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SEP 06 2023

Long-term exposure to secondhand aerosol can result in children developing asthma.

CITY CLERK

One vape dispenser can contain anywhere from 20 to 50 cigarettes worth of nicotine.

There is a risk of thirdhand exposure to nicotine released from ESD aerosol that deposits on indoor surfaces.

About 40% of adult e-cigarette users continue to use traditional cigarettes. Those who start smoking e-cigarettes are three times more likely to also smoke traditional cigarettes.

Nanoparticles in ESD aerosol are much smaller than the particles in tobacco smoke and are present in much higher concentrations. Toxic chemicals attached to nanoparticles may have greater adverse health effects than when these toxins are attached to larger tobacco smoke particles.

The Food and Drug administration has not found any e-cigarette to be safe and effective in helping smokers quit. If smokers are ready to quit smoking for good, they should call 1-800-QUIT-NOW or talk with their doctor about finding the best way to quit using proven methods and FDA-approved treatments and counseling.

Indiana is part of what Truth Initiative has defined as "Tobacco Nation"; a group of 12 mostly midwestern and southern states who comprise 21% of the US population but 28% of the smokers (of all types). Both adult and youth tobacco use rates in Indiana are higher than the national average. Vigo County is higher than the state average in many areas (see County data provided).

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SEP 08 2012
CITY CLERK

City Council Meeting Talking Points

When the original smoking ordinance was passed in 2012, little was known about the harm of e-cigarettes/vaping.

The American Industrial Hygiene Association (AIHA) also recommends that ESDs be included in smokefree laws: "Because e-cigarettes are a potential source of pollutants (such as airborne nicotine, flavorings and thermal degradation products), their use in the indoor environment should be restricted, consistent with current smoking bans..."

The American Public Health Association adopted a resolution: Supporting regulation of Electronic Cigarettes, outlining action steps including: "states and municipalities should enact and enforce laws...prohibiting the use of e-cigarettes in all enclosed areas of public access and places of employment."

The American Lung Association strongly supports including e-cigarettes in smokefree laws to ensure that everyone is protected from both secondhand smoke and secondhand e-cigarette emissions. Sixteen states and DC have already added e-cigarettes to their comprehensive laws prohibiting smoking in virtually all public places and workplaces.

There are only 22 counties or municipalities in all of Indiana that include e-cigarettes in their smoke free laws. Terre Haute can continue its tradition of being a leader in the effort to protect the health of its residents.

E-cigarette use among youth has risen steadily since they were first introduced in 2007. The school systems have indicated that they are losing the battle.

Big tobacco and vaping companies target youth in order to get addicted customers at an early age.

The e-cigarette aerosol that users breathe from the device and exhale can contain harmful and potentially harmful substances, including:

- Nicotine
- Ultrafine particles that can be inhaled deep into the lungs
- Flavoring such as diacetyl, a chemical linked to a serious lung disease
- Volatile organic compounds
- Cancer-causing chemicals
- Heavy metals such as nickel, tin, and lead¹

It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.

Short term exposure to secondhand aerosol can result in eye, throat and airway irritation.

Highlights from the Indiana Youth Tobacco Survey



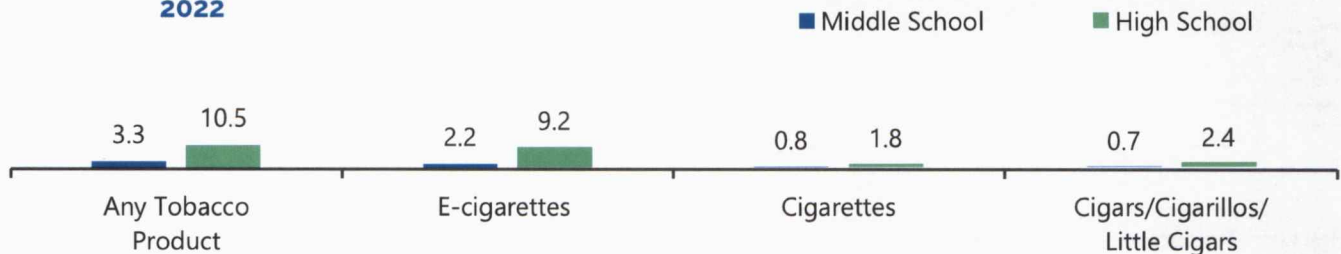
Tobacco Prevention and Cessation

The Indiana Youth Tobacco Survey (IYTS) has been administered since 2000 to monitor youth tobacco use, cessation, social and environmental factors related to tobacco use, and secondhand smoke exposure. The 2022 IYTS^a was administered in the fall of 2022 to over 5,400 students enrolled in Indiana public middle and high schools. New questions on the 2022 IYTS included nicotine pouches, Delta THC products, psychological distress, and family affluence. This document provides an overview of the key findings from the survey.

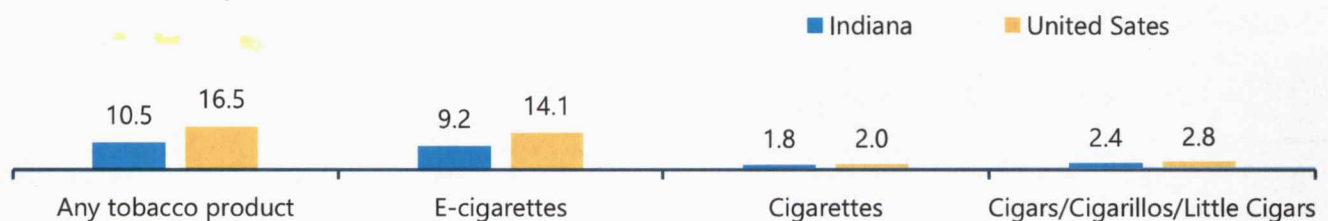
Current Tobacco Use among Indiana Youth

- In 2022, more than 1 in 10 Indiana high school students and 1 in 30 Indiana middle school students reported current (past 30 day) use of any tobacco product.^b
- Electronic cigarettes (e-cigarettes) were the most commonly used tobacco product among Hoosier youth, followed by cigars and cigarettes.
- Among Indiana high school and middle school students who have ever tried a tobacco product, e-cigarettes were the most frequent product tried first, with cigarettes being second most frequent.
- Current tobacco use was comparable among middle school students in Indiana and nationwide in 2022. Use of tobacco products among Hoosier high school students however was lower than what was measured nationally, including the use of e-cigarettes.¹

Current Tobacco Use among Indiana Middle and High School Students, IYTS 2022



Current Tobacco Use among High School Youth – Indiana and the US, IYTS 2022, NYTS 2022



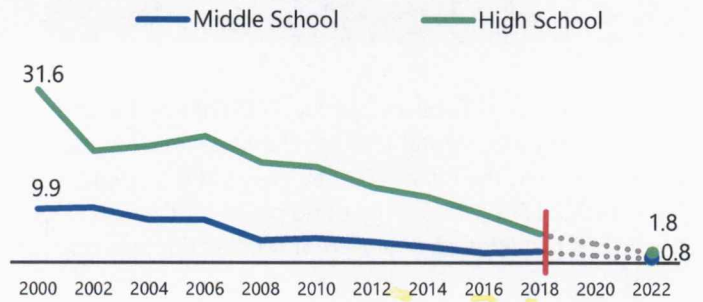
^a Due to the change in survey format (paper/pencil to electronic) in 2020, the ability to compare data from 2022 to previous years (2018 and prior) is limited; differences between estimates might result from changes in methodology (data collection), actual behavior, or both.

^b High School: Defined as past 30-day use of cigarettes, cigars, smokeless tobacco, e-cigarettes, hookah, tobacco pipes, snus, dissolvable tobacco, nicotine pouches and heated tobacco products
Middle School: Defined as past 30-day use of cigarettes, cigars, smokeless tobacco, e-cigarettes, hookah, tobacco pipes, snus, dissolvable tobacco, and nicotine pouches.

Current Cigarette Use Trends:

- In 2022, fewer than 1 in 100 Indiana middle school students and about 1 in 50 high school students reported current use of cigarettes.
- Cigarette smoking among Hoosier youth was the lowest measured in the past two decades.

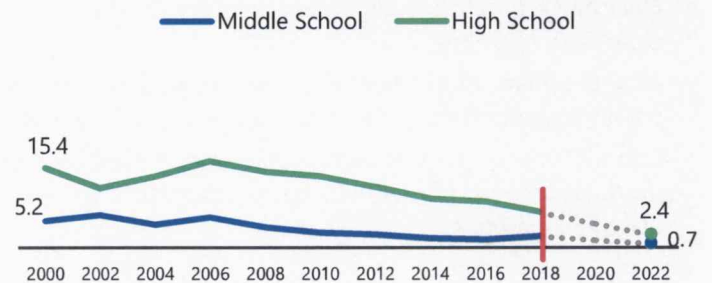
Current Cigarette Use among Indiana High School and Middle School Youth, IYTS 2000-2022



Current Cigar Use Trends:

- Cigar use has declined over time for both middle school and high school students.
- In 2022, current use of cigars among high school students was the lowest it has been in two decades.
- While cigar use has declined, in 2022, high school youth were more likely to smoke cigars than cigarettes.

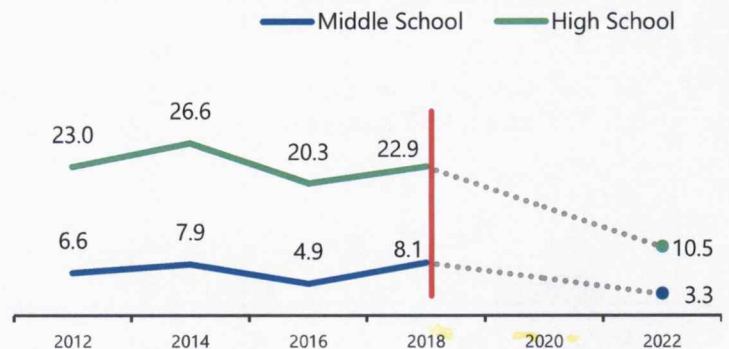
Current Cigar Use among Hoosier Indiana School and Middle School Youth, IYTS 2022



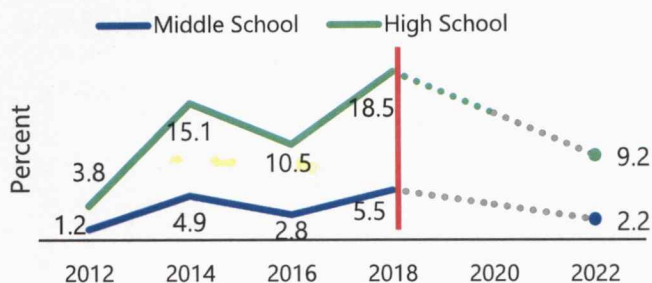
Current Tobacco Use Trends:

- Current tobacco use declined in 2022 among both middle and high school youth.
- The decline in current tobacco use can be attributed to the decline in e-cigarette use but also the decline in use of other tobacco products such as cigars, cigarettes, and smokeless tobacco.

Current Tobacco Use among Indiana High School and Middle School Youth, IYTS 2012-2022



Current E-cigarette Use among Indiana Middle and High School Youth, IYTS 2012-2022

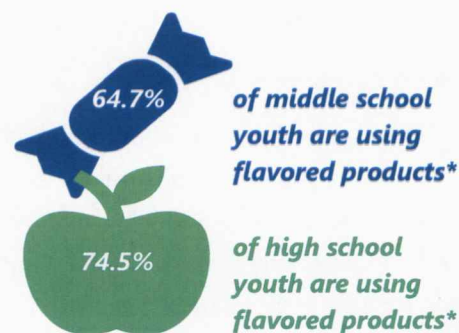


E-cigarettes

Between 2016 and 2018, current e-cigarette use nearly doubled among Indiana youth. In 2022, fewer than 1 in 10 high school students and more than 1 in 50 middle school students reported current use of e-cigarettes. However, e-cigarettes have remained the most commonly used tobacco product among Hoosier youth and youth nationwide.¹

Flavored Tobacco Use

Tobacco products including e-cigarettes, smokeless tobacco, cigars including little cigars and cigarillos, and nicotine pouches are available in a wide variety of flavors, including fruit or candy flavors that appeal to youth.^{2,3} In 2022, nearly 2 in 3 Hoosier middle school students (64.7%) and nearly 3 in 4 high school students who reported current use of tobacco (74.5%) used at least one flavored tobacco product. Flavored products such as cigars and e-cigarettes continue to be popular. Among those that reported current use of e-cigarettes, more than 3 in 4 (76%) middle school and high school students reported using flavored e-cigarette products. One of the more common reasons reported for middle school students to use e-cigarettes is the availability of flavors including mint, candy, fruit, or chocolate. While flavors other than menthol have been banned in cigarettes, menthol cigarettes still remain readily available and quite common among youth who smoke. Nearly half (46%) of high school students who reported current use of cigarettes reported usually smoking menthol cigarettes.



*Among youth currently using tobacco

Poly-tobacco Use

Poly-tobacco use (use of two or more tobacco products) is common among youth who use tobacco.¹ In 2022, nearly 1 in 4 Hoosier middle school students currently using tobacco (24.6%) and about 3 in 10 high school students currently using tobacco (30.6%) reported the use of two or more tobacco products.

Marijuana Use

In 2022, about 2% of middle school students and 9% of high school students reported current use of marijuana (use in the past 30 days). About double the rate of middle school students (4%) and high school students (18%) reported ever trying marijuana. Dual use of tobacco and marijuana was common - nearly 30% of middle school students who use e-cigarettes and nearly 58% of high school students who use e-cigarettes reported currently using marijuana too.

While marijuana is not legal in Indiana, other THC products known as Delta-8, -9, and -10 are legal and readily available at vape shops and other retailers. In 2022, nearly 2% of middle school students and more than 10% of high school students reported having tried Delta THC products.



Proportion of Indiana Youth who Believe it is Easy to get Tobacco Products

3 in 10 Middle School Youth



Over 5 in 10 High School Youth



Access to Tobacco

- In July 2020, the legal purchasing age for tobacco changed from 18 to 21 in Indiana. In 2022, more than 3 in 10 of middle school students (30.7%) and more than 5 in 10 high school students (53.9%) thought it would be somewhat or very easy to get tobacco products if they wanted some.
- The majority of youth who reported use of tobacco products obtained them from social sources, such as having someone else buy tobacco for them or borrowing the products from a friend/family member.
- Underage youth who purchased tobacco most commonly reported purchasing tobacco from gas stations or convenience stores.

Tobacco Cessation

In 2022, nearly 3 in 4 middle school students who reported current use of tobacco (74.6%) and more than half of high school students who reported current use of tobacco (55.9%) tried to quit in the past year. Approximately 2 in 3 or 66.7% of middle school students and more than half of high school students (53.9%) who reported current use of e-cigarettes have attempted to quit in the past year. Students who attempted to quit tobacco, including e-cigarettes, largely reported quitting tobacco without any assistance. Those quitting with assistance reported using school or community programs, having friends or family help them, using the Indiana Tobacco Quitline, or nicotine gum/patches in their attempts to quit.

Exposure to Tobacco Marketing

Exposure to tobacco marketing increases the likelihood that youth will use tobacco products.⁴ The tobacco industry spends an estimated \$308 million marketing its products in Indiana each year.⁵

In 2022:

- Approximately **6 in 10** Hoosier youth were exposed to tobacco ads (excluding e-cigarettes) in convenience stores, gas stations, or supermarkets.
- More than **4 in 10** Hoosier youth were exposed to tobacco ads (excluding e-cigarettes) on the internet.
- About **1 in 10** Hoosier youth were exposed to tobacco ads (excluding e-cigarettes) in newspapers or magazines.
- More than **2 in 10** Hoosier youth reported seeing actors using tobacco (excluding e-cigarettes) on TV or in movies, including streaming platforms.

Retailers



Internet



Newspaper/Magazines



TV/Movies/Streaming Platforms



There were similar responses when students were asked about e-cigarettes ads. More than 5 in 10 Hoosier youth reported seeing e-cigarette advertisements in retailers including convenience stores and gas stations. Retailers continue to be the most common point of contact for tobacco advertising including advertisements for e-cigarettes.

Social Influences Related to Tobacco Use



Having friends or family members who use tobacco can influence youth to start using tobacco.⁵ In 2022, more than 1 in 3 Hoosier middle school students (33.9%) and high school students (34.0%) lived with someone who used tobacco. Middle school students who live with someone using tobacco were four times more likely to currently use tobacco while high school students were three times more likely to use tobacco.

6 in 10 Hoosier middle school youth strongly agreed that all tobacco products are dangerous



7 in 10 Hoosier middle school youth strongly agreed that all tobacco products are dangerous



1 in 4 Hoosier youth who have never smoked are susceptible to trying cigarettes.



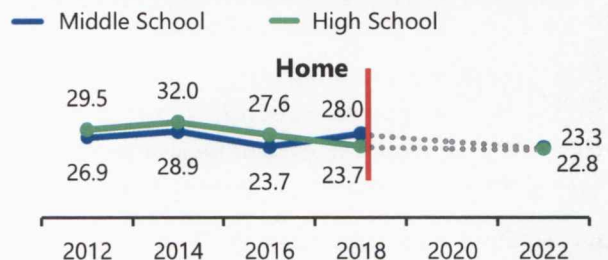
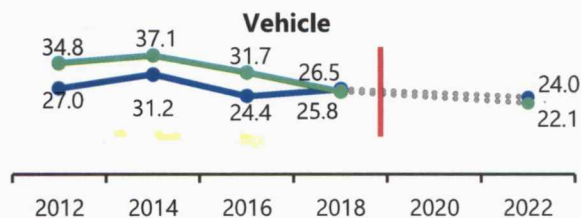
Attitudes, Perceptions, and Beliefs

- Nearly 6 in 10 middle school students and nearly 5 in 10 high school students strongly agreed that all tobacco products are dangerous.
- High school and middle school students who use e-cigarettes were almost five times more likely to believe e-cigarettes were less addictive than cigarettes.
- About 1 in 4 middle and high school youth who had never smoked were susceptible to smoking, as they indicated they might be open to trying cigarettes in the near future.
- More than 6 in 10 middle school students and nearly 7 in 10 high school students indicated that they believe tobacco companies try to get people under 18 to use tobacco products.

Secondhand Smoke Exposure

- In 2022, approximately 3 in 10 Hoosier middle school (31.4%) and high school (28.6%) youth were exposed to secondhand smoke on one or more of the past seven days in their homes or cars. Additionally, 38% of high school and middle school students were exposed to secondhand smoke in outdoor public places.
- The proportion of students who reported that smoking is never allowed inside their home has increased since 2004.^c In 2022, 83.1% of middle school students and 83.2% of high school students reported that smoking is never allowed in their home.
- In 2022, youth who lived with adults who smoked were significantly more likely to be exposed to secondhand smoke at home or in vehicles. Additionally, youth who lived with adults who smoked were significantly less likely to have rules against smoking at home or in family vehicles.
- The U.S. Surgeon General has concluded that there is no safe level of exposure to secondhand smoke.⁶

Percentage of Indiana Middle and High School Youth Exposed to Secondhand Smoke, by Location, IYTS 2012-2022



^c Due to the change in survey format (paper/pencil to electronic) in 2020, the ability to compare data from 2022 to previous years (2018 and prior) is limited; differences between estimates might result from changes in methodology (data collection), actual behavior, or both.



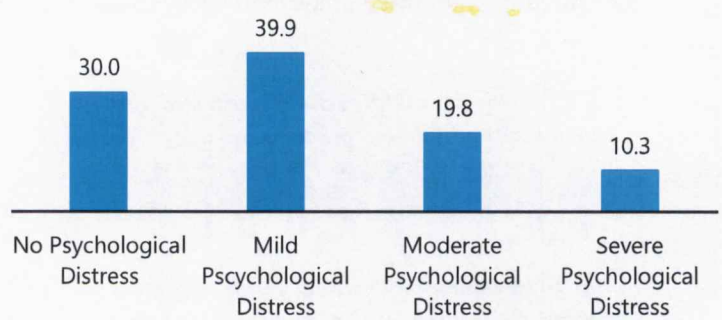
Psychological Distress and E-cigarette Use

In 2022, the IYTS asked high school students about their mental health. Students were asked how often in the past two weeks they have been bothered by the following problems:

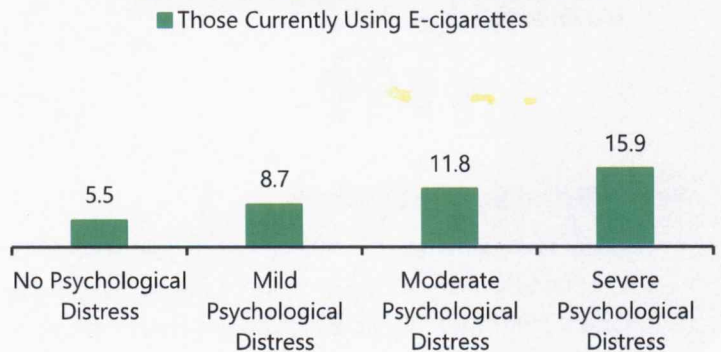
1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Feeling nervous, anxious or on edge
4. Not being able to stop or control worrying.

Students who provided responses to these questions were categorized by their level of distress (None, Mild, Moderate, Severe). Among Indiana high school students, the majority (69.9%) reported mild or no psychological distress. However, nearly 1 in 5 high school students reported moderate psychological distress and more than 1 in 10 students reported severe psychological distress. Additionally, those experiencing psychological distress were more likely to use tobacco. Nearly 1 in 6 (15.9%) high school students that reported experiencing severe psychological distress also reported current use of e-cigarettes. The most common reason reported for using e-cigarettes for both middle school and high school students was feeling anxious, stressed, or depressed.

Psychological Distress Among Indiana High School Youth, IYTS 2022



Psychological Distress and E-cigarette Use Among Indiana High School Youth, IYTS 2022



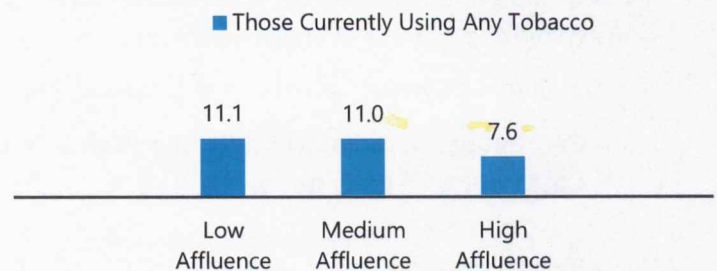
Tobacco Use and Family Affluence

Family affluence or wealth was assessed on the 2022 IYTS. Wealth, meant to be a proxy measure for socio-economic status (education attainment/income) which is used for adults, can provide additional insight into youth tobacco use behaviors. Responses to a series of questions were scored and categorized (Low, Medium, High). The following questions were asked only of high school students:

1. Does your family own a vehicle?
2. Do you have your own bedroom?
3. How many computers does your family own?
4. During the past 12 months, how many times did you travel on vacation with your family?

High school students that indicated a high level of family affluence reported lower rates of current tobacco use and lower rates of e-cigarette use. Rates of tobacco use were similar among those that experienced low or medium family affluence. These findings reflect similar patterns seen in the 2022 National Youth Tobacco Survey.

Tobacco Use and Family Affluence Among Indiana High School Youth, IYTS 2022



Protecting Hoosier Youth from Tobacco

While there has been progress in reducing youth tobacco use in recent years, tobacco continues to threaten the health of young people in Indiana. Protecting Hoosier youth from tobacco will require coordinated and sustained interventions, including:

- Efforts to reduce the accessibility and attractiveness of tobacco to youth
- Strong school-based tobacco-free policies and programs
- State and community changes supporting tobacco-free environments and social norms.⁵

Note about 2022 Data:

The IYTS survey shifted from a paper and pencil format to an online survey (REDCAP) in 2020, however even with an electronic survey, the COVID-19 pandemic still created unfavorable circumstances for data collection and representative data were not collected. In 2022, the electronic format was used again. Because of this change in survey format, the ability to compare data from 2022 to previous years (2018 and prior) is limited; differences between estimates might result from changes in methodology (data collection), actual behavior, or both.

To view additional resources on the 2022 Youth Tobacco Survey, or for more information about commercial tobacco control in Indiana, please visit in.gov/health/tpc.

¹ Park-Lee E, Ren C, Cooper M, Cornelius M, Jamal A, Cullen KA. *Tobacco Product Use Among Middle and High School Students — United States, 2022*. *MMWR Morb Mortal Wkly Rep* 2022;71:1429–1435.

² Hoffman AC, Salgado RV, Dresler C, et al. Flavour preferences in youth versus adults: a review. *Tobacco Control*. 2016; 25: ii32-ii39.

³ Ambrose BK, Day HR, Rostron B, et al. Flavored tobacco product use among US youth aged 12-17 years, 2013-2014. *JAMA*. 2015; 314(17):1871-1873.

⁴ 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.

⁵ Campaign for Tobacco-Free Kids. *The Toll of Tobacco in Indiana*. May 2, 2023. Accessed May 22, 2023 from https://www.tobaccofreekids.org/facts_issues/toll_us/indiana.

⁶ U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: 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, 2006.



The state of tobacco control Vigo County

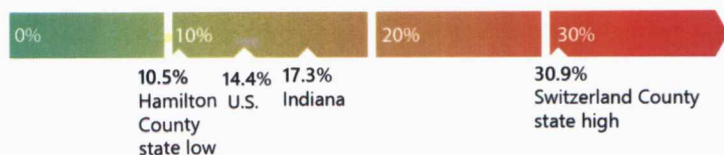
Lead Agency: **Chances And Services for Youth Coalition**
Coordinator:

1101 S. 13th St.
Terre Haute, IN 47802

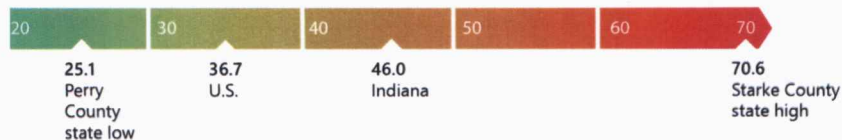
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Tobacco and Health in Vigo County

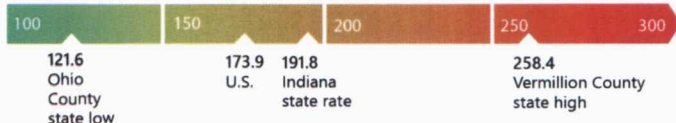
 **Percent of adults who smoke** **20.7%**



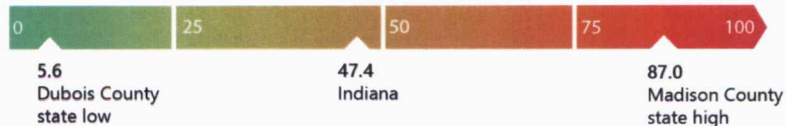
 **Lung cancer deaths**
per 100,000 residents **54.6**



 **Heart disease deaths**
per 100,000 residents **249.8**



 **Asthma related emergency room visits**
per 100,000 residents **44.9**



Tobacco Control Funding

\$230,000

Funding in Vigo County for July 2021-June 2023

Total Population
106,153

White: 89,410
Black: 7,177
Hispanic: 3,239
Asian: 2,013
Other*: 1,557



Smoking and Pregnancy

Births affected by smoking **245**
low birth weight, SIDS, reduced lung function

Percent of pregnant women who smoke:

Indiana: **10.9%**

Vigo County: **21.8%**



Smoking deaths

Deaths attributable to smoking

174

Deaths due to secondhand smoke

Economic burden of secondhand smoke: **\$34.3 Million**



Smoking related illness

5,209



\$6.1 billion

Economic cost in Indiana due to smoking

\$903 per Indiana household

State and federal tax burden from smoking-caused government expenditures

*Asian, Native Hawaiian or Other Pacific Islander, American Indians, and those identifying as multiple races. These racial groups are combined due to being underrepresented in Indiana.

Updated January 2023

Electronic Smoking Devices and Secondhand Aerosol

Electronic smoking devices (or ESDs), which are often called **e-cigarettes**, heat and vaporize a solution that typically contains nicotine. The devices are metal or plastic tubes that contain a cartridge filled with a liquid that is vaporized by a battery-powered heating element. The aerosol is inhaled by the user when they draw on the device, as they would a regular tobacco cigarette, and the user exhales the aerosol into the environment.

"If you are around somebody who is using e-cigarettes, you are breathing an aerosol of exhaled nicotine, ultra-fine particles, volatile organic compounds, and other toxins." Dr. Stanton Glantz, Director for the Center for Tobacco Control Research and Education at the University of California, San Francisco.

Current Legislative Landscape

- As of April 1, 2023, [1,021 municipalities, plus 26 states, commonwealths, and territories restrict e-cigarette use](#) in 100% smokefree venues.

Constituents of Secondhand Aerosol

Electronic smoking devices (ESDs) do not just emit "harmless water vapor." **Secondhand aerosol (incorrectly called vapor by the industry) from ESDs contains nicotine, ultrafine particles and low levels of toxins** that are known to cause cancer.

- ESD aerosol is made up of a high concentration of ultrafine particles, and the particle concentration is higher than in conventional tobacco cigarette smoke.¹
- Exposure to fine and ultrafine particles may exacerbate respiratory ailments like asthma, and constrict arteries which could trigger a heart attack.²
- ESD aerosol particles are smaller than 1000 nanometers, which is a similar size to tobacco smoke and diesel engine smoke, and bystanders can be exposed to this aerosol. "The exact size distribution depends on the chemical composition of the electronic cigarette liquid, the e-cigarette device operation, and user vaping preferences."³
- At least 10 chemicals identified in ESD aerosol are on California's Proposition 65 list of carcinogens and reproductive toxins, also known as the [Safe Drinking Water and Toxic Enforcement Act of 1986](#). The compounds that have already been identified in ESD aerosol include: **Acetaldehyde (MS), Benzene (SS), Cadmium (MS), Formaldehyde (MS,SS), Isoprene (SS), Lead (MS), Nickel (MS), Nicotine (MS, SS), N-Nitrosornicotine (MS, SS), Toluene (MS, SS)**.^{4,5}
- **ESDs contain and emit propylene glycol**, a chemical that is used as a base in ESD solution and is one of the primary components in the aerosol emitted by ESDs.
 - Short term exposure causes eye, throat, and airway irritation.⁶
 - Long term inhalation exposure can result in children developing asthma.⁷
- Even though propylene glycol is FDA approved for use in some products, the inhalation of vaporized nicotine in propylene glycol is not. Some studies show that heating propylene glycol changes its chemical composition, producing small amounts of propylene oxide, a known carcinogen.⁸

- There are **metals in ESD aerosol, including chromium, nickel, and tin nanoparticles**.⁹
- FDA scientists found detectable levels of carcinogenic tobacco-specific nitrosamines in ESD aerosol.¹⁰
- People exposed to ESD aerosol absorb nicotine (measured as cotinine), with one study showing levels comparable to passive smokers.¹¹
- **Diethylene Glycol**, a poisonous organic compound, was also detected in ESD aerosol.¹²
- **Exhaled ESD aerosol contained propylene glycol, glycerol, flavorings, and nicotine, along with acetone, formaldehyde, acetaldehyde, propanal, diacetyl, and triacetyl**.¹³
- Many of the elements identified in the aerosol are known to **cause respiratory distress and disease**. The aerosol contained particles >1 µm comprised of tin, silver, iron, nickel, aluminum, and silicate and nanoparticles (<100 nm) of tin, chromium and nickel. The concentrations of nine of eleven elements in ESD aerosol were higher than or equal to the corresponding concentrations in conventional cigarette smoke.¹⁴
- ESDs cause exposure to different chemicals than found in conventional cigarettes and there is a need for risk evaluation for both primary and passive exposure to the aerosol in smokers and nonsmokers.¹⁵
- Short term use of ESD has been shown to increase respiratory resistance and impair lung function, which may result in difficulty breathing.¹⁶
- The first study to look at exposure to aerosol from ESDs in real-use conditions found that non-smokers who were exposed to conventional cigarette smoke and ESD aerosol absorbed similar levels of nicotine.¹⁷
- The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) has concluded that ESDs emit harmful chemicals into the air and need to be regulated in the same manner as tobacco smoking. The “E-cigarettes do not produce a vapor (gas), but rather a dense visible aerosol of liquid sub-micron droplets consisting of glycols, nicotine, and other chemicals, some of which are carcinogenic (e.g., formaldehyde, metals like cadmium, lead, & nickel, and nitrosamines).”¹⁸
- ESD aerosol is a source of high doses of particles being deposited in the human respiratory system.¹⁹
- ESD exposure damages lung tissues. Human lung cells that are exposed to ESD aerosol and flavorings—especially cinnamon—are show increased oxidative stress and inflammatory responses.²⁰
- Concentrations of formaldehyde are higher than concentrations of nicotine in some samples of ESD aerosol. Formaldehyde is created when propylene glycol and glycerol are heated to temperatures reached by commercially available ESDs operating at high voltage.²¹
- Flavorings are a largely unrecognized potential hazard of ESDs. Diacetyl and acetyl propionyl are present in many sweet-flavored ESDs, and are approved by the FDA for food use (ingestion), but are not evaluated and approved for heating and inhalation, and are associated with respiratory disease when inhaled.²² High doses of diacetyl, used to flavor buttered popcorn, have been shown to cause acute-onset bronchiolitis obliterans, a severe and irreversible obstructive lung disease when inhaled by workers exposed to particulate aerosolized flavorings containing diacetyl.²³ Therefore, these chemicals cannot be deemed “generally recognized as safe” for inhalation.

- Nanoparticles in ESD aerosol are much smaller than the particles in tobacco smoke and are present in much higher concentrations. Toxic chemicals attached to nanoparticles may have greater adverse health effects than when these toxins are attached to larger tobacco smoke particles.²⁴ Nanoparticles are more easily and deeply breathed into the lungs of the user and bystander.
- ESD aerosols contain carbonyls at levels which can have cardiovascular toxicity. While ESD aerosol has lower levels of toxins than tobacco smoke, toxins from the aerosol may still have a significant cardiovascular impact because cardiovascular disease has a nonlinear dose-response, which means that high risk is possible with relatively low exposure.²⁵
- Human lung cells exposed to ESD aerosol and copper nanoparticles show signs of inflammatory stress and DNA fragmentation.²⁶
- ESD use alters the physical appearance of airways and may impact the development of chronic lung disease. The airways of people who use ESDs appear redder than the airways of both people who smoke and nonsmokers.²⁷
- ESDs that operate using a single-coil heating element produce much higher levels of toxins than double-coil devices across different e-liquids. Double-coil devices produce aerosol at lower temperatures while single-coil devices produce aerosol at higher temperatures.²⁸
- Daily ESD users have double the risk of heart attack, and the dual use of ESDs and conventional cigarettes—which is the most common use pattern among ESD users—is more dangerous than using either product alone.²⁹
- There is a risk of thirdhand exposure to nicotine released from ESD aerosol that deposits on indoor surfaces.³⁰
- Chemicals from ESDs can drift through multi-unit buildings and deposit on surfaces in spaces where ESDs are not being used.³¹ Overall, ESDs are a new source of **Volatile Organic Compounds (VOCs) and ultrafine/fine particles in the indoor environment**, thus resulting in “passive vaping.”³²
- The World Health Organization (WHO) recommends that ESDs not be used indoors, especially in smokefree environments, in order to minimize the risk to bystanders of breathing in the aerosol emitted by the devices and to avoid undermining the enforcement of smokefree laws.³³
- The National Institute for Occupational Safety and Health (NIOSH) recommends that employers “establish and maintain smoke-free workplaces that protect those in workplaces from involuntary, secondhand exposures to tobacco smoke and airborne emissions from e-cigarettes and other electronic nicotine delivery systems.”³⁴
- The American Industrial Hygiene Association (AIHA) also recommends that ESDs be included in smokefree laws: “**Because e-cigarettes are a potential source of pollutants (such as airborne nicotine, flavorings, and thermal degradation products), their use in the indoor environment should be restricted**, consistent with current smoking bans, until and unless research documents that they will not significantly increase the risk of adverse health effects to room occupants.”³⁵
- The American Public Health Association adopted a resolution, “Supporting Regulation of Electronic Cigarettes,” that outlines seven action steps including, “States and municipalities [should] enact and enforce laws...prohibiting the use of e-cigarettes in all enclosed areas of public access and places of employment. These standards should be incorporated into existing clean indoor air laws.”³⁶

- The American Association for Cancer Research and the American Society of Clinical Oncology supports prohibiting the use of ESDs in smokefree spaces until the safety of second- and thirdhand aerosol exposure is established.³⁷

ESD aerosol is a new source of pollution and toxins being emitted into the environment. We do not know the long-term health effects of ESD use and although the industry marketing of the product implies that these products are harmless, the aerosol that ESD emit is not purely water vapor.

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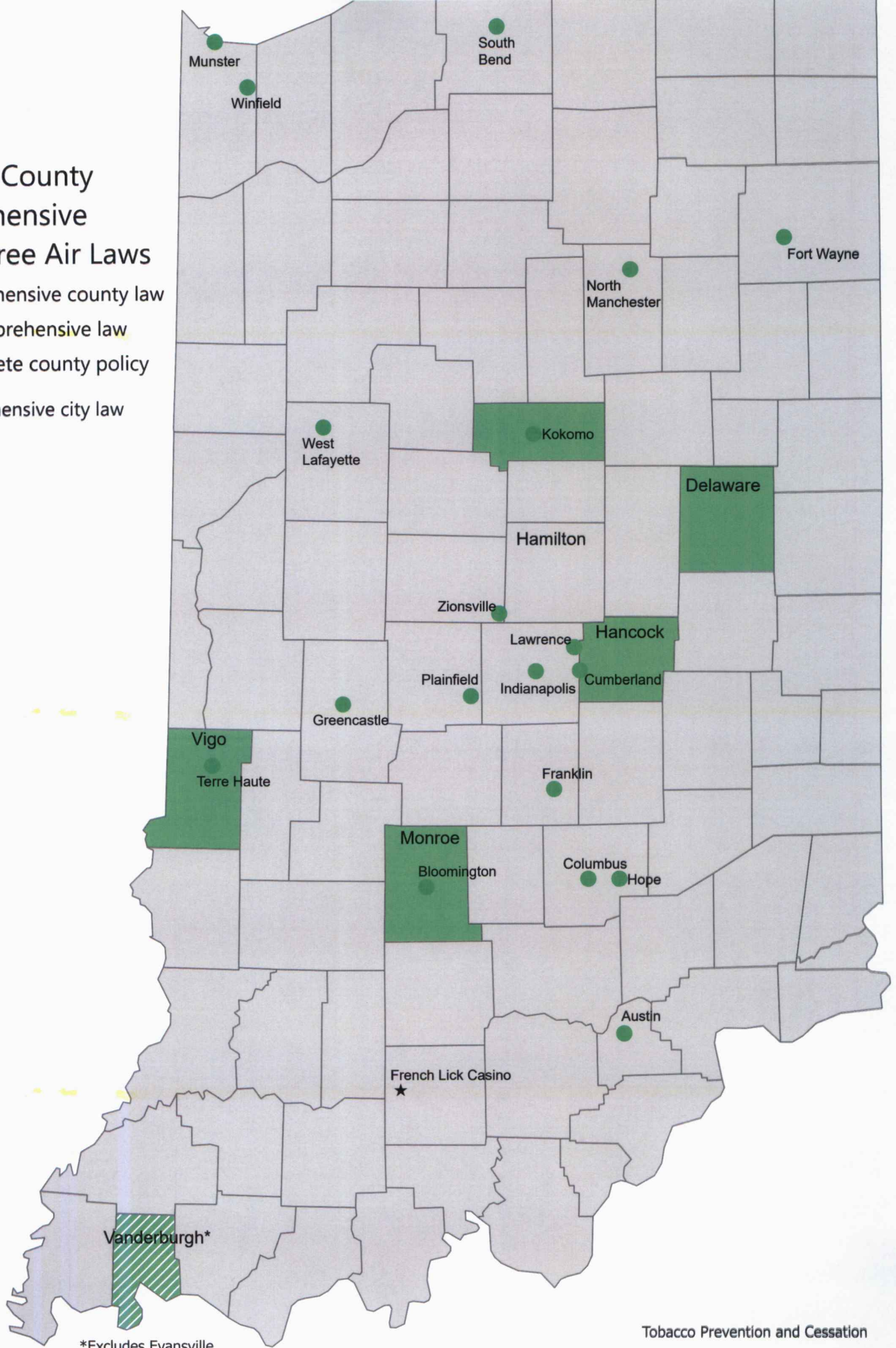
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City and County Comprehensive Smoke-free Air Laws

- Comprehensive county law
- No comprehensive law
- Incomplete county policy
- Comprehensive city law



*Excludes Evansville

Indiana's Smoke Free Air Laws

Indiana's statewide smoke free air law, House Enrolled Act 1149, took effect July 1, 2012.

In addition, 47 communities in Indiana are covered by a local smoke free air law.

28 communities plus the Indianapolis International Airport have passed a smoke free air law that includes non-hospitality workplaces, restaurants, and bars.

22 communities include membership clubs in their laws and 2 communities include gaming facilities.

Indiana Communities with a Smoke Free Law that Includes Non-Hospitality Workplaces, Restaurants, and Bars				
Municipality	Workplaces	Restaurants	Bars	Membership Clubs (such as VFWs, Elks, etc.)
Delaware County	x	x	x	x
Hancock County*^	x	x	x	x
Howard County*	x	x	x	x
Monroe County	x	x	x	x
Vanderburgh County (excludes Evansville)	x	x	x	x
Vigo County	x	x	x	x
Austin*	x	x	x	x
Bloomington*	x	x	x	x
Columbus*	x	x	x	x
Cumberland	x	x	x	x
Elkhart	x	x	x	
Fort Wayne*^	x	x	x	x
Franklin*	x	x	x	x
Greencastle*	x	x	x	
Greenfield*	x	x	x	x
Hope*	x	x	x	x
Indianapolis*	x	x	x	
Kokomo*^	x	x	x	x
Lawrence	x	x	x	
Munster*	x	x	x	x
North Manchester*	x	x	x	x
Plainfield	x	x	x	x
South Bend*^	x	x	x	x
Terre Haute	x	x	x	x
Winfield*^	x	x	x	x
West Lafayette	x	x	x	
Whitestown	x	x	x	
Zionsville*	x	x	x	x
Indianapolis Airport Authority*	x	x	x	Not applicable

*prohibits electronic cigarettes

^prohibits marijuana smoke

Indianapolis' law does not include the cities of Beech Grove or Southport, or the Town of Speedway.

Whitestown's law grandfathered existing bars/clubs but prohibited new bars/clubs from allowing smoking. The bar that allowed smoking closed permanently as of 2021, thus Whitestown has been added to the list above.

Indiana's Smoke Free Air Laws

15 Indiana communities have passed smoke free air laws that mostly include workplaces. They have exemptions that do not follow the recommended guidelines outlined by the Surgeon General for protecting citizens from exposure to secondhand smoke. These laws were passed prior to the statewide smoke free air law. Smoking is no longer permitted in restaurants and most workplaces in these communities.

Indiana Communities with a Smoke Free Law that Includes Non-Hospitality Workplaces and Restaurants			
Municipality	Workplaces	Restaurants	Bars
Allen County	x	x	Exempt
Grant County*	x	x	Exempt
Henry County	x	x	Exempt
Avon	x	x	Exempt
Carmel*	x	x	Exempt
Crown Point	x	x	Exempt
Goshen*	x	x	Exempt
Greensburg	x	x	Exempt
Greenwood*	x	x	Exempt
Henry County	x	x	Exempt
Jeffersonville	x	x	Exempt
Madison	x	x	Exempt
Seymour*	x	x	Exempt
Speedway	x	x	Exempt
Westfield	x	x	Exempt
State of Indiana	x	x	Exempt

*prohibits electronic cigarettes

The Carmel ordinance has a grandfather clause that applies to bars existing as of 7/31/2019

Indiana's Smoke Free Air Laws

4 Indiana communities have passed smoke free air laws that mostly include workplaces. They have exemptions that do not follow the recommended guidelines outlined by the Surgeon General for protecting citizens from exposure to secondhand smoke. These laws were passed prior to the statewide smoke free air law. Smoking is no longer permitted in restaurants and most workplaces in these communities.

Indiana Communities with laws that only include Workplaces and/or allow for restaurant exemptions. Bars are also exempt.			
<u>Municipality</u>	<u>Workplaces</u>	<u>Restaurants</u>	<u>Bars</u>
St. Joseph County	x	separate smoking rooms	Exempt
Lowell	separate smoking rooms	separate smoking rooms	Exempt
Shelbyville	x	x	Exempt
Valparaiso	x	not adequate	Exempt