T21 Factsheet Citations

Updated January 28, 2020

- Approximately 95 percent of current adult smokers started before they were 21. (1)
- A 2015 report from the Institute of Medicine (IOM) found that increasing the legal age to purchase tobacco to 21 would decrease smoking initiation among 15-17-year-olds by 25 percent. (2)
- A Minnesota-specific study looked at the impact of raising the tobacco age and found that 25 percent fewer 15-year-olds would start smoking by the time they turn 18 and 15 percent fewer 18-year-olds would start smoking by the time they turn 18. This translates into 30,000 young people not becoming smokers over the next 15 years. (3)
- Evidence suggests that nicotine interferes with brain maturation and can have a long-term effect on cognitive development and mental health. (4)
- Even brief or intermittent nicotine exposure during adolescence can cause lasting damage. (5)
- The addictive properties of nicotine can lead adolescents to heavier daily tobacco use and a more difficult time quitting later in life. (6)
- Nicotine exposure can also increase the risk of addiction to other harmful substances. (5)
- The long-term effects of nicotine on the adolescent brain is a significant public health concern. (7,8)
- A 2014 national survey shows that 75 percent of adults favor increasing the minimum sale age
 for tobacco to 21. A national consensus is growing to protect young people from a lifetime of
 addiction and health problems caused by tobacco by raising the tobacco sale age. In addition, 70
 percent of current smokers and 65 percent of those age 18-24 support raising the minimum
 tobacco sale age. (9)
- According to the 2019 Minnesota Student Survey, one in four Minnesota 11th graders reported using an e-cigarette in the past 30 days. This is a 50 percent increase from 2016. Additionally, 72 percent of 11th graders report getting e-cigarettes from friends. (10)

Sources:

- U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National 2 Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2012.
- 2. Institute of Medicine. Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products. National Academy Press. 2015.
- 3. Boyle, R., Kingsbury, J. & Parks, M. Raising the Minimum Legal Sales Age for Tobacco to 21. Minnesota Medicine. 2017.
- 4. U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. 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.

T21 Factsheet Citations

Updated January 28, 2020

- 5. Goriounova, N., Mansvelder, H. Nicotine exposure during adolescence alters the rules for prefrontal cortical synaptic plasticity during adulthood. Frontiers in synaptic neuroscience. 2012.
- 6. Nelson, D. et al. Long-term trends in adolescent and young adult smoking in the United States: metapatterns and implications. Am J Public Health. 2008.
- 7. Abreu-Villaca, Y et al. Short-term adolescent nicotine exposure has immediate and persistent effects on cholinergic systems: critical periods, patterns of exposure, dose thresholds. Neuropsychopharmacology. 2003.
- 8. Slikker W Jr. et al. Mode of action: disruption of brain cell replication, second messenger, and neurotransmitter systems during development leading to cognitive dysfunction—developmental neurotoxicity of nicotine. Crit Rev Toxicol. 2005.
- 9. King BA et al. Attitudes Toward Raising the Minimum Age of Sale for Tobacco Among U.S. Adults. Am J Prev Med. 2015.
- Minnesota Student Survey Data. Minnesota Department of Health. 2019; https://education.mn.gov/MDE/dse/health/mss/. Accessed January 28, 2020.