

SMOKING AND VAPING:

# THE IMPACT ON INDIANA

# IN INDIANA, SMOKING AND VAPING CONTRIBUTE TO THOUSANDS OF DEATHS AND BILLIONS OF DOLLARS IN EXPENSES EACH YEAR.

# WE KNOW WHAT OUR STATE CAN DO TO SAVE LIVES AND MONEY.

Indiana has some of the highest smoking and vaping rates in the nation. This isn't just bad for public health – it is also seriously damaging our state's economy. This report consolidates findings from four separate research studies about the statewide impacts of smoking and vaping commissioned by the Richard M. Fairbanks Foundation. Specific topics covered in these studies include the "hidden tax" of smoking to Hoosier employers; tobacco's

impact on the economies of Indiana and Marion County; the projected results of a \$2 per pack cigarette tax increase; and the scope and effects of the vaping epidemic on Hoosier health and the economy.

Even though the impacts of smoking and vaping are overwhelmingly negative, evidence shows we can reverse many of these harmful effects by doing one thing: raising the tax on smoking and vaping products.



The four reports summarized in this document were authored by leading tobacco economists Frank Chaloupka, Ph.D., and John Tauras, Ph.D., with the University of Illinois Chicago.





# **INDIANA EMPLOYERS SPEND \$3.1 BILLION ANNUALLY IN SMOKING-RELATED COSTS.**

Indiana has made progress in decreasing cigarette consumption, with the smoking rate falling from 24.0% in 2012 to 17.3% in 2021. However, Indiana still has the eighth-highest smoking rate in the U.S., much higher than the national average of 14.4%.

While the health implications of smoking cigarettes are well known - with 11,000 Hoosiers dying each year from smoking-related diseases - what's lesser known are the smoking-related costs Indiana businesses pay every year. The Richard M. Fairbanks Foundation partnered with leading experts who have decades of experience measuring the economic impacts of smoking and commissioned a report to calculate these costs.

#### THE REPORT'S FINDINGS ARE STRIKING.

From extra absenteeism and unsanctioned smoking breaks to excess healthcare costs, employees who smoke cost Indiana employers \$3.1 billion annually, which serves as an additional "tax" for Indiana businesses equaling 1.7% of total wages.

In Marion County alone, businesses paid nearly \$609 million in this hidden "smoking tax" in 2022. This report makes it clear how Indiana's high smoking rate undermines the success of our business community and may prevent the state from attracting and retaining businesses in the future.

#### MORE INFORMATION

# -- \$645M

Indiana has the highest share of manufacturing employment of all U.S. states, so it is not surprising the industry is most affected by the costs of smoking. In 2022, manufacturing businesses paid nearly \$645 million in smoking "taxes." In Marion County, the healthcare and social assistance industry paid the largest amount – \$110 million.

TO SEE THE COSTS PAID BY A VARIETY OF INDUSTRIES, SEE THE FULL REPORT AT RMFF.ORG/SMOKINGANDVAPING.

## SMOKING-RELATED EMPLOYEE ABSENTEEISM

Studies show employees who smoke are absent from work approximately 2.5 days more than non-smoking employees. The costs related to these absences equaled approximately \$272 million paid by Indiana employers in 2022, with nearly \$56 million of those costs specifically incurred by Marion County businesses.

#### **EMPLOYEE SMOKE BREAKS**

Employees who smoke often take smoke breaks separate from their allocated break times. This loss in productivity, conservatively estimated at two 15-minute breaks per workday, equaled \$1.7 billion in costs to Hoosier employers in 2022, with nearly \$359 million paid by Marion County businesses alone.

## SMOKING-RELATED LOST PRODUCTIVITY

Nicotine addiction and withdrawal directly affect employee productivity, with studies estimating employees who smoke work somewhere between 1.9% to 4.0% less per year than non-smokers. Taking into account a conservative estimate of a 1% loss in productivity, Indiana employers paid nearly \$283 million toward this hidden smoking tax in 2022. In Marion County, employers paid more than \$58 million.

# COST OF SMOKING TO EMPLOYERS WHOSE HEALTHCARE IS SELF-INSURED

Employers that self-insure bear excess costs for smoking employees, as their insurance plans are paying for smoking-related health issues such as cancer, cardiovascular disease, respiratory disease, diabetes, immune and autoimmune disorders.

among many others. Because nearly 70% of Indiana employees are covered by self-insured plans, the study estimates the smoking-related costs to these employers equaled more than \$757 million in 2022, with nearly \$136 million specifically paid by Marion County employers.

## "HIDDEN TAX" LIKELY UNDERESTIMATED

While the \$3.1 billion in total costs to employers is alarming, what's even more disturbing is the actual number is likely far higher than estimated, as this study does not account for items such as higher health insurance premiums for employers who purchase private insurance, higher workers' compensation costs for smokers, higher life insurance premiums for smoking employees, and the cost of secondhand smoke on non-smokers in workplaces where smoking is permitted.

Data shows that reducing the heavy price Indiana businesses pay because of smoking would have a positive impact on our state's economy – and the health of Hoosiers. As detailed later in this summary report, an increased tax on smoking and vaping products can help achieve this.

# THE ECONOMIC IMPACT OF TOBACCO IN INDIANA

# ELIMINATING TOBACCO PRODUCTION AND CONSUMPTION IN INDIANA WOULD LEAD TO HIGHER EMPLOYMENT, INCOME, AND POPULATION.

There is no question that eliminating tobacco use in Indiana would save lives and money. Tobacco contributes to more than 11,000 Hoosier deaths per year, and employees who smoke cost Indiana businesses an estimated \$3.1 billion in 2022. Here's how Indiana's economy would change if tobacco production and consumption ceased to exist.

Some argue that the tobacco industry plays a key role in state economies, and decreasing tobacco consumption would reduce employment, incomes and state tax revenue.

But an economic analysis commissioned by the Richard M. Fairbanks Foundation shows that eliminating tobacco in Indiana – whose smoking rate remains higher than the national average – would drive substantial economic gains for the state.

While eliminating tobacco entirely is highly unlikely, this analysis shows a decrease in tobacco production and consumption would save lives, which generates a positive economic impact, and redistribute money toward different goods and services. The result would be higher employment, income, and population statewide.

#### MORE INFORMATION

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#### AFTER 20 YEARS, DISPOSABLE PERSONAL INCOME WOULD BE \$1.6 BILLION HIGHER THAN THE STATUS QUO.

	YEAR	2023	2027	2032	2042	
1	EMPLOYMENT NET INCREASE IN NUMBER OF JOBS	2,661	9,498	11,136	13,879	
2	INCOME NET INCREASE IN DISPOSABLE PERSONAL INCOME	\$302M	\$769M	\$1.05B	\$1.58B	
3	POPULATION NET INCREASE IN NUMBER OF PEOPLE	1,824	11,007	18,227	25,217	
	Note: This analysis used 2022 as the baseline year.					

#### **METHODOLOGY**

Researchers from the University of Illinois Chicago used a state-of-theart macroeconomic model to analyze tobacco's impact. They projected one scenario in which tobacco production and consumption remained the status quo in Indiana, including specific analyses for Marion County and the remainder of the state. They created another projection in which they removed the consumption and production of tobacco entirely for the same geographies. The difference between the two projections shows the impact of tobacco on Indiana's economy.

#### **KEY RESULTS**

The findings centered on three key drivers of economic activity in the state: employment, income, and population.



#### 1 EMPLOYMENT

In the first year that tobacco is eliminated, Indiana would see a projected increase in jobs of 2,661, and this number would continue to grow over time. For industries that would initially see declines in employment - retail trade and state and local government - after 20 years, employment would return to or exceed the status quo.



#### **DISPOSABLE PERSONAL INCOME**

Incomes would grow in a tobaccofree Indiana, driven by an increase in wages and salaries. Cumulative disposable income would continue to grow over time. After 20 years, disposable personal income would be \$1.6 billion higher compared to the status quo forecast.



#### 3 POPULATION

Indiana would see fewer deaths if tobacco were eliminated, and as a result, the population would be larger.

In addition, a state with less smoking would be a more attractive place to live and work, which would drive an inmigration of residents. More companies would move to Indiana as business costs related to smoking decreased, and these employers would bring residents with them.

Despite arguments that eliminating tobacco would hurt the economy, this report shows that quite the opposite is true. Indiana would see a substantial growth in jobs, incomes and people if tobacco were eliminated, leading to a more prosperous state.

While the complete elimination of tobacco in Indiana is unlikely, a decrease in tobacco production and consumption would still lead to positive health and economic outcomes.

# INCREASING CIGARETTE TAX WOULD SAVE LIVES AND GENERATE MILLIONS IN REVENUE FOR INDIANA

# PROJECTED ANNUAL REVENUE FROM INCREASED CIGARETTE TAX EQUALS \$356 MILLION.

Indiana has the eighth-highest rate of smoking in the country, and 11,000 Hoosiers die each year from smoking-related diseases. Annual healthcare expenditures directly caused by tobacco use in Indiana equal \$3.4 billion.

PROJECTED NEW ANNUAL REVENUE TO INDIANA WOULD TOTAL MORE THAN \$356 MILLION.

APPROXIMATELY 45,000 CURRENT ADULT SMOKERS WOULD QUIT SMOKING.

COSTS SAVINGS WOULD EQUAL \$795 MILLION.

INDIANA'S LONG-TERM HEALTHCARE

To reduce the smoking rate, save Hoosier lives, and lower the cost of healthcare, one approach has been <u>proven</u> <u>effective</u> over all others: increase the price of cigarettes and other tobacco products. Extensive research clearly shows the demand for tobacco products follows the most fundamental law of economics: as prices go up, the quantity consumed goes down, and vice versa.

One way to adjust the cost of smoking in Indiana is to raise the state cigarette tax, which is currently \$.995/pack, the 12th-lowest tax among all states and Washington, D.C. Increasing the cigarette tax has the additional benefit of generating revenue for the state.

#### MORE INFORMATION





To get a full understanding of the public health benefits and the potential for new revenue, the Richard M. Fairbanks Foundation commissioned an <u>analysis from</u> <u>leading experts</u> who have decades of experience measuring the economic and public health impacts of smoking.

These findings show that by raising the cigarette tax, Indiana could decrease the smoking rate while also saving money and generating revenue at the same time.

#### OVERALL FINDINGS IF INDIANA INCREASED CIGARETTE TAX BY \$2/PACK

PROJECTED NEW ANNUAL REVENUE TO INDIANA	\$356.2 MILLION
CURRENT ADULT SMOKERS WHO WOULD QUIT	45,100
LONG-TERM HEALTHCARE COSTS SAVINGS FROM DECLINES IN ADULT AND YOUTH SMOKING	\$795 MILLION
PERCENT DECREASE IN YOUTH SMOKING	16.6%
YOUTH KEPT FROM BECOMING ADULT SMOKERS	17,800
REDUCTION IN YOUNG ADULT (18-24) SMOKERS	3,700
PREMATURE SMOKING-CAUSED DEATHS PREVENTED	16,400
FIVE-YEAR REDUCTION IN THE NUMBER OF SMOKING-AFFECTED PREGNANCIES AND BIRTHS	8,000
FIVE-YEAR HEALTHCARE COSTS SAVINGS FROM FEWER SMOKING-CAUSED LUNG CANCER CASES	\$7.7 MILLION
FIVE-YEAR HEALTHCARE COSTS SAVINGS FROM FEWER SMOKING-AFFECTED PREGNANCIES + BIRTHS	\$17.7 MILLION
FIVE-YEAR HEALTHCARE COSTS SAVINGS FROM FEWER SMOKING-CAUSED HEART ATTACKS + STROKES	\$5.3 MILLION
FIVE-YEAR MEDICAID PROGRAM SAVINGS FOR INDIANA	\$13.3 MILLION

To reap the benefits mentioned above – including saving lives, saving money and raising more revenue for the state – the report concludes Indiana should consider increasing the cigarette tax by \$2/pack.



# INDIANA'S E-CIGARETTE USE – SEVENTH HIGHEST IN THE U.S. – LEADS TO SERIOUS HEALTH AND ECONOMIC COSTS FOR HOOSIERS AND THE STATE.

Indiana stands at a critical juncture, ranking seventh highest in the nation for adult e-cigarette use – a rate that grew 72.3% from 2016 to 2021. While there is evidence youth e-cigarette use has declined in recent years, Marion County youth are vaping more than their peers statewide.

This is especially concerning because many people consider e-cigarettes a healthy substitute for traditional cigarettes. Yet vaping comes with considerable health risks, including impaired brain development and an increased risk of cardiovascular and pulmonary health conditions. There are also significant economic consequences to consider, such as increased healthcare costs and lower employee productivity.

To better understand the scope and impact of vaping statewide and in Marion County, the Richard M. Fairbanks Foundation commissioned a study from leading experts with decades of experience in tobacco and nicotine research. The study also offers steps that can be taken to reduce the vaping rate, including policy changes and other recommendations for stakeholders such as schools and healthcare organizations.

#### MORE INFORMATION

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# PERCENTAGE OF ADULTS WHO USE E-CIGARETTES

+42.6%
INCREASE IN THE U.S.

...

+72.3%

**INCREASE IN INDIANA** 

8.1% IN 2021

6.7% IN 20

4.7%

**IN 2016** 

IN 2021

4.7% IN 2016

FOR BOTH ADULT AND YOUTH POPULATIONS, MARION COUNTY RESIDENTS USE E-CIGARETTES AT A HIGHER RATE THAN INDIANA OVERALL, THOUGH YOUTH NUMBERS VARY BASED ON GRADE LEVEL.

Nationwide, we have seen an increase in adult e-cigarette use. The percentage of adults who vape in the U.S. surged from 4.7% in 2016 to 6.7% in 2021, marking a 42.6% increase. Hoosiers use e-cigarettes at an even higher rate; Indiana e-cigarette use increased from 4.7% to 8.1% during the same period – a 72.3% jump. Central Indiana experienced an even sharper rise from 4.9% in 2016 to 8.6% in 2021 – an alarming 75.5% increase.

E-cigarettes are now more popular among young people than traditional cigarettes. In 2022, a worrying 9.4% of Indiana youth said they used e-cigarettes in the past month, with 12th grade students vaping at nearly three times the rate of 7th graders. On average, Marion County youth reported higher vaping rates than their peers statewide, with nearly 18% of 11th and 12th graders vaping in the past month.

STATEWIDE, THERE ARE SIGNIFICANT DISPARITIES IN BOTH ADULT AND YOUTH E-CIGARETTE USE BASED ON DEMOGRAPHICS.

E-cigarette use in Hoosier adults varies by gender, race, household income, and educational attainment. Disparities are most apparent across education and race.

Only 3.2% of Hoosiers with a college degree used e-cigarettes in 2021, which is in stark contrast to those with lower educational attainment. For example, individuals with some high school or less, a high school degree or some post-high school education were about three times more likely to vape, with use rates between 8.7% and 10.6%.

In 2021, only 6.2% of Black Hoosier adults reported using e-cigarettes, compared to 8.5% of white Hoosiers and 9.4% of multiracial Hoosiers.

Statewide, multiracial adult vaping rates have declined since 2016, while Black and white adult usage rates have risen during the same period.

Youth across the state exhibit disparities in e-cigarette use as well, though patterns based on race and gender have recently changed.

18%

OF 11TH AND 12TH
GRADERS IN MARION
COUNTY VAPED IN
THE PAST MONTH.

For example, Hispanic youth were the most likely to use e-cigarettes from 2016 to 2020 – with usage rates surging to roughly 18% in 2018. However, 2022 data indicated that usage rates have become similar statewide among all demographic groups, ranging from 9% to 10%.

From 2016 to 2018, male youth were more likely to report vaping than female youth, but in 2020, female youth became more likely to report e-cigarette use. In 2022, 11.2% of female students in grades 7–12 reported vaping in the previous 30 days compared to 7.5% of male students statewide. Interestingly, this change in pattern has not been reflected in adults, where males 18 and over have been consistently more likely to report vaping than adult females, with 2021 usage rates at 8.7% and 7.5% respectively.



While e-cigarettes may be considered safer than combustible cigarettes because they do not include the chemicals contained in tobacco smoke, studies show they are **far from harmless**. In fact, some e-cigarettes contain **just as much nicotine** – if not more – than traditional cigarettes.



## NICOTINE IMPACTS YOUTH BRAIN DEVELOPMENT

The human brain continues to develop until approximately age 25. Youth who use nicotine, including via e-cigarettes, are at risk of impaired brain development. This may lead to behavioral issues, cognitive problems and mental health challenges.



#### NICOTINE IS ADDICTIVE AND MAY MAKE YOUTH MORE SUSCEPTIBLE TO OTHER TYPES OF ADDICTION

Nicotine affects key brain receptors, which may make youth more susceptible to nicotine addiction. Some studies have even shown nicotine use may lead to future substance use by sensitizing the brain to other drugs – a phenomenon sometimes referred to as the "gateway effect."



## E-CIGARETTE USE DISRUPTS NORMAL LUNG FUNCTION

Studies connect e-cigarette use to higher likelihoods of chronic cough, bronchitis and asthma.

Though long-term effects on diseases like lung cancer, and chronic obstructive pulmonary disease are not yet fully understood, research illustrates vaping may worsen respiratory health.



## E-CIGARETTE VAPOR EXPOSES NON-USERS TO NICOTINE

Commonly – and mistakenly – thought to be safe, e-cigarette vapor in the home leads to 2.7 times more airborne nicotine than in homes without tobacco use.

One study linked these vapors to more wheezing, bronchitis, and shortness of breath in young adults. Because vapors can contain harmful substances like carcinogens and metals, they may have lasting health effects.



#### E-CIGARETTE USE INCREASES RISK OF CARDIOVASCULAR HEALTH CONDITIONS

Studies have shown e-cigarettes cause short-term elevations in vital signs like heart rate and blood pressure, which can have long-term health implications. In short, e-cigarettes can lead to cardiovascular disease and early death.



# E-CIGARETTE USERS OFTEN USE TRADITIONAL COMBUSTIBLE CIGARETTES, TOO

It is commonly believed that e-cigarettes are used as a substitute for combustible cigarettes. Yet, many e-cigarette users also smoke traditional cigarettes. These individuals are exposing themselves to the harmful effects of both e-cigarettes and traditional cigarettes.





# E-CIGARETTE USE LEADS TO SIGNIFICANT HEALTHCARE COSTS

The use of e-cigarettes costs the U.S. an estimated \$15.1 billion annually in adult healthcare expenditures across four primary categories: hospital nights, emergency room visits, doctor visits, and home visits. This breaks down to \$2,024 in expenses per e-cigarette user per year. Because government entities and private employers pay most healthcare expenditures, these costs are shared by everyone.

## E-CIGARETTE USE IMPOSES COSTS ON EMPLOYERS

The expenses tied to e-cigarettes go beyond healthcare. Research indicates that e-cigarette use can drive up additional costs for employers, including through increased absences and lower productivity. Moreover, being exposed to e-cigarettes at work may lead people who used to smoke or vape to start again, which harms individuals and is expensive for employers.









EMERGENCY ROOM VISITS





# ADDRESSING THE E-CIGARETTE EPIDEMIC IS COMPLEX, BUT THERE ARE WAYS TO REDUCE VAPING AND THE IMPACTS IT HAS ON INDIVIDUAL HEALTH AND THE ECONOMY.

#### **ENFORCE "TOBACCO 21" LAWS**

Laws that ban the sale of e-cigarettes to people under the age of 21 have been shown to be effective at reducing youth e-cigarette use. Currently in Indiana, selling e-cigarettes to people under the age of 21 is a Class C infraction for both the business that sells the vaping product and the individual who purchases it, and both parties can be fined. Enforcing these laws may assist in minimizing e-cigarette usage in underage populations.

# RAISE THE TAX ON E-CIGARETTES AND TRADITIONAL CIGARETTES AT THE SAME TIME

Research has consistently shown higher prices decrease e-cigarette use. In fact, one study estimates that raising the e-cigarette tax by \$1 (per fluid mL of vaping liquid) would reduce the probability of vaping among adults by 15.3%. However, it is essential to proceed with caution to prevent an economic substitution where users shift to traditional cigarettes. Increasing the tax on e-cigarettes and traditional cigarettes at the same time may offset this risk.

#### FOLLOW RECOMMENDATIONS FOR SCHOOLS AND HEALTHCARE PROVIDERS

Further research is needed to identify the most effective evidence-based strategies for healthcare providers and schools to help reduce e-cigarette use. However, expert recommendations are outlined in the full report. For example, schools should avoid punitive policies like expelling or suspending students who violate tobacco-free policies. Instead, they should connect

youth with tobacco education programming and treatment to address potential nicotine addiction, aiming to enforce policies while also supporting students who are addicted.

## BAN THE SALE OF FLAVORED E-CIGARETTE CARTRIDGES

In 2020, the FDA prioritized enforcing existing bans on flavored e-cigarettes, which may be especially appealing to youth. There is evidence that banning the sale of flavored e-cigarette cartridges reduces e-cigarette consumption overall and among youth.

E-cigarettes present evolving challenges to our state's healthcare system and economy. While we are learning more about these challenges, the data is clear that increasing the tax on these products can help reduce the negative impact of these issues.



#### THE BIG TAKEAWAY:

Increasing the price has been shown to be the most effective way to get people to quit smoking and to ensure youth never start. Raising the cigarette tax by \$2 per pack would save Hoosier lives while also reducing healthcare costs and generating \$356 million in new state revenue each year.

However, care must be taken to prevent a potential economic substitution where people increase the use of e-cigarettes because traditional cigarettes have become more expensive. Increasing the tax on e-cigarettes and traditional cigarettes at the same time could help offset this risk.



# A \$2/pack tax increase would dramatically improve Hoosier health.

Projections show the tax increase would save thousands of lives, prevent kids and teenagers from becoming adult smokers, reduce smoking-affected pregnancies and births, and decrease the number of heart attacks, strokes, and lung cancer cases.

2

An increased tax on cigarettes would infuse Indiana's economy with more than \$350 million each year.

A \$2 tax increase per pack of cigarettes would mean \$356 million more in annual tax revenue for our state.

3

Decreasing Indiana's smoking and vaping rates would save hundreds of millions in Medicaid and other healthcare expenses.

Because a tax increase would decrease smoking rates, it would reduce Indiana's long-term healthcare costs by \$795 million. Further, each e-cigarette user in the U.S. equals \$2,024 in healthcare expenses every year. Decreasing Indiana's vaping rate would lower these costs.

4

With fewer smokers, Hoosier businesses could reduce the \$3 billion they spend annually on smoking-related costs.

Employees who smoke are absent from work more often, take more breaks during the day, and are less productive at work. Reducing smoking would not only benefit individual businesses but help make Indiana more economically competitive.

# Let's work toward a healthier future.

These studies show raising the smoking and vaping taxes would benefit Hoosiers. It means healthier people and businesses – and a healthier state overall.



#### **READ THE FULL REPORTS:**

You can read the full versions of all four reports at RMFF.org/smokingandvaping.



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