

ORAL HEALTH DATA SUMMARY – CENTRAL 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 maps from CDC's 	<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)

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](#).

		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
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 	2014-2015
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	<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 	2011-2012 (NSCH)/2009-2010 (CSHCN)

				<ul style="list-style-type: none"> • SHCN status • 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	2015
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 	<ul style="list-style-type: none"> • Race/ethnicity • Income category • Sex • Age group 	2014

			<ul style="list-style-type: none"> • Inability to work/sleep due to dental pain • Service location of last reported dental visit • Past year out-of-pocket cost of 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>	<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 		2014-2015 – 3 rd Grade BSS
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	2016
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	
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
 - [Bon Secours CHNAs & Implementation Plans](#)
 - [VCU Children's Hospital of Richmond CHNA, 2013](#)

- Virginia Commonwealth University Community Engagement
 - VCU publishes an online list of [regional plans](#) regarding critical issues in the Richmond region
- Local health district reports
 - [Chickahominy Health District Demographic Summary, 2011](#) (Charles City County, Goochland County, Hanover County, New Kent County)
- Local data on equity, economy, education, environment, food, and health available on the [Community Commons website](#)
- Other community reports
 - [Capital Region Collaborative, RVA Snapshot, 2016](#)
 - [Smart Beginnings Regional Plan for School Readiness, 2017-2020](#)
 - [United Way of Greater Richmond & Petersburg, Indicators of Community Strength, 2016](#)

Statistics: Report Card Indicators by Health Planning Region

Children

- **50% of Central 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
 - 43% of third grade children in Eastern Virginiaⁱ
- **54% of Central 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
 - 48% of third grade children in Eastern Virginiaⁱⁱ
- **54% of children aged 1-20 enrolled in Medicaid/FAMIS in Central 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
 - 48% of children aged 1-20 enrolled in Medicaid/FAMIS in Eastern Virginiaⁱⁱⁱ
- **31% of children aged 1-2 enrolled in Medicaid/FAMIS in Central 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
 - 24% of children aged 1-20 enrolled in Medicaid/FAMIS in Eastern Virginia^{iv}

Adults

- **54% of adults aged 45-64 in Central 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

- 55% of adults aged 45-64 in Eastern Virginia^v
- **35% of adults aged 18+ in Central 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 Eastern Virginia^{vi}
- **5% of Medicaid pediatric medical providers applied fluoride varnish** in 2016.^{vii} (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.^{viii} (Regional percentages not available.)

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

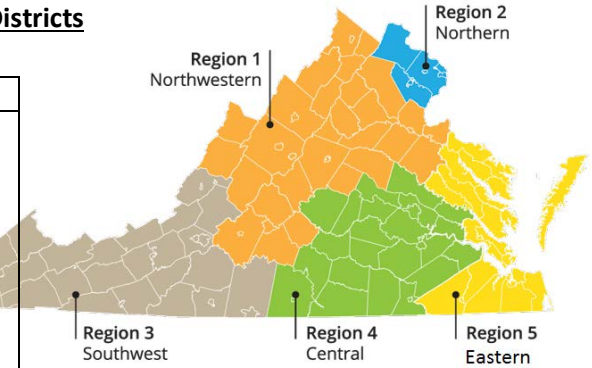
- **37% of adults aged 18+ in Central Virginia reported being in need of a dental cleaning** in 2014, compared to
 - 42% of adults aged 18+ in Northwest Virginia
 - 40% of adults aged 18+ in Northern Virginia
 - 43% of adults aged 18+ in Southwest Virginia
 - 42% of adults aged 18+ in Eastern Virginia^{ix}
- **26% of adults aged 18+ in Central 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
 - 18% of adults aged 18+ in Eastern Virginia^x
- **30% of adults aged 18+ in Central 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
 - 31% of adults aged 18+ in Eastern Virginia^{xi}
- **15% of adults aged 18+ in Central 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

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

- 10% of adults aged 18+ in Eastern Virginia^{xii}
- **15% of adults aged 18+ in Central 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
 - 11% of adults aged 18+ in Eastern Virginia^{xiii}
- **70% of adults aged 18+ in Central 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
 - 72% of adults aged 18+ in Eastern Virginia^{xiv}

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

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



Region 4 Health Districts

Chesterfield: Chesterfield County, Colonial Heights City, Powhatan County

Chickahominy: Charles City County, Goochland County, Hanover County, New Kent County

Crater: Dinwiddie County, Emporia City, Greensville County, Hopewell City, Petersburg City, Prince George County, Surry County, Sussex County

Henrico

Piedmont: Amelia County, Buckingham County, Charlotte County, Cumberland County, Lunenburg County, Nottoway County, Prince Edward County

Pittsylvania/Danville

Richmond City

Southside: Brunswick County, Halifax County, Mecklenburg 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>

Bon Secours CHNAs & Implementation Plans: <https://bonsecours.com/richmond/community-commitment/community-health-needs-assessment>

VCU Children’s Hospital CHNA: <http://www.chrichmond.org/Children's%20Hospital%20of%20Richmond%20at%20VCU%20CHNA%2003%2001%2013.pdf>

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Virginia Commonwealth University Community Engagement: <http://community.vcu.edu/community-indicators--data-/critical-issues-in-the-richmond-region/>

Chickahominy Health District Demographic Summary, 2011 (Charles City County, Goochland County, Hanover County, New Kent County):

<http://www.vdh.virginia.gov/LHD/Chickahominy/documents/2011/pdfs/Demographic%20summary%202011.pdf>

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

Capital Region Collaborative, RVA Snapshot, 2016: http://www.richmondregional.org/Publications/CRC/2016_RVA_Snapshot_-_CRC_-_2016-02-26.pdf

Smart Beginnings Regional Plan for School Readiness, 2017-2020: http://smartbeginningsrva.org/wp-content/uploads/2016/05/RegionalPlanDoc_2017_Final.pdf

United Way of Greater Richmond & Petersburg, Indicators of Community Strength, 2016: http://www.yourunitedway.org/wp-content/uploads/2015/12/UW-GRP_CommIndicatorReport_2016-FINAL.pdf

Data Notes

- ⁱ 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): Central region: 50.1% (42.3, 57.8); 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); Eastern region: 43.4% (40.2, 46.6). Data weighted at population level.
- ⁱⁱ 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): Central region: 53.9% (47.8, 59.9); 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); Eastern region: 47.5% (42.8, 52.2). Data weighted at population level.
- ⁱⁱⁱ 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.
- ^{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 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): Central region: 53.9% (48.9, 58.9); 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); Eastern region: 55.0% (50.7, 59.4). Data weighted at population level.
- ^{vi} 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): Central region: 34.8% (31.7, 37.9); 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); Eastern region: 34.7% (31.6, 37.8). Data weighted at population level.
- ^{vii} Virginia Department of Medical Assistance Services, 2016.
- ^{viii} CDC, Water Fluoridation Reporting System, 2016.
- ^{ix} Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of need for dental cleaning with 95% confidence intervals (in order listed): Central region: 37.1% (31.6, 42.7); Northwest region: 41.6% (36.3, 47.0); Northern region: 39.8% (33.9, 45.7); Southwest region: 42.7% (37.2, 48.2); Eastern region: 42.3% (36.3, 48.3). Data weighted at population level.
- ^x Virginia Department of Health, Adult Oral Health Access Survey, 2014. Estimates of immediate need for dental care with 95% confidence intervals (in order listed): Central region: 25.6% (20.5, 30.8); Northwest region: 18.5% (14.3, 22.6); Northern region: 14.3% (10.3, 18.3); Southwest region: 23.8% (19.1, 28.5); Eastern region: 18.2% (13.6, 22.7). Data weighted at population level.
- ^{xi} 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): Central region: 30.2% (24.8, 35.6); 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); Eastern region: 30.8% (25.0, 36.6). Data weighted at population level.
- ^{xii} 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): Central region: 14.9% (10.5, 19.3); 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); Eastern region: 10.4% (6.8, 14.1). Data weighted at population level.
- ^{xiii} 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): Central region: 14.8% (10.5, 19.2); 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); Eastern region: 11.4% (7.2, 15.5). Data weighted at population level.
- ^{xiv} 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): Central region: 70.0% (66.8, 73.2); 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); Eastern region: 72.1% (69.1, 75.0). Data weighted at population level. Significantly higher in Northern region compared to other regions.