VERMONT DEPARTMENT OF HEALTH

The Disparate Burden of Asthma among the Medicaid Insured in Vermont - 2016

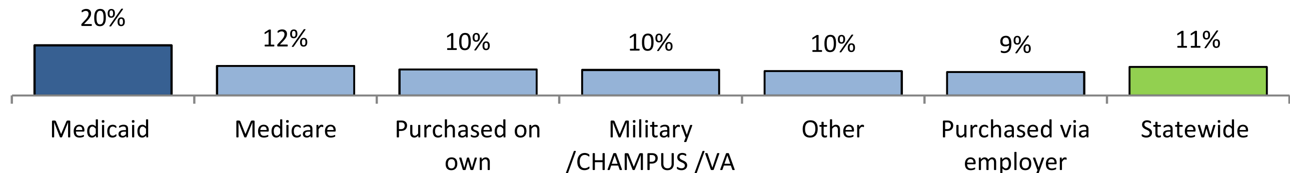
Introduction

Asthma is a chronic respiratory disease that causes inflammation of the airway and difficulty in breathing. In Vermont, asthma affects approximately 57,000 adults and 10,000 children. Asthma affects a greater proportion of people living at a low socioeconomic level and this segment of the population is generally at a higher risk for asthma exacerbations. This data brief examines the prevalence of asthma and other chronic conditions, risk factors, and clinical care for asthma among Vermont's Medicaid-insured population.

Prevalence of Asthma in Vermont

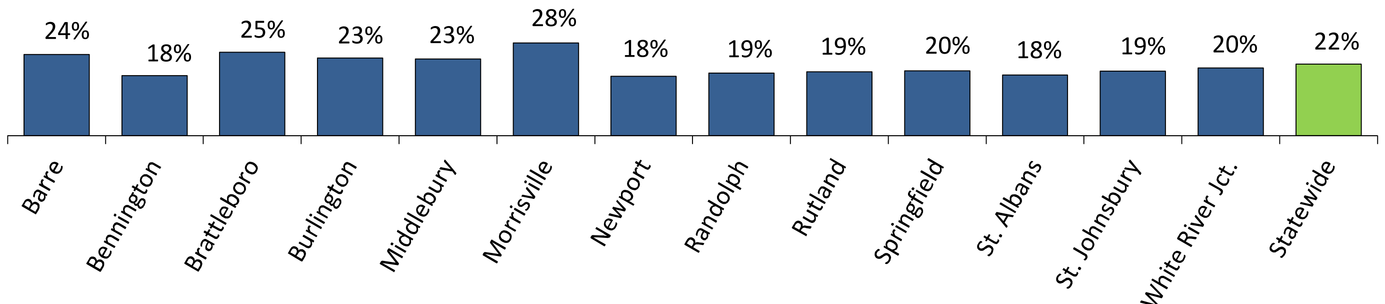
The prevalence of current asthma among Medicaid-insured Vermont adults was 20%; which is approximately 11,000 Vermonters. This rate was almost double the statewide rate of 11% and was significantly higher than the rate for those with Medicare, commercial, or Military/VA insurance. Similarly, the rate of asthma was higher among Vermonters with less than a high school education (17%) and those living at < 125% of the Federal Poverty Level (21%) than those with higher levels of education and income.

Adult Asthma Prevalence by Primary Source of Health Insurance, BRFSS 2014



Asthma prevalence among Medicaid-insured Vermonters ranged from 18 to 28% across Hospital Service Areas (HSAs); however, none were significantly different from the statewide rate. The prevalence of asthma among children whose parent/guardian was insured by Medicaid was 9%. However, child asthma prevalence rose to 34% if their parent/guardian who responded to the survey also had asthma.

Adult Asthma Prevalence Among Medicaid Insured by HSA, BRFSS 2013-2014 ‡



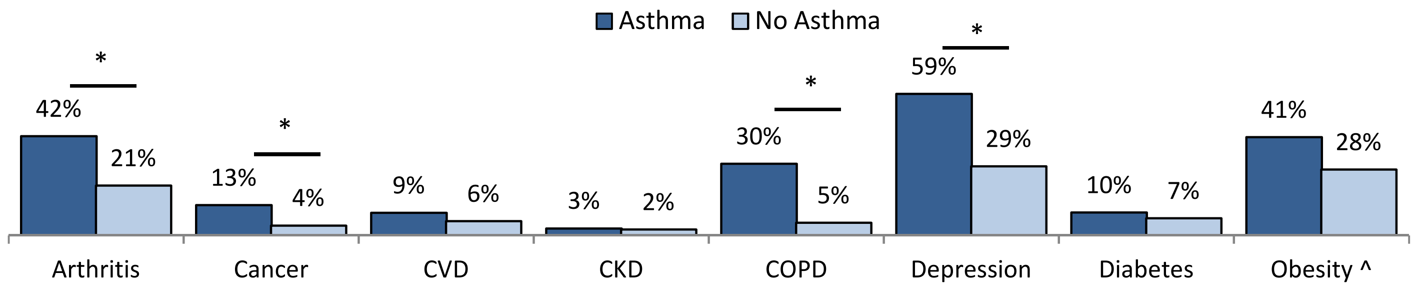
Asthma and General Health

Vermonters insured by Medicaid who had asthma were more likely to rate their health as fair or poor (40%) compared to their peers without asthma (14%). Among Vermonters insured by Medicaid, those with asthma were more likely to have poor mental health [#] (40% vs 21%), experience activity limitation due to health problems (53% vs. 29%), have difficulty doing errands alone (34% vs. 7%), and have difficulty walking or climbing stairs (30% vs. 15%) compared to those without asthma. These Vermonters were also more likely to not get needed medications for any of their conditions due to cost (18% vs. 8%) than those without asthma. One in five (21%) Medicaid-insured Vermonters with asthma reported a gap in their health coverage during the last year.

Asthma and Comorbidity of Chronic Disease

Among Medicaid-insured Vermonters, those with current asthma were significantly more likely to also have arthritis, cancer, COPD, and depression than Medicaid-insured Vermonters without asthma. The rates of cancer and COPD among those with asthma were more than 3 times higher than among those without asthma. Following a similar pattern, rates of arthritis and depression were twice as high among the Medicaid-insured with asthma compared to those without asthma.

Prevalence of Chronic Disease Among Medicaid-Insured Verrmonters, BRFSS 2014



* Indicates significant difference between groups, ^ Data are age adjusted to the 2000 U.S. standard population.

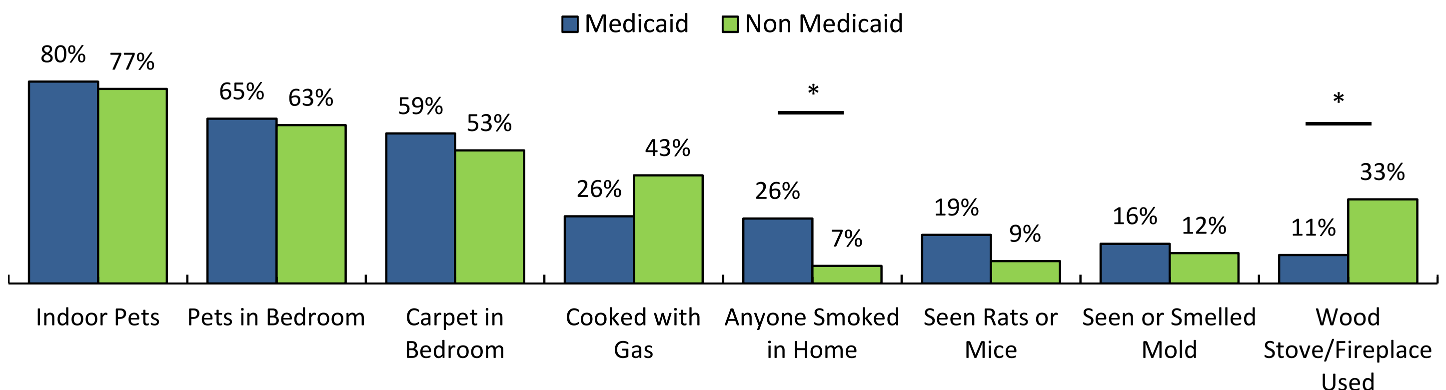
Asthma Risk Factors

The smoking prevalence among Vermonters with current asthma and insured by Medicaid was 38%. This was more than twice the smoking rate for all Vermonters (18%) and significantly higher than the statewide smoking rate among Vermonters with current asthma (25%). Sixty-two percent of Vermonters insured by Medicaid attempted to quit smoking during the past year. This rate did not differ by asthma status and was also similar to the rate of quit attempts among those not insured by Medicaid.

In 2014, 39% of Medicaid-insured Vermonters with asthma received an annual flu shot and 45% had received the pneumonia vaccine; these rates were statistically similar to those Vermonters with asthma not insured by Medicaid (55% and 49%, respectively). Among Medicaid beneficiaries, the rate of receiving the flu shot was similar for those with and without asthma (39% for each), while those with asthma were more likely to receive the pneumonia vaccine than those without asthma (45% vs. 30%).

Exposure to indoor environmental factors can trigger asthma symptoms and more than four in ten Vermont adults (44%) with asthma who were insured by Medicaid were exposed to more than 4 common indoor triggers. The most common triggers that this population was exposed to were having pets inside the house (80%), allowing pets in the bedroom (65%), and having carpet in the bedroom (59%). Medicaid-insured Vermonters with asthma were more likely to be exposed to indoor smoking (26% vs. 7%) and less likely to use a wood stove (11% vs. 33%) than Vermonters with other types of insurance.

Prevalence of Indoor Environmental Triggers among Vermont Adults by Insurance Type, ACBS 2013-2014 ‡

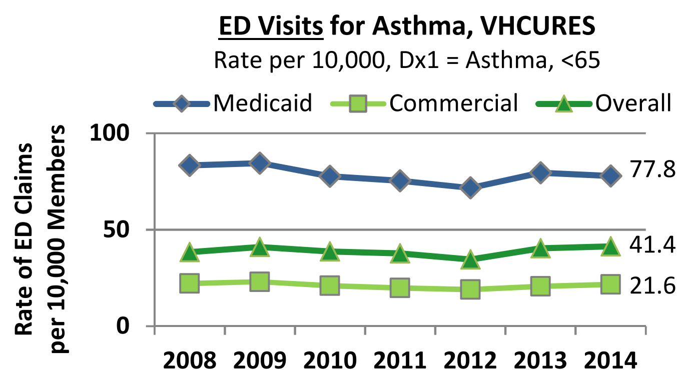


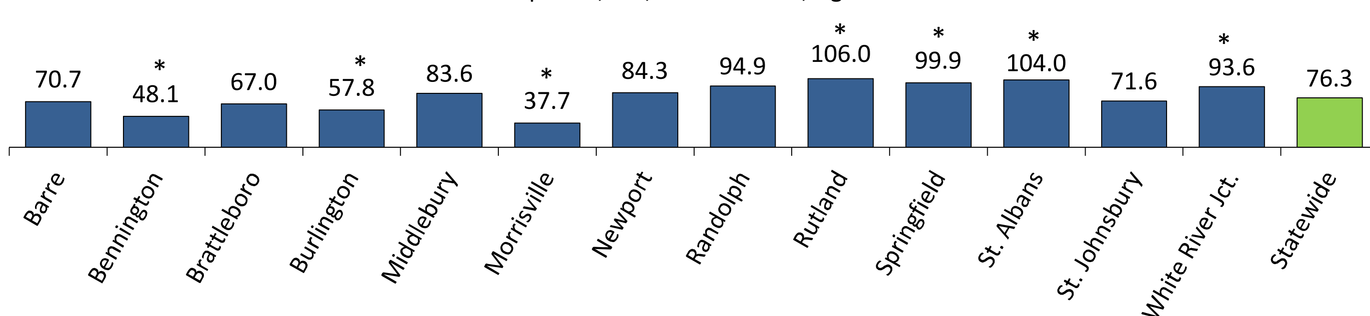
Asthma Control, Severity and Impact

Medicaid-insured Vermonters with asthma had more severe asthma and were more likely to have poorer control compared to other Vermonters with asthma. One quarter (26%) of Vermonters with asthma and insured by Medicaid had severe persistent asthma (the most severe level) compared to 9% of Vermonters with asthma and not insured by Medicaid. Close to half (46%) of Medicaid-insured Vermonters had poorly controlled asthma compared to 15% of other Vermonters with asthma. For many Medicaid-beneficiaries their asthma was impacted by their work; 26% of Medicaid-insured Vermonters with asthma indicated that their asthma was caused by a previous job and 49% reported that their asthma was aggravated by a prior job. Thirty-seven percent of Medicaid-insured beneficiaries missed at least one day of work or normal activity due to asthma during the past year compared to 16% of other Vermonters. On average a Medicaid-insured Vermonter with asthma missed 15 days of work or activity per year due to their asthma compared to 3 days per year for other Vermonters with asthma.

Emergency Department Visits for Asthma

Claims-based data from the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) were used to analyze emergency department (ED) and hospital visits for asthma by insurance type among those less than 65 years of age. In 2014, there were 1,261 ED visits with a primary diagnosis of asthma among the Medicaid insured. The rate of ED claims for asthma among those insured by Medicaid was 77.8 per 10,000 beneficiaries, which is more than three times the rate for those commercially insured (21.6 per 10,000). The rates of ED visits for asthma that were paid by Medicaid were significantly higher in the Rutland, Springfield, St. Albans and White River Junction HSAs compared to the statewide rate, while the rates for Bennington, Burlington and Morrisville HSAs were less than the statewide rate.

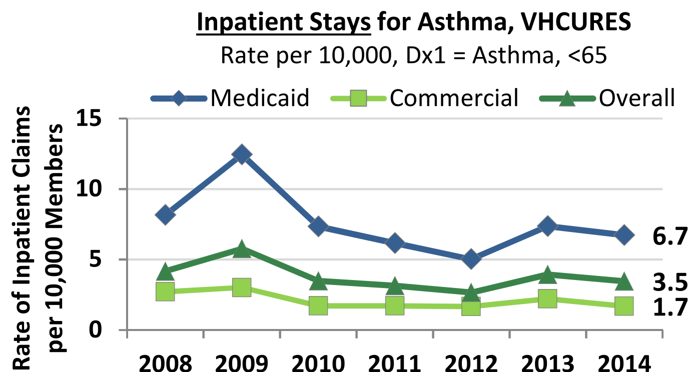




* Rate significantly differs from statewide rate

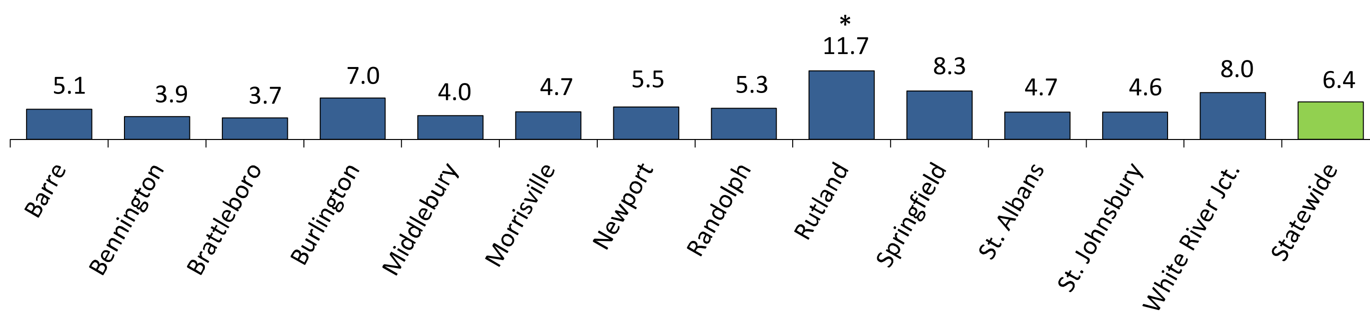
Hospitalizations for Asthma

In 2014, there were 109 hospitalizations with a primary diagnosis of asthma among Medicaid-insured Vermonters less than 65 years of age. The rate of hospitalizations for asthma among those insured by Medicaid was 6.7 per 10,000, which is more than three times the rate for those commercially insured (1.7 per 10,000). The rate of inpatient hospitalizations for asthma ranged from 3.7 per 10,000 in the Brattleboro HSA to 11.7 per 10,000 in the Rutland HSA. The hospitalization rate for asthma in the Rutland HSA was significantly higher than the statewide rate.



Rate of Inpatient Stays for Asthma Among Medicaid-Insured Vermonters by HSA, VHCURES 2012-2014

Rate per 10,000, Dx1= Asthma, Age<65



* Rate significantly differs from statewide rate

Summary

Not only do Medicaid-insured Vermonters have a higher prevalence of asthma than those with other types of insurance, for those Medicaid beneficiaries with asthma who had a child in their home, the rate of asthma among these children was almost four times higher than the rate for all children with a parent/guardian insured by Medicaid. Furthermore, Medicaid beneficiaries with asthma had poorer health, more activity limitations, poorer mental health, and higher rates of several chronic diseases than Medicaid beneficiaries without asthma. Medicaid beneficiaries with asthma smoked at a much higher rate than the state average; however, more than half tried to stop smoking in the last year. In addition, less than half of Medicaid beneficiaries with asthma received the guidelines-recommended pneumonia vaccine or an annual flu shot, and cost of medications remains a prohibitive factor. The Medicaid beneficiary with asthma is often balancing multiple health conditions with few resources. Limited activity levels or barriers to getting medications can add to the difficulties of asthma management. These factors may contribute to increased severity of asthma, poor control, and ultimately more complex health care needs among the Medicaid-insured as evidenced by utilizing ED and inpatient care for asthma at much higher rates than Vermonters with commercial insurance. These individuals may benefit from added support to stop smoking, coordinate care, identify and reduce triggers at home and work, and obtain medications.

The Vermont Asthma Program is working to reduce the burden of asthma among Medicaid-insured Vermonters. For more information regarding guideline-based care for asthma including home visiting, use of CPT codes for asthma education provided by a certified asthma educator, smoking cessation supports including counseling and free nicotine replacement therapy, and resources to enhance safe work environments please contact the Vermont Asthma Program.

Resources to Reduce the Burden of Asthma among Vermonters

① Vermont Asthma Program: http://healthvermont.gov/prevent/asthma/index.aspx
② Physician's Guide to Managing and Diagnosing Asthma: http://www.nhlbi.nih.gov/guidelines/asthma/asthma_qrg.pdf
③ Find support for you or a loved one to quit smoking: http://802quits.org/
④ Project WorkSAFE: Free resources to improve workplace safety: http://labor.vermont.gov/project-worksafe/
⑤ Reference sheet for CPT coding of asthma education services: Available through the Vermont State Asthma Program

For More Information

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Data Sources and Notes

[1] Behavioral Risk Factor Surveillance System (BRFSS), 2014 and 2013-2014 for data by HSA.
[2] Asthma Callback Survey (ACBS), 2013-2014.
[3] Vermont Healthcare Claims Uniform Reporting and Evaluation System (VHCURES), Extracted 9/21/2016.
[‡] The survey question regarding health insurance differed between 2013 and 2014. To combine data from these two years the assumption was made for anyone who had Medicaid insurance in 2013 that this was their primary form of insurance; this may lead to slightly higher numbers for those with Medicaid as a primary insurer in 2013.
[#] Poor mental health was defined as 14 or more days in the last 30 where mental health was self-reported as not good.

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