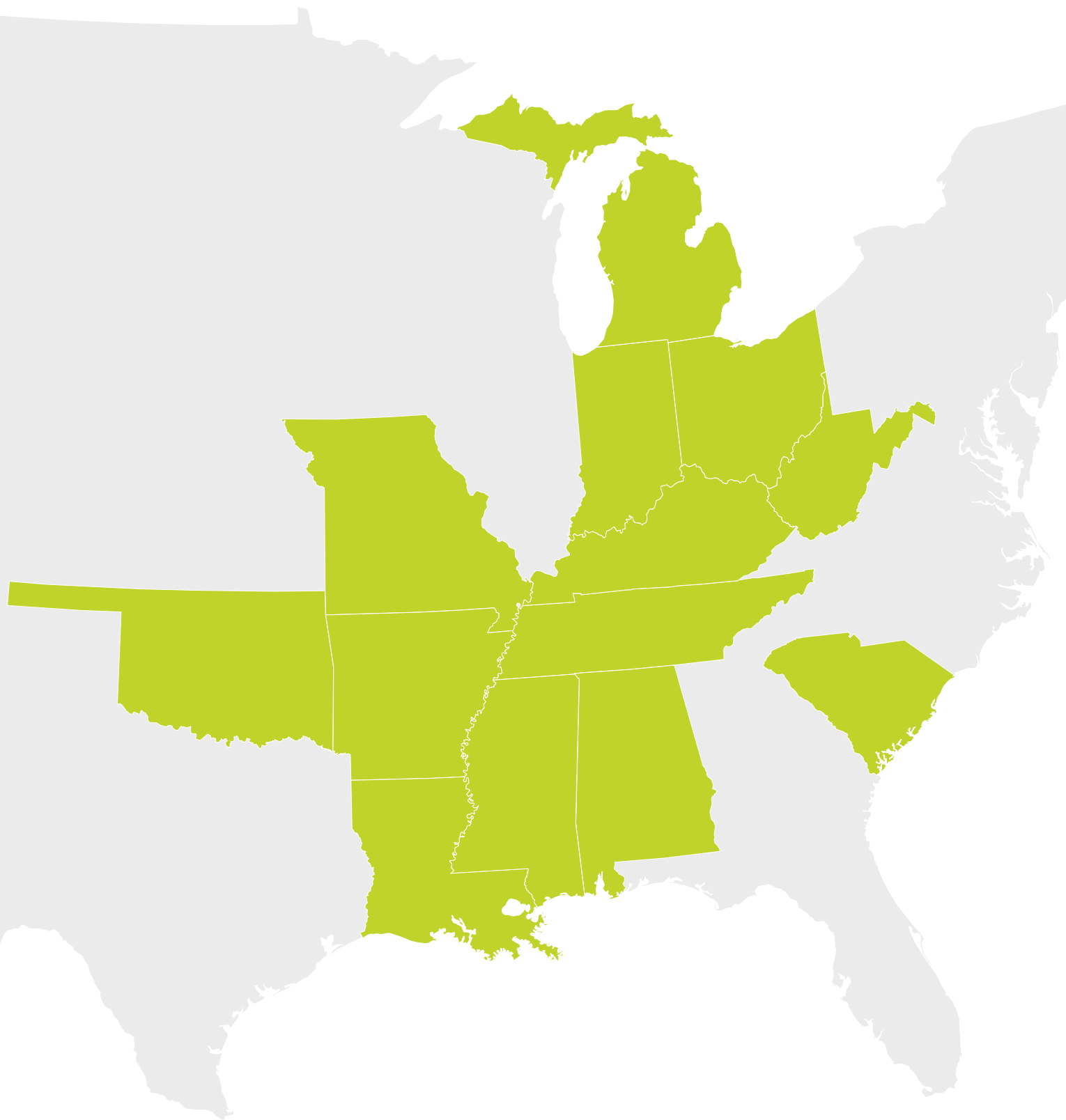




INSPIRING
TOBACCO-FREE
LIVES

TOBACCO NATION: AN ONGOING CRISIS

EXAMINING THE HEALTH AND POLICY DISPARITIES
OF U.S. STATES WITH THE HIGHEST SMOKING RATES



Overview

The massive decline in the overall U.S. smoking rate during the last two decades — when youth smoking dropped from 23% in 2000 to under 5% today — is a national achievement. It also disguises a persistent problem: tobacco is not an equal opportunity killer, and many communities have not experienced the same reduction in tobacco use.

Certain areas of the country continue to use tobacco at disproportionately higher rates compared with the rest of the country.

In 2017, Truth Initiative® highlighted a collection of U.S. states in the South and Midwest with smoking rates that exceed not only the national average but that of many countries with the highest smoking rates in the world. We termed this region “Tobacco Nation.”

When we originally examined states with the highest adult smoking prevalence in 2017, using the most recent data available, we singled out 12 states: Alabama, Arkansas, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Ohio, Oklahoma, Tennessee and West Virginia. These states share not only higher tobacco use, but poorer health outcomes and a similar set of challenges — lack of income, infrastructure and health care resources — compounded by a lack of tobacco control policies.

When we reexamined states’ tobacco use in 2018, we looked beyond the most current annual estimates to examine trends in smoking over time. We found that 13 states had consistently ranked in the top 25% of U.S. adult smoking since 2011.

In addition to the 12 states that comprised the 2017 report, South Carolina joined the ranks of Tobacco Nation when we considered states within the top quarter of adult smoking across several years. These are key characteristics of Tobacco Nation:

- **Smoking:** 21% of Tobacco Nation’s adults smoke, compared with just 15% of adults in the rest of the U.S.
- **Finances:** Tobacco Nation residents are less well-off financially than those in the rest of the U.S., and consequently spend a higher percentage of their disposable income on tobacco. Individuals living in Tobacco Nation earn nearly 25% less per year than the typical resident within the rest of the U.S.
- **Health:** Health outcomes in Tobacco Nation are also relatively poor and access to care is more limited than in other parts of the country. Tobacco Nation residents report more than 20% more “poor” physical and mental health days than the average American.
- **Policies:** Further compounding the problems faced by Tobacco Nation are the relative lack of smoke-free laws and other tobacco control policies designed to protect the public and encourage cessation. Only two states in Tobacco Nation have laws forbidding smoking in workplaces, restaurants and bars, compared to more than half of the states in the rest of the country.

Unfortunately, we discovered very few positive changes in Tobacco Nation between 2017 and 2018.

- **Tobacco Nation remains a nation within our nation:** The disproportionate share of adult smoking continues to occur in Tobacco Nation. Under our reexamination, it grew even larger. Smoking rates in

South Carolina, which had consistently been among the top 25% of tobacco-using states, joined Tobacco Nation when we considered trends since 2011. Just as noteworthy as South Carolina's addition is that no state within Tobacco Nation reduced its tobacco consumption significantly enough to warrant removing its classification.

A visual look at Tobacco Nation

Along with the updated Tobacco Nation report, researchers at Truth Initiative developed an innovative, web-based mapping tool which presents a geographic look at the region, along with detailed, county-level smoking, demographic and policy data.

- **Dynamic story map:** "Tobacco Nation: A Geographic Perspective" is a dynamic story map which allows users to explore specific states and/or counties of interest.
- **State and county-level information:** This tool also allows users to explore cigarette smoking rates, demographic data and tobacco control policies in all 50 states and the District of Columbia, as well as the ability to research population characteristics such as race, ethnicity, income, poverty, health factors and education, in addition to tobacco control policies, at the county level.
- **Variations within Tobacco Nation:** The addition of county-level data allows users to compare variations within Tobacco Nation states themselves as well as across Tobacco Nation states.
 - **Smoking rates within states:** Even within Tobacco Nation, researchers found variation within states. Central Appalachia, including parts of Kentucky, Tennessee and West Virginia, had the highest levels of adult smoking overall.
 - **More smoke-free laws:** When we examined variations in smoke-free policies at the local level, for example, we discovered significant variation within and across states. Some states, such as Mississippi, have no statewide laws protecting workplaces, restaurants or bars, but counties or localities within the state have opted to pass smoke-free policies.
- **Additional comparisons between the U.S. and Tobacco Nation:** The inclusion of smoking, tobacco control policies and population characteristics for all 50 states allows for comparisons between individual states inside and outside of Tobacco Nation.

To see the story map, visit https://gis.truthinitiative.org/tobacco_nation.

- **Little to no change is bad news:**

Unfortunately, most of the smoking, demographic and health characteristics remained largely unchanged. Tobacco control policies have also not seen much progress in these states, with the exception of Arkansas and some counties enacting Tobacco 21 policies to raise the legal age to purchase tobacco. With nearly two years elapsing between the initial collection of data in 2017 (using the most recent information available at the time) and the 2018 update, we had hoped to see some marginal progress within and among states.

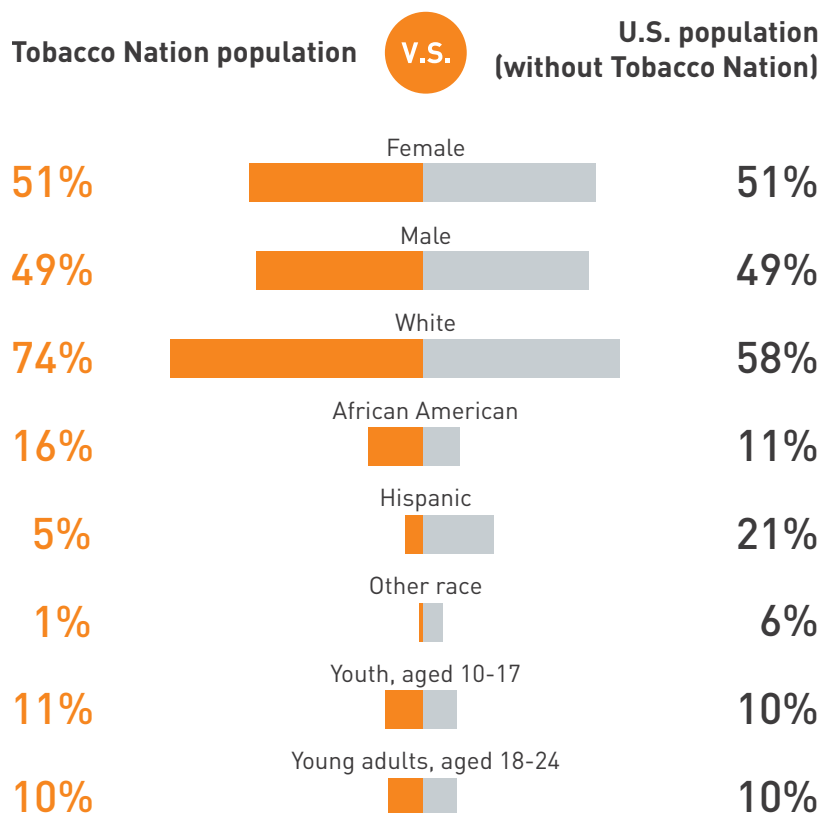
Our research into Tobacco Nation illuminates the health, policy and extensive tobacco use disparities within the country. Nearly two

years after our initial analysis, far too many differences remain between Tobacco Nation and the rest of the U.S. A significant portion of the U.S. appears to have troubling similarities to less well-developed countries, which lack the income, infrastructure and health care resources to provide aid and support to their residents. Simply put, Tobacco Nation is a country within a country, and it is in trouble. The U.S. is already well below its high income peers when it comes to life expectancy, ranking just 43rd among countries around the world, according to the World Health Organization.⁹ Reducing these disparities will require a serious effort that starts with reducing tobacco use.

To read our original Tobacco Nation report, visit truthinitiative.org/tobacconation.

Location and demographics

Tobacco Nation is now comprised of 13 states — Alabama, Arkansas, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Ohio, Oklahoma, South Carolina, Tennessee and West Virginia — with smoking rates among the highest in the country.² With more than 71 million residents, these states include roughly 22% of the U.S. population, but represent more than 28% of all adult current smokers in the country. As in other parts of the U.S., these states have slightly more females (51%) than males (49%) and more than 20% of its residents are young people aged 10 to 24.⁴



Tobacco Nation is less diverse than the rest of the nation overall. Whites encompass 74% of the region's population (compared with 58% of the country's population), African Americans comprise 16% (compared with 11%), Hispanics comprise 5% (compared with 20%) and 1% of the region is described as "other" (compared with 6%).⁴

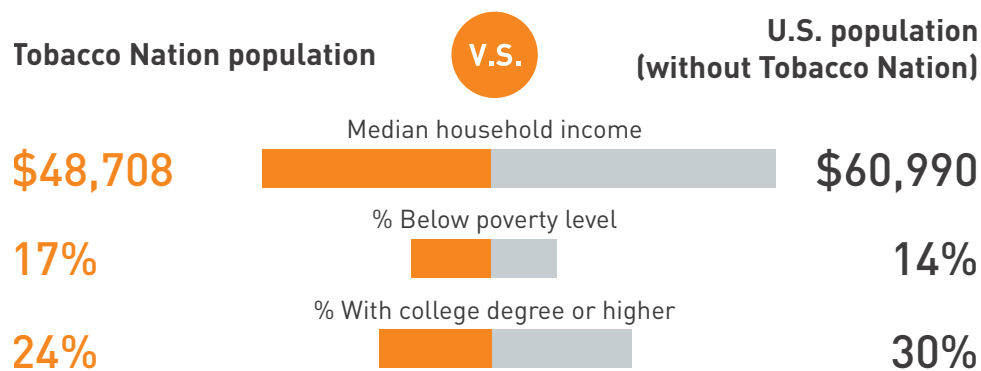
Tobacco Nation is also not as well-off financially. Individuals living in Tobacco Nation earn nearly 25% less per year (median household income: \$48,708) than the typical resident within the rest of the U.S. (\$60,990).⁴ In addition, 17% of its population lives below the poverty line of \$24,600 per year for a family of four, compared with 14% of the rest of the U.S. population. Tobacco Nation provides evidence that the tobacco epidemic disproportionately burdens those least financially able to afford it.¹⁰

The population of this region is also less educated than the rest of the U.S. Only 24%

Individuals living in Tobacco Nation earn nearly 25% less per year (median household income: \$48,708) than the typical resident within the rest of the U.S. (\$60,990).

of residents hold a college degree or higher, compared with 30% of the population in the other 37 states.⁴

Residents of Tobacco Nation are slightly less likely to be engaged in the labor force (61% versus 64% of the rest of the U.S.) and are more likely to work in industries like manufacturing (14% versus 9%). They are also less likely to work in a professional, scientific or management position (9%) than people who live outside of Tobacco Nation (12%).⁴



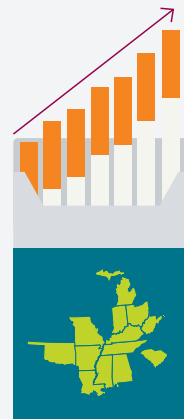
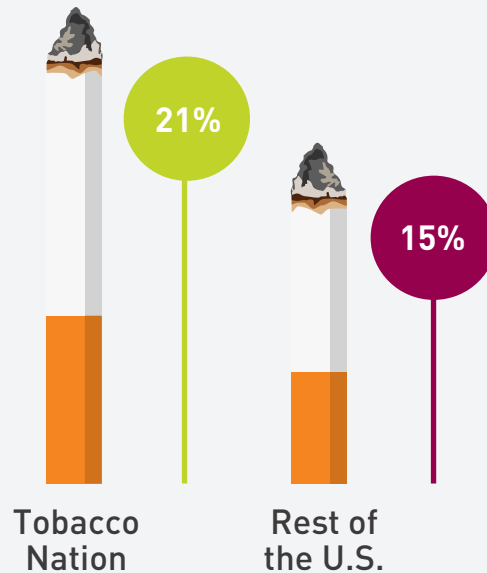
Smoking prevalence

Adults 18 and over in Tobacco Nation are more likely to smoke than the average U.S. adult. Twenty-one percent of Tobacco Nation's adults smoke, compared with 15% of adults in the rest of the U.S.² The region's youth also smoke at higher rates compared with the average U.S. youth aged 12 to 17 residing in one of the other 37 states (10% versus 6%).³

Not only does Tobacco Nation's youth and adults smoke at higher rates, its residents also smoke many more cigarettes per capita annually (59.2 packs) than those in the rest of the U.S. (32.1 packs).⁶ In practice, this could mean that over a given year, a smoker living in Tobacco Nation could be inhaling over 500 more cigarettes than the average smoker in the rest of the U.S. — an addiction with serious consequences.

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Smoking prevalence among adults (18 and up)



A smoker in Tobacco Nation smokes **27 more packs of cigarettes** on average per year, which means they could be **inhaling 500 more cigarettes** than the average smoker in the rest of the U.S.

Mortality and disease

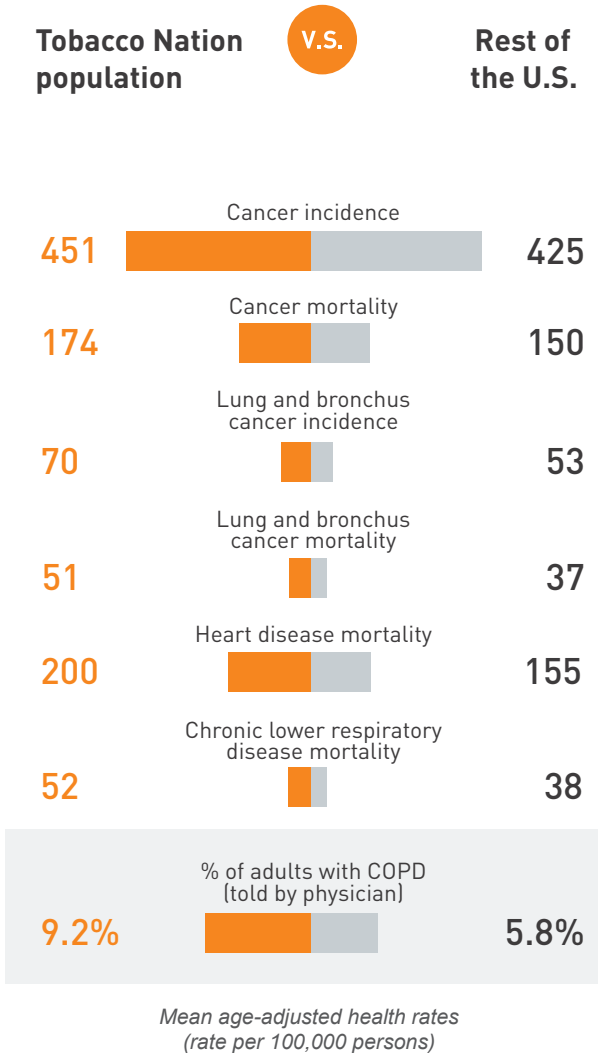
Health incidence and life expectancy

We know that residents of Tobacco Nation smoke far more cigarettes than their neighbors, so what does that mean for their health? The numbers show us that where tobacco use is high, tobacco-related health conditions and diseases are high too. Given the number and frequency of cigarettes smoked, it is both dismaying and unsurprising that lung and other cancers, heart disease and chronic lower respiratory disease mortality are higher across Tobacco Nation than in the rest of the U.S.¹¹⁻¹⁴

Life expectancy rates across geographic areas are highly correlated with preventable health behaviors such as smoking. In cities with highly educated populations, high incomes and high levels of government spending, the poor live longer and have healthier behaviors. In New York City, for example, where government support is relatively high and public policies encourage better health for all, its poorest residents fare better than similar residents living in other parts of the country. Conversely, in areas with high rates of smoking and low levels of government spending, the poor have the shortest life expectancy.¹⁵ In these areas, the deck is stacked against them. This adds up to a stark reality for residents of Tobacco Nation who

are in areas of the greatest smoking prevalence and typically have low levels of government spending. On average, Tobacco Nation residents live shorter lives and face a higher risk of dying than other Americans. Average life expectancy in Tobacco Nation is 76.3 years, compared with 79.3 years in the rest of the U.S.¹⁶ Tobacco Nation residents are more likely to die from

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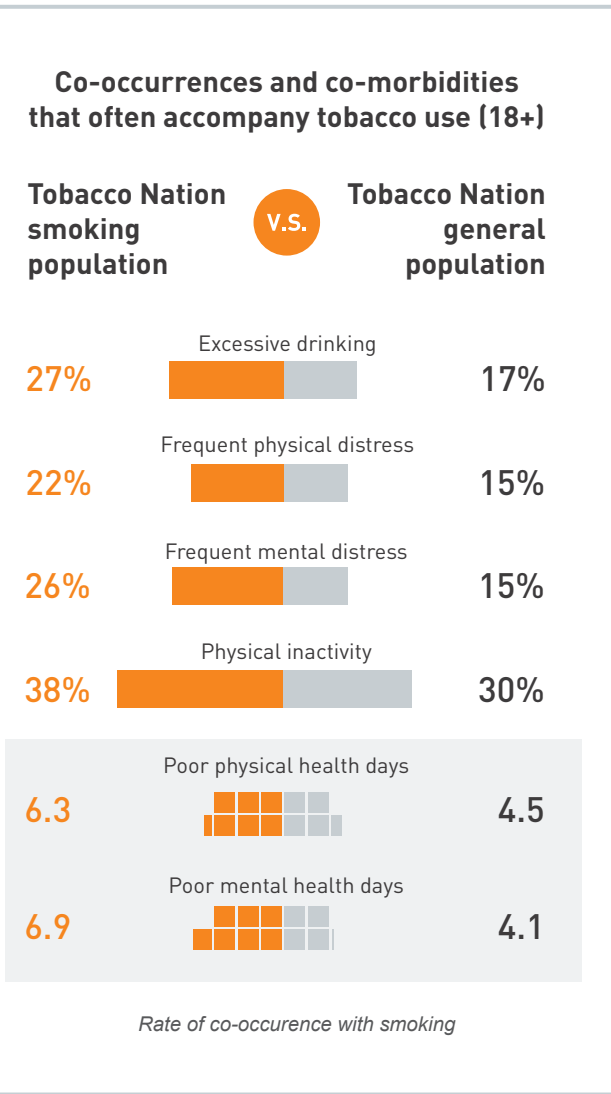


cancer than those in the rest of the U.S.^{13,17} Not only does smoking raise the risk of lung and bronchus cancer, it also raises the risk of developing heart disease.¹⁸

Here again, Tobacco Nation exceeds the national average.¹² Nine of America’s least heart-healthy states are part of Tobacco Nation.¹⁹ In fact, when Tobacco Nation is removed from the U.S. average, the comparison is even more stark: Tobacco Nation residents’ heart disease mortality is 22% higher than that of the remaining 37 states.¹²

Co-occurrences and co-morbidities

In addition to the poor tobacco-related health outcomes are the co-occurrences and co-morbidities that often accompany tobacco use. Among the total population of Tobacco Nation, 17% of its residents report excessive drinking, compared with 27% of smokers in the region — a whopping 10% jump when alcohol consumption co-occurs with smoking.² Tobacco Nation’s smokers are also more likely to report frequent mental distress (26%) than the average Tobacco Nation resident (15%). Similarly, smokers in Tobacco Nation report much higher rates of frequent physical distress (22.4%) than the general population of Tobacco Nation (15%). It is also important to note that Tobacco Nation as a whole fares poorly in mental and physical markers of well-being, compared with the rest of the nation. As a whole, Tobacco Nation residents suffer more mental and physical distress than the average U.S. resident.²



Tobacco Nation as a whole fares poorly in mental and physical markers of well-being, compared with the rest of the nation.

These factors, along with an overall higher rate of physical inactivity in Tobacco Nation compared with the rest of the U.S.,² affect not just its residents' health, but potentially their livelihood. It is even worse when comparing the rates of physical inactivity among Tobacco Nation's entire population (30%) to Tobacco Nation's smoking population (39%). In Tobacco Nation, where almost a quarter (22%) of its working residents are in physically demanding industries, like manufacturing, construction and agriculture, physical and mental health are especially critical to gain and maintain employment.⁴

Yet, Tobacco Nation residents report more than 20% more "poor" physical and mental health days than the average American. Tobacco Nation smokers also report 29% more poor physical days and 40% more poor mental days than their average nonsmoking neighbor.² Crucially, the loss of a job could also mean the loss of health insurance. In Tobacco Nation, health care is already limited.

Health care access

The U.S. has notably fallen short in providing timely and accessible health care when compared with other high-income countries.²⁰

Tobacco Nation residents report more than 20% more "poor" physical and mental health days than the average American.

Tobacco Nation is in an even more dire situation. Compared with the rest of the nation, Tobacco Nation residents have access to fewer primary care physicians. There are 5% fewer primary care doctors in Tobacco Nation, with just 146 doctors per 100,000 people, compared with 153 per 100,000 in the rest of the U.S.¹¹ Unsurprisingly, Tobacco Nation residents are far more likely to rely on hospital care, with 32% more preventable hospitalizations for ambulatory, care-sensitive conditions among Medicare enrollees in the region than the average number of residents in the rest of the U.S.¹¹ Access to quitting services can also be a challenge in Tobacco Nation. Research shows people living in rural communities are less likely to have access to smoking cessation programs and services.⁷⁵

In addition to the health issues raised by smoking, Tobacco Nation faces overlapping challenges: poorer physical and mental health conditions, combined with fewer doctors and less tobacco control. Poor access to primary care is associated with delayed diagnoses, inadequate prevention and management of chronic diseases, noncompliance with treatment, inefficient use of drugs and technologies and problems with safety.²⁰ Moreover, research has shown that these types of health disparities are interrelated and tend to negatively influence other aspects of life.²¹

Tobacco control policies

When it comes to reducing tobacco use and improving health, tobacco control policies, like regulations and taxes, make a big difference. According to the Centers for Disease Control and Prevention, “because tobacco control policies take a population-based approach to improving health, policies have the potential to reach groups most affected by tobacco and reduce disparities,”²² but these policies are largely enacted and enforced at the state and local level, where there is significant variation.¹⁰ Once again, the states within Tobacco Nation operate differently than the average U.S. state — and not for the better.

Taxes

Overall, states within Tobacco Nation have less restrictive tobacco control policies than much of the nation. Cigarette packs, on average, are 19% cheaper in Tobacco Nation (\$5.69) than in the rest of the U.S. (\$7.05).⁵ The average excise tax (i.e., targeted tax levied on certain goods like cigarettes) is significantly lower in Tobacco Nation (\$1.07) than in the rest of the U.S. (\$2.03).⁶ Additionally, bills that would have increased tobacco taxes in two Tobacco Nation states — Indiana and Mississippi — failed in the past year. The tax increase bills failed in Mississippi despite a survey commissioned by the Invest in a Healthier Future coalition showing that 73% of Mississippians support a cigarette tax increase of \$1.50 per pack.³⁸

Evidence indicates that increasing the price of tobacco products can reduce the tobacco-related disparities that exist among different population subgroups.²² With these cheaper



**CIGARETTE
PACKS ON
AVERAGE ARE**

19%

**CHEAPER
IN TOBACCO
NATION**

prices and lower taxes, it is little wonder that Tobacco Nation residents continue to smoke at higher rates and tobacco-related disparities persist. Tobacco control policies are some of the most effective methods of reducing tobacco use. Research has shown that increasing taxes on cigarettes can result in significantly fewer cigarettes smoked. A 2017 analysis found that tax hikes of 71 cents, to \$4.63 per pack, could yield an 8% to 46% reduction in cigarette consumption.²³ This is, in part, because price increases, including tax increases, reduce initiation of tobacco use among young people and could make smoking more prohibitive for low-income smokers.

Age restriction

Restricting the age at which consumers can buy cigarettes is another powerful tool for reducing smoking.

Since the vast majority of smokers begin smoking before the age of 21,^{25,26} Tobacco 21 laws are able to reduce smoking and other

tobacco use among young people and have been shown effective, publicly supported and to have minimal, short-term economic impact.²⁷ A 2015 report by the National Academy of Medicine estimated that if a nationwide Tobacco 21 rule was implemented, it would result in 249,000 fewer premature deaths, 45,000 fewer deaths from lung cancer and 4.2 million fewer lost life-years among Americans born between 2010 and 2019.²⁸ In New York City alone, after only one year of a Tobacco 21 policy being implemented, past 30-day smoking rates among high school students fell from 8.2% in 2013²⁹ to 5.8% in 2015³, a reduction of nearly 30%. Unfortunately, with the exception of Arkansas, which passed a statewide Tobacco 21 policy in 2019, and localities in Ohio, Missouri, Michigan and Mississippi, no state within Tobacco Nation has opted to take this measure to reduce youth smoking.³⁰ The Arkansas Tobacco 21 law is problematic in that it exempts members of the military and individuals who reach age 19 by Dec. 31, 2019, and preempts local governments from enacting stricter ordinances than the state regarding the manufacture, sale, storage or distribution of tobacco products.⁷⁶

Smoke-free laws

Smoke-free laws also make a dramatic difference. One national estimate showed that indoor smoking bans, in workplaces alone, would result in 725,000 smokers quitting.²³ The CDC reported that comprehensive smoke-free laws can benefit “people from all socioeconomic, educational and racial/ethnic backgrounds equally by increasing places where people are protected from tobacco smoke.”²² According to the CDC, secondhand smoke kills roughly 900 infants and 41,000 nonsmoking adults each year.³¹ States like New York, Massachusetts and Illinois, which all have

smoke-free bans in workplaces, restaurants, bars and gambling facilities, further illustrate the impact of comprehensive smoke-free laws. In 2002, one year before New York enacted a smoke-free policy, 22% of adults were regular smokers.³² Just two years later, in 2004, adult smoking rates fell to 20%.³³ By 2014, the rate had fallen to just 14%, a whopping 35% reduction.³⁴ Massachusetts tells a similar story, with adult smoking rates falling by nearly a quarter from a high of 19% in 2004,³³ the year before the law was enacted, to 14% in 2010.³⁵ Next door to Tobacco Nation, in Illinois, lawmakers enacted a smoke-free policy in 2008 and saw a 10% reduction from 2007, when smoking prevalence was 20%, to 18% in 2013.³⁶

Unfortunately, only two states in Tobacco Nation (Michigan and Ohio) have laws forbidding smoking in workplaces, restaurants and bars.⁷ More than half of the states (24) in the rest of the country have comprehensive smoke-free bans in place, which cover 65% of their population.

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Challenges to policy change

Given what we know about their positive impacts, why aren't smoke-free and other tobacco control policies more widely enacted in Tobacco Nation? It is not because the people who live in this region are uninterested. In fact, in a 2018 study of support for tobacco control

Type of law	Tobacco Nation			U.S. without Tobacco Nation		
	# of states with statewide coverage	# of states with some local coverage	% of population covered	# of states with statewide coverage	# of states with some local coverage	% of population covered
Workplaces, restaurants and bars	2	9	45%	24	6	60%
Workplaces	4	7	59%	26	7	73%
Restaurants	4	7	60%	31	5	77%
Bars	2	9	46%	27	6	65%
Any smoke-free laws	4	9	61%	32	4	82%

policies, residents of Tobacco Nation supported policies at almost exactly the same level as their counterparts in states outside Tobacco Nation. States within and outside of Tobacco Nation reported overwhelming support (73%) for a ban on smoking in restaurants, as well as a ban on the sale of tobacco near schools (61%). Support for some policies, including requiring tobacco products to be kept out of view in stores where youth shop and requiring stores that sell tobacco to purchase licenses from state or local government, was actually higher in Tobacco Nation than in the remaining states.

A few case examples provide insight into the challenge of changing policies. In Kentucky, for example, no broad restrictions exist to prevent smoking in public places and workplaces.³⁷ The state finally passed a law prohibiting the use of tobacco products on school property and in school vehicles, but the law allows school districts to opt out during the first three years after it takes effect on July 1, 2020. In Missouri, the circumstances are even more bleak; the state has the lowest cigarette excise tax per pack in the nation (17 cents) and the rate hasn't changed in 25 years.³⁹

Several localities have recently attempted to pass smoke-free laws or introduce smoke-free policies through ballot initiatives, only to see them watered down by legislators or judges. Others have had smoke-free policies amended by local boards of health to exempt casinos.⁴⁰

One factor clearly suppressing the adoption of tobacco control policies in Tobacco Nation is opposition by Big Tobacco. In 2018, the Kentucky legislature passed a budget bill that included a 50-cent cigarette pack tax increase after Altria spent \$379,760 lobbying during the first four months of the legislative session, more than twice as much as any of the 720 corporations and associations that were registered to lobby the legislature. The tax increase was seen as a win for Altria because it was not as high as the dollar hike that tobacco control advocates had been seeking.⁴¹

Industry influence is hardly limited to Tobacco Nation. Tobacco giants Philip Morris International and Altria have opposed policies across the country that are proven to decrease cigarette demand and have undermined efforts to enact these types of regulations, such as higher taxes, flavor

bans, graphic warning labels and clean indoor air laws. For example, the tobacco industry spent \$11.6 million on an unsuccessful effort to repeal an ordinance in San Francisco to prohibit the sale of flavored tobacco products, including menthol cigarettes. Outside Tobacco Nation in Marion, Massachusetts, the local board of health considered prohibiting the sale of menthol tobacco products anywhere outside of adult-only cigar bars or smoking bars. The jurisdiction then received correspondence from a law firm for the tobacco industry, threatening lawsuits if they moved forward with the ban.

The tobacco industry has also attempted to spread fear nationwide that menthol bans unfairly target African Americans and would lead to further criminalization of the community. R.J. Reynolds, the maker of the leading menthol cigarette brand, Newport, recruited prominent black leaders, including civil rights activist the Rev. Al Sharpton, to host town halls across the country on the subject, including in Minneapolis, Oakland and Los Angeles.

Industry money has also targeted proposed cigarette tax hikes across the country. A 2016 California ballot initiative to increase the cigarette tax by \$2 passed despite opponents of the measure, backed by Philip Morris USA and R.J. Reynolds, which spent \$71.26 million to try to defeat it — about double the \$35.23 million supporters raised. Industry efforts in Colorado, meanwhile, succeeded when a measure that would have increased the cigarette tax by \$1.75 per pack failed to pass after opponents of the measure outraised supporters 7-to-1, with Altria donating \$17.41 million to the opponents, compared with \$2.38 million from supporters. In Montana, a \$17.5 million contribution from the tobacco industry, the most money raised against a ballot initiative in state history, helped defeat a bill that would have raised tobacco taxes. Efforts

in Missouri, North Dakota, Oklahoma and South Dakota targeting taxes also failed to pass or become enacted policy.

Tobacco 21 policies, which have strong potential to save lives, have gained momentum in the past year. As more states passed Tobacco 21 policies, the tobacco industry began lending their support, and even started advocating for a federal policy. Although these industry moves may seem to be a positive development, hidden dangers and self-serving agendas remain. The industry has pushed for Tobacco 21 policies containing provisions that weaken their impact. For example, the Arkansas policy passed in 2019 included a provision prohibiting local government from regulating sales of tobacco products. These laws can also serve as a vehicle to weaken or distract support for other measures that are proven to reduce tobacco use, such as higher taxes or sales restrictions on flavored tobacco.

Some recent signs of tobacco control policy success in Tobacco Nation are encouraging. In Baton Rouge, Louisiana, smoking was prohibited in bars and casinos beginning June 2018.⁴² In Kentucky,⁴³ tobacco control funding increased by \$1 million for each of the next two years.

It is especially important that states do everything they can to push forward policies that protect their citizens. It is clear that Tobacco Nation is not doing enough. Despite the huge sums of money that states take in as payment from the 1998

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Master Settlement Agreement between the major U.S. cigarette companies and the states, states are not spending nearly enough of their tobacco settlement revenues to prevent and reduce tobacco use.

For instance, from 1998 to 2017, Tobacco Nation has received roughly \$32.8 billion in payments (compared with the roughly \$110.9 billion the rest of the U.S. has received)⁴⁴, providing the unique

financial opportunity to fund tobacco prevention and control efforts. Yet, there are hundreds of thousands of preventable deaths attributed to tobacco use every year. With Tobacco Nation not spending enough money on establishing proven policies, regulations and programs that can reduce use and boost public health, the gulf between Tobacco Nation and the rest of the U.S. will continue to widen, and the health and economic disparities will continue to deepen.

Global comparison

Tobacco Nation's low cigarette taxes and lax regulations make it appear notably similar to less-developed countries around the world, and like many developing countries, tobacco use is extremely high.

According to the Bloomberg Initiative to Reduce Tobacco Use, which focuses on 10 low- and middle-income countries with the greatest number of smokers (China, Indonesia, Vietnam, Philippines, Brazil, Ukraine, Mexico, Bangladesh, Pakistan and India)⁴⁵, nearly 80% of tobacco users live in low- and middle-income countries.^{45,46} Yet the tobacco prevalence of Tobacco Nation, which resides within a high-income country, makes it more similar to the low- and middle-income nations listed above.

While direct comparisons to other countries are difficult, due to differences in how prevalence rates are measured and reported, it is illustrative to examine Tobacco Nation in light of the highest tobacco-burdened countries worldwide.* When compared to Bloomberg Initiative's 10 countries with the highest rates of youth tobacco use, Tobacco Nation fits squarely in the middle of countries with the highest smoking rates, ranking fifth highest at 10%³, behind only Indonesia (20%), Ukraine (17%), Mexico (15%) and the Philippines (12%).⁴⁷ Brazil, Pakistan, China, India, Vietnam and Bangladesh all had lower youth cigarette smoking rates.⁴⁷⁻⁴⁹ Our previous analysis in 2017 — when we identified the 12 states with the highest adult smoking prevalence — put Tobacco Nation at number four in the list.

Adult smoking prevalence rates are not much better. Tobacco Nation ranks sixth (21%)² behind

WHEN COMPARED TO BLOOMBERG INITIATIVE'S 10 COUNTRIES WITH THE HIGHEST RATES OF TOBACCO USE, TOBACCO NATION HAD THE 5TH HIGHEST RATE AMONG YOUTH

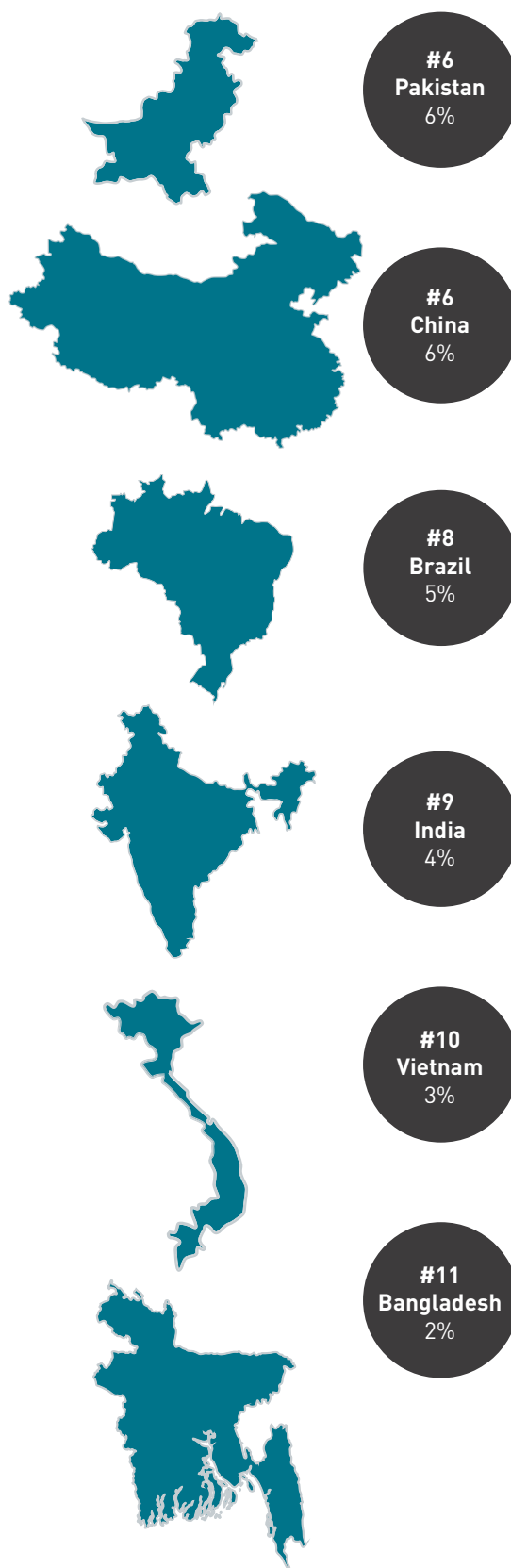


Indonesia (35%), China (28%), Ukraine (23%), the Philippines (23%) and Vietnam (23%).⁵⁰ When comparing the U.S. to other countries around the world, it is clear that Tobacco Nation is driving the U.S. smoking rate.

Unlike the 10 countries of focus in the Bloomberg Initiative to Reduce Tobacco Use, Tobacco Nation enjoys a relatively high income level. Median household income for Tobacco Nation is \$48,708⁴, nearly four times as high as Mexico (\$11,680), the country included in the Initiative with the second-highest median income.⁵¹ Similarly, per capita gross domestic product for Tobacco Nation (\$49,588)⁵² far outstrips Mexico (\$8,903), Brazil (\$9,821) and China (\$8,827).⁵³

While the retail price per pack of cigarettes is highest in Tobacco Nation at \$5.69 per pack⁵, the percentage of an average person's income spent per pack is quite low, when compared with these 10 low- and middle-income countries.[†] Framing it in this context, cigarette prices in Tobacco Nation are relatively cheap^{4,5}, and Tobacco Nation residents are more financially able to purchase a pack of cigarettes than residents in countries such as India, Indonesia, Brazil and Mexico.^{51,54} The profit margin for cigarettes means that the tobacco industry can afford to sell fewer packs in the U.S. and still come out ahead. British American Tobacco, home of Reynolds American Inc., "only needs to sell two packs of cigarettes (in the U.S.) to make the same profit as it would selling six in other markets."⁸

And when it comes to cigarette consumption, price matters.²³ If cigarettes are more affordable for the average Tobacco Nation resident, tobacco use will continue to be high and cancer and mortality rates will continue to affect many. Tobacco Nation is facing an



epidemic of health consequences associated with the effects of smoking despite the region's location in a high-income country.

While the following comparisons are inexact, due to differences in population estimates, they nonetheless paint a discouraging picture.[‡]

The cancer incidence rate in Tobacco Nation (451 per 100,000) is 75% higher than in Ukraine (258 per 100,000), the country with the highest incidence rate of cancer among Bloomberg's countries of focus.^{13,55}

Deaths from cancer are similarly dire in Tobacco Nation, with 174 deaths per 100,000 people, compared with the 168 per 100,000 in Ukraine, which has the highest cancer mortality rate of Bloomberg's 10 countries

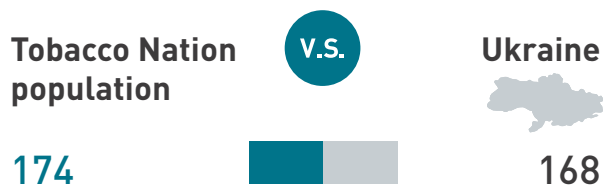
of focus.^{13,55} These differences, in rates only, further emphasize the placement of Tobacco Nation in the tobacco epidemic, compared with these other countries. Tobacco Nation should be a cautionary example of how devastating tobacco's effects can be on health, and lessons should be learned.

The fact that a region within the U.S. can have such similarities is shocking. In spite of its economic advantages, and despite spending far more money on health care than any country in the world, the U.S. still fails to protect its citizens from so many preventable deaths — a challenge successfully met by numerous other countries.²⁰

Cancer incidence rate



Cancer mortality rate



Mean age-adjusted cancer incidence rate and cancer mortality rate (rate per 100,000 persons)

* Data on prevalence for the 10 countries included in Bloomberg Initiative to Reduce Tobacco Use come from the respective country's most recent national survey reporting on smoking prevalence, as reported by the World Health Organization. Prevalence rates come from 2008-2015. For youth smoking prevalence, Tobacco Nation data is based on those aged 12-17 whereas the other countries' data is based on those aged 13-15. For adult smoking prevalence, Tobacco Nation data is based on those aged 18 and older whereas the other countries data is based on those aged 15 and older.

† Data on median household income have been aggregated from 2006-2012. Details on the methodology for collecting this data: <http://www.gallup.com/poll/166211/worldwide-median-household-income-000.aspx> Data on the average retail price per pack (including taxes) are from 2014 and are based on prices of three brands of cigarettes known to be most sold in each country. The average price is weighted by the market share of each of the three brands. The weighted average price is converted from local currency to US dollars using the latest official exchange rates for each country published by the International Monetary Fund.

‡ The country rates are from 2012 and are standardized using population estimates from 2012. Tobacco Nation and U.S. rates are from 2013 and are standardized using population estimates from 2000. This could help explain the large numbers for Tobacco Nation and the U.S., and it should be noted that rates would possibly decrease if the 2012 population estimates were used instead.

Call to action

Despite the success of decades of progress in lowering the smoking rate in the U.S., it is clear that much work remains in the fight against tobacco. We cannot move forward as a country when so many of our states lag far behind. Tobacco Nation's high smoking rates, along with its relatively poor health outcomes and lack of access to care, make it a disadvantaged country within a country. Were Tobacco Nation its own nation, its profile might place it alongside the most tobacco-affected developing countries in the world.

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Ending the fight against tobacco can start with a series of fundamental tobacco control policies and interventions. Here is what we know works:

- **Higher taxes:** We know that taxes work to discourage tobacco use among lower socioeconomic groups and younger individuals.^{25,56} They can also help to address the price disparity, where current cigarette prices constitute a relatively minor percentage of disposable income compared with cigarette prices around the world.
- **Smoke-free policies:** Everyone deserves clean air, but just over 50% of the entire population of the U.S. is covered by comprehensive smoke-free air laws.⁷ The fact that only two out of the 13 states in Tobacco Nation can guarantee an individual the right to clean air on the job, in a restaurant and at a bar, is woefully behind the times.
- **Public education:** Research has consistently demonstrated that tobacco-related public education campaigns save lives, promote quit attempts, reduce youth smoking initiation, lower health costs and blunt the impact of tobacco industry marketing.^{18,25,57-59} Effective public education campaigns are adequately funded, guided by scientific research and use multiple media channels to communicate messages that shift knowledge and attitudes to support policy initiatives designed to reduce tobacco use among a target audience.⁶⁰
- **Funding priorities:** The recent significant decline in smoking prevalence in the U.S. has erroneously led many in the general public, as well as those in public and private leadership, to believe tobacco is largely "solved," or at least "addressed," in our nation. As a result, both government (local, state and federal) and private funding of tobacco control efforts have languished or been redirected elsewhere.^{61,62} Among private funders, there is a perception that the public sector

is adequately dealing with the issue and that the need and opportunity for impact is greater outside the U.S. We must correct this assumption and adequately invest our dollars into programs that work. Investment in tobacco control remains one of the most efficient public health interventions for saving and improving lives, with a large return on investment. This is even more true for Tobacco Nation, given its disproportionate share of the smoking population.

- **Quitting services:** Access to quit smoking services can dramatically increase the success of quit attempts.⁶³ The U.S. Public Health Service recommends that treating tobacco use should become part of routine health care for all smokers.⁶⁴ States should include the full range of tobacco treatments in their Medicaid policies and provide robust quitting resources for their residents.
- **Tobacco 21:** Raising the tobacco purchasing age to 21 is one of several useful strategies for Tobacco Nation to address the significantly higher levels of youth smoking. As the movement toward Tobacco 21 laws continues, we strongly

urge policymakers to avoid provisions that weaken its impact. These provisions include language that exempts certain tobacco products, retail environments or types of consumers, such as military members, and preemptions that prohibit localities from implementing other tobacco control measures.

- **Point-of-sale policies:** Tobacco companies continue to use the retail environment as a way to encourage smoking behavior through product displays and placement, exterior and interior advertisements and promotional and price incentives to consumers.^{25,65-67} Youth are particularly affected by this type of marketing.^{25,68,69} State and local governments within Tobacco Nation should enact point-of-sale policies, such as keeping tobacco products behind the counter and tobacco promotional materials above the eye level of children to restrict accessibility of tobacco for children and teens, and prohibiting tobacco sales in pharmacies. For examples of other successful state and local efforts to limit tobacco exposure to youth in the retail environment, see our **Point-of-Sale Fact Sheet and Policy Resource**.

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- **Flavor policies:** Flavors play a significant role in drawing youth and young adults to tobacco products. Tobacco product manufacturers aggressively market flavored products in several ways, including by emphasizing flavors in advertisements, paying to place them on store countertops, using colorful images on packaging and introducing new and limited-edition flavors.⁷⁰ While several localities in California, Illinois, Massachusetts, Minnesota, New York and Rhode Island have restricted the sale of flavored tobacco products in some way, no localities in Tobacco Nation have done so. State and local governments within Tobacco Nation should enact policies that restrict the sale of flavored tobacco products, including menthol, mint and wintergreen flavors. For examples of successful state and local efforts to prohibit the sale of flavored tobacco products, see our **flavors fact sheet**.

In locations where these types of tobacco control policies have been effectively implemented, tobacco use rates among both the rich and the poor have lowered.^{71,72} However, these policies have not been consistently nor fully adopted and implemented across the country. While further research is needed to ensure that policies reach the most vulnerable among

us and lessen the disparities we've seen in places like Tobacco Nation, we must try to implement the tools that can make a difference. Unfortunately, residents of Tobacco Nation remain unprotected by fundamental tobacco control measures. It is little wonder, then, that tobacco companies see dollar signs among the stars and stripes.

Tobacco use kills more than half a million people in the U.S. and, according to the CDC, costs the U.S. more than \$300 billion per year.

The consequences are real. Tobacco Nation's risk of death and disease exacts too great a cost. Tobacco use kills more than half a million people in the U.S. and, according to the CDC, costs the U.S. more than \$300 billion per year.^{18,73,74} We, as a nation, must protect the most vulnerable among us from these harms by reducing smoking rates everywhere, but particularly among the hardest-hit region of Tobacco Nation. No longer can we accept the country within a country phenomenon. We cannot rest until all residents of Tobacco Nation have the same opportunities to live healthy, productive lives.

References

1. Johnston LD, O'Malley PM, Miech RA, Bachman JG, Schulenberg JE. Monitoring the Future national survey results on drug use, 1975-2017: *Overview, key findings on adolescent drug use*. Ann Arbor: Institute for Social Research, The University of Michigan; 2018.
2. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2017.
3. Centers for Disease Control and Prevention (CDC). Youth Risk Behavior Survey Data. Atlanta, GA: U.S. Department of Health & Human Services 2017.
4. 2012-2016 ACS 5-year Estimates. 2016. <https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2016/5-year.html>.
5. Campaign for Tobacco Free Kids. State excise and sales taxes per pack of cigarettes total amounts and state rankings. 2018. <https://www.tobaccofreekids.org/assets/factsheets/0202.pdf>. Accessed November 9, 2018.
6. Orzechowski W, Walker R. *The Tax Burden on Tobacco Historical Compilation*. Arlington, VA 2015.
7. American Nonsmokers' Rights Foundation. Summary of 100% Smokefree State Laws and Population Protected by 100% U.S. Smokefree Laws. 2018. <https://no-smoke.org/wp-content/uploads/pdf/percentstatepops.pdf>. Accessed November 15, 2018.
8. Glenza J. Big tobacco still sees big business in America's poor. *Tobacco: a deadly business*. July 13, 2017. <https://www.theguardian.com/world/2017/jul/13/tobacco-industry-america-poor-west-virginia-north-carolina>. Accessed July 21, 2017.
9. Life Expectancy at Birth, 2000-2015. 2016. http://gamapserver.who.int/gho/interactive_charts/mbd/life_expectancy/atlas.html. Accessed July 23, 2017.
10. Action on Smoking & Health. *Tobacco in America: Leaving the vulnerable behind*. Washington, D.C. 2017.
11. America's Health Rankings® 2017 Annual Report. 2018. <https://www.americashealthrankings.org/explore/annual/state/ALL>. Accessed September 2, 2018.
12. Heart Disease Mortality by State: 2017. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2017. https://www.cdc.gov/nchs/pressroom/sosmap/heart_disease_mortality/heart_disease.htm. Accessed September 20, 2018.
13. U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2014 Incidence and Mortality Web-based Report*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2017.
14. Kochanek KD, Murphy SL, Xu J, Tejada-Vera B. Deaths: Final Data for 2014. *National Vital Statistics Reports*. 2016;65(4).
15. Chetty R, Stepner M, Abraham S, et al. The association between income and life expectancy in the United States, 2001-2014. *JAMA*. 2016;315(16):1750-1766.
16. Collaborators USBoD, Mokdad AH, Ballesteros K, et al. The State of US Health, 1990-2016: Burden of Diseases, Injuries, and Risk Factors Among US States. *JAMA*. 2018;319(14):1444-1472.
17. Lortet-Tieulent J, Goding Sauer A, Siegel RL, et al. State-Level Cancer Mortality Attributable to Cigarette Smoking in the United States. *JAMA Intern Med*. 2016;176(12):1792-1798.
18. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 years of Progress: A Report of the Surgeon General*. Atlanta, GA: US 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.
19. Lashbrook M. These States Have the Unhealthiest Hearts. 2015. <https://graphiq-stories.graphiq.com/stories/6140/states-healthiest-hearts#Intro>. Accessed August 14, 2017.
20. Schneider EC, Sarnak DO, Squires D, Shah A, Doty MM. *Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care*. The Commonwealth Fund; 2017.
21. Riley WJ. Health Disparities: Gaps in Access, Quality and Affordability of Medical Care. *Transactions of the American Clinical and Climatological Association*. 2012;123:167-174.
22. The Centers for Disease Control and Prevention's Office on Smoking and Health, Center for Public Health Systems Science at Washington University. *Health Equity in Tobacco Prevention and Control*. St. Louis, MO: The Centers for Disease Control and Prevention; 2015.
23. Feirman SP, Glasser AM, Rose S, et al. Computational Models Used to Assess US Tobacco Control Policies. *Nicotine Tob Res*. 2017.

24. The Community Preventive Services Task Force. *Tobacco Use and Secondhand Smoke Exposure: Interventions to Increase the Unit Price for Tobacco Products*. The Community Guide;2012.
25. U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: 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;2012.
26. Campaign for Tobacco Free Kids. Increasing the Minimum Legal Sale Age for Tobacco Products to 21. 2017. <https://www.tobaccofreekids.org/research/factsheets/pdf/0376.pdf>.
27. Morain SR, Winickoff JP, Mello MM. Have Tobacco 21 Laws Come of Age? *New England Journal of Medicine*. 2016;374(17):1601-1604.
28. Institute of Medicine. *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*. 2015.
29. Centers for Disease Control and Prevention (CDC). Youth Risk Behavior Survey Questionnaire. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2013.
30. Campaign for Tobacco Free Kids. States and Localities That Have Raised the Minimum Legal Sale Age for Tobacco Products to 21. 2017. https://www.tobaccofreekids.org/content/what_we_do/state_local_issues/sales_21/states_localities_MLSA_21.pdf.
31. Max W, Sung HY, Shi Y. Deaths from secondhand smoke exposure in the United States: economic implications. *Am J Public Health*. 2012;102(11):2173-2180.
32. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2002.
33. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2004.
34. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2014.
35. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2010.
36. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2013.
37. Tynan MA, Holmes CB, Promoff G, Hallett C, Hopkins M, Frick B. State and Local Comprehensive Smoke-Free Laws for Worksites, Restaurants, and Bars - United States, 2015. *MMWR Morb Mortal Wkly Rep*. 2016;65(24):623-626.
38. <http://investms.org/wp-content/uploads/2019/02/Final-InvestMS-Polling-1-pager-1.pdf>
39. MO. REV. STAT. 1993.
40. Woody F. Smoking ban lifted on Hancock County casino and video lottery cafes. 2018; <https://www.wtrf.com/news/west-virginia-headlines/smoking-ban-lifted-on-hancock-county-casino-and-video-lottery-cafes/1510931691>.
41. Loftus T. A tobacco giant spent far more than anyone on lobbying 2018; <https://www.courier-journal.com/story/news/politics/2018/05/21/altria-spent-most-kentucky-lobbying-2018/617583002/>.
42. Jackson D. Smoking now banned inside Baton Rouge bars, casinos. 2018; <http://www.wafb.com/story/38322507/smoking-now-banned-inside-baton-rouge-bars-casinos/>.
43. 2018-2012 CoK. *Budget of the Commonwealth: Appropriation Bills*. 2018.
44. Campaign for Tobacco Free Kids. Actual Annual Tobacco Settlement Payments Received by The States, 1998-2017 (millions of dollars). 2016. <http://www.tobaccofreekids.org/research/factsheets/pdf/0365.pdf>
45. The Bloomberg Initiative to Reduce Tobacco Use. About the Bloomberg Initiative to Reduce Tobacco Use Grants Program. 2009; <https://tobaccocontrolgrants.org/About-the-BI-Grants-Program>. Accessed May 7, 2017.
46. World Health Organization. *WHO report on the global tobacco epidemic, 2015: Raising taxes on tobacco*. 2015.
47. World Health Organization. Global Youth Tobacco Survey (GYTS): Country reports. 2017; http://www.who.int/tobacco/surveillance/survey/gyts/country_reports/en/. Accessed April 17, 2017.
48. World Health Organization. Global school-based student health survey (GSHS): Fact sheets. 2017; <http://www.who.int/chp/gshs/factsheets/en/>. Accessed May 2, 2017.
49. World Health Organization. *WHO report on the global tobacco epidemic, 2013*. World Health Organization;2013.
50. World Health Organization. *WHO global report on trends in prevalence of tobacco smoking 2015* World Health

Organization;2015.

51. Phelps G, Crabtree S. Worldwide, Median Household Income About \$10,000. 2013. <http://www.gallup.com/poll/166211/worldwide-median-household-income-000.aspx>. Accessed June 27, 2017.
52. Analysis USBoE. SAGDP2N Gross Domestic Product by State. 2018; https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=30&isuri=1&tableid=505&category=1505&state=0&year_end=-1&area=xx&year=2017&yearbegin=-1&classification=naics&unit_of_measure=levels&statistic=1&area_type=0&major_area=0.
53. GDP per capita (current US\$). 2017. <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>. Accessed June 27, 2017.
54. Global Health Observatory data repository: Cigarette prices - most sold brand. 2016. <http://apps.who.int/gho/data/node.main.TOB1300MOSTSOLD?lang=en>.
55. Ferlay J, Soerjomataram I, Dikshit R, et al. Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer*. 2015;136(5):E359-386.
56. Hawkins SS, Bach N, Baum CF. Impact of Tobacco Control Policies on Adolescent Smoking. *J Adolesc Health*. 2016;58(6):679-685.
57. Farrelly MC, Nonnemaker J, Davis KC, Hussin A. The Influence of the National truth campaign on smoking initiation. *Am J Prev Med*. 2009;36(5):379-384.
58. Xu X, Alexander RL, Jr., Simpson SA, et al. A cost-effectiveness analysis of the first federally funded antismoking campaign. *Am J Prev Med*. 2015;48(3):318-325.
59. Neff LJ, Patel D, Davis K, Ridgeway W, Shafer P, Cox S. Evaluation of the National Tips From Former Smokers Campaign: the 2014 Longitudinal Cohort. *Prev Chronic Dis*. 2016;13:E42.
60. Campaign for Tobacco Free Kids. Public Education Campaigns Reduce Tobacco Use. 2017. <https://www.tobaccofreekids.org/research/factsheets/pdf/0051.pdf>.
61. Campaign for Tobacco Free Kids. History of Spending for Tobacco Prevention Programs FY2017 – FY2012. 2017. <https://www.tobaccofreekids.org/research/factsheets/pdf/0209.pdf>.
62. Association AL. State of Tobacco Control: At-a-glance. 2017; <http://www.lung.org/our-initiatives/tobacco/reports-resources/sotc/at-a-glance/>. Accessed September 7, 2017.
63. Campaign for Tobacco Free Kids. Tobacco Cessation Works: An overview of best practices and state experiences. 2010. <https://www.tobaccofreekids.org/research/factsheets/pdf/0245.pdf>.
64. Service USPH. USPHS Clinical Practice Guideline: Treating Tobacco Use and Dependence. <https://www.rchsd.org/documents/2014/02/clinical-practice-guideline-treating-tobacco-use-dependence-overview-of-best-practice.pdf/>.
65. Lavack A, Toth G. Tobacco point-of-sale promotion: Examining tobacco industry documents. *Tobacco Control*. 2006;15:377-384.
66. Federal Trade Commission. Federal Trade Commission Cigarette Report for 2014. In: Commission FT, ed. Washington, DC: Federal Trade Commission; 2016.
67. Bloom PN. Role of slotting fees and trade promotions in shaping how tobacco is marketed in retail stores. *Tob Control*. 2001;10(4):340-344.
68. Paynter J, Edwards R. The impact of tobacco promotion at the point of sale: a systematic review. *Nicotine Tob Res*. 2009;11(1):25-35.
69. Robertson L, McGee R, Marsh L, Hoek J. A Systematic Review on the Impact of Point-of-Sale Tobacco Promotion on Smoking. *Nicotine Tob Res*. 2015;17(1):2-17.
70. Kostygina G, Ling PM. Tobacco industry use of flavourings to promote smokeless tobacco products. *Tob Control*. 2016;25(Suppl 2):ii40-ii49.
71. Dubray J, Schwartz R, Chaiton M, O'Connor S, Cohen JE. The effect of MPOWER on smoking prevalence. *Tob Control*. 2015;24(6):540-542.
72. Ngo A, Cheng KW, Chaloupka FJ, Shang C. The effect of MPOWER scores on cigarette smoking prevalence and consumption. *Prev Med*. 2017.
73. Xu X, Bishop EE, Kennedy SM, Simpson SA, Pechacek TF. Annual healthcare spending attributable to cigarette smoking: an update. *Am J Prev Med*. 2015;48(3):326-333.
74. Carter BD, Abnet CC, Feskanich D, et al. Smoking and Mortality — Beyond Established Causes. *New England Journal of Medicine*. 2015;372(7):631-640.
75. American Lung Association. Cutting Tobacco's Rural Roots: Tobacco Use in Rural Communities External. Chicago: American Lung Association, 2015
76. <http://www.arkleg.state.ar.us/assembly/2019/2019R/Acts/Act580.pdf>