

Cardiovascular Disease Risk – Data Brief

Vermont Behavioral Risk Factor Surveillance System (BRFSS)

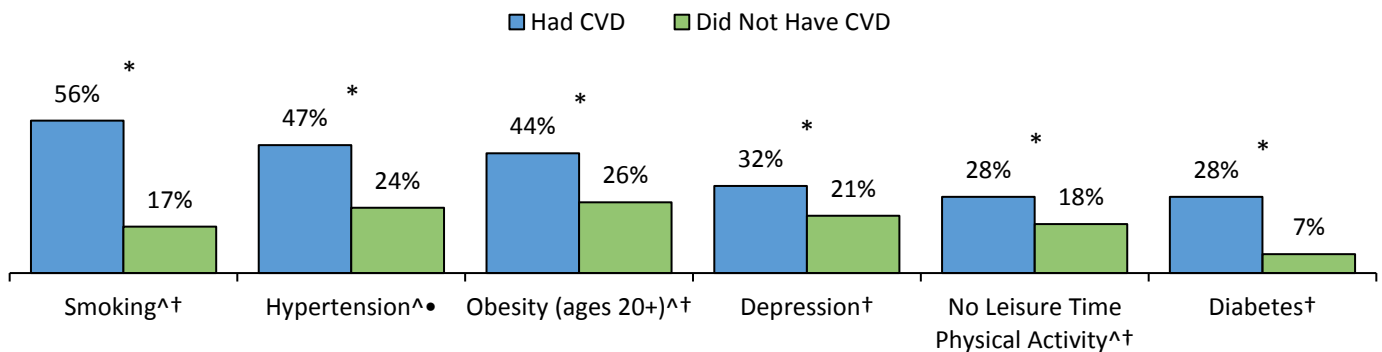
Background

Cardiovascular disease (CVD) is a group of conditions including heart attack, coronary heart disease (CHD), and stroke and is the leading cause of death in Vermont.¹ As of 2016, 8% of Vermont adults had ever been diagnosed with CVD, where 4% had a heart attack, 4% CHD, and 3% a stroke. The six most prominent modifiable risk factors for CVD are hypertension, obesity, depression, diabetes, and behaviors such as tobacco use and physical inactivity. Of these, hypertension is the core contributor to fatal cardiac events.² In 2015, 25% of Vermont adults overall were diagnosed with hypertension and 47% of those with CVD were also diagnosed with hypertension. Nationally, a higher rate of CVD has been observed in adults with more of these risk factors.³ This data brief examines how these risk factors relate to CVD prevalence in Vermont.

CVD Risk Factors

Among those that ever had CVD, smoking was the most prevalent risk factor (56%), followed by hypertension (47%), and obesity (44%), while 32% had depression. Physical inactivity (28%) and diabetes (28%) were the least prevalent risk factors among Vermont adults diagnosed with CVD.

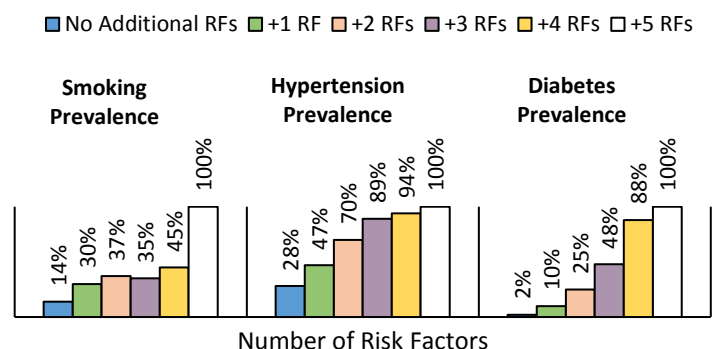
Prevalence of CVD-Related Risk Factors among Those with and without CVD, BRFSS



*Significant difference between groups, [^]Data are age-adjusted to the U.S. 2000 population, [•]BRFSS 2015, [†]BRFSS 2016

One in seven (14%) of all Vermont adults smoked and did not have any additional CVD risk factors. Smoking prevalence stayed relatively similar among those with only one to four additional CVD risk factors and more than doubled among those with five additional risk factors. This indicates that smoking occurs most often among those with all CVD risk factors as opposed to a few. Hypertension was significantly more likely to be reported as the only risk factor (28%) when compared to the other five risk factors. Diabetes was the least prevalent singular risk factor (2%) and about doubled in the presence of each additional risk factor,

Prevalence of the CVD Risk Factor in the General Vermont Adult Population by Number of Risk Factors (RFs), BRFSS 2015

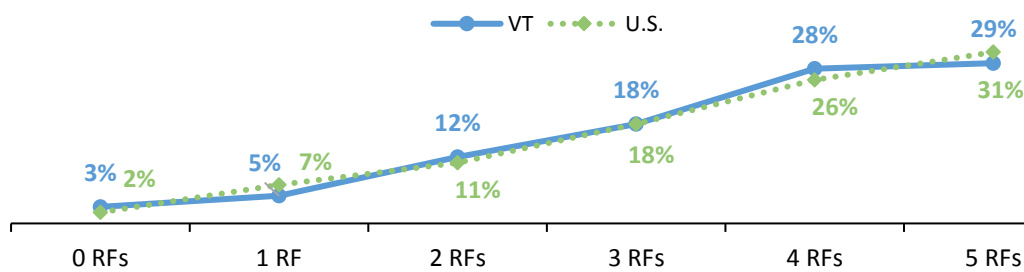


demonstrating that diabetes is more likely to occur with other risk factors than on its own. Similar to hypertension, obesity, depression, and physical inactivity all showed gradual stepwise increases in prevalence with additional risk factors. The findings described above were similar to what was reported nationally.²

Number of Risk Factors and CVD Prevalence

The prevalence of CVD in Vermont increased steadily from 3% among those with no risk factors to 29% with five risk factors. When compared to those who reported no risk factors, CVD was twice as likely among those who had one risk factor, four times as likely for those who had two, seven times as likely for those who had three, and 12 times as likely among those who had four or five risk factors. The odds of having CVD was significantly higher among those who had one to five risk factors compared to those who had none. The U.S. had similar trends in CVD prevalence and odds that did not significantly differ from Vermont.⁴

Prevalence of CVD by Number of Risk Factors (RFs), BRFSS 2015



Summary

Cardiovascular disease is the leading cause of death in Vermont.¹ Nearly 26,500 Vermont adults with CVD had hypertension (47%), putting them at higher risk for fatal cardiac events. In addition, smoking was the most prevalent risk factor among Vermont adults with CVD. An increased number of the CVD risk factors was associated with increased prevalence and odds of CVD diagnosis, as was found nationally.³ The CVD Prevention Program is working with providers and health systems to implement programs aimed at reducing these modifiable risk factors.

Strategies to help patients reduce their risk for CVD

- ① Support and encourage tobacco cessation (<http://802quits.org/>).
- ② Prevent or manage chronic conditions with self-management education (<https://myhealthylv.org/>).
- ③ If diagnosed with hypertension, **create a personalized self-management plan** to control hypertension.

Please contact Paul Meddaugh, MS, Vermont Department of Health (paul.meddaugh@vermont.gov; 802-951-0133) for more information on this brief. *The Vermont Cardiovascular Disease Prevention Program would like to acknowledge the work of Heather Schwarz, Vermont Department of Health intern, who was responsible for creating this data brief.*

¹ Vermont Vital Statistics, 2016.

² Kannel WB. Hypertension as a Risk Factor for Cardiac Events-Epidemiologic Results of Long-Term Studies. *J Cardiovasc Pharmacol*, 1993;21(Suppl. 2):S27-S37.

³ Adams ML, Grandpre J. Dose-Response Gradients Between a Composite Measure of Six Risk Factors and Cognitive Decline and Cardiovascular Disease. *Preventative Medicine*, 2016;91:329-334.

⁴ US Behavioral Risk Factor Surveillance System, 2015.