virginians with disabilities were three to four times more likely than people without disabilities to experience depression. Between 2016 and 2018, about 40% of Virginians with disabilities reported ever being diagnosed with depression, compared to only about 10% of people without disabilities. From 2017 to 2018, the depression rate for people with disabilities decreased by 1.6 percentage points (or -3.8%), but was still higher than the 2016 rate.

HEALTH
Satisfaction Indicator
SUMMARIES
The following satisfaction indicator is based on Virginians aged 18 and older receiving Medicaid Developmental Disability (DD) waiver services. This indicator connects people’s feelings of personal health with Virginia’s disability and Medicaid health service performance:

- Reported Excellent/Very Good Health
Reported Excellent/Very Good Health

**WHO:**
Percentage of Virginians receiving Developmental Disability (DD) Waiver services aged 18 or older who reported having “excellent” or “very good” health in a face-to-face interview.

**HOW:**
Respondents were asked, “Overall, how would you describe your health?” To be randomly selected for interview for the National Core Indicator (NCI) In-Person Survey, the respondent had to be receiving at least one publicly-funded service (other than case management). A family member, friend, or other person with a close personal relationship to the person with DD was also allowed to respond to this question.

**WHEN:**
States voluntarily report NCI data annually. Results are reported by state fiscal year.

**Virginians with DD Who Self-Reported Excellent/Very Good Health**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>51%</td>
</tr>
<tr>
<td>2014</td>
<td>49%</td>
</tr>
<tr>
<td>2015</td>
<td>53%</td>
</tr>
<tr>
<td>2016</td>
<td>68%</td>
</tr>
<tr>
<td>2017</td>
<td>65%</td>
</tr>
<tr>
<td>2018</td>
<td>70%</td>
</tr>
<tr>
<td>2019</td>
<td>64%</td>
</tr>
</tbody>
</table>


**WHAT ARE THE TRENDS?**
A greater percentage of Virginians receiving DD waivers services have reported having excellent or very good health in more recent years. The percentage of respondents reporting excellent/very good health ranged from 51% in state fiscal year 2013 to 70% in 2018. From 2018 to 2019, however, the percentage of Virginians who reported excellent or very good health dropped by 6 percentage points (or -8.6%).
SATISFACTION INDICATORS
About Virginians with Any Disability

The following satisfaction indicators are based on Virginians with any disability aged 18 or older. This population may include people with developmental disabilities, people with age-related disabilities, and more. Both people with and without health coverage are included.

These indicators show the health satisfaction differences between Virginians with and without disabilities:

- Reported Poor Physical Health for At Least 14 of Past 30 Days
- Reported Poor Mental Health for At Least 14 of Past 30 Days
WHO:
The percentage of Virginians with disabilities aged 18 or older who reported having “not good” physical health for 14 or more of the past 30 days, compared to Virginians without disabilities.

Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

HOW:
In a phone interview conducted by trained interviewers from the Virginia Department of Health, people 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 physical health not good?” The interview data was used to estimate prevalence rates.

WHEN:
Interviews are conducted annually, and the CDC typically publishes data one year later.

What are the Trends?
Virginians with disabilities were at least six times more likely than Virginians without disabilities to report having “not good” physical health in recent days. Between 2016 and 2018, nearly one-third of Virginians with disabilities reported having “not good” physical health for 14 or more of the preceding 30 days. Meanwhile, fewer than 5% of Virginians without disabilities reported the same. From 2017 to 2018, the percentage of people without disabilities who reported “not good” physical health decreased slightly, by 0.3 percentage points (or -1%).
Reported Poor Mental Health for At Least 14 of Past 30 Days

WHO:
The percentage of Virginians with disabilities aged 18 or older who reported having “not good” mental health for 14 or more of the past 30 days, compared to Virginians without disabilities.

Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

HOW:
The Virginia Department of Health asked people in a phone interview, “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Interview data was used to estimate prevalence rates.

WHEN:
Interviews are conducted annually, and the CDC typically publishes data one year later.

Virginians Who Reported Poor Mental Health for 14+ of Past 30 Days, by Disability Status

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>32.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>2017</td>
<td>32.3%</td>
<td>6.6%</td>
</tr>
<tr>
<td>2018</td>
<td>31.6%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>


WHAT ARE THE TRENDS?
Virginians with disabilities were four to five times more likely than Virginians without disabilities to report having “not good” mental health in recent days. Between 2016 and 2018, about one-third of Virginians with disabilities reported experiencing stress, depression, or other emotional problems for 14 or more of the past 30 days, compared to just 6 to 7% of Virginians without disabilities. From 2017 to 2018, the percentage of people with disabilities who reported “not good” mental health decreased slightly, by 0.7 percentage points (or -2.2%).
HEALTH
Accessibility Indicator
SUMMARIES
ACCESSIBILITY INDICATORS
About Virginians with Any Disability

The following accessibility indicators are based on Virginians with any disability aged 18 or older. This population may include people with developmental disabilities, people with age-related disabilities, and more.

These indicators confirm the existence of barriers for people with disabilities, despite legislation attempts to increase healthcare access:

- Had Healthcare Coverage
- Unable to See Doctor Due to Cost
WHO:
Percentage of Virginians with disabilities aged 18 or older who had healthcare coverage.
Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

HOW:
In a phone interview conducted by trained interviewers from the Virginia Department of Health, people were asked, “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?” The interview data was used to estimate prevalence rates.

WHEN:
Interviews are conducted annually, and the CDC typically publishes data one year later.

WHAT ARE THE TRENDS?
Fewer Virginians with disabilities reported having healthcare coverage than Virginians without disabilities. Between 2016 and 2018, the percentage of Virginians with disabilities who had healthcare coverage ranged from 78% to nearly 82%. Meanwhile, about 90% of Virginians without disabilities reported having healthcare coverage. From 2017 to 2018, the percentage of Virginians with disabilities who had healthcare coverage decreased by 1.1 percentage points (or -1.3%).

Rates of Health Coverage in Virginia, by Disability Status

Unable to See Doctor Due to Cost

WHO:
Percentage of Virginians with disabilities aged 18 or older who could not see a doctor in the past 12 months due to cost, compared to Virginians without disabilities. Disabilities include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

HOW:
In a phone interview conducted by trained interviewers from the Virginia Department of Health, people were asked, “Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?” The interview data was used to estimate prevalence rates.

WHEN:
Interviews are conducted annually, and the CDC typically publishes data one year later.

Virginians Who Reported Not Seeing Doctor Due to Cost in Past 12 Months, by Disability Status

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>29.5%</td>
<td>10.2%</td>
</tr>
<tr>
<td>2017</td>
<td>28.4%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2018</td>
<td>27.0%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>


WHAT ARE THE TRENDS?
Virginians with disabilities were nearly three times more likely than Virginians without disabilities to be unable to see a doctor due to cost. Between 2016 and 2018, more than one-quarter of Virginians with disabilities reported being unable to see a doctor during the past 12 months due to cost, compared to about 9 to 11% of Virginians without disabilities. From 2017 to 2018, the percentage decreased by 1.4 percentage points (or -4.9%).
1. Researched how other states and organizations measure service quality and quality of life: VBPD identified nine states/regions that offered online public access to quality assurance data of services: Washington, D.C., Connecticut, Illinois, Louisiana, Massachusetts, Oregon, South Carolina, Tennessee, Washington. VBPD also identified several national scorecards including the United Cerebral Palsy (UCP) Case for Inclusion, and the State Scorecard on Long-Term Services and Supports. VBPD reviewed the data points that were reported, and the method through which they were presented. Many scorecards included data that related to quality of life, such as Washington D.C.’s Provider Certification Reviews, which included measures of individual rights protection; Connecticut’s Quality Service Review, which included measures of relationships and community inclusion; and UCP’s Case for Inclusion, which included measures of health and safety.

2. Reviewed academic literature on the measurement of quality of life for people with developmental disabilities: Academic literature discusses quality of life in terms of rights, choice or self-determination, community inclusion and interpersonal relationships, safety, health and wellness (including emotional, physical, and mental wellbeing), and satisfaction. Researchers agree that measuring outcomes from these different categories is important in determining whether people with DD are living their best lives, in addition to measuring their subjective satisfaction levels.

3. Reviewed agency state plans, policies, and procedures; federal benchmarks; and other national benchmarks: This step helped in the identification and selection of indicators most relevant to Virginia’s disability services system, as well as the identification of targets against which to meaningfully compare the data. VBPD initially intended to make systematic comparisons between Virginia data and other states’ data, national data, and data for people without disabilities. Although such comparative data is available for some indicators, VBPD decided not to make this systematic comparison due to data limitations. For example, for some indicators, other states chose differing methodologies for measurement, so direct comparisons would be misleading. Direct comparisons with national average data which are based on these states’ data would also be misleading. Additionally, data on people without disabilities does not exist for many indicators. For example, data on independent living is gathered for individuals with disabilities, but not for people without disabilities.

4. Identified data sources for reporting service and quality of life outcomes: VBPD first reviewed and compared data that was already publicly available online, in order to minimize the extent to which state agencies would need to provide additional data and to better ensure sustainability of the trend report. Next, VBPD solicited feedback from and discussed possibilities of data sharing with other agencies that serve the DD population: the Centers for Independent Living (CIL), the Department for Aging and Rehabilitative Services (DARS), the Department for the Blind and Vision Impaired (DBVI), the Department of Behavioral Health and Developmental Services (DBHDS), the Department of Medical Assistance Services (DMAS), and the Virginia Department of Education (VDOE). Each agency expressed enthusiasm for the project, and some have offered to share additional data.
5. **Selected indicators**: Indicators that best addressed the three following categories were included in the trend report:

   i) **Quality**: VBPD defined quality based largely on VBPD’s statement of values and factors which researchers and other states have found important to measuring positive life and service outcomes for people with DD. VBPD’s stated values, which are published in each annual policy assessment, are inherent dignity, presumed capacity, self-determination, integration, diversity, freedom from abuse and neglect, and fiscal responsibility. The quality of life areas identified by researchers and other states are listed in #2 above.

   ii) **Satisfaction**: Satisfaction was identified by researchers as an important factor of measuring life and service outcomes, as identified in #2 above. VBPD separated satisfaction indicators from the “quality” category in order to highlight the importance of the experiences of the individuals being served and their families, recognize that satisfaction may be based on factors including but not limited to quality, and recognize that satisfaction may not necessarily mirror observable measures of quality due to its subjective nature.

   iii) **Accessibility**: Accessibility is an important component of service delivery. If the service is inaccessible, then the quality of the service is moot. The accessibility of a service can be affected by factors such as funding levels and staffing levels, and can be observed via measures including but not limited to service wait times and cost to the beneficiary.

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*Special thanks to the agencies and organizations that provided feedback for this trend report:*

- Virginia's Medicaid Program
- DMAS
- RBHA

**Innovation • Quality • Value**
**Trend arrows in the trend summary** are based on percentage change over time, using the formula \(((#2 - #1) / #1) \times 100\), in which #2 is the most recent data point, and #1 is the less recent data point. For one-year trends, #1 is drawn from the previous year. For four-year trends, #1 is drawn from the year three years prior to the most recent data point, so that the time frame of interest spans a total of four years. Similarly for eight year trends, #1 is drawn from the year seven years prior to the most recent data point, so the time frame of interest spans a total of eight years. A change equal to or greater than 1% is indicated with “↑,” while a change equal to or less than -1% is indicated with “↓.” Any changes that are less than 1% in either direction (in other words, a change that is between –0.9 and 0.9) are indicated with “↔” in the trend summary. This 1% threshold does not indicate statistical significance, so it is possible that fluctuations greater or less than 1% were due to random chance. VBPD was unable to determine statistical significance due to limitations in data availability and staff resources.

**Below are the data sources from which this report drew its indicators.**

1. **Disability and Health Data System (DHDS)**
   The Centers for Disease Control and Prevention (CDC) provides data comparing health outcomes and health access of people with disabilities and without disabilities through the DHDS. This trend report uses DHDS data for the following indicators: Diabetes Rate, Heart Disease Rate, Stroke Rate, Obesity Rate, Current Smoker Rate, Depression Rate, Reported Poor Physical Health for At Least 14 of Past 30 Days, Reported Poor Mental Health for At Least 14 of Past 30 Days, Had Healthcare Coverage, and Unable to See Doctor Due to Cost.

   DHDS data are a subset of data from the Behavioral Risk Factor Surveillance System (BRFSS), which was established by the CDC in 1984. States collect data through landline telephone and cellphone interviews with adults aged 18 and older. With technical and methodological assistance from CDC, state health departments use in-house interviewers or contract with telephone call centers or universities to administer the BRFSS surveys continuously through the year. Although BRFSS was established in 1984, results by disability status are only available online from 2016 onward. To be identified as having a disability, a person had to answer yes to one or more of the following questions:
   a) “Some people who are deaf or have serious difficulty hearing may or may not use equipment to communicate by phone. Are you deaf or do you have serious difficulty hearing?;”
   b) “Are you blind or do you have serious difficulty seeing, even when wearing glasses?;”
   c) “Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?;”
   d) “Do you have serious difficulty walking or climbing stairs?;”
   e) “Do you have serious difficulty dressing or bathing?;”
   f) “Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor’s office or shopping?”

   DHDS data are prevalence estimates weighted to take into account response rate, the data limitations of relying on phone interviews, state population, and other factors. Responses of “don’t know” and “not sure” are excluded from analysis. Estimates are age-adjusted according to the 2000 U.S. standard population to minimize differences due to age distribution among state populations. Institutional and group home residents were excluded, so results may not be characteristic of institutional and group home residents.
2. National Core Indicators (NCI) Adult In-Person Survey

NCI is a national project which collects and publishes data on individuals with developmental disabilities (DD) in multiple areas of life, including health. NCI depends on voluntary participation from states. Virginia has participated in the NCI Adult In-Person Survey since state fiscal year 2012. In the first year of data collection, however, Virginia’s sample size was below the standard minimum sample size of 400. Data from 2012 is therefore excluded from this trend report. In 2019, Virginia interviewed 807 people. States are instructed to randomly select survey participants from people with developmental disabilities (DD) aged 18 or older who are receiving at least one publicly-funded service (excluding case management). In Virginia, survey participants are randomly selected from people receiving at least one DD waiver service. The differences between those who received DD waiver services and those who received none are unknown. The differences between adults and children are also not noted in this report. This trend report used NCI data for the following indicators: Had a Complete Physical Exam within Past 12 Months, Had a Dental Exam within Past 6 Months, Had a Flu Vaccine within Past 12 Months, Had a Pap Test within Past 3 Years, Had a Mammogram within Past 2 Years, Had a Colonoscopy within Past 10 Years, and Reported Excellent/Very Good Health.

For the indicator called, “Reported Excellent/Very Good Health,” people close to the person with DD (such as a family member or friend) were allowed to respond if the person with DD was unable to respond. Responses given by these proxy respondents may or may not reflect the person’s actual feelings regarding their health. The data for all other indicators listed were gathered from Department of Behavioral Health and Developmental Services (DBHDS) case management records. In cases where data relevant to the indicators were missing from these records, the respondents were excluded from the indicator’s sample. This exclusion may have affected final published statistics. At least 25% of respondents had missing data for the indicators “Had a Flu Vaccine in Past 12 Months” in 2016 through 2019, “Had a Dental Exam within Past 6 Months” in 2016, and “Had a Mammogram within Past 2 Years” in 2016.

Data for the indicator “Had a Pap Test within Past 3 Years” was available from as early as 2012, but only data from 2017 and onwards was used due to methodological changes (from surveying women aged 18 and older to only women aged 21 and older). Similarly, the methodology for the indicator “Had a Colonoscopy within Past 10 Years” changed beginning in 2017 to match United States Preventive Services Task Force recommended guidelines. Thus, only data from 2017 and onward were included in this trend report for the colonoscopy indicator. Finally, though national averages were available for some indicators for years earlier than 2017, only averages from 2017 and onwards are shown in this report. Beginning in 2017, NCI created a national weighted average that takes into account participating states’ sample and population sizes, instead of a simple average.


