Tobacco Use in New Hampshire

New Hampshire Behavioral Risk Factor Surveillance Survey (NH BRFSS) 2011 and 2012 Combined

NH DIVISION OF Public Health Services
Improving health, preventing disease, reducing costs *for all*
Department of Health and Human Services

A Note about the Data

This report combines 2011 and 2012 NH BRFSS data which represents the first two years of data collected and analyzed using new methodology. Non-overlapping 95% confidence intervals were used to determine the statistical significance. All graphs depicted show statistically significant data.

Background

Deaths from tobacco use total more than the combined deaths from car crashes, illegal drugs, suicides murders, alcohol, and AIDS. Secondhand and thirdhand smoke exposures are linked to thousands of additional deaths. Finally, fires caused by unattended cigarettes cause over 1,000 deaths per year, nationally.

Cigarette smoking costs the nation $96 billion in direct medical costs and $97 billion in lost productivity annually. According to the latest research published in *Tobacco Control Journal*, annual estimates per smoker: excess absenteeism costs an average of $517 per year; "presenteeism" (reduced productivity) related to the effects of nicotine addiction, $462; smoke breaks, $3,077; and extra health care costs (for self-insured employers), $2,056.[1]

BRFSS Data on Adult (18+) Smoking and Other Tobacco Product (OTP) Use in New Hampshire

The BRFSS is the largest telephone survey in the world that assesses the health status of non-institutionalized adults in each of the 50 states, the District of Columbia, American Samoa, Palau, Puerto Rico, the U.S. Virgin Islands, and Guam. This data brief compares the demographics, health behaviors, and health status of New Hampshire tobacco users and non-users. Combined data for 2011 and 2012 showed that 19.7% of New Hampshire adults reported using a tobacco product (cigarettes or other tobacco products [OTP]).

Other tobacco products are defined as tobacco products that deliver nicotine to the brain, but are not combusted (burned). These include: chewing tobacco, moist snuff and snus *(rhymes with moose)*, which are packaged in tins and deliver nicotine through the mucosal (mouth) tissue when placed between the cheek and gum.

New Hampshire Tobacco Users

Demographics

Among New Hampshire adults responding to the NH BRFSS in 2011 and 2012, the mean age of those using cigarettes or OTPs was 41 and the mean age of the respondents not using cigarettes or OTPs was 46. This graph depicts the percent of respondents using and not using tobacco products that are under age 65 and the proportion of respondents using and not using tobacco products that are male. Data differences represented here are statistically significant. Not all demographics are discussed here (income, etc.).

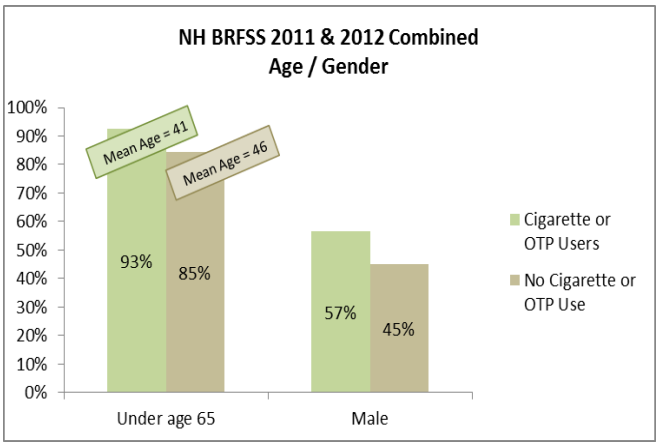

Figure 1. Tobacco use (combined) by age and gender, NH BRFSS, 2011 & 2012.

Health Risk Behaviors

Good health outcomes can often be managed through healthy behaviors. In this section, data are presented on additional health risk behaviors that have been cross-referenced with tobacco use. Smoking decreases the body's capacity to fight infection. The Centers for Disease Control and Prevention (CDC) recommends that all adults who smoke cigarettes receive the influenza and pneumococcal vaccines.[2] Periodontal (gum) disease is the results of infection and inflammation of the gums and bone that surround and support the teeth. Adults who smoke and/or use OTPs are more likely to have periodontal disease than nonsmokers/non-OTP users[3] but less likely to have seen a dentist within the last year.

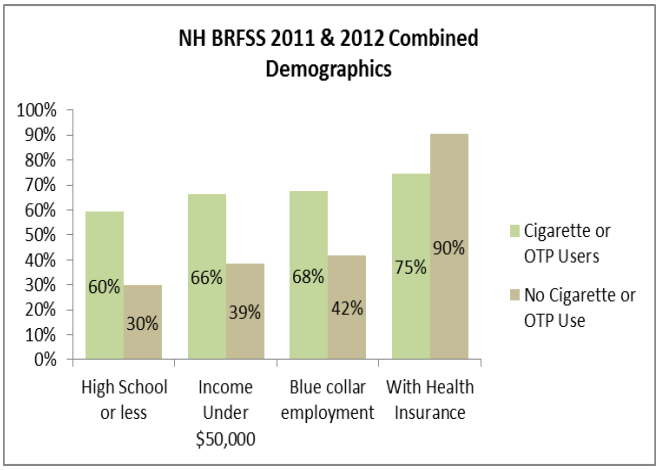

Figure 2. Tobacco use (combined) by education, income, type of employment and insurance, NH BRFSS, 2011 & 2012.

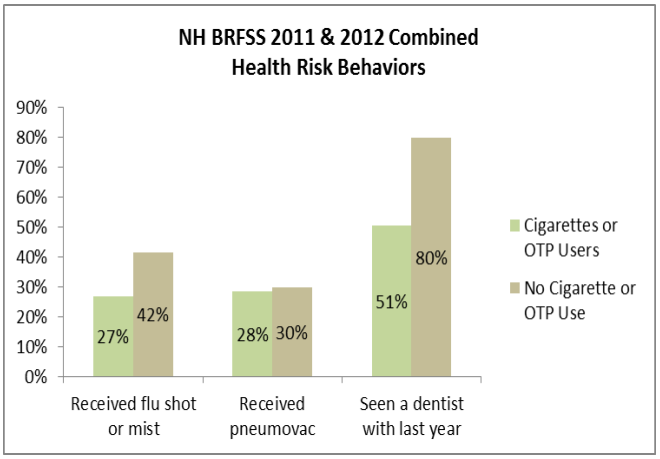

Figure 3. Tobacco use (combined) by health risk behaviors, NH BRFSS, 2011 & 2012.

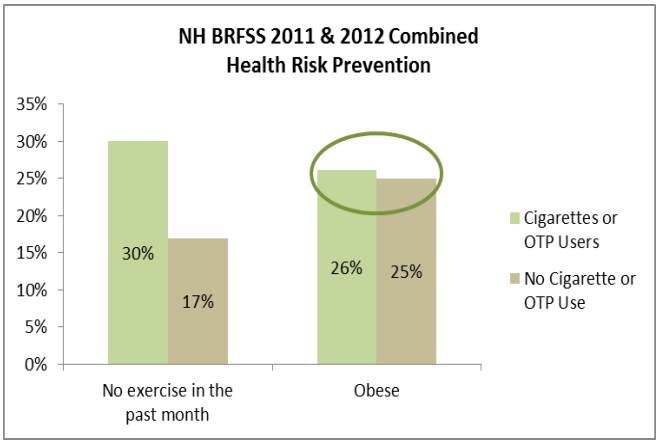

Figure 4. Tobacco use (combined) by health risk behaviors, NH BRFSS, 2011 & 2012.

The CDC recommends a healthy lifestyle to prevent obesity, which includes getting regular physical activity and developing healthy eating habits. New Hampshire adults who use tobacco products exercise statistically significantly less often than adults who do not use tobacco products. As smokers report exercise less often, one might expect the obesity to be higher among smokers; the difference, however is not statistically significant.

Smoking plays a major role in the development of HIV-associated lung cancer, and the cancer risk is 2–4 times greater in HIV-infected persons than in the general population.[4] Another health risk behavior tracked through the NH BRFSS is seatbelt usage. New Hampshire has increased seatbelt usage from 62.5% in 2006 to 68.9% in 2009 with over half of non-seatbelt wearers also reporting tobacco use.[5] There is no statistically significant difference for drinking while driving between those who smoke and/or using OTPs than those who do not smoke/use OTPs.

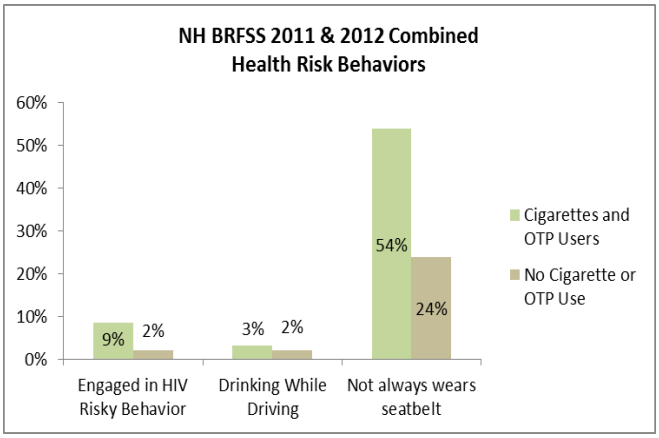

Figure 5. Tobacco use (combined) by health risk behaviors, NH BRFSS, 2011 & 2012.

Health Conditions

Health conditions are assessed in the NH BRFSS with a series of questions about dental health, respiratory health, mental health, and cancer. General health is closely related to oral health. Based on the NH BRFSS, there is a statistically significant difference in tooth loss between those who use tobacco and those who do not. Further, the proportion of non-tobacco users having a dentist visit in the past year is statistically significantly greater than those who do use tobacco products.

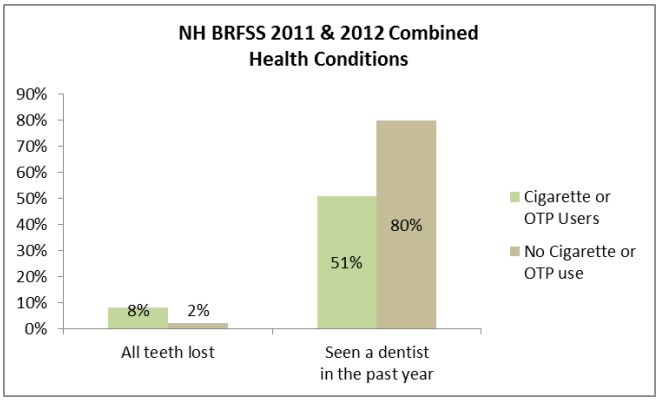

Figure 6. Tobacco use (combined) by health risk behaviors, NH BRFSS, 2011 & 2012.

Additional health conditions tracked through the BRFSS are asthma, chronic obstructive pulmonary disease, and cancer. Asthma is a chronic inflammatory disease that causes airways to spasm and swell, narrowing airway passages in the lungs.[6] Chronic Obstructive Pulmonary Disease (COPD) is a group of lung diseases that obstruct airflow–this condition cannot be reversed. No statistically significant difference was noted in the proportions of those reporting having asthma or a history of cancer between those who do and do not use tobacco products. Smoking is a major cause of COPD.[7]

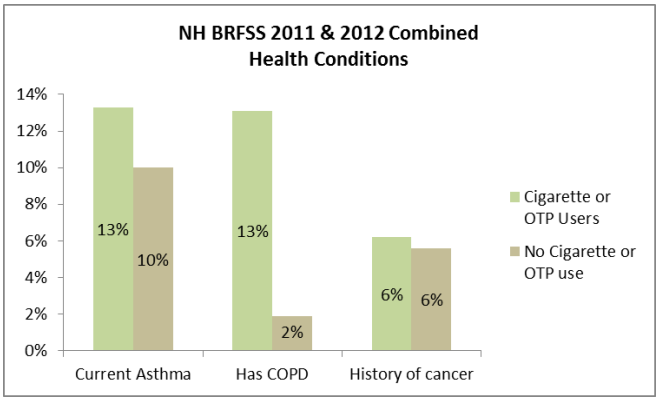

Figure 7. Tobacco use (combined) by health condition, NH BRFSS, 2011 & 2012.

Anxiety /Depression and Tobacco Use

Mental illness and smoking related disease/death is disproportionately higher than in other populations. Approximately 44.3% of adults with a mental illness use tobacco.[8]

The 2011 NH BRFSS asks current smokers questions pertaining to mental health status. Among current smokers, 28.1% reported having one or more days of poor mental health a month, and 22.9% indicated frequent mental distress (defined as 14 or more days a month feeling in bad mental health).

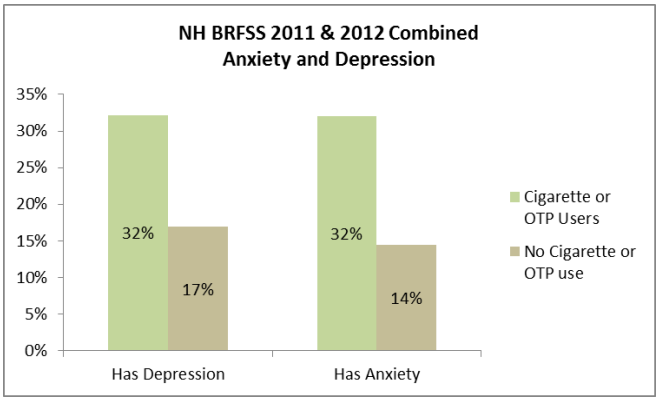

Figure 8. Tobacco use (combined) by anxiety and depression, NH BRFSS, 2011 & 2012.

Chronic Disease

A chronic disease is one lasting three months or more, by the definition of the U.S. National Center for Health Statistics. Extensive research has been completed since 1964 when the first Surgeon General's Report on active smoking was published. The 50 years of research has confirmed that smoking is a major risk factor for developing chronic disease and premature death. Chemicals in the smoke result in plaque (waxy substance) build up on the inside of arteries. Coronary heart disease (CHD) occurs when plaque builds up is in coronary arteries. CHD can lead to chest pain, heart attack, heart failure, arrhythmias, and death. There are statistically significant differences between those who use tobacco products and those who do not when looking at arterial diseases.

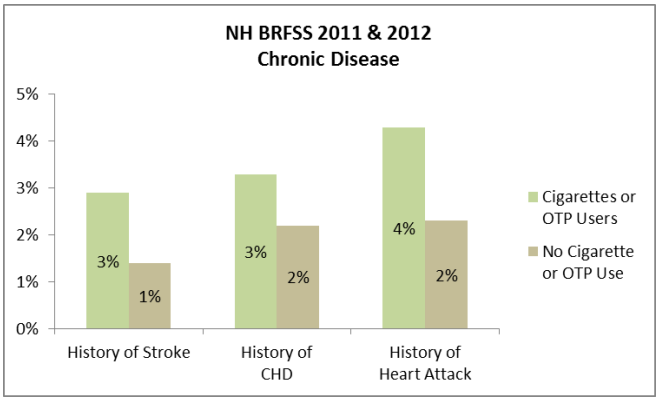

Figure 9. Tobacco use (combined) by chronic disease, NH BRFSS, 2011 & 2012.

Those who use tobacco products are statistically significantly more likely to have a history of stroke, CHD, and heart attack. Those who do not use tobacco products are statistically significantly more likely to have health insurance allowing for healthcare to address high blood pressure or cholesterol with medication. Tobacco users are statistically significantly more likely to have been told at some point in their health history that they have high cholesterol but do not follow up over time to be placed on medication.

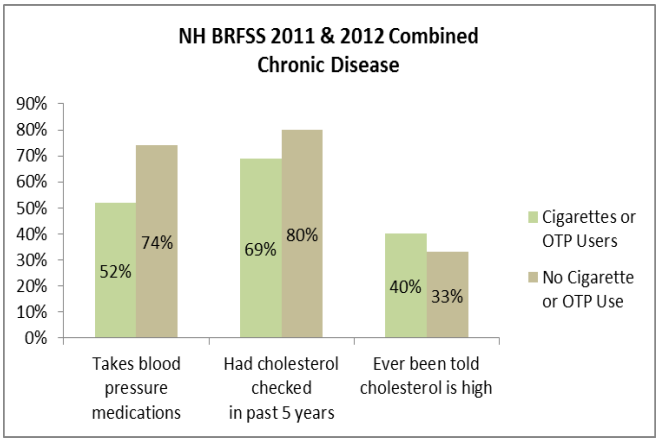

Figure 10. Tobacco use (combined) by chronic disease, NH BRFSS, 2011 & 2012.

We now know that smoking causes type 2 diabetes. In fact, smokers are 30–40% more likely to develop type 2 diabetes than nonsmokers. People with diabetes who smoke are more likely than nonsmokers to have trouble with insulin dosing and with controlling their disease.[9] According to the NH BRFSS, the proportion of those with diabetes and using tobacco is 7.3% and was not significantly different than 7.2% of those with diabetes and not using tobacco.

Summary and Looking Ahead

Since 1964 an overwhelming body of evidence has been developed around the health consequences of using tobacco products. The medical and economic wellness of New Hampshire residents is compromised by the nicotine addiction epidemic. Sound public health policies will assist in the prevention of initiation of tobacco use as well as the treatment of those using tobacco who want to quit. Sound surveillance systems, such as the BRFSS, are critical to monitor trends in health behaviors.

The spread of the Electronic Nicotine Delivery Systems (ENDS) market has opened up complex discussions around clean indoor air standards, dual use, product manufacturing standards, and causation of relapse. The BRFSS will begin to look at behaviors around ENDS in the coming years, and the results will be analyzed and shared in a future data brief.

References

[1] Berman, Micah, Rob Crane, Eric Seiber, and Mehmet Munur. "Estimating the Cost of a Smoking Employee," *Tobacco Control*, June 2013, accessed 2014 Mar 18. doi:10.1136/tobaccocontrol-2012-050888

[2] "Seasonal Influenza (Flu), Centers for Disease Control and Prevention, accessed 2014 Mar 18. http://www.cdc.gov/flu/protect/smoking.htm

[3] "Gum Disease Risk Factors," American Academy of Periodontology, accessed 2014 Mar 18. http://www.perio.org/consumer/risk-factors

[4] Mani, Deepthi, Missak Haigentz Jr, and David M. Aboulafia, "Lung Cancer in HIV Infection," *Clinical Lung Cancer*. Jan 2012; 13(1): 6–13, accessed 2014 Mar 18. doi: 10.1016/j.cllc.2011.05.005

[5] Smith, Andrew E., Ph.D., "2009 NH Seat Belt Observation Study for NH Highway Safety Agency," University of New Hampshire Survey Center August, 2009, accessed 2014 Mar 18. http://www.nh.gov/hsafety/data/documents/seat-belt2009.pdf

[6] "Asthma," The Free Medical Dictionary, accessed 2014 Mar 18. http://medical-dictionary.thefreedictionary.com/asthma

[7] "Diseases and Conditions: COPD," Mayo Clinic, accessed 2014 Mar 18. http://www.mayoclinic.org/diseases-conditions/copd/basics/definition/CON-20032017

[8] Lasser, Karen, J. Wesley Boyd, Steffie Woolhandler, David U. Himmelstein, Danny McCormick, and David H. Bor, "Smoking and Mental Illness. A Population-Based Prevalence Study," *The Journal of the American Medical Association*, 284: 20 (November 22/29, 2000), accessed 2014 Mar 18. doi:10.1001/jama.284.20.2606.

[9] U.S. Department of Health and Human Services. "The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General," Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

NH Department of Health and Human Services
Division of Public Health Services
Tobacco Prevention and Control Program
29 Hazen Drive
Concord, NH 03301
http://www.dhhs.nh.gov 1-800-852-3345 ext. 6891