

SUMMARY OF REGIONALIZED ORAL HEALTH DATA FROM STATE-LEVEL SOURCES

	Data Source	Population	Granularity	Indicator(s)	Other Variables ¹	Most Recent Data Year
Virginia Oral Health Report Card 2016	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 Downloadable maps for Alexandria from CDC's 500 cities project 	<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) Age group 	2014 (2013 for dental coverage)
	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) 	2010-2011 (2012-2013 data being aggregated)
	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 	Not applicable	2016

¹ Custom reports 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 is attached at the end of this document.

	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 • Health planning region³ • 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
Other available state-level data that can be regionally aggregated	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 dental care 	<ul style="list-style-type: none"> • Race/ethnicity • Income category • Sex • Age group 	2014

³ VaOHC aggregated based on the VDH's health planning region boundaries, although the overlap with VDH's boundaries is not exactly the same.

Other available state-level data that can be regionally aggregated	Dental Health Professional Shortage Areas (DHPSAs)	All Virginians	<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
	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 Health Care Foundation (VHCF)					
Safety net clinics (free clinics and FQHCs)	<ul style="list-style-type: none"> Low-income, uninsured adults 18+ Adults & children eligible for 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	

Additional Virginia data sources:

- **VDH**
 - Oral Health (some of these data may not be aggregated by region or county/city)
 - Basic Screening Survey of Head Start programs – pilot phase; includes open-mouth survey data on dental health indicators in children ages 0-5 in Head Start programs.
 - Elder Basic Screening Survey – statewide survey 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. Includes data on caries experience, need for urgent care among some elder populations.
 - Virginia Cancer Registry – oral cancer incidence, mortality and 5-year survival data for all Virginians.

- Virginia Sealant Efficiency Assessment for Locals and States (SEALS) Database – treated and untreated decay, sealant placement and retention on molar surfaces, receipt of fluoride varnish among 3rd grade children served by sealant program localities.
 - Bright Smiles for Babies (BSB) Fluoride Varnish Program survey – services rendered, # screened, oral health education provided (all districts); treated and untreated decay, immediate need for treatment, parental oral health knowledge (some districts). Population is babies (0-3) receiving services through WIC and local health department clinics.
 - Local health department dental activity reports - # and type of services provided by VDH dental staff in local health departments.
 - Virginia Congenital Anomalies Reporting & Education System – prevalence of cleft lip and palate defects
 - Health equity
 - [Health Opportunity Index \(HOI\)](#) - 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. The HOI is reported at both the census tract and county/independent city level.
- **Head Start**
 - Data on the health of children in Head Start for the state may be available by request from that agency. Aggregate reporting includes some indicators of dental health within this population. Going forward VDH has tentative plans to conduct further surveys of children in this population, but none are in progress at this time.
- **Community Health Center Program Data – Health Resources & Services Administration (HRSA)**
 - Federally Qualified Health Center (FQHC) data reported to HRSA, available on [HRSA’s website](#)
- **Virginia Department of Health Professions (DHP)**
 - [Dental Manpower Surveys](#) – gives account of number of active, licensed dental health professionals operating at state and local level, as well as their demographics.
- **Local hospital emergency department dental utilization data**
 - In most studies of ED use for dental-related conditions, three ICD-9 codes comprise ~75% of all emergency department diagnoses related to oral health (matching ICD-10 codes in parentheses):
 - 525.9 – Dental disorder NOS (K08.9)
 - 522.5 – Abscess w/out sinus (K04.7)
 - 521.00 – Dental caries NOS (K02.9)
- **Local/regional community health needs assessment survey data**
 - [Arlington County](#) in the process of doing a community health assessment
 - [Community Healthcare Coalition of Greater Prince William](#)
 - [Inova Alexandria Hospital](#)
 - [Inova Fairfax Medical Campus](#)
 - [Inova Fair Oaks Hospital](#)
 - [Inova Loudoun Hospital](#)
 - [Inova Mount Vernon Hospital](#)

- [Loudoun County Community Health Status Assessment](#)
- Northern Virginia Health Foundation reports
 - [2011 Survey of Oral Health in Northern Virginia](#) – point-in-time phone (cell and landline) survey of 1,300 adults (aged 18+) in 2010. Respondents were grouped based on income level. Survey findings found significant disparities in access to dental care, need, impact on daily life, use of emergency care, and satisfaction with care between income groups. The most significant factors affecting the ability of residents to improve oral health were: income level, access to dental coverage, and use of preventive dental care.
 - [How Healthy is Northern Virginia? \(2013\)](#)
- [Prince William Coalition for Human Services Community Health Needs Assessment](#) (Prince William County, Manassas City, and Manassas Park)
- [Prince William Medical Center](#) (Prince William County, Manassas City, Manassas Park, and Fauquier County)
- [Sentara Northern Virginia Medical Center](#) (Prince William County, Lorton County, and Stafford County)
- [Virginia Hospital Center](#) (Arlington County, Fairfax County, Alexandria City)

Community health improvement plans:

- [Alexandria Community Health Improvement Plan](#)
- [Fairfax Community Health Improvement Plan](#)
- [Loudoun Community Health Improvement Plan](#)

National oral health data sources:

- [National Survey of Children’s Health \(NSCH\) & National Survey of Children with Special Healthcare Needs \(NS-CSHCN\)](#)
 - Tracks a number of oral health indicators among children 0-17 and among children with special healthcare needs. New 2016 data should become available in 2017.
- [National Oral Health Surveillance System \(NOHSS\)](#)
 - CDC-maintained system cataloging oral health indicators for adults and children, state-by-state for entire nation. VDH reports data to CDC NOHSS, and many of these indicators can be obtained directly from VDH.

NOVA-SPECIFIC REPORT CARD INDICATORS COMPARED TO STATE & OTHER HEALTH PLANNING REGIONS

Children

- **38% of Northern 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
 - 55% of third grade children in Southwest Virginia
 - 50% of third grade children in Central Virginia
 - 43% of third grade children in Eastern Virginiaⁱ
- **56% of Northern 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
 - 46% of third grade children in Southwest Virginia
 - 54% of third grade children in Central Virginia
 - 48% of third grade children in Eastern Virginiaⁱⁱ
- **61% of children aged 1-20 enrolled in Medicaid/FAMIS in Northern 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
 - 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
 - 48% % of children aged 1-20 enrolled in Medicaid/FAMIS in Eastern Virginiaⁱⁱⁱ
- **27% of children aged 1-2 enrolled in Medicaid/FAMIS in Northern 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
 - 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
 - 24% of children aged 1-2 enrolled in Medicaid/FAMIS in Eastern Virginia^{iv}

Adults

- **36% of adults aged 45-64 in Northern 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
 - 61% of adults aged 45-64 in Southwest Virginia
 - 54% of adults aged 45-64 in Central Virginia

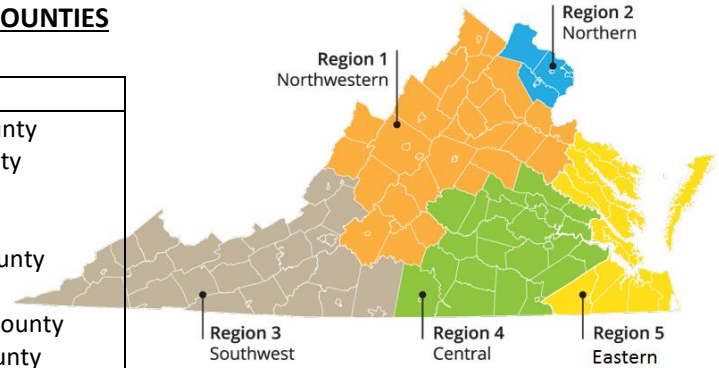
- 55% of adults aged 45-64 in Eastern Virginia.^v
- **28% of adults aged 18+ in Northern Virginia reported not having dental insurance coverage** in 2013, compared to
 - 38% of adults aged 18+ overall in Virginia
 - 40% of adults aged 18+ in Northwest Virginia
 - 52% of adults aged 18+ in Southwest Virginia
 - 35% of adults aged 18+ in Central Virginia
 - 35% of adults aged 18+ in Eastern Virginia.^{vi}

ADDITIONAL STATEWIDE MEASURES OF VIRGINIA'S ORAL HEALTH (REGIONAL %s NOT AVAILABLE)

- **5% of Medicaid pediatric medical providers applied fluoride varnish** in 2016.^{vii}
- **96% of Virginia's population is served by fluoridated public water systems** in 2016, compared to 80% of the U.S. population overall.^{viii}

VDH HEALTH PLANNING REGIONS – LIST OF CITIES & COUNTIES

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



Addendum: Full Web Addresses for Embedded Hyperlinks (In Order of Appearance)

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Downloadable maps for Alexandria: <https://www.cdc.gov/500cities/map-books.htm#ui-id-93>

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Individual city/county DHPSA designations available on HRSA's website: <https://datawarehouse.hrsa.gov/tools/analyzers/geo/ShortageArea.aspx>

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Health Opportunity Index (HOI): <https://www.vdh.virginia.gov/omhhe/hoi/>

Federally Qualified Health Center (FQHC) data reported to HRSA, available on HRSA's website:

<https://bphc.hrsa.gov/datareporting/index.html>

Dental Manpower Surveys: <https://www.dhp.virginia.gov/hwdc/default.htm>

Arlington County community health assessment: <https://health.arlingtonva.us/pha/community-assessment/>

Community Healthcare Coalition of Greater Prince William: <http://www.vdh.virginia.gov/content/uploads/sites/24/2016/11/Community-Health-Assessment.pdf>

Inova Alexandria Hospital: <http://www.inova.org/upload/docs/Community/Inova-Alexandria-Hospital-Community-Health-Needs-Assessment.pdf>

Inova Fairfax Medical Campus: <http://www.inova.org/upload/docs/Community/Inova-Fairfax-Medical-Campus-Community-Health-Needs-Assessment.pdf>

Inova Fair Oaks Hospital: <http://www.inova.org/upload/docs/Community/Inova-Fair-Oaks-Hospital-Community-Health-Needs-Assessment.pdf>

Inova Loudoun Hospital: <http://www.inova.org/upload/docs/Community/Inova-Loudoun-Hospital-Community-Health-Needs-Assessment.pdf>

Inova Mount Vernon Hospital: <http://www.inova.org/upload/docs/Community/Inova-Mount-Vernon-Hospital-Community-Health-Needs-Assessment.pdf>

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Loudoun County Community Health Status Assessment: <https://www.loudoun.gov/DocumentCenter/View/101387>

2011 Survey of Oral Health in Northern Virginia: <http://novahealthfdn.org/wp-content/uploads/NVHF-OralHealth-Report-FINAL.pdf>

How Healthy is Northern Virginia? (2013): <http://novahealthfdn.org/wp-content/uploads/How-Healthy-Is-Northern-Virginia.pdf>

Prince William Coalition for Human Services Community Health Needs Assessment:

<http://www.pwchs.org/Docs/2015%20Community%20Needs%20Assessment.pdf>

Prince William Medical Center: https://www.novanthealth.org/Portals/92/novant_health/documents/about_us/community/NHPWMC_CHNA_FINAL.pdf

Sentara Northern Virginia Medical Center: <https://www.sentara.com/Assets/Pdf/About-Us/Community-Health-Needs-Assessments/SNVMC-2016-Community-Health-Needs-Assessment-Report.pdf>

Virginia Hospital Center:

https://sitemanager.acsysinteractive.com/vSiteManager/VirginiaHosp/Public/Upload/SubmittedDocuments/VHC_Community_Health_Needs_Assessment_2014.pdf

Alexandria Community Health Improvement Plan: [http://healthieralexandria.org/uploadedFiles/healthieralexandria-wwwroot/FINAL%20CHIP%20Jan%202015\(2\).pdf](http://healthieralexandria.org/uploadedFiles/healthieralexandria-wwwroot/FINAL%20CHIP%20Jan%202015(2).pdf)

Fairfax Community Health Improvement Plan: <http://www.fairfaxcounty.gov/livehealthy/pdfs/community-health-improvement-plan.pdf>

Loudoun Community Health Improvement Plan: <https://www.loudoun.gov/DocumentCenter/View/49126>

National Survey of Children's Health (NSCH) & National Survey of Children with Special Healthcare Needs (NS-CSHCN): <http://childhealthdata.org/learn/NSCH>

National Oral Health Surveillance System (NOHSS): <http://www.cdc.gov/oralhealthdata/>

ⁱ Virginia Department of Health. Virginia Statewide Basic Screening Survey of Third Grade Children, 2014-2015. Estimates with 95% confidence intervals (in order listed): NOVA region: 38.0% (34.4, 41.6); Virginia overall: 47.2% (44.9, 49.6); Northwest region: 62.6% (55.4, 69.7); Southwest region: 54.9% (48.0, 61.7); Central region: 50.1% (42.3, 57.8); Eastern region: 43.4% (40.2, 46.6). Weighted for population estimates.

ⁱⁱ Virginia Department of Health. Virginia Statewide Basic Screening Survey of Third Grade Children, 2014-2015. Estimates with 95% confidence intervals (in order listed): NOVA region: 55.9% (51.7, 60.1); Northwest region: 54.4% (47.2, 61.7); Southwest region: 54.9% (38.8, 52.4); Central region: 53.9% (47.8, 59.9); Eastern region: 47.5% (42.8, 52.2). Weighted for population estimates.

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 with 95% confidence intervals (in order listed): NOVA region: 35.7% (30.1, 41.3); Virginia overall: 49.6% (47.3, 51.9); Northwest region: 50.0% (44.9, 55.1); Southwest region: 61.0% (56.8, 65.1); Central region: 53.9% (48.9, 58.9); Eastern region: 55.0% (50.7, 59.4). Weighted for population estimates.

^{vi} Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System, 2013. Estimates with 95% confidence intervals (in order listed): NOVA region: 28.4% (24.4, 32.3); Virginia overall: 37.7% (36.2, 39.2); Northwest region: 39.5% (36.1, 43.0); Southwest region: 51.9% (48.9, 54.8); Central region: 34.8% (31.7, 37.9); Eastern region: 34.7% (31.6, 37.8). Weighted for population estimates.

^{vii} Virginia Department of Medical Assistance Services, 2016.

^{viii} CDC, Water Fluoridation Reporting System, 2016.