

Appendix A: Evidence that tobacco smoking causes cancer, respiratory and cardiac diseases, negative birth outcomes, irritations to the eyes, nose and throat.

Content: This section presents an annotated bibliography of example resources for using statistics for data interpretation to support the intent of the Northampton Board of Health Regulation restricting the sale of tobacco products and nicotine delivery products.

Whereas there exists conclusive evidence that tobacco smoking causes cancer, respiratory and cardiac diseases, negative birth outcomes, irritations to the eyes, nose and throat[\[1\]](#);

Whereas among the 15.7% of students nationwide who currently smoke cigarettes and were less than 18 years old, 14.1% usually obtained them by buying them in a store (i.e. convenience store, supermarket, or discount store) or gas station[\[2\]](#);

Whereas nationally in 2009, 72% of high school smokers and 66% of middle school smokers were not asked to show proof of age when purchasing cigarettes[\[3\]](#);

Whereas the U.S. Department of Health and Human Services has concluded that nicotine is as addictive as cocaine or heroin[\[4\]](#);

Whereas despite state laws prohibiting the sale of tobacco products to minors, access by minors to tobacco products is a major public health problem;

Whereas many non-cigarette tobacco products, such as cigars and cigarillos, can be sold in a single “dose;” enjoy a relatively low tax as compared to cigarettes; are available in fruit, candy and alcohol flavors; and are popular among youth[\[5\]](#);

Whereas according to the CDC’s youth risk behavior surveillance system, the percentage of high school students in Massachusetts who reported the use of cigars within the past 30 days went from 11.8% in 2003 to 14.9% in 2009[\[6\]](#);

Whereas the 2013 Prevention Needs Assessment Data results show that 7.2 of Northampton students in grade 8, 18% of students in grade 10 and 42.6 students in grade 12 have tried cigars, flavored cigars, cigarillos or little cigars; that 12.8% of students in grade 8, 27.9% of students in grade 10 and 39% of students in grade 12 have smoked blunt wraps; and that 4.4% of students in grade 8, 9.3% of students in grade 10 and 12.9% of students in grade 12 have tried e-cigarettes [\[7\]](#);

Whereas survey results show that more youth report that they have smoked a cigar product when it is mentioned by name, than report that they smoked a cigar in general, indicating that cigar use among youth is underreported[\[8\]](#);

Whereas in Massachusetts, youth use of all other tobacco products, including cigars, rose from 13.3% in 2003 to 17.6% in 2009, and was higher than the rate of current cigarette use (16%) for the first time in history^[9];

Whereas research shows that increased cigar prices significantly decreased the probability of male adolescent cigar use and a 10% increase in cigar prices would reduce use by 3.4%^[10];

Whereas nicotine levels in cigars are generally much higher than nicotine levels in cigarettes^[11];

Whereas Non-Residential Roll-Your-Own (RYO) machines located in retail stores enable retailers to sell cigarettes without paying the excise taxes that are imposed on conventionally manufactured cigarettes. High excise taxes encourage adult smokers to quit^[12] and high prices deter youth from starting.^[13] Inexpensive cigarettes, like those produced from RYO machines, promote the use of tobacco, resulting in a negative impact on public health and increased health care costs, and severely undercut the evidence-based public health benefit of imposing high excise taxes on tobacco;

Whereas it is estimated that 90% of what is being sold as pipe tobacco is actually being used in Non-Residential RYO machines. Pipe tobacco shipments went from 11.5 million pounds in 2009 to 22.4 million pounds in 2010. Traditional RYO tobacco shipments dropped from 11.2 million pounds to 5.8 million pounds; and cigarette shipments dropped from 308.6 billion sticks to 292.7 billion sticks according to the December 2010 statistical report released by the U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau (TTB)^[14];

Whereas the sale of tobacco products and nicotine delivery products are incompatible with the mission of health care institutions because these products are detrimental to the public health and their presence in health care institutions undermine efforts to educate patients on the safe and effective use of medication, including cessation medication;

Whereas educational institutions sell tobacco products to a younger population, who is particularly at risk for becoming smokers and such sale of tobacco products and nicotine delivery products are incompatible with the mission of educational institutions that educate a younger population about social, environmental and health risks and harms;

Now, therefore it is the intention of the City of Northampton Board of Health to regulate the sale of tobacco products and nicotine delivery products.

A.1 Annotated Bibliography:

[1] Center for Disease Control and Prevention, (CDC) (2012), *Health Effects of Cigarette Smoking Fact Sheet*. Retrieved from: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm.

[2] CDC (2009), *Youth Risk Behavior, Surveillance Summaries* (Morbidity and Mortality Weekly Report (MMWR) 010: 59, 11 (No. SS-55)) Retrieved from: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>.

[3] CDC Office of Smoking and Health, *National Youth Tobacco Survey, 2009*. Analysis by the American Lung Association (ALA), Research and Program Services Division using SPSS software, as reported in “Trends in Tobacco Use”, ALA Research and Program Services, Epidemiology and Statistics Unit, July 2011. Retrieved from: www.lung.org/finding-cures/our-research/trend-reports/Tobacco-Trend-Report.pdf.

[4] CDC (2010), *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease*. Retrieved from: http://www.cdc.gov/tobacco/data_statistics/sgr/2010/.

[5] CDC (2009), *Youth Risk Behavior, Surveillance Summaries* (MMWR 2010: 59, 12, note 5). Retrieved from: <http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>.

[6] CDC (2009) *Youth Risk Behavior, Surveillance Summaries* (MMWR 2010: 59, 72 (No SS-55)). Retrieved from: www.cdc.gov; and CDC (2003), *Youth Risk Behavior, Surveillance Summaries* (MMWR 2004: 53, 54 (No. SS-02)).

[7] *Hampshire County (MA) Prevention Needs Assessment Survey. Administered by SPIFFY Coalition, March 11-April 12, 2013. Prepared by Bach Harrison L.L.C., July 2013.*

[8] 2010 Boston Youth Risk Behavior Study. 16.5% of Boston youth responded that they had ever smoked a fruit or candy flavored cigar, cigarillo or little cigar, while 24.1% reported ever smoking a “Black and Mild” Cigar.

[9] Commonwealth of Massachusetts, Data Brief, Trends in Youth Tobacco Use in Massachusetts, 1993-2009. Retrieved from: http://www.mass.gov/Eeohhs2/docs/dph/tobacco_control/adolescent_tobacco_use_youth_trends_1993_2009.pdf.

[10] Ringel, J., Wasserman, J., & Andreyeva, T. (2005) *Effects of Public Policy on Adolescents’ Cigar Use: Evidence from the National Youth Tobacco Survey*. *American Journal of Public Health*, 95(6), 995-998, doi: 10.2105/AJPH.2003.030411 and cited in *Cigar, Cigarillo and Little Cigar Use among Canadian Youth: Are We Underestimating the Magnitude of this Problem?* J. Prim. P. 2011, Aug: 32(3-4):161-70. Retrieved from: www.ncbi.nlm.gov/pubmed/21809109.

[11] National Institute of Health (NIH), National Cancer Institute (NCI) (2010). *Cigar Smoking and Cancer*. Retrieved from: <http://www.cancer.gov/cancertopics/factsheet/Tobacco/cigars>.

[12] Eriksen, M., Mackay, J., Ross, H. (2012). *The Tobacco Atlas*, Fourth Edition, American Cancer Society, Chapter 29, p. 80. Retrieved from: www.TobaccoAtlas.org.

[13] Chaloupka, F. J. & Liccardo Pacula, R., NIH, NCI (2001). *The Impact of Price on Youth Tobacco Use, Smoking and Tobacco Control Monograph 14: Changing Adolescent Smoking Prevalence* 193 – 200. Retrieved from: <http://dceps.nih.gov/TCRB/monographs/>.

[14] TTB (2011). *Statistical Report – Tobacco* (2011) (TTB S 5210-12-2010). Retrieved from: <http://www.ttb.gov/statistics/2010/201012tobacco.pdf>.

