Oral Health in Springfield District Office and Vermont

Preventive and Access to Care, Risk Factors, and Outcomes
Unless stated otherwise, all data are calculated for residents living within the area served by Springfield District Office, including:

- Andover, Baltimore, Cavendish, Chester, Grafton, Londonderry, Ludlow, Plymouth, Reading, Rockingham (including Bellows Falls), Springfield, Weathersfield, Weston, West Windsor, Windham, Windsor.
Preventive and Access to Care: How many Springfield area residents are accessing oral health care? How many dentists are in the area? What percentage of the population on public water systems have fluoridated water?

Risk Factors: How many Springfield area high school students have an increased risk of oral health problems due to risky behaviors?

Oral Health Outcomes: How are Springfield area residents doing in terms of oral health outcomes?
## Preventive and Access to Care

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental visits</td>
<td>Behavioral Risk Factor Surveillance Survey (BRFSS)</td>
</tr>
<tr>
<td>Number of dental providers</td>
<td>Medicaid data</td>
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<tr>
<td>Dental insurance</td>
<td>2013 Dentist Survey</td>
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<tr>
<td>Community water fluoridation</td>
<td>Water Fluoridation Reporting System (WFRS)</td>
</tr>
</tbody>
</table>
Behavioral Risk Factor Surveillance Survey (BRFSS)

- Telephone survey of adults
- Typically between 6,000 and 7,000 Vermont adults (18 or older) are interviewed as part of the Vermont BRFSS each year
- Self-reported data
- Conducted by the Vermont Department of Health in collaboration with the Centers for Disease Control and Prevention (CDC)
- Additional information can be found on the VDH and CDC websites:
  - http://www.cdc.gov/brfss/
In 2012 and 2014 (combined average), 65% of Springfield area adults saw their dentist for any reason during the previous year.

The Healthy Vermonters 2020 goal is 85%.

Percent of Adults Who Visited the Dentist in the Last Year (2012 and 2014 Combined Average)

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
Age-adjusted based on the proportional age breakdowns of the U.S. population in 2000.
Dental Insurance

- 44% of Vermont adults reported they did not have dental insurance in 2012 (BRFSS).
- Some variation exists by district office, but there are not large differences.
Medicaid Claims Data

- These data are not representative of all Springfield area residents.
  - These data only include those who sought care, and does not include those who needed care but did not seek care.
  - These data do not include those who have commercial insurance or do not have dental insurance.
18% of Springfield Medicaid-eligible children born in 2012 received any dental services by a dental provider by 18 months of age.

Percent of Medicaid-Eligible Vermonters Born in 2012 who Received Any Dental Services by a Dental Provider by 18 Months of Age
Access to Care: Dental Services Among Medicaid-Eligible Children Aged 1-5

39% of Springfield Medicaid-eligible children aged 1-5 received any dental services by a dental provider in 2014.

Vermont Department of Health
March 2016

Percent of Medicaid-Eligible Vermonters Aged 1-5 Receiving Preventive Dental Services and Any Dental Services in 2014

Data Source: Medicaid Claims Data
58% of Springfield Medicaid-eligible children aged 6-18 received any dental services by a dental provider in 2014.

The Healthy Vermonters 2020 goal for the percent of people in grades K-12 who use the dental care system each year is 85%.
Access to Care: Dental Services Among Medicaid-Eligible Adults Aged 19-64

20% of Springfield Medicaid-eligible adults aged 19-64 received any dental services by a dental provider in 2014.

The Healthy Vermonters 2020 goal for the percent of people age 18+ who use the dental care system each year is 85%.

Percent of Medicaid-Eligible Vermonters Aged 19-64 Receiving Preventive Dental Services and Any Dental Services in 2014

Data Source: Medicaid Claims Data
2013 Dentist Survey

- Completed by most dentists online with the license renewal in late summer 2013.
- Self-reported data.
- Followed-up via mail and phone calls.
- The final response rate was 99.5%.
- Included in this report are dentists who provide patient care in Vermont.
- Ten dentists who reported fewer than 2 patient care hours per week on the average were excluded.
In 2013 in Springfield, there were 11 full-time equivalent primary care dentists and 2 full-time equivalent specialists.

- Primary care dentists include general practice and pediatric dentistry.
- Specialist dentists include oral surgery, endodontics, orthodontics, periodontics, prosthodontics, and other specialties.

Full-Time Equivalent Dentists by Specialty and Age in Springfield (2013)

Data Source: 2013 Dentist Survey
In 2013, Springfield had a lower ratio of primary care dentists per residents (32.3) compared to the state (38.0). It had 5.1 specialist dentists per residents compared to the state ratio of 8.4.

Data Source: 2013 Dentist Survey
Access to Care – Primary Care Dentists Accepting New Patients

- In 2013, 87% of primary care dentists in Springfield were accepting new non-Medicaid patients and 47% were accepting new Medicaid patients (a lower percentage than Vermont).

- In 2013, 73% of primary care dentists in Springfield were accepting 5 or more new non-Medicaid patients a month, but only 33% were accepting 5 or more new Medicaid patients a month.

- The Ludlow Dental Center provides dental care.

**Percent of Primary Care Dentists Accepting New Patients in 2013**

- **Non-Medicaid**
  - Accepts any new Patients: Springfield 87%, Vermont 90%
  - Accepts 5+ New Patients/Month: Springfield 74%, Vermont 73%

- **Medicaid**
  - Accepts any new Patients: Springfield 47%, Vermont 63%
  - Accepts 5+ New Patients/Month: Springfield 34%, Vermont 33%

Data Source: 2013 Dentist Survey
In 2013, 100% of specialist dentists in Springfield were accepting new non-Medicaid patients, but only 67% were accepting new Medicaid patients (a lower percentage than the state).

In 2013, 100% of specialist dentists in Springfield were accepting 5 or more new non-Medicaid patients a month, but 0% were accepting 5 or more new Medicaid patients a month, a lower percentage than the state.
Water Fluoridation Reporting System (WFRS)

- An online tool that helps states manage the quality of their water fluoridation programs.
- Helps describe the percentage of the U.S. population on community water systems who receive 0.70 ppm optimally fluoridated drinking water.
  - A community water system is a public water system that supplies water to the same population year-round.
- WFRS monitors the number and quality of water fluoridation systems, as well as the state population on public water supply systems.
- This system was developed by CDC in partnership with the Association of State and Territorial Dental Directors (ASTDD).
Community Water Fluoridation

Percent of Population Served by Community Public Water Systems that have Optimally Fluoridated Water (2015)

Data source: Water Fluoridation Reporting System

30% of Windsor County’s and 9% of Windham County’s population served by community public water systems have optimally fluoridated water. Both percentages are lower than Vermont and the Healthy Vermonter 2020 goal of 65%.
Risk Factors

- **Indicators**
  - Sugar-sweetened beverages
  - Use of snuff/dip

- **Data Sources**
  - Youth Risk Behavior Survey (YRBS)
Youth Risk Behavior Survey (YRBS)

- A paper survey administered in Vermont middle and high schools every two years since 1993.
- The YRBS measures the prevalence of behaviors that contribute to the leading causes of death, disease, and injury among youth.
- Vermont surveys over 30,000 students at each administration.
- Weighted data is compiled to generate a representative state sample.
Risk Factors – Sugar-sweetened Beverage Consumption Among High School Students (YRBS)

22% of Springfield area students in grades 9-12 drank at least one soda daily. This is significantly higher than the percentage for Vermont.

Percent of Students in Grades 9-12 who Reported Drinking at Least One Can, Bottle, or Glass of Soda or Pop Every Day in the Past 7 days (2013)

Data Source: Youth Risk Behavior Survey (YRBS)
*Significantly different from Vermont.
NOTE: The question instructed students not to include diet soda or pop.

20% of Springfield area students in grades 9-12 drank at least one sugar-sweetened beverage daily (not including soda).

Percent of Students in Grades 9-12 who Drank a Can, Bottle or Glass of a Sugar-sweetened Beverage (Not including Soda) Every Day in the past 7 Days (2013)

Data Source: Youth Risk Behavior Survey (YRBS)
NOTE: The question instructed students not to include soda or pop, diet drinks, or 100% fruit juice.
7% of Springfield area students in grades 9-12 reported using chewing tobacco, snuff, or dip during the past 30 days.

Percent of Students in Grades 9-12 who Used Snuff/dip During the Past 30 days (2013)

Data Source: Youth Risk Behavior Survey (YRBS)
## Oral Health Outcomes

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tooth loss</td>
<td>Behavioral Risk Factor Surveillance Survey (BRFSS)</td>
</tr>
<tr>
<td>Treated for extractions, endodontics or restorations</td>
<td>Medicaid claims</td>
</tr>
<tr>
<td>Emergency Department visits</td>
<td>Vermont Uniform Hospital Discharge Data Set (VUHDDS)</td>
</tr>
</tbody>
</table>
Oral Health Outcomes: No Teeth Lost Among Adults Aged 18-64 (BRFSS)

58% of Springfield area adults aged 18-64 did not have any tooth loss due to tooth decay or gum disease, in 2012 and 2014 (combined average).

Percent of Adults Aged 18-64 With No Teeth Lost (2012 and 2014 combined average)

- Springfield: 58%
- Vermont: 65%

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
Healthy Vermonters 2020 Goal: Tooth Loss Among Adults Aged 45-64 (BRFSS)

- 52% of Springfield area adults aged 45-64 have had a tooth extracted due to tooth decay or gum disease, in 2012 and 2014 (combined average).

- The Healthy Vermonters 2020 goal for the percent of adults age 45-64 who have ever had a tooth extracted because of dental caries or periodontal disease is 45%.

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
Oral Health Outcomes: Six or More Teeth Lost Among Adults Aged \( \geq 65 \) years (BRFSS)

42% of Springfield area adults 65 and older have lost six or more teeth due to tooth decay or gum disease.

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
For Springfield area children, in 2014, 108 (9%) Medicaid-eligible children aged 1-5 years were treated for extractions, endodontics or restorations. Of those children, 22% were treated in a hospital setting for a total of $106,565 paid claims and an average of $4,440 per visit.

Number and Percent of Medicaid-Eligible Springfield-Area Children Aged 1-5 Treated for Extractions, Endodontics or Restorations by Setting, including Amount Paid, in 2014

<table>
<thead>
<tr>
<th>Setting</th>
<th># of Children</th>
<th>% of Medicaid-Eligible Children</th>
<th>Total Amount Paid</th>
<th>Average Paid per Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>88</td>
<td>8%</td>
<td>$44,626</td>
<td>$507</td>
</tr>
<tr>
<td>Hospital</td>
<td>24</td>
<td>2%</td>
<td>$106,565</td>
<td>$4,440</td>
</tr>
<tr>
<td>Any</td>
<td>108</td>
<td>9%</td>
<td>$151,191</td>
<td>$1,400</td>
</tr>
</tbody>
</table>

Data Source: Medicaid Claims Data
Oral Health Outcomes: Medicaid-Eligible Children Aged 6-18 Treated for Extractions, Endodontics or Restorations

For Springfield area children, in 2014, 662 (23%) Medicaid-eligible children aged 6-18 years were treated for extractions, endodontics or restorations.

### Number and Percent of Medicaid-Eligible Springfield-Area Children Aged 6-18 Treated for Extractions, Endodontics or Restorations by Setting, including Amount Paid, in 2014

<table>
<thead>
<tr>
<th>Setting</th>
<th># of Children</th>
<th>% of Medicaid-Eligible Children</th>
<th>Total Amount Paid</th>
<th>Average Paid per Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>647</td>
<td>22%</td>
<td>$333,357</td>
<td>$515</td>
</tr>
<tr>
<td>Hospital</td>
<td>22</td>
<td>1%</td>
<td>$57,154</td>
<td>$2,598</td>
</tr>
<tr>
<td>Any</td>
<td>662</td>
<td>23%</td>
<td>$390,511</td>
<td>$590</td>
</tr>
</tbody>
</table>

Data Source: Medicaid Claims Data

### Percent of Medicaid-Eligible Vermonters Aged 6-18 Treated for Extractions, Endodontics or Restorations by Setting in 2014

- **Office:** 22% (Springfield 24%, Vermont 22%)
- **Hospital:** 0.7% (Springfield 0.8%, Vermont 0.8%)
- **Any Setting:** 23% (Springfield 25%, Vermont 23%)

Data Source: Medicaid Claims Data
Oral Health Outcomes: Medicaid-eligible Adults Aged 19-64 Treated for Extractions, Endodontics or Restorations

For Springfield area adults, in 2014, 745 (13%) Medicaid-eligible adults aged 19-64 years were treated for extractions, endodontics or restorations.

Number and Percent of Medicaid-eligible Springfield Area Children Aged 19-64 Treated for Extractions, Endodontics or Restorations by Setting, including Amount Paid, in 2014

<table>
<thead>
<tr>
<th>Setting</th>
<th># of Adults</th>
<th>% of Medicaid-eligible Adults</th>
<th>Total Amount Paid</th>
<th>Average Paid per Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>727</td>
<td>12%</td>
<td>$254,392</td>
<td>$350</td>
</tr>
<tr>
<td>Hospital</td>
<td>26</td>
<td>0.4%</td>
<td>$43,051</td>
<td>$1,656</td>
</tr>
<tr>
<td>Any</td>
<td>745</td>
<td>13%</td>
<td>$297,444</td>
<td>$399</td>
</tr>
</tbody>
</table>

Percent of Medicaid-eligible Vermonters Aged 19-64 Treated for Extractions, Endodontics or Restorations by Setting in 2014

Data Source: Medicaid Claims Data
In State Fiscal Year 2015, 69 Springfield area residents utilized General Assistance Vouchers for dental services, for a total of $62,576.

<table>
<thead>
<tr>
<th></th>
<th>Number of Individuals</th>
<th>Total Amount Paid</th>
<th>Average Paid per Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield</td>
<td>69</td>
<td>$62,576</td>
<td>$907</td>
</tr>
<tr>
<td>Vermont</td>
<td>1,392</td>
<td>$933,695</td>
<td>$671</td>
</tr>
</tbody>
</table>

Data Source: Medicaid Claims Data
VUHDDS includes hospital discharge data from hospitals in Vermont, New Hampshire, Massachusetts, and New York. However, New Hampshire data for 2010-2013 were not available at the time of this report.

- Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).

- VUHDDS data are based on visits and not people. A person who is seen in the emergency department for disorders of teeth and jaw more than once in a year will be counted each time as a separate visit.

- These data only include those who sought care, and does not include those who needed care but did not seek care.
Oral Health Outcomes: Emergency Department Visits

For Emergency Department Visits for Disorders of Teeth and Jaw:

- The rate of visits has remained fairly steady for all Vermonters, but an increase has occurred in Springfield between 2005 and 2009.

- Springfield had a higher rate (17 visits per 1,000 residents) than Vermont (10 visits per 1,000 residents) in 2013, and it may be even higher with NH data.

<table>
<thead>
<tr>
<th></th>
<th>Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
</tr>
<tr>
<td>Springfield</td>
<td>519</td>
</tr>
<tr>
<td>Vermont</td>
<td>5,903</td>
</tr>
</tbody>
</table>

Rate of Emergency Department Visits for Disorders of Teeth and Jaw per 1,000 Residents (2005, 2009, 2013)*

Data Source: Vermont Uniform Hospital Discharge Data Set

* New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).
The rate of Emergency Department visits for Disorders of Teeth and Jaw per 1,000 residents are highest for 25-34 year-olds, followed by 18-24 year-olds.

Emergency Department Visits for Disorders of Teeth and Jaw per 1,000 Residents by Age Group (2013)*

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Springfield</th>
<th>Vermont</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>56.0</td>
<td>19.0</td>
</tr>
<tr>
<td>25-34</td>
<td>58.5</td>
<td>34.9</td>
</tr>
<tr>
<td>35-49</td>
<td>23.2</td>
<td>13.0</td>
</tr>
<tr>
<td>0-17 or 50+</td>
<td>4.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>17.2</td>
<td>9.8</td>
</tr>
</tbody>
</table>

Data Source: Vermont Uniform Hospital Discharge Data Set
* New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).
Visits by 25-34 year-olds comprised 37% of all ED visits for disorders of Teeth and Jaw for Springfield area residents, but this age group represents only 11% of Springfield’s population.

### Number and Percent of Emergency Department Visits for Disorders of Teeth and Jaw by Age Group for Springfield Area Residents (2013) *

<table>
<thead>
<tr>
<th>Age Group</th>
<th># of Emergency Department Visits for Disorders of Teeth and Jaw for Springfield Area Residents</th>
<th>% of Total Emergency Department Visits for Disorders of Teeth and Jaw for Springfield Area Residents</th>
<th>% of Springfield area population in this age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>125</td>
<td>22%</td>
<td>7%</td>
</tr>
<tr>
<td>25-34</td>
<td>214</td>
<td>37%</td>
<td>11%</td>
</tr>
<tr>
<td>35-49</td>
<td>139</td>
<td>24%</td>
<td>18%</td>
</tr>
<tr>
<td>0-17 or 50+</td>
<td>99</td>
<td>17%</td>
<td>65%</td>
</tr>
<tr>
<td>Total</td>
<td>577</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).
Oral Health Outcomes: Emergency Department Visits

From 2005 to 2009, the rate of Emergency Department visits for Disorders of Teeth and Jaw per 1,000 Springfield area residents increased for all groups.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per 1,000 Residents</th>
<th>2005</th>
<th>2009</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td></td>
<td>69.8</td>
<td>80.9</td>
<td>56.0</td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td>62.0</td>
<td>64.1</td>
<td>58.5</td>
</tr>
<tr>
<td>35-49</td>
<td></td>
<td>13.1</td>
<td>16.7</td>
<td>23.2</td>
</tr>
<tr>
<td>0-17 or 50+</td>
<td></td>
<td>2.1</td>
<td>3.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15.1</td>
<td>17.6</td>
<td>17.2</td>
</tr>
</tbody>
</table>

NH data for 2013 are not available.

Data Source: Vermont Uniform Hospital Discharge Data Set

* New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).
Oral Health Outcomes: Emergency Department Visits

For Emergency Department Visits for Disorders of Teeth and Jaw, the percent of visits where Medicaid was listed as their primary payer has increased from 2005 to 2013 in both Springfield and Vermont.

Percent of Emergency Department Visits for Disorders of Teeth and Jaw with Primary Payer listed as Medicaid (2005, 2009, 2013)*

Data Source: Vermont Uniform Hospital Discharge Data Set

* New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermonters and 22% for Springfield area residents (based on the average percentage from 2005-2009).
Summary
Preventive and Access to Care

- Compared to all Medicaid-eligible Vermonters, a lower percentage of Medicaid-eligible Springfield area residents received dental care in 2014 in all age groups.
  - Percentages were especially low for those under 19 months (18%), aged 1-5 (39%), and adults (20%).
In 2013, Springfield had a lower ratio of primary care dentists and specialists per residents, compared to the state ratio.

In 2013, the majority of primary care dentists and specialist dentists in Springfield were accepting new non-Medicaid patients, but a lower percentage were accepting new non-Medicaid patients. The Medicaid acceptance rates were lower than the state’s.
The percentages of Windsor County’s and Windham County’s population served by community public water systems who have optimally fluoridated water are lower than the Healthy Vermonters 2020 goal.
Risk Factors

- The percent of Springfield area high school students consuming at least one soda daily is significantly higher than the percent of all Vermont high school students.

- Springfield area high school students are using snuff/dip at a rate similar to that of all Vermont high school students.
Oral Health Outcomes

- Similar to all Vermonters, Medicaid-eligible Springfield area residents are receiving treatment for extractions, endodontics, or restorations, including:
  - 9% of children aged 1-5 (22% of these in the hospital).
  - 23% of children aged 6-18.
  - 13% of adults aged 19-64.
  - A total amount paid for all of these visits for all ages of $839,145.

- In State Fiscal Year 2015, 69 Springfield area residents utilized General Assistance Vouchers for dental services, for a total of $62,576.
Oral Health Outcomes

- The percent of Springfield area adults who have lost teeth is similar to the percent of all Vermonters.

- The rate of Emergency Department visits for disorders of teeth and jaw per 1,000 residents is higher for Springfield area residents than all Vermonters.
  - Over half of these visits are by those aged 18-34.
Questions?

- For more information about the Oral Health Program at the Vermont Department of Health,
  - please go to: [http://healthvermont.gov/family/dental/services.aspx](http://healthvermont.gov/family/dental/services.aspx),
  - or contact Robin Miller, RDH, MPH at Robin.N.Miller@vermont.gov.

- For more information about Oral Health data in Vermont, please contact:
  - Denise Kall, PhD at Denise.Kall@vermont.gov.
Behavioral Risk Factor Surveillance System (BRFSS) Survey Questions used in the above analyses included:

- "How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontics.
  [Responses: Within the past year (anytime less than 12 months), Within the past 2 years (1 year but less than 2 years), Within the past 5 years (2 years but less than 5 years ago), 5 or more years ago, and Never]"

- "How many of your teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics.
  [Responses: 1 to 5, 6 or more but not all, All, and None]"

For more information on the Behavioral Risk Factor Survey (BRFSS), please see: http://healthvermont.gov/research/brfss/brfss.aspx.
Confidence Intervals were used for statistical comparisons between the state and the various sub-geographies. A confidence interval represents the range in which a parameter estimate would fall, which is calculated based on the observed data. For this analysis, we used a 95% confidence interval, meaning that we are 95% confident that the true value of the parameter being examined falls within the specified confidence interval. Statistical significance is assessed by comparing the confidence intervals of different groups. If the confidence intervals from two groups, such as that for the state and a specific county, do not overlap we consider the estimates to be significantly different from one another.
Data Notes - BRFSS

- In U.S. data, age adjustment is used for comparison of regions with varying age breakdowns. In order to remain consistent with the methods of comparison at a national level, statistics in Vermont were age adjusted. The estimates were adjusted based on the proportional age breakdowns of the standard U.S. population in 2000. For more detailed information on age adjustment visit http://www.cdc.gov/nchs/data/statnt/statnt20.pdf.

- Note that beginning in 2011 the CDC implemented changes to the BRFSS weighting methodology in order to more accurately represent the adult population. In 2011 and later, weights are calculated using an iterative proportional fitting (or "raking") methodology. This allows the weights to be calculated using a smaller sample size, adjusts for more demographic variables, and incorporates cell phone interview data into estimates. While these adjustments make the calculations more representative of the population, the changes in methodology also limit the ability to compare results from 2011 forward with those from previous years. The Vermont Department of Health recommends that comparisons between BRFSS data from 2011 forward and earlier years be made with caution. Statistical differences may be due to methodological changes, rather than changes in opinion or behavior.
This analysis was conducted using Vermont’s Medicaid data, accessed through Vermont Healthcare Claims Uniform Reporting and Evaluating System (VHCURES).

District office is based on the recipient’s county of residence as of their last month of Medicaid eligibility within the timeframe.

For the analysis of those born in 2012 who received any dental services by a dental provider by 18 months of age:

- This included only Vermonters who were Medicaid-eligible (including Medicaid Managed Care and Traditional Medicaid aid categories) and were enrolled in Medicaid for 95% or more of their lifetimes.
- Age was calculated as of date of service.

For all other analyses using Medicaid Claims Data:

- Vermonters who were Medicaid-eligible (including Medicaid Managed Care and Traditional Medicaid aid categories) and have been continuously enrolled in Medicaid for three consecutive months were included in the analysis.
- Age was calculated as of December 31, 2014.
### Data Notes – Medicaid Claims Data

Vermonters can appear in more than one of these numbers.

<table>
<thead>
<tr>
<th>% of Medicaid-eligible Vermonters who had a preventive visit</th>
<th>This includes Vermonters who had paid claims for any one of the following preventive procedure codes (CPT between D1000 and D1999). If a Vermonter received one of these procedures more than once in this timeframe, he/she only appears in the number once.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Medicaid-eligible Vermonters who received any dental services by a dental provider</td>
<td>This includes Vermonters who had paid dental claims for any one of the following dental procedure codes (CPT between D0120 and D9999) filed on a dental claim form (claim type L). If a Vermonter received one of these procedures more than once in this timeframe, he/she only appears in the number once.</td>
</tr>
<tr>
<td>% of Medicaid-eligible Vermonters treated for extractions, endodontics or restorations</td>
<td>This includes Vermonters who had paid claims for any one of the following procedures: dental restorations (CPT between D2000 and D2999), endodontic procedures (CPT between D3000 and D3999), or dental extractions (CPT between D7111 and D7250). Preventative visits are not included. If a Vermonter received one of these procedures more than once in this timeframe, he/she only appears in the number once. A Vermonter can appear in both the office percentage and the hospital percentage for dental treatment. Each visit is counted as hospital or office visit, but never both for the same date of service.</td>
</tr>
<tr>
<td>Number of Individuals who Utilized General Assistance (GA) Vouchers for Dental Services</td>
<td>This includes Vermonters who had claims for a State Category of Service Code for Dental between '0801' and '0899' and a funding source code C (General Assistance (GA) OVHA).</td>
</tr>
</tbody>
</table>
## Data Notes - Emergency Department Visits for Disorders of Teeth and Jaw for Vermont Residents from 2009 and 2013, by Principal Diagnosis

The Primary Diagnosis Clinical Classification Software (CCS) Category 136, Disorders of Teeth and Jaw, includes the following diagnoses:

<table>
<thead>
<tr>
<th>Principal Diagnosis</th>
<th>2009</th>
<th>2013*</th>
</tr>
</thead>
<tbody>
<tr>
<td>520: Diseases of tooth development and eruption</td>
<td>99</td>
<td>67</td>
</tr>
<tr>
<td>521: Diseases of hard tissue of teeth</td>
<td>1,074</td>
<td>1,138</td>
</tr>
<tr>
<td>522: Diseases of pulp and periapical tissues</td>
<td>1,616</td>
<td>2,026</td>
</tr>
<tr>
<td>523: Gingival and periodontal diseases</td>
<td>161</td>
<td>126</td>
</tr>
<tr>
<td>524: Dentofacial anomalies, including malocclusion</td>
<td>200</td>
<td>133</td>
</tr>
<tr>
<td>525: Other diseases and conditions of the teeth and supporting structures</td>
<td>3,613</td>
<td>2,529</td>
</tr>
<tr>
<td>526: Diseases of the jaw</td>
<td>181</td>
<td>38</td>
</tr>
<tr>
<td>78492: Jaw pain</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,944</strong></td>
<td><strong>6,156</strong></td>
</tr>
</tbody>
</table>

*New Hampshire data for 2010-2013 are not available.*

Data Source: Vermont Uniform Hospital Discharge Data Set

*New Hampshire data for 2010-2013 are not available at the time of this report. Historically, the percent of CCS 136 Emergency Department visits that occurred in New Hampshire hospitals was 10% for all Vermon ters (based on the average percentage from 2005-2009), but varied by District Office.*
For more information on the Dental Provider Survey, see: http://healthvermont.gov/research/HealthCareProviderSurveys.aspx

For more information on the Youth Risk Behavior Survey, see: http://healthvermont.gov/research/yrbs.aspx

For more information on the Vermont Uniform Hospital Discharge Data Set, see: http://healthvermont.gov/research/hospital-utilization/