

ORAL HEALTH DATA SUMMARY – EASTERN VIRGINIA REGION

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Summary of Oral Health Data Sources

The table below summarizes survey data and administrative data (claims and encounters) available at the state level on oral health and health equity. This list is not exhaustive; it is meant to provide a snapshot. Data is listed first by sources that were included in the [2016 Virginia Oral Health Report Card](#). Requests for data or statistics must be made to the individual agencies listed. The Virginia Oral Health Coalition is continually updating this list. To provide feedback, please contact Lauren Gray at lgray@vaoralhealth.org or 804-299-5506.

Data Source	Population	Granularity	Indicator(s)	Other Variables ¹	Most Recent Data Year
2016 Virginia Oral Health Report Card Data					
Virginia Department of Health (VDH)					
Basic Screening Survey (BSS) of Third Grade Children	All third graders	<ul style="list-style-type: none"> • State • Health Planning Region² 	<ul style="list-style-type: none"> • Treated and untreated tooth decay (separate and combined) • Sealant placement • Unmet dental care need 	<ul style="list-style-type: none"> • Race/ethnicity • Eligibility for free and reduced lunch • Insurance status (medical) 	2014-2015
Behavioral Risk Factor Surveillance System (BRFSS)	All adults 18+	<ul style="list-style-type: none"> • State • Health Planning Region • Health District • Downloadable 	<ul style="list-style-type: none"> • Permanent teeth extracted due to decay or disease (1 to 5 teeth, 6+, all, or none) • Past year dental visit • Dental coverage status 	<ul style="list-style-type: none"> • Race/ethnicity • Income category • Health conditions (diabetes, cardiac disease) 	2015 (2013 for dental coverage) Surveys done annually.

¹ Custom reports with analyses by demographics and other variables may be available by request to the agency.

² There are five health planning regions: Region 1 – Northwestern; Region 2 – Northern; Region 3 – Southwestern; Region 4 – Central; Region 5 – Eastern. A list of the counties and cities comprising each region can be found [here](#).

		maps from CDC's 500 cities project, including Richmond		<ul style="list-style-type: none"> Health behaviors (tobacco use, regular medical provider) Age group 	
Pregnancy Risk Assessment Monitoring System (PRAMS)	Postpartum women	<ul style="list-style-type: none"> State Health Planning Region 	<ul style="list-style-type: none"> Dental visit during pregnancy Dental problem during pregnancy Dental visit for a problem during pregnancy 	<ul style="list-style-type: none"> Race/ethnicity Income category Maternal education Age group Insurance type (medical) 	2012-2013 Surveys done annually.
Water Fluoridation Reporting & Monitoring System (WRFS)	All Virginians	<ul style="list-style-type: none"> State City/county 	<ul style="list-style-type: none"> Percent of population served by fluoridated public water systems Individual locality CWF status available at CDC 	Not applicable	2016
Virginia Department of Medical Assistance Services (DMAS)					
Early & Periodic Screening, Diagnostic, & Treatment (EPSDT) service utilization data	All children enrolled in Medicaid and/or FAMIS, up to age 21	<ul style="list-style-type: none"> State City/county 	<ul style="list-style-type: none"> Total receiving any dental services Total receiving preventive dental services Total receiving treatment dental services # Medicaid dentists 	<ul style="list-style-type: none"> Race/ethnicity Age group Locality Medicaid enrollment FAMIS enrollment 	2015 Annual
Additional Virginia Oral Health Data Sources					
Data Resource Center for Child & Adolescent Health					
National Survey of Children's Health/Children with Special Healthcare Needs (CSHCN)	Virginia children ages 0-17 Approximately 750 sample size per state.	<ul style="list-style-type: none"> State 	<ul style="list-style-type: none"> Oral health status Dental visit in past year Unmet dental need for CSHCN 	<ul style="list-style-type: none"> Age Sex Race/ethnicity Parents' educational attainment Primary language for Hispanic children Household income Family structure SHCN status 	2011-2012 (NSCH)/2009-2010 (CSHCN) CSHCH will be done yearly as of 2016/17 ⁱ

				<ul style="list-style-type: none"> • Complexity of health care needs • Emotional, behavioral, or developmental issues • Medical home • Insurance status • Insurance type • Consistency of health coverage • Adequacy of insurance • Urban/rural residence 	
Virginia Association of Free & Charitable Clinics (VAFCC)					
Virginia free clinic annual reports	Low-income, uninsured adults 18+	<ul style="list-style-type: none"> • State • Individual clinics offering any dental services 	<ul style="list-style-type: none"> • Total annual dental visits • Total annual patients receiving dental services • Total annual staff and volunteers providing dental care • Total annual \$ value of dental services provided 	Not applicable	2017 Annual
Virginia Department of Health (VDH)					
Adult Oral Health Access Survey	All adults 18+	<ul style="list-style-type: none"> • State • Health Planning Region 	<ul style="list-style-type: none"> • Dental coverage status (among adults with medical insurance) • Immediate need for treatment • Past year dental visit • Time since last dental visit • Reasons for delaying treatment • Need for tooth extraction • Self-report oral health status • Inability to work/sleep due to dental pain • Service location of last reported dental visit • Past year out-of-pocket cost of 	<ul style="list-style-type: none"> • Race/ethnicity • Income category • Sex • Age group 	2014

			dental care		
Basic Screening Survey	<p><u>Elder survey</u>: conducted in 2015-2016 in congregate meal sites and in nursing homes/assisted living facilities; includes clinical and survey components. Can produce some summary data, but not representative at the population level.</p> <p><u>Head Start survey</u>: pilot phase completed in 2016; children ages 0-5 in Head Start programs.</p> <p><u>WIC survey</u>: consisted of a questionnaire and a clinical exam from a licensed dental hygienist. 20 WIC sites were used, targeting 30 women each.</p> <p><u>Youth Risk Behavior Survey (YRBS)</u>: students in grades 9-12.</p>	<ul style="list-style-type: none"> • State • Health Planning Region 	<p>Open-mouth survey:</p> <ul style="list-style-type: none"> • Caries experience • Immediate need for treatment • Last dental visit <p>WIC questionnaire:</p> <ul style="list-style-type: none"> • Demographics • Risk factors • Oral hygiene habits • Access to dental services • Oral health conditions <p>WIC clinical:</p> <ul style="list-style-type: none"> • Caries • Gum disease • Urgency of care <p>YRBS:</p> <ul style="list-style-type: none"> • Tobacco use • Physical Activity • Nutrition 		<p>2014-2015 – 3rd Grade BSS</p> <p>Elder survey is every five years, next in 2019.</p> <p>Head Start and Pregnant Women surveys both ongoing.</p> <p>The next YRBS will be released Fall 2017 and are done every other year.</p>

Bright Smiles for Babies (BSB) Fluoride Varnish Program	Babies receiving services through WIC and local health department clinics, ages 0-3, along with parent survey	<ul style="list-style-type: none"> • State • Health planning region • Health district 	<ul style="list-style-type: none"> • Services rendered (including fluoride varnish application) • Number screened • Number referred • Follow-up • Treated and untreated decay • Immediate need for treatment • Parental oral health knowledge (some districts) • Oral health education provided to parents (all districts) 	<ul style="list-style-type: none"> • Sex 	2016
Dental Health Professional Shortage Areas (DHPSAs)	All cities and counties	<ul style="list-style-type: none"> • State • Health Planning Region • City/county 	<ul style="list-style-type: none"> • Percentage of population residing in a DHPSA • Individual city/county DHPSA designations available on HRSA's website 	Not applicable	Varies – data maintained by HRSA in collaboration with VDH
Virginia Cancer Registry	All Virginians	<ul style="list-style-type: none"> • State • Health Planning Region • Health District 	<p>Diagnostic and treatment information:</p> <ul style="list-style-type: none"> • Oral cancer incidence • Mortality • 5-year survival 	<ul style="list-style-type: none"> • Age • Sex • Race/ethnicity • Residence address • Occupation 	Ongoing
Virginia Sealant Efficiency Assessment for Locals and States (VA SEALS)	Third graders served by sealant program localities (not representative at the population level)	<ul style="list-style-type: none"> • Schools participating in sealant programs 	<ul style="list-style-type: none"> • Treated and untreated decay • Sealant placement and retention on molar surfaces • Receipt of fluoride varnish 	Service data only – not indicative of oral health status of the population	Ongoing
Virginia Department of Health Professions					

Dental Manpower Surveys	Licensed, practicing dentists and dental hygienists in Virginia	<ul style="list-style-type: none"> • State • Council on Virginia’s Future region • Area Health Education Center region • Workforce investment areas • Health planning region • Health planning district 	<ul style="list-style-type: none"> • Active, licensed dental health professionals operating at state and local level 	<ul style="list-style-type: none"> • Age • Race/ethnicity • Sex • Education • Practice location • Residence 	2016 (surveys done annually)
Virginia Health Care Foundation (VHCF)					
Safety net clinics (free clinics and FQHCs)	Clinics serving low-income, uninsured adults 18+, and children and adults enrolled in Medicaid/FAMIS	<ul style="list-style-type: none"> • State • Individual clinics offering any dental services 	<ul style="list-style-type: none"> • Total localities with a safety net clinic offering full-time or part-time dental services 	Not applicable	Released 2017 using data collected in 2015 Annual
Virginia Health Information (VHI)					
Hospital emergency department utilization data	Patients utilizing the emergency room for dental-related conditions	<ul style="list-style-type: none"> • State • Health planning region • Health planning district • City/county • Individual hospital 	<p>Patient visits, payer (excluding self-pay and charity care), and costs by diagnostic code. Most common diagnostic codes for dental-related ER visits:</p> <ul style="list-style-type: none"> • Dental disorder NOS (ICD-9: 525.9; ICD-10: K08.9) • Abscess w/out sinus (ICD-9: 522.5; ICD-10: K04.7) • Dental caries NOS (ICD-9: 521.00; ICD-10: K02.9) 	<ul style="list-style-type: none"> • Age • Sex 	Ongoing
Additional Sources of Health and Service Utilization Data					
Virginia Department of Health					

Health Opportunity Index (HOI)	All Virginians	<ul style="list-style-type: none"> • Health district • Legislative district • City/county 	The HOI is a group of indicators that provide broad insight into the overall opportunity Virginians have to live long and healthy lives based on the Social Determinants of Health. It is made up of over 30 variables, combined into 13 indicators, grouped into four profiles, which are aggregated into a single Health Opportunity Index.	Not applicable	Varies
Health Resources & Services Administration (HRSA) via Virginia Community Healthcare Association (VCHA)					
Federally Qualified Health Center (FQHC) Data	Utilization data for all FQHCs in aggregate form, some data for individual health centers	<ul style="list-style-type: none"> • State • Individual community health centers 	<ul style="list-style-type: none"> • Number and type of dental services provided • Patients seen for dental visit • Number of FTE dentists, hygienists, and dental assistants 	Patient demographics are collected, but cannot be stratified to compare utilization of services by demographics	2016 (annually)

Additional Regional Health Information Resources:

- Local/regional community health needs assessment (CHNA) survey data
 - [Children’s Hospital of the King’s Daughters CHNAs & Implementation Plans](#)
 - [Sentara Healthcare CHNAs](#)
- Local data on equity, economy, education, environment, food, and health available on the [Community Commons website](#)
- Local data from the Greater Hampton Roads area with various indicators and detailed demographics available on the [Community Indicators Dashboard](#)

Statistics: Report Card Indicators by Health Planning Region

Children

- **43% of Eastern Virginia's third grade children had tooth decay** (treated and/or untreated) in their primary or permanent teeth in 2014-2015, compared to
 - 47% of third grade children overall in Virginia
 - 63% of third grade children in Northwest Virginia
 - 38% of third grade children in Northern Virginia
 - 55% of third grade children in Southwest Virginia
 - 50% of third grade children in Central Virginiaⁱⁱ
- **48% of Eastern Virginia's third grade children had dental sealants** on their permanent molars in 2014-2015, compared to
 - 52% of third grade children overall in Virginia
 - 54% of third grade children in Northwest Virginia
 - 56% of third grade children in Northern Virginia
 - 46% of third grade children in Southwest Virginia
 - 54% of third grade children in Central Virginiaⁱⁱⁱ
- **48% of children aged 1-20 enrolled in Medicaid/FAMIS in Eastern Virginia had a preventive dental service** in 2014-2015, compared to
 - 53% of children aged 1-20 enrolled in Medicaid/FAMIS overall in Virginia
 - 52% of children aged 1-20 enrolled in Medicaid/FAMIS in Northwest Virginia
 - 61% of children aged 1-20 enrolled in Medicaid/FAMIS in Northern Virginia
 - 50% of children aged 1-20 enrolled in Medicaid/FAMIS in Southwest Virginia
 - 54% of children aged 1-20 enrolled in Medicaid/FAMIS in Central Virginia^{iv}
- **24% of children aged 1-2 enrolled in Medicaid/FAMIS in Eastern Virginia had a preventive dental service** in 2014-2015, compared to
 - 24% of children aged 1-2 enrolled in Medicaid/FAMIS overall in Virginia
 - 20% of children aged 1-2 enrolled in Medicaid/FAMIS in Northwest Virginia
 - 27% of children aged 1-2 enrolled in Medicaid/FAMIS in Northern Virginia
 - 16% of children aged 1-2 enrolled in Medicaid/FAMIS in Southwest Virginia
 - 31% of children aged 1-2 enrolled in Medicaid/FAMIS in Central Virginia^v

Adults

- **55% of adults aged 45-64 in Eastern Virginia reported having lost at least one tooth due to tooth decay or gum disease** in 2015, compared to
 - 50% of adults aged 45-64 overall in Virginia
 - 50% of adults aged 45-64 in Northwest Virginia
 - 36% of adults aged 45-64 in Northern Virginia
 - 61% of adults aged 45-64 in Southwest Virginia
 - 54% of adults aged 45-64 in Central Virginia^{vi}

- **35% of adults aged 18+ in Eastern Virginia reported not having dental insurance coverage** in 2013, compared to
 - 38% of adults aged 18+ overall in Virginia
 - 40% of adults aged 18+ in Northwest Virginia
 - 28% of adults aged 18+ in Northern Virginia
 - 52% of adults aged 18+ in Southwest Virginia
 - 35% of adults aged 45-64 in Central Virginia^{vii}
- **5% of Medicaid pediatric medical providers applied fluoride varnish** in 2016.^{viii} (Regional percentages not available.)
- **96% of Virginia's population is served by fluoridated public water systems** in 2016, compared to 80% of the U.S. population overall.^{ix} (Regional percentages not available.)

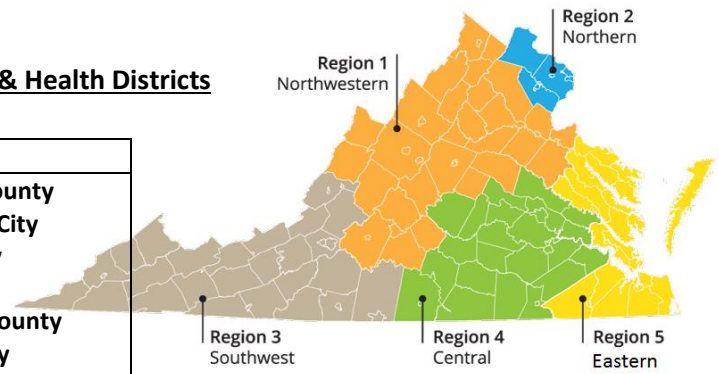
Additional Indicators of Virginia's Oral Health (Not Measured in Report Card)

- **42% of adults aged 18+ in Eastern Virginia reported being in need of a dental cleaning** in 2014, compared to
 - 42% of adults aged 18+ in Northwest Virginia
 - 40% of adults aged 18+ in Northern Virginia
 - 43% of adults aged 18+ in Southwest Virginia
 - 37% of adults aged 18+ in Central Virginia^x
- **18% of adults aged 18+ in Eastern Virginia reported being in immediate need of dental care** in 2014, compared to
 - 19% of adults aged 18+ in Northwest Virginia
 - 14% of adults aged 18+ in Northern Virginia
 - 24% of adults aged 18+ in Southwest Virginia
 - 26% of adults aged 18+ in Central Virginia^{xi}
- **31% of adults aged 18+ in Eastern Virginia reported putting off dental care due to cost** in 2014, compared to
 - 17% of adults aged 18+ overall in Virginia³
 - 28% of adults aged 18+ in Northwest Virginia
 - 19% of adults aged 18+ in Northern Virginia
 - 32% of adults aged 18+ in Southwest Virginia
 - 30% of adults aged 18+ in Central Virginia^{xii}
- **10% of adults aged 18+ in Eastern Virginia reported inability to work or do regular activities due to dental pain** in 2014, compared to
 - 11% of adults aged 18+ overall in Virginia
 - 8% of adults aged 18+ in Northwest Virginia
 - 9% of adults aged 18+ in Northern Virginia
 - 13% of adults aged 18+ in Southwest Virginia
 - 15% of adults aged 18+ in Central Virginia^{xiii}

³ Among Virginia adults *with* dental insurance. Among Virginians *without* dental insurance, 55% delay dental care due to cost.

- **11% of adults aged 18+ in Eastern Virginia reported inability to sleep due to dental pain** in 2014, compared to
 - 12% of adults aged 18+ overall in Virginia
 - 10% of adults aged 18+ in Northwest Virginia
 - 8% of adults aged 18+ in Northern Virginia
 - 16% of adults aged 18+ in Southwest Virginia
 - 15% of adults aged 18+ in Central Virginia^{xiv}
- **72% of adults aged 18+ in Eastern Virginia reported having a dental visit in the past year** in 2015, compared to
 - 73% of adults aged 18+ overall in Virginia
 - 71% of adults aged 18+ in Northwest Virginia
 - 81% of adults aged 18+ in Northern Virginia
 - 63% of adults aged 18+ in Southwest Virginia
 - 70% of adults aged 18+ in Central Virginia^{xv}

Virginia Department of Health (VDH) Health Planning Regions & Health Districts



1 – Northwestern	2 – Northern	3 – Southwestern	4 – Central	5 – Eastern
Albemarle County	Alexandria City	Alleghany County	Amelia County	Accomack County
Amherst County	Arlington County	Bland County	Brunswick County	Chesapeake City
Appomattox County	Fairfax City	Bland County	Buckingham County	Essex County
Augusta County	Fairfax County	Botetourt County	Charles City County	Franklin City
Bath County	Falls Church City	Bristol City	Charlotte County	Gloucester County
Bedford City	Loudoun County	Buchanan County	Chesterfield County	Hampton City
Bedford County	Manassas City	Carroll County	Colonial Heights City	Isle of Wight County
Buena Vista City	Manassas Park City	Clifton Forge City	Cumberland County	James City County
Campbell County	Prince William City	Covington City	Dinwiddie County	King and Queen County
Caroline County	Prince William County	Craig County	Emporia City	King William County
Charlottesville City		Danville City	Goochland County	Lancaster County
Clarke County		Dickenson County	Greensville County	Mathews County
Culpeper County		Floyd County	Halifax County	Middlesex County
Fauquier County		Franklin County	Hanover County	Newport News City
Fluvanna County		Galax City	Henrico County	Norfolk City
Frederick County		Giles County	Hopewell City	Northampton County
Fredericksburg City		Grayson County	Lunenburg County	Northumberland County
Greene County		Henry County	Mecklenburg County	Poquoson City
Harrisonburg City		Lee County	New Kent County	Portsmouth City
Highland County		Martinsville City	Nottoway County	Richmond County
King George County		Montgomery County	Petersburg City	Southampton County
Lexington City		Norton City	Powhatan County	Suffolk City
Louisa County		Patrick County	Prince Edward County	Virginia Beach City
Lynchburg City		Pittsylvania County	Prince George County	Westmoreland County
Madison County		Pulaski County	Richmond City	Williamsburg City
Nelson County		Radford City	Surrey County	York County
Orange County		Roanoke City	Sussex County	
Page County		Roanoke County		
Rappahannock County		Russell County		
Rockbridge County		Salem City		
Rockingham County		Scott County		
Shenandoah County		Smyth County		
Spotsylvania County		Tazewell County		
Stafford County		Washington County		
Staunton City		Wythe County		
Warren County		Wise County		
Waynesboro City				
Winchester City				

Region 5 Health Districts

Chesapeake: Chesapeake City

Eastern Shore: Accomack County, Northampton County

Hampton: Hampton City

Norfolk City: Norfolk City

Peninsula: Newport News City, Poquoson City, Williamsburg City, James City County, York County

Portsmouth: Portsmouth City

Three Rivers: Essex County, Gloucester County, King and Queen County, King William County, Lancaster County, Mathews County, Middlesex County, Northumberland County, Richmond County, Westmoreland County

Virginia Beach: Virginia Beach City

Western Tidewater: Franklin City, Suffolk City, Isle of Wight County, Southampton County

Full Hyperlinks

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Virginia Oral Health Report Card 2016: <http://bit.ly/VAReportCard>

CDC 500 Cities Project – Downloadable maps: <https://www.cdc.gov/500cities/map-books.htm#ui-id-93>

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My Water's Fluoride: https://nccd.cdc.gov/DOH_MWF/Default/Default.aspx

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Dental Health Professional Shortage Areas: <https://datawarehouse.hrsa.gov/tools/analyzers/geo/ShortageArea.aspx>

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VDH Health Opportunity Index: <https://www.vdh.virginia.gov/omhhe/hoi/>

FQHC data: <https://bphc.hrsa.gov/uds/datacenter.aspx?q=d&year=2013&state=VA#glist>

Children's Hospital of the King's Daughters CHNAs & Implementation Plans: <http://www.chkd.org/About-Us/Publications-and-Reports/Community-Benefits/>

Sentara Healthcare CHNAs: <https://www.sentara.com/halifax-southern-virginia/aboutus/community-outreach/community-health-needs-assessments.aspx>

Community Commons website: <https://www.communitycommons.org/>

Greater Hampton Roads Community Indicators Dashboard: <http://www.ghrconnects.org/>

Data Notes

- ⁱ CDC, National Center for Health Statistics. Nationwide telephone survey of non-institutionalized children with special health care needs ages 0-17 years. Surveys done in 2001, 2005/06, 2009/10, and yearly as of 2016/17.
- ⁱⁱ Virginia Department of Health. Virginia Statewide Basic Screening Survey of Third Grade Children, 2014-2015. Estimates of caries prevalence with 95% confidence intervals (in order listed): Eastern region: 43.4% (40.2, 46.6); Virginia overall: 47.2% (44.9, 49.6); Northwest region: 62.6% (55.4, 69.7); NOVA region: 38.0% (34.4, 41.6); Southwest region: 54.9% (48.0, 61.7); Central region: 50.1% (42.3, 57.8). Data weighted at population level.
- ⁱⁱⁱ Virginia Department of Health. Virginia Statewide Basic Screening Survey of Third Grade Children, 2014-2015. Estimates of sealant prevalence with 95% confidence intervals (in order listed): Eastern region: 47.5% (42.8, 52.2); Virginia overall: 52.0% (49.5, 54.5); Northwest region: 54.4% (47.2, 61.7); NOVA region: 55.9% (51.7, 60.1); Southwest region: 54.9% (38.8, 52.4); Central region: 53.9% (47.8, 59.9). Data weighted at population level.
- ^{iv} Virginia Department of Medical Assistance Services. Virginia *Smiles for Children* – State Fiscal Year 2015 Pediatric Dental Participation Report. Regions aggregated based on health planning region boundaries, although they do not exactly overlap.
- ^v Virginia Department of Medical Assistance Services. Virginia *Smiles for Children* – State Fiscal Year 2015 Pediatric Dental Participation Report. Regions aggregated based on health planning region boundaries, although they do not exactly overlap.
- ^{vi} Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System, 2015. Estimates of tooth loss among adults 45-64 with 95% confidence intervals (in order listed): Eastern region: 55.0% (50.7, 59.4); Virginia overall: 49.6% (47.3, 51.9); Northwest region: 50.0% (44.9, 55.1); NOVA region: 35.7% (30.1, 41.3); Southwest region: 61.0% (56.8, 65.1); Central region: 53.9% (48.9, 58.9). Data weighted at population level.
- ^{vii} Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System, 2013. Estimates of adult dental coverage with 95% confidence intervals (in order listed): Eastern region: 34.7% (31.6, 37.8); Virginia overall: 37.7% (36.2, 39.2); Northwest region: 39.5% (36.1, 43.0); NOVA region: 28.4% (24.4, 32.3); Southwest region: 51.9% (48.9, 54.8); Central region: 34.8% (31.7, 37.9). Data weighted at population level.
- ^{viii} Virginia Department of Medical Assistance Services, 2016.
- ^{ix} CDC, Water Fluoridation Reporting System, 2016.
- ^x Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of need for dental cleaning with 95% confidence intervals (in order listed): Eastern region: 42.3% (36.3, 48.3); Northwest region: 41.6% (36.3, 47.0); Northern region: 39.8% (33.9, 45.7); Southwest region: 42.7% (37.2, 48.2); Central region: 37.1% (31.6, 42.7). Data weighted at population level.
- ^{xi} Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of immediate need for dental care with 95% confidence intervals (in order listed): Eastern region: 18.2% (13.6, 22.7); Northwest region: 18.5% (14.3, 22.6); Northern region: 14.3% (10.3, 18.3); Southwest region: 23.8% (19.1, 28.5); Central region: 25.6% (20.5, 30.8). Data weighted at population level.
- ^{xii} Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of delayed dental care due to cost with 95% confidence intervals (in order listed): Eastern region: 30.8% (25.0, 36.6); Virginia overall (with dental insurance): 17.4% (14.6, 20.1); Virginia overall (without dental insurance): 54.7 (38.4, 70.9); Northwest region: 28.3% (23.3, 33.2); Northern region: 18.5% (13.9, 23.1); Southwest region: 31.5% (26.4, 36.7); Central region: 30.2% (24.8, 35.6). Data weighted at population level.
- ^{xiii} Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of inability to work or do regular activities due to dental pain with 95% confidence intervals (in order listed): Eastern region: 10.4% (6.8, 14.1); Virginia overall: 10.9% (9.2, 12.6); Northwest region: 7.8% (4.8, 10.9); Northern region: 8.9% (5.4, 12.4); Southwest region: 13.0% (9.2, 16.8); Central region: 14.9% (10.5, 19.3). Data weighted at population level.
- ^{xiv} Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of inability to sleep due to dental pain with 95% confidence intervals (in order listed): Eastern region: 11.4% (7.2, 15.5); Virginia overall: 11.7% (9.9, 13.5); Northwest region: 10.2% (6.9, 13.5); Northern region: 8.0% (4.5, 11.5); Southwest region: 16.1% (11.9, 20.3); Central region: 14.8% (10.5, 19.2). Data weighted at population level.
- ^{xv} Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System, 2015. Estimates of adult past year dental visit with 95% confidence intervals (in order listed): Eastern region: 72.1% (69.1, 75.0); Virginia overall: 72.4% (71.0, 73.8); Northwest region: 71.1% (67.7, 74.4); NOVA region: 80.9 (77.9, 84.0); Southwest region: 63.4% (60.4, 66.4); Central region: 70.0% (66.8, 73.2). Data weighted at population level. Significantly higher in Northern region compared to other regions.