

For more information on county-level estimates, see: [PLACES: Local Data for Better Health - Methodology \(https://www.cdc.gov/places/methodology/index.html\)](https://www.cdc.gov/places/methodology/index.html)

Minnesota profile calculation: percentage of adults who smoked cigarettes in Minnesota (from BRFSS 2022 estimates) multiplied by the adult population of Minnesota (from 2022 Census estimate)

Commercial tobacco-related deaths

Data source

Minnesota Death Certificate Statistical File, 2018-2022

Methods

Commercial tobacco-related deaths were defined as number of Minnesota resident deaths in which the response was “Yes” or “Probably” to the question “Did tobacco use contribute to the death?” on the death certificate.

Local profile calculation: number of commercial tobacco-related deaths (2018-2022) divided by total county deaths (2018-2022)

Minnesota profile calculation: number of commercial tobacco-related deaths in 2022

Excess medical costs

Data source

Blue Cross and Blue Shield of Minnesota. (2023, November 15). *Reducing the cost of smoking in Minnesota*. Blue Cross and Blue Shield of Minnesota Blog. Retrieved from <https://blog.bluecrossmn.com/our-communities/reducing-the-cost-of-smoking-in-minnesota/>

Methods

Dollars spent on excess medical expenditures (hospital care, ambulatory care, nursing home care, prescription drugs, and other personal health care for adults) due to commercial tobacco use were calculated using [CDC’s Smoking-Attributable Mortality, Morbidity and Economic Costs \(SAMMEC\) \(https://data.cdc.gov/Health-Consequences-and-Costs/Smoking-Attributable-Mortality-Morbidity-and-Economic-Costs/4yyu-3s69/about_data\)](https://data.cdc.gov/Health-Consequences-and-Costs/Smoking-Attributable-Mortality-Morbidity-and-Economic-Costs/4yyu-3s69/about_data) to estimate the economic cost of smoking. This method is also used in chapter 12 of the [2014 Surgeon General’s Report: The Health Consequences of Smoking – 50 Years of Progress \(https://archive.cdc.gov/#/details?url=https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm\)](https://archive.cdc.gov/#/details?url=https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm). The impact of COVID-19, which heavily affected smoking-related mortality, was also considered when calculating the expenditures.

Local profile calculation: total dollars spent per Minnesotan

Minnesota profile calculation: total dollars spent statewide

Tax burden per household

Data sources

Campaign for Tobacco-Free Kids. (2024, October 4). *The toll of tobacco in Minnesota*.
<https://www.tobaccofreekids.org/problem/toll-us/minnesota>

Methods

Tax burden per household was based on the total state healthcare costs, including Medicaid and other federal and state government expenditures in Minnesota, divided by the number of Minnesota households (from 2022 census estimate).

Population estimates

Data source

United States Census Population Estimates, 2022

Methods

The report includes state and county-level population estimates for those younger than age 18 (youth) and age 18 and older (adults). Total residents are equal to number of youth plus adults.

Section 2: Youth Commercial Tobacco Use

Data source

Minnesota Student Survey, 2022

Methods

The percentages of 9th and 11th graders who used cigarettes, e-cigarettes, and smokeless tobacco were calculated by dividing the number that reported using the product by the number that reported use or non-use of the product in the past 30 days. Students were considered “users” if they reported use on one or more days in the past 30 days.

Data are unavailable for counties with districts that did not participate in the 2022 Minnesota Student Survey, including Clearwater, Lake, Mahnomon, Nobles, Norman, Pope, and Rock counties.

Section 3: Statewide Disparities in Youth Commercial Tobacco Use

Data source

Minnesota Student Survey, 2022

Methods

- **Binge drinking** is defined for females as having four or more drinks of alcohol within a couple of hours at least once in the past 30 days and for males as having five or more drinks of alcohol within a couple of hours at least once in the past 30 days. The denominator includes all students who answered “yes” to the binge drinking criteria.
- **Economic hardship** is defined as having either experienced homelessness in the past 12 months or missed meals in the last 30 days due to lack of money to buy food. The denominator is all students who answered “yes” to either of the economic hardship criteria.
- **Having suicidal thoughts** is defined as having considered suicide in either the past year or previous years. The denominator is all students who answered “yes” to either of the suicidal thoughts criteria.
- **Bi/gay/lesbian** denominator includes all students who identified as bisexual, gay, lesbian, questioning, pansexual, or queer.
- **Greater Minnesota** denominator is all students who took the survey in the counties outside of the seven-county Metro (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties).
- **Race** (White, Black, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, Middle Eastern or North African) **and ethnicity** (Hispanic) are two separate categories, that do not overlap. Race categories are all non-Hispanic. Denominators for each group are students who selected that race or ethnicity alone, except for multi-racial. Denominator for multi-racial is all students who selected two or more race categories and those who selected Hispanic or Latino/a and a race category.

Section 4: Commercial Tobacco Retail Assessments

Data sources

County-level assessments of commercial tobacco retailers

Methods

Each local public health department in Minnesota that is working on point-of-sale strategies through Statewide Health Improvement Program (SHIP) conducted assessments of commercial tobacco retailers in their communities in 2024. Data were collected on commercial tobacco product availability, price, and placement, and the presence of advertising and price promotions. Retail assessments in the state of Minnesota were driven by availability of local resources (e.g., staff, time) for this work, and as such the process for assessments was not completely uniform from county to county. There were variations in data collectors (e.g., local SHIP staff vs. hired student workers) and data collectors’ training. The data collection instrument used was a precursor to the Standardized Assessment for Retail Settings (STARS) survey, which was developed by a workgroup of national content matter experts and represents an effort to standardize and streamline tobacco-focused retail data collection. The Minnesota tool combined national standard items with Minnesota Department of Health priorities. The STARS instrument is also supplemented with a PowerPoint presentation to use for training data collectors and a field guide that includes color photos of each item captured on the survey. Store assessment data were collected and summarized from 2,181 tobacco retail outlets across Minnesota in 2024. There are approximately 4,896 tobacco retailers in Minnesota.

Ratios were calculated by adding up total number of commercial tobacco retailers that met the conditions divided by total number of commercial tobacco retailers that sold the products. For example, 10 assessed stores sold commercial tobacco products. Out of those 10 stores, 5 sold flavored commercial tobacco products. Therefore, 1 in 2 (50%) assessed stores sold flavored commercial tobacco products.

Local profile calculation: data from county assessments. For county with no assessment, data are the same as the Minnesota profile.

Minnesota profile calculation: data from all counties that conducted retailer assessments

Survey Information

These profiles use data from two key surveys: the Behavioral Risk Factor Surveillance System (BRFSS) and the Minnesota Student Survey (MSS). BRFSS is a telephone survey of randomly selected sample of adults, and MSS is administered in schools to all students in grades 5, 8, 9 and 11.

Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is a national health-related telephone survey collecting adult health-related risk behaviors, including commercial tobacco use of different products and cessation behaviors. Since 1984, BRFSS data have been collected in Minnesota monthly. The survey is a joint effort between the Minnesota Department of Health and Centers for Disease Control and Prevention (CDC). Information from the survey helps the Department make program decisions.

For more information, see: [Minnesota BRFSS](https://www.health.state.mn.us/data/mchs/surveys/brfss/index.html)
(<https://www.health.state.mn.us/data/mchs/surveys/brfss/index.html>)

Minnesota Student Survey (MSS)

The Minnesota Student Survey (MSS) is conducted every three years among three populations of students in Minnesota public schools:

- students in regular public schools, including charter schools and tribal schools
- students in alternative schools and Area Learning Centers
- students in juvenile correctional facilities

The survey asks questions about activities, experiences, and behaviors. Topics include commercial tobacco, alcohol, and drug use, school climate, physical activity, violence and safety, connections with school and family, health, and other topics. Questions about sexual activity are asked only of high school students. The survey is administered jointly by the Minnesota Departments of Education, Health, Human Services, and Public Safety.

For more information, see: [Minnesota Student Survey](https://www.health.state.mn.us/data/mchs/surveys/mss/index.html)
(<https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>)

TECHNICAL NOTES - LOCAL COMMERCIAL TOBACCO PROFILES

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