

## Vaping: What it is and How Healthcare Providers and Communities Can Address the Epidemic

#### **Presenter:**

#### **Cathy Blume**

Indiana Family and Social Services Administration (FSSA) Division of Mental Health and Addiction (DMHA)



## **Rethink Tobacco Indiana**

- Funded by the Indiana State Department of Health's Tobacco Prevention and Cessation Commission
- Aim to reduce the prevalence of tobacco and nicotine use among persons with mental health conditions, substance use disorders, or co-occurring disorders through the following activities:



- Technical Assistance
- Policy Development
  - Education



Specialized Training



Resources



#### www.in.gov/isdh/tpc



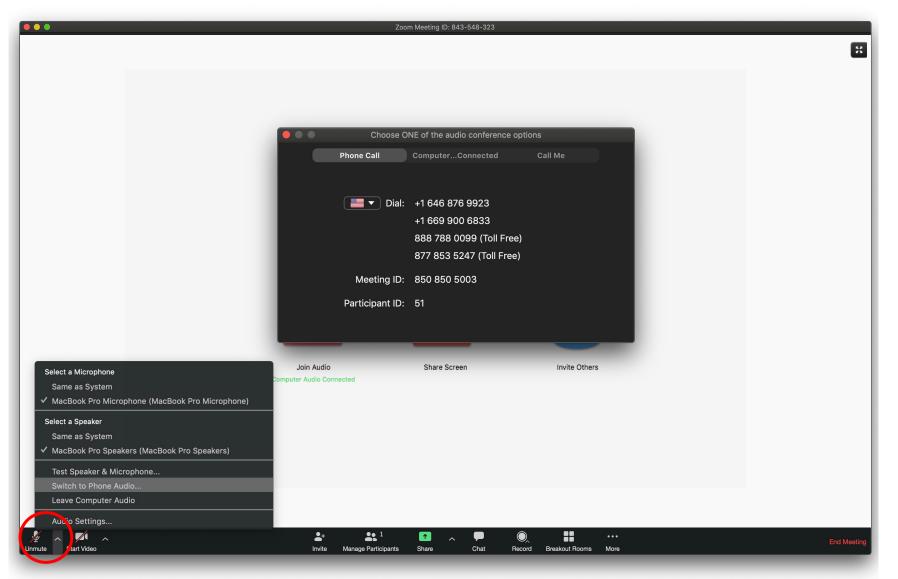
www.RethinkTobaccoIndiana.org

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- All participants lines will be muted.
- For audio access, participants can either call into the conference line or listen through their computer. Please ensure your speakers are on and adjust the volume accordingly.
- This **webinar is being recorded** and will be available on Rethink Tobacco Indiana's website, along with the slides in 2-4 business days following the webinar.
- Use the Q & A button to submit questions throughout the webinar to the presenter.



## **Adjusting Zoom Audio Settings**





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#### **Presenter**

#### **Cathy Blume**

Synar & Alcohol Program Director

Indiana Family and Social Services Administration (FSSA) Division of Mental Health and Addiction (DMHA)







# Vaping: What is it and how can Healthcare Providers and Communities Address the Epidemic?

Cathy Blume Synar and Alcohol Program Director Division of Mental Health and Addictions 317-232-7912 Catherine.blume@fssa.in.gov



#### What is one thing you already know about e-cigarettes/vaping?

#### What is one thing you hope to learn today?



# 3,700 Hoosier youth become new daily smokers each year.

That's approximately...

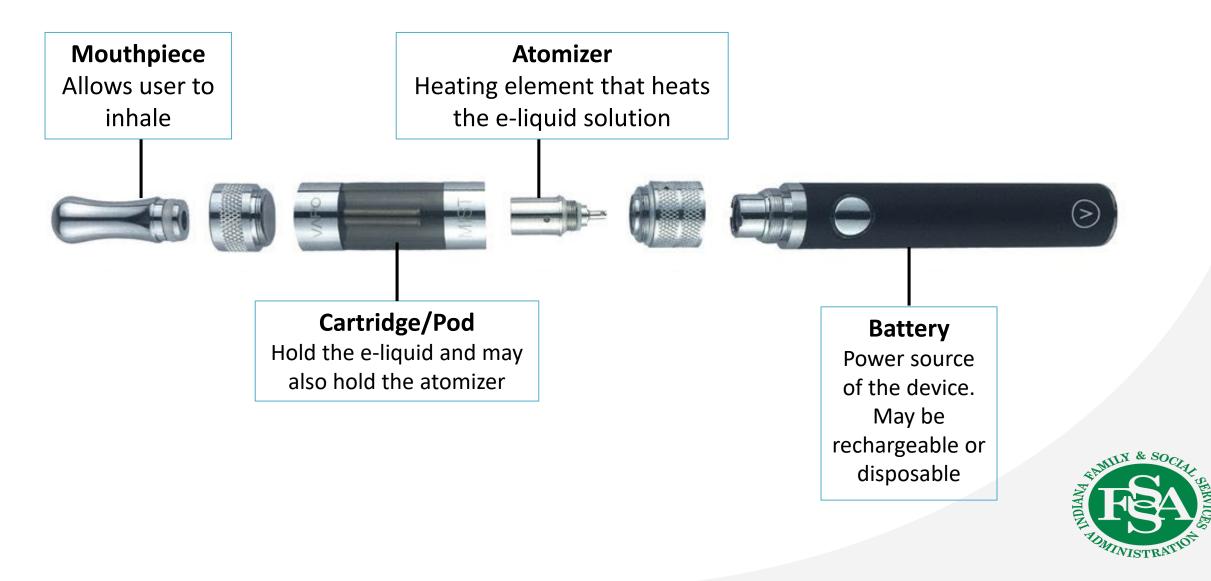
## Why is it Important?

Indiana Youth Tobacco Facts





## **E-Cigarettes Components**



# Background of Electronic Nicotine Delivery Systems (ENDS)



- Developed and patented in 2003 by a Chinese research pharmacist. Introduced to the U.S. market in 2006/2007.
- As of 2014, estimated 90% of the world's production of e-cigarette technology and products came from mainland China.
- Prior to the FDA's Deeming Regulation in 2016, there were no federal regulations on e-cigarette products in the U.S.



Source: http://www.casaa.org/historical-timeline-of-electronic-cigarettes/;https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2598554/#!po=25.0000

## Wide Variety of Shapes and Sizes



#### **Common Names:**

- Electronic cigarettes
- E-Cigarettes, E-cigs
- Vapes or vape pens
- Mods
- Tanks
- Cigalikes
- E-Hookah
- E-Pipes
- Brand name: JUUL, Blu, Suorin, Rubi
- Electronic nicotine delivery systems (ENDS)











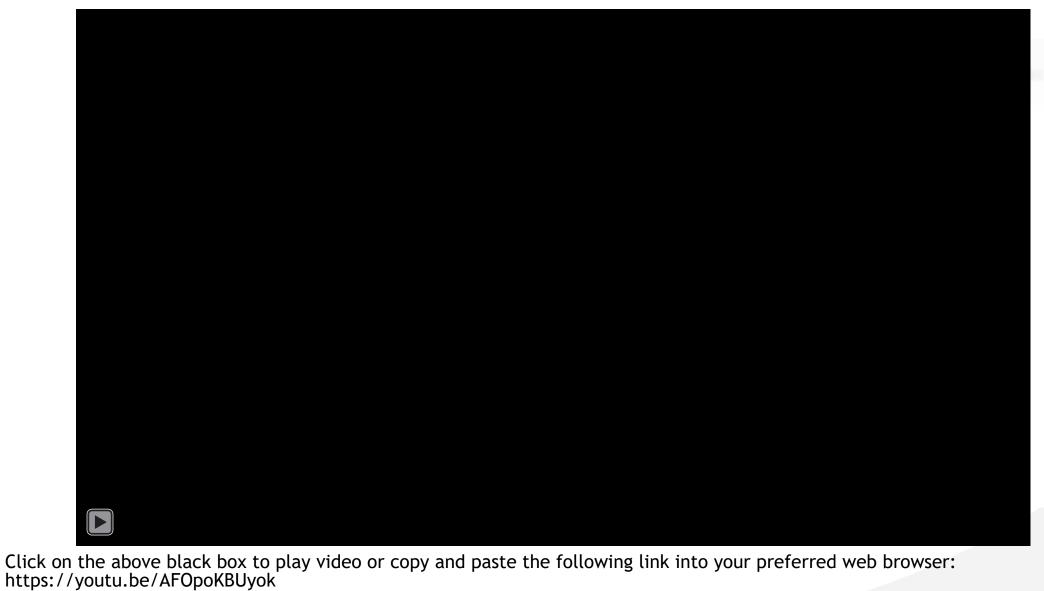








## How do vapor products differ?



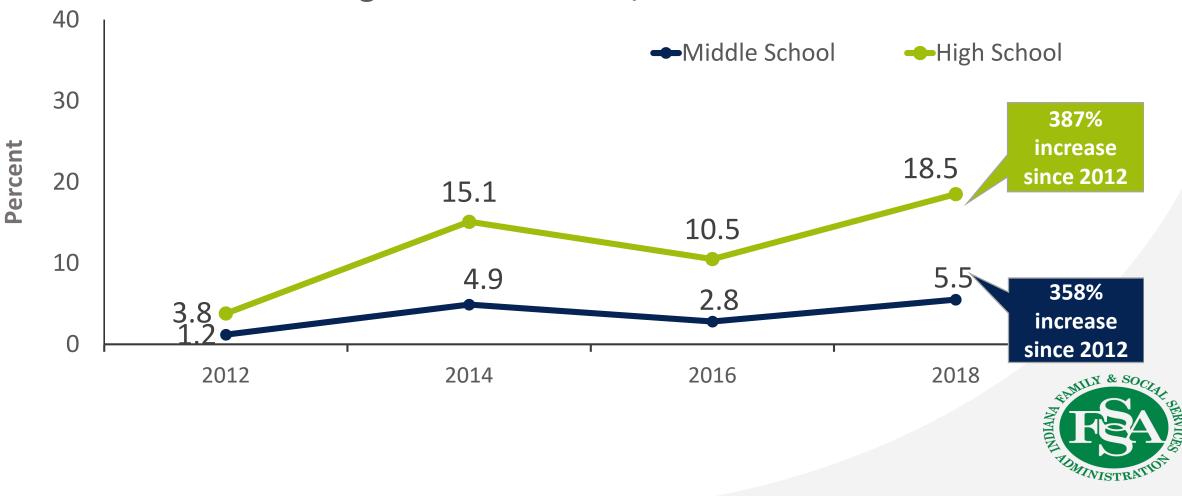


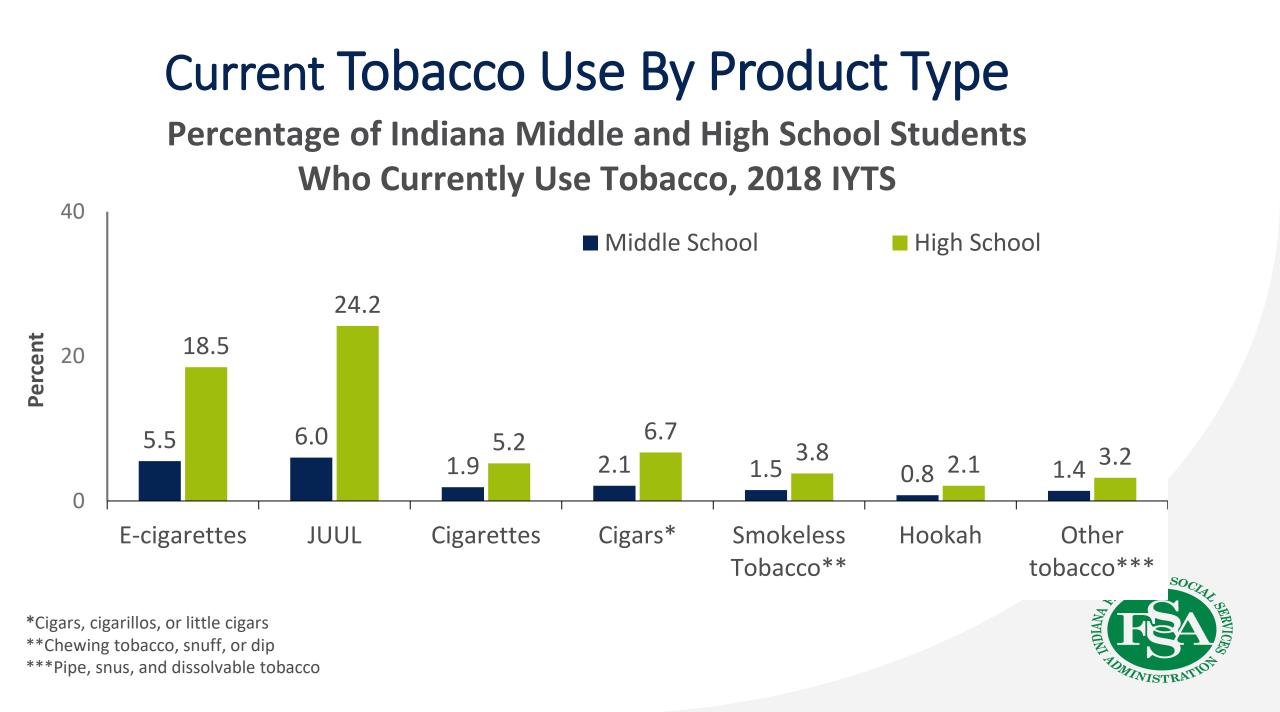
# Who is Impacted?



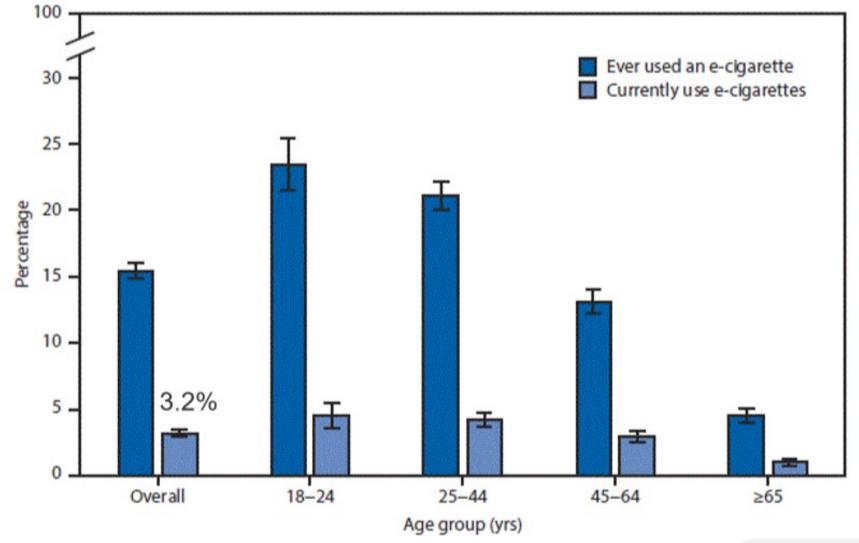
## Trends among youth

#### Current (past 30 day) Use of E-Cigarettes among Indiana Middle and High School Students, 2012-2018 IYTS





## Current Use of E-cigarettes Among U.S. Adults by Age Group- 2016

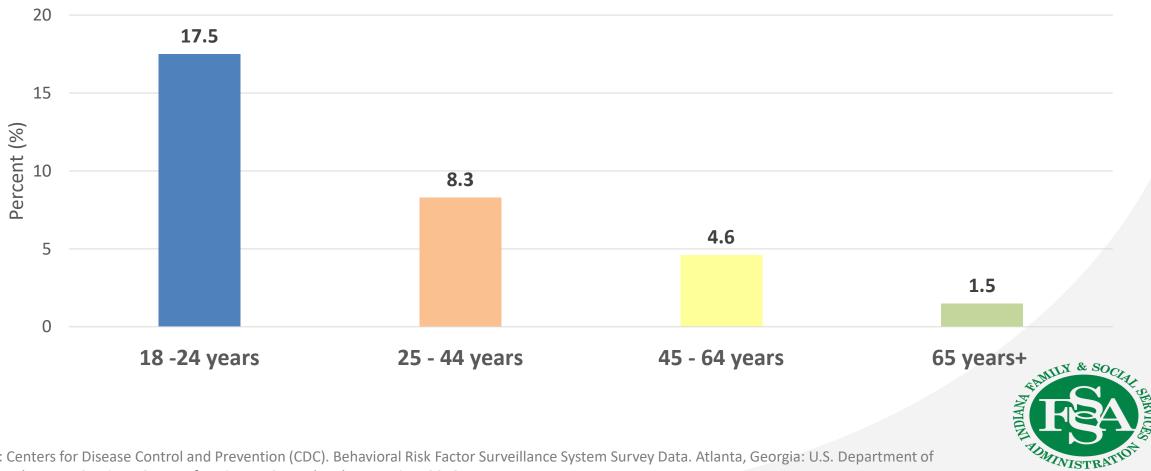


Source: QuickStats: Percentage of Adults Who Ever Used an E-cigarette and Percentage Who Currently Use E-cigarettes, by Age Group — National Health Interview Survey, United States, 2016. MMWR Morb Mortal Wkly Rep 2017;66:892.



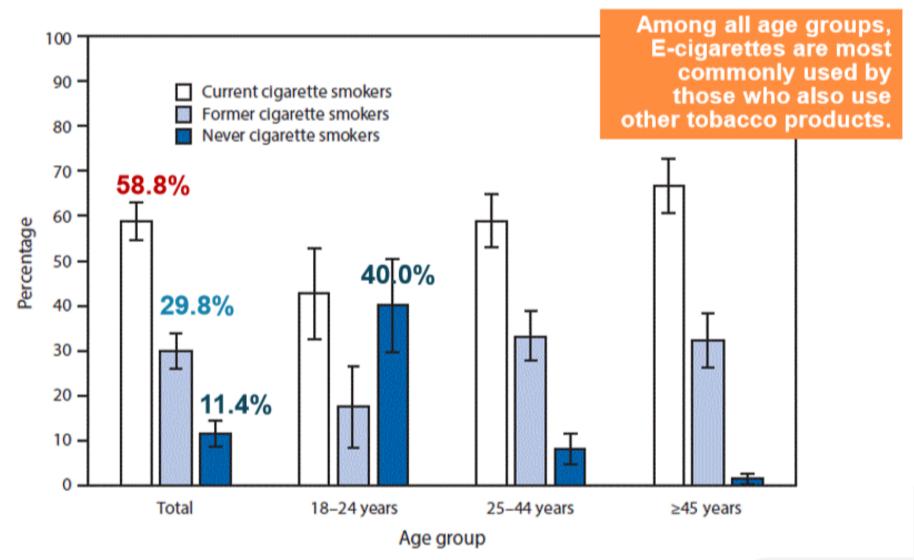
## **Current Use of E-cigarettes Among** Indiana Adults by Age Group - 2018

Percent of Adults (18+) who use E-cigarettes Every Day or Some Days



Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2018

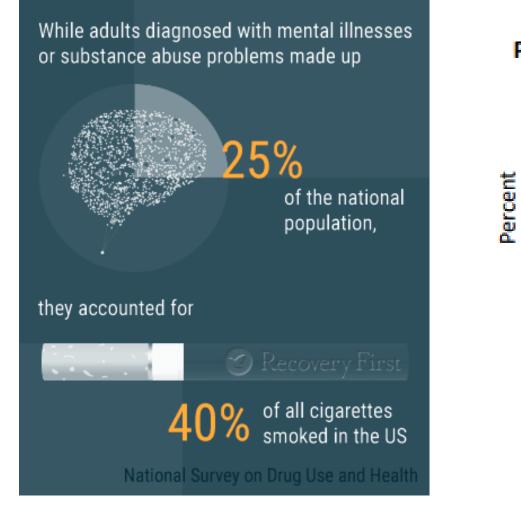
## Cigarette Smoking Status Among Current Adult E-Cigarette Users, by Age Group



Source: QuickStats: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. MMWR Morb Mortal Wkly Rep 2016;65:1177.



## Impacts on those with Mental Health and Substance Use Disorders



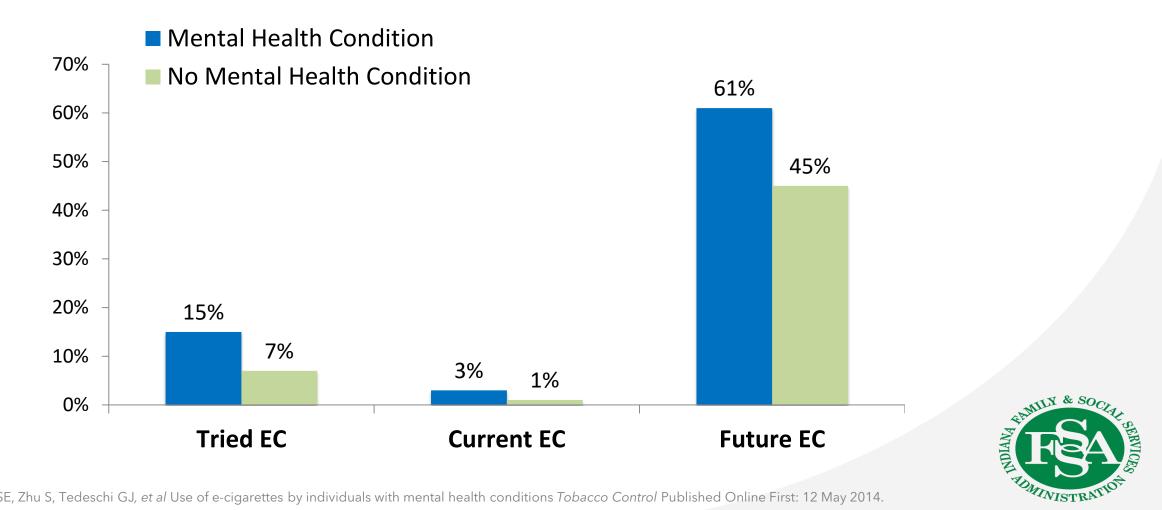
Percentage of adults who currently smoke cigarettes, by mental illness diagnosis, 2009-2011<sup>4</sup>

Any Mental Illness
No Mental Illness
38.8%
24.4%
24.4%
100
21.4%
100
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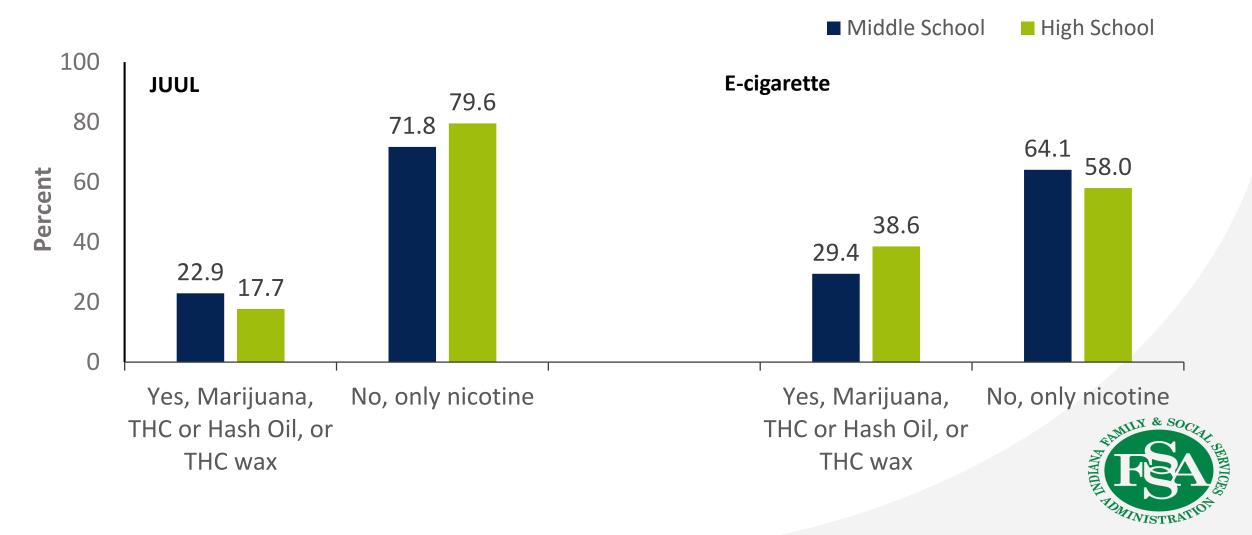


## **E-Cigarettes and Mental Health**

Ever and current use of e-cigarettes (EC) by mental health condition



# Use of JUUL or E-cigarettes with other substances than nicotine, 2018 IYTS



## What health impact do e-cigarettes have?



### E-cigarette Aerosol is NOT Harmless

E-cigarettes contain nicotine, ultrafine particles, heavy metals, and volatile organic compounds.



## E-cigarette Aerosol is NOT Harmless

#### • Nicotine

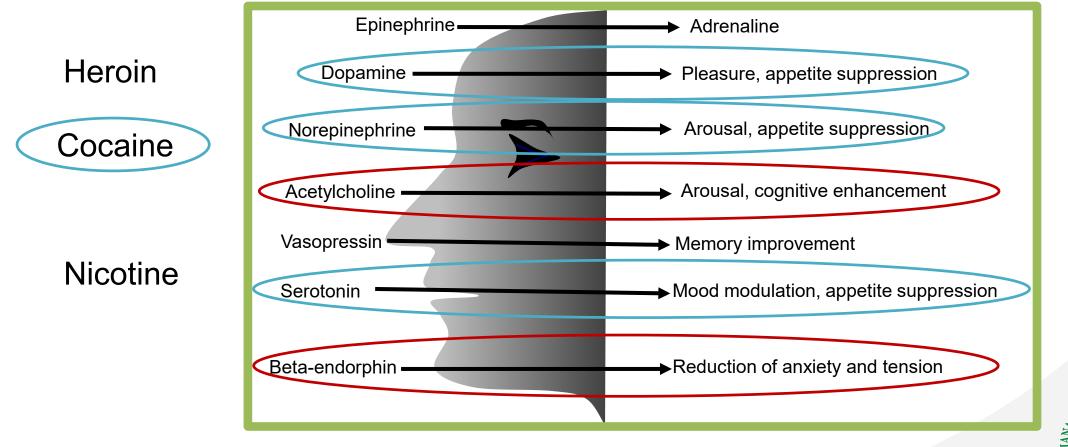
- 99% of all e-cigarettes sold in convenience stores, supermarkets or similar locations contain nicotine
- Indiana Code allows for Maximum of 75mg/mL nicotine
- Propylene Glycol and Vegetable Glycerin
  - Is FDA recognized as food safe but not for inhalation
  - Propylene glycol= deeper throat hit and better flavor
  - Vegetable Glycerin= thicker cloud
- Flavorings
  - Over 7,700 flavors many being candy or fruit flavored
  - Different flavors also can contain higher levels of chemicals
- Cancer-Causing Chemicals
  - Formaldehyde, acetaldehyde, acrolein, chromium, nickel



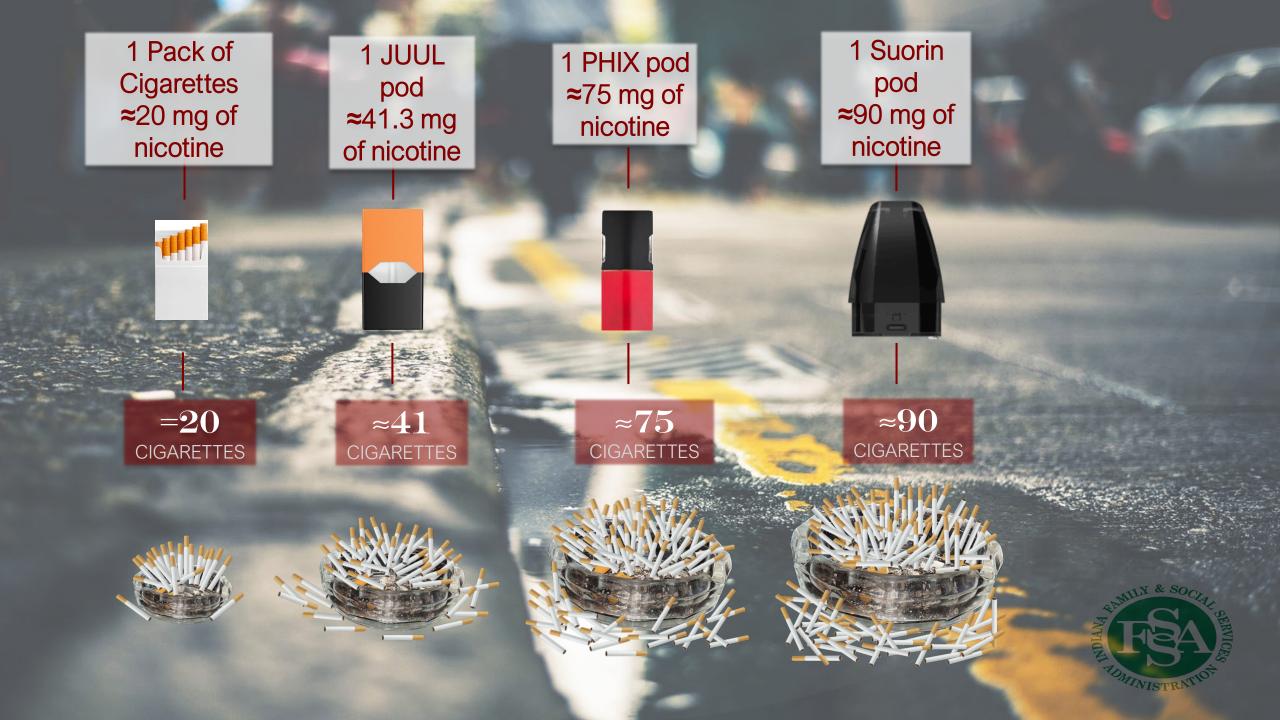


Youth nicotine exposure affects learning, memory, and attention span.

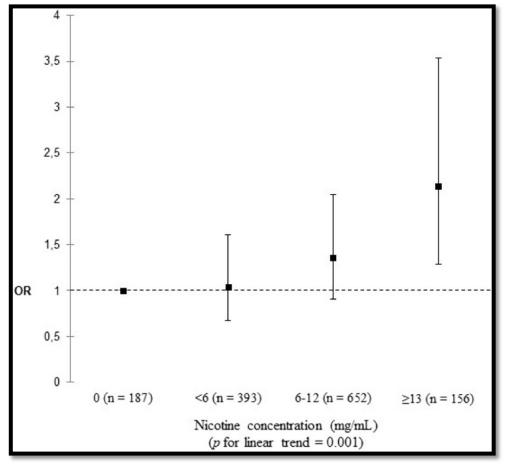
## How Nicotine Effects You







## Mental Health



Cross-sectional associations between depressive symptoms and nicotine concentration, among current users of e-cig (n = 1388)

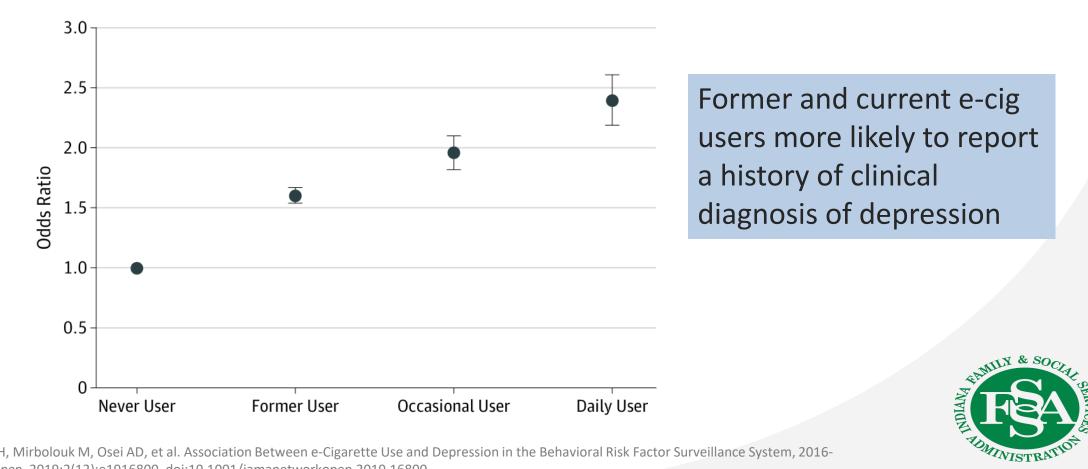
- In cross-sectional analyses (n=35,337), depressive symptoms were positively associated with both ever and current e-cigarette use, with a dose-dependent relationship.
- Among current e-cigarette users, depressive symptoms were positively associated with the use of the highest nicotine concentration in the e-liquid.



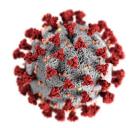
Wiernik, E. et al. Electronic cigarette use is associated with depressive symptoms among smokers and former smokers: Cross-sectional and longitudinal findings from the Constances cohort. Addictive Behaviors. (2019) <u>https://doi.org/10.1016/j.addbeh.2018.10.021</u>

## Mental Health Con't

Association Between e-Cigarette Use and Depression in the Behavioral Risk Factor Surveillance System, 2016-2017



Source: Obisesan OH, Mirbolouk M, Osei AD, et al. Association Between e-Cigarette Use and Depression in the Behavioral Risk Factor Surveillance System, 2016-2017. JAMA Netw Open. 2019;2(12):e1916800. doi:10.1001/jamanetworkopen.2019.16800



## COVID-19 and e-cigarette use

- People who smoke or vape have a **higher chance of getting COVID-19** from bringing their hands to their mouths, which can transfer the virus into the body, and by sharing tobacco products such as e-cigs and hookah
- Smoking damages the lungs and immune system, increasing the chances of getting COVID-19 and having worse outcomes
- Smoking increases the risk of several chronic diseases including chronic lung disease (e.g. COPD), diabetes, and cardiovascular disease. People with these conditions have an **increased risk of COVID19-related complications**
- Individuals with opioid use disorder (OUD) and methamphetamine use disorder are also vulnerable due to those drugs' effects on respiratory and lung health
- Both children and adults with chronic health problems such as moderate to severe asthma are at greater risk of severe illness from COVID-19. Secondhand smoke can worsen the frequency and severity of asthma attacks among children with asthma

## Other Health implications

- Lung Injury associated with e-cigarette use or vaping
  - State tracking halted with COVID (3.13.20)
  - 60 Confirmed
  - 68 Probable
  - -6 deaths
  - Most cases for ages 18-29 (58)
  - FDA is collecting information on lung injury (June 19)



## Other Health implications

- Pregnancy
- Nicotine harms brain and lung development
- 7% of women reported using e-cigarettes at any point around the time of pregnancy
- 1.4% reported use during the last 3 months of pregnancy



# What role do flavors play?



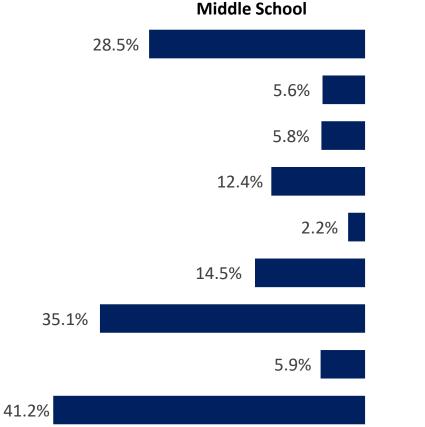
## Flavored Tobacco Product Use

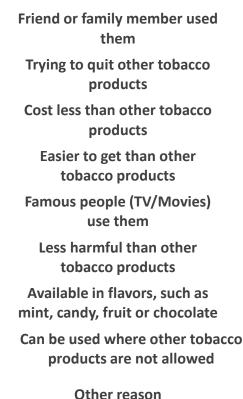


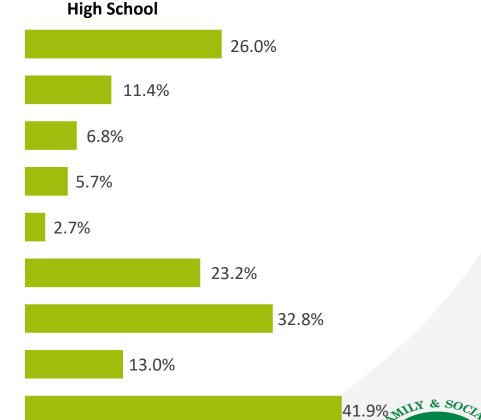
RANULY & SOCIAL SERVICES

Image source: CounterTobacco.org

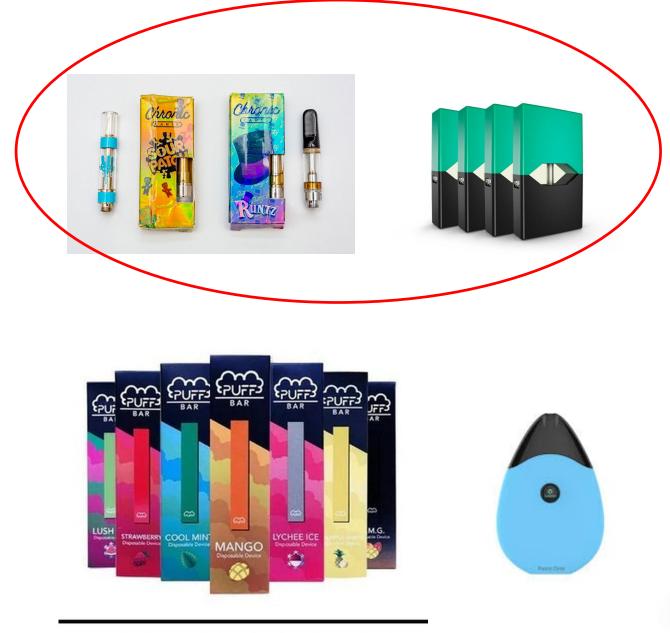
# Reasons for using E-cigarettes among current users of E-cigarettes, 2018 IYTS











WARNING: THIS PRODUCT CONTAINS NICOTINE. NICOTINE IS AN ADDICTIVE CHEMICAL.



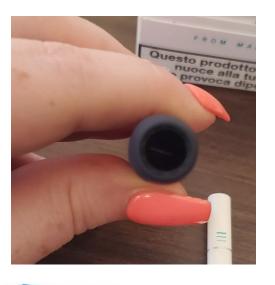












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contains

is a highly addictive substance.

substance. addictive



#### **Other Tobacco Products**

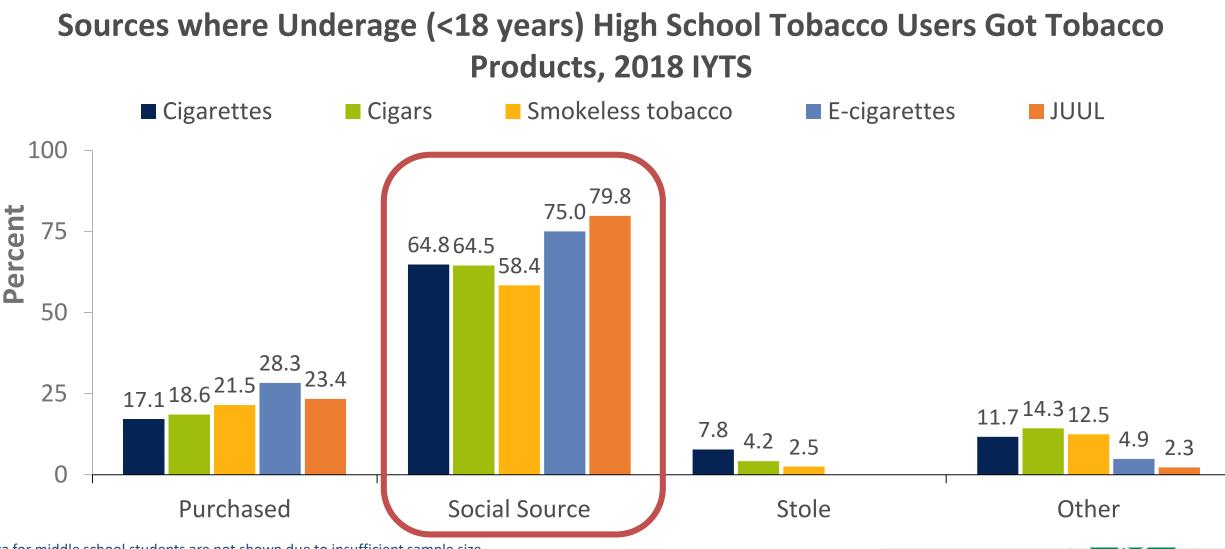




# How are youth obtaining these products?



## How Youth Get Tobacco

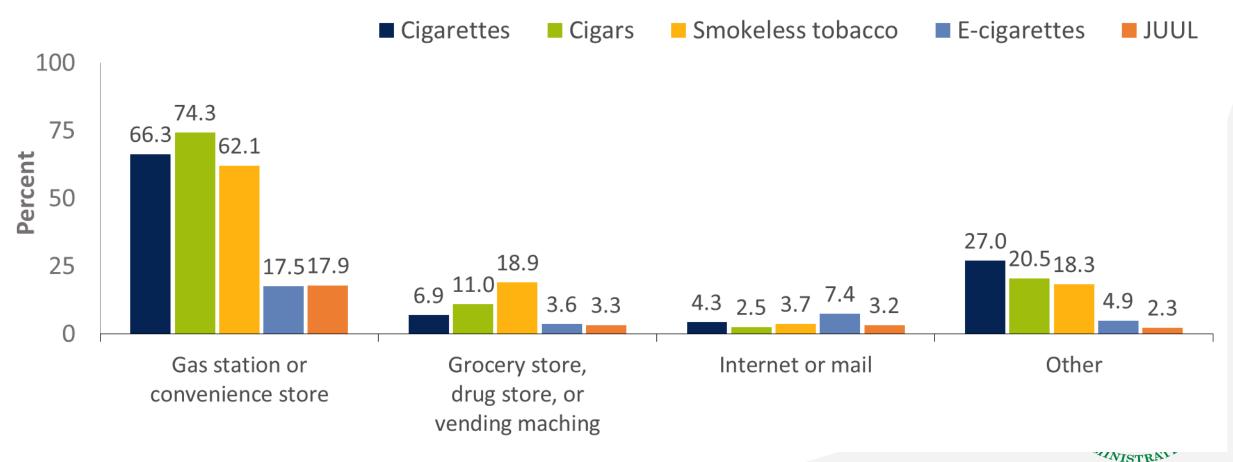


Data for middle school students are not shown due to insufficient sample size.



## How Youth Get Tobacco

#### Sources where Underage (<18 years) High School Tobacco Users Bought Tobacco Products, 2018 IYTS (Among Those Who Purchased Tobacco Themselves)



#### Purchase age increase

- Starting July 1, 2020
   Federal started Dec. 19, 2019
- Must ID those appearing 30 or under
- This allows both federal and state enforcement
- No exemptions of grandfathering



THE SALE OF TOBACCO OR ELECTRONIC CIGARETTES TO PERSONS UNDER 21 YEARS OF AGE IS FORBIDDEN BY INDIANA LAW.

Smoking by Pregnant Women May Result in Fetal Injury, Premature Birth, and Low Birth Weight. For assistance in quitting smoking, call: 1-800-QUIT-NOW (1-800-784-8669)

This sign complies with the statutory requirements for tobacco signage: 2020 Indiana Alcohol and Tobacco Commission



#5895

# How can we help?



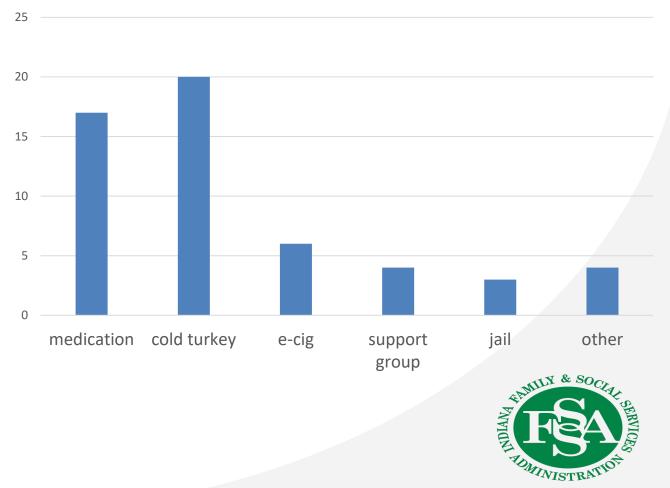
#### How to help those with Mental Illness or SUD

- Ask about patients' tobacco use, advise them to quit, assess willingness to quit, assist them with accessing effective tobacco treatment, and arrange for follow up
- Refer patients to an evidence-based tobacco treatment resource for extra support, such as the Indiana Tobacco Quitline (1-800-QUIT-NOW) which along with its traditional services, offers a tailored program for those with behavioral health conditions, including: Bi-Polar Disorder, Depression, Drug or Alcohol Use Disorder (SUD), Generalized Anxiety Disorder, PTSD, Schizophrenia or ADHD
- Integrate tobacco treatment into overall mental health treatment strategies
- Implement tobacco-free campus policies in treatment facilities
- Stop practices that encourage tobacco use, such as allowing smoking as a rewark



### Utilizing Peers to Help with Cessation

- Research shows that individuals who treat their addiction to tobacco and other substances at the same time are 25% more likely to sustain their recovery, compared to individuals who do not address tobacco while in recovery from other drugs.
- Persons with behavioral health conditions are nicotine dependent at rates that are 2-3 times higher than the general population.



#### Indiana Survey of Peers/CHW/CRS- 2019

### Programs/Resources- For youth

- Behind the Haze
- Truth Initiative
- VOICE
- This is Quitting
- INDEPTH (diversion program)
- The Real Cost of Vaping
- CATCH My Breath





truth 🗙 THIS IS QUITTING



CATCH® MY BREATH E-CIGARETTE & JUUL PREVENTION PROGRAM





#### Additional Resources

- www.rethinktobaccoindiana.org/
- vapefreeindiana.isdh.in.gov
- www.quitnowindiana.com/
- med.stanford.edu/tobaccopreventiontoolkit.html
- www.lung.org/local-content/mn/lung-mind-alliance/lung-mindalliance-resources
- <a>www.SmokeFree.gov</a>
- <u>www.Smokingcessationleadership.ucsf.edu</u>



# **Questions?**

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# **Q & A**

Please submit your questions via the Zoom **Q & A** feature.





#### **Thanks for Joining!**

- Please complete the post-webinar survey to obtain your free CME/CEUs. Instructions will be emailed with how to obtain proof of your webinar participation.
- Check us out at <u>www.RethinkTobaccoIndiana.org</u>

