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# To Juul or Not To Juul: What We Know About The Health Effects of Vaping

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**“TO JUUL OR NOT TO JUUL”:  
WHAT WE KNOW ABOUT THE HEALTH  
EFFECTS OF VAPING**

**Chad Serels**

Longitudinal Integrated Clerkship

Larner College of Medicine

Hudson Headwater Health Network

Glens Falls, NY

2018-2019

# VAPING IN THE NEWS

The New York Times

*F.D.A. Targets Vaping,  
Alarmed by Teenage Use*

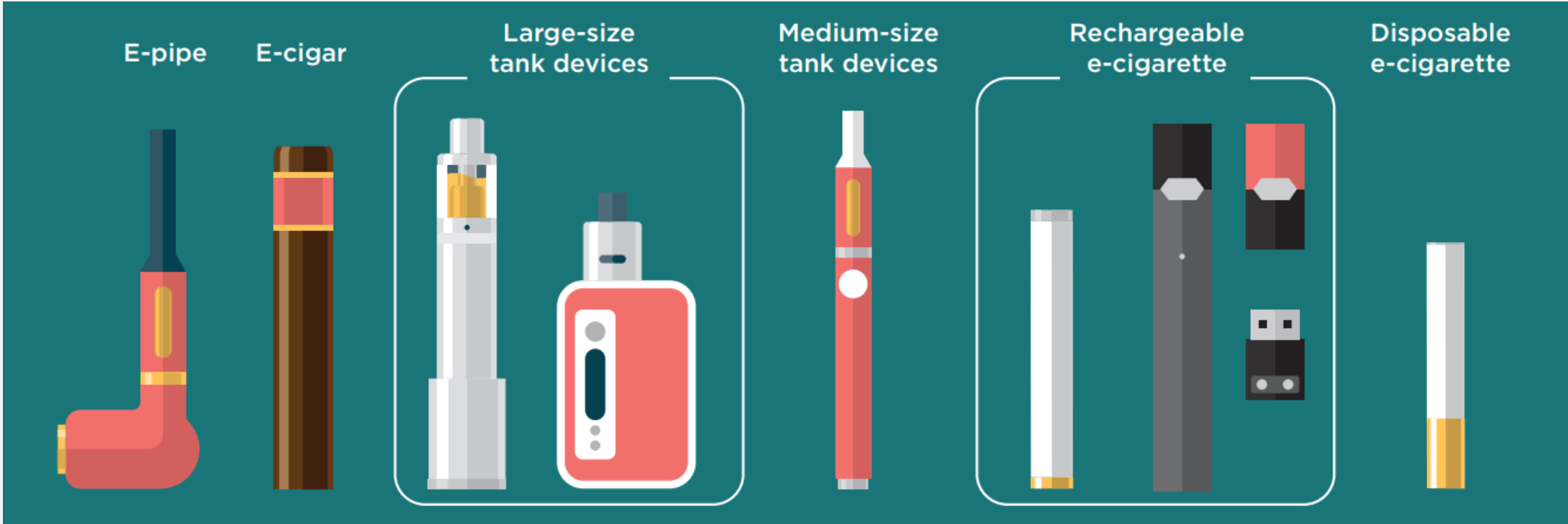


NEWS  
**Is vaping a healthier alternative to  
cigarettes?**

CNN Health » Food | Fitness | Wellness | Parenting | Live Longer  
E-cigarettes less toxic to users than  
cigarettes, study says  
Live TV • U.S. Edition +

TIME  
HEALTH • PUBLIC HEALTH  
**Teens Are 'Juuling' At School. Here's What That Means**

# WHAT IS VAPING?



Source: CDC, Electronic Cigarettes: What's the bottom line?

# INCREASING PREVALENCE

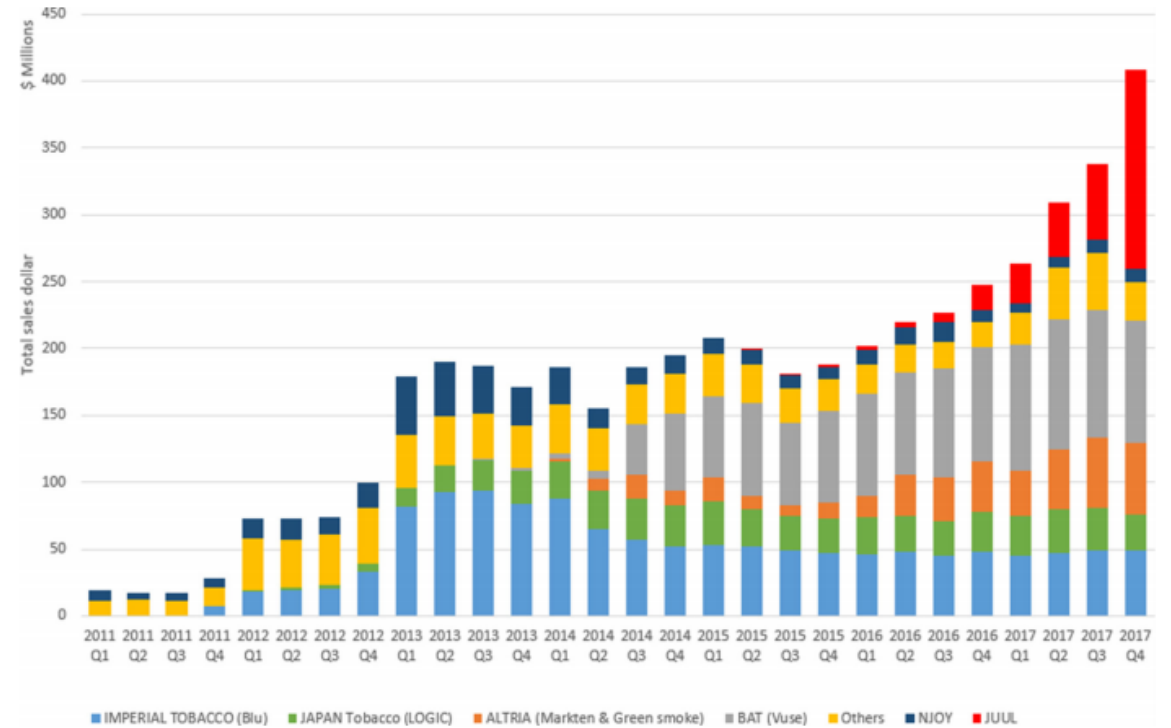


Figure 1 Sales dollar of e-cigarettes in Nielsen-tracked retail channels: by brand 2011–2017.

## COMMUNITY PERSPECTIVE

Local smoke shop owner:

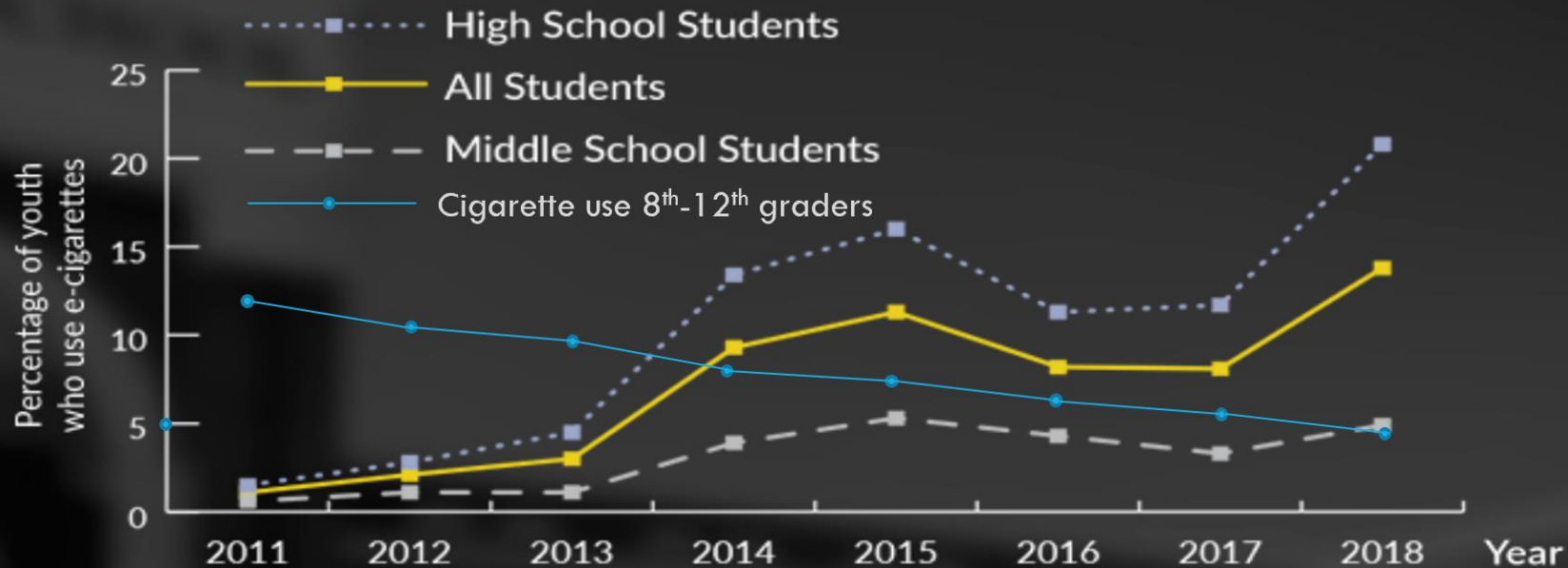
“We only sell 2 brands of nicotine delivery devices, but Juul is by far the most popular. We sell a ton-a ton of Juuls...We never had to card people before but we’ve had to start because so many kids are coming in trying to buy them.”

10<sup>th</sup> grader, Queensbury High School:

“I started to hear about [vaping] about a year or two ago.....now I’d guess about 35-40% of kids in my grade have tried it”

# POPULARITY AMONG TEENS

## Growth in E-Cigarette Use



Source: National Youth Tobacco Survey 2011–2018

Notes: In 2014, changes were made to the e-cigarette measure to enhance its accuracy.

# E-CIGARETTES ARE THE MOST COMMONLY USED TOBACCO PRODUCT AMONG YOUTH.

IN THE U.S.,  
YOUTH ARE  
MORE LIKELY  
THAN ADULTS  
TO USE  
E-CIGARETTE



**4.9%**  
MIDDLE SCHOOL  
STUDENTS

In 2018, more than  
**3.6 MILLION**  
U.S. middle and high school  
students used e-cigarettes in  
the past 30 days, including:

**20.8%**  
HIGH SCHOOL  
STUDENTS



Source: CDC, Electronic Cigarettes: What's the bottom line?



## PUBLIC HEALTH COST

- 15.5% (38 million) US adults smoke cigarettes
- HHHN population (2017): 20.7% of patients diagnosed with Nicotine Use Disorder
- Smoking is still #1 cause of preventable deaths worldwide
- 480,000 people die per year in US from smoking-related disease
- Total economic cost of smoking in US is more than \$300 billion/year
  - In NY state economic cost is \$10 billion/year
- Juul is valued at \$38 Billion
- Altria, makers of Marlboro, bought 35% stake in Juul for \$13 billion

## SOURCES OF HEALTH INFO ABOUT VAPING

- Among e-cigarette users, personal medical provider ranked #1 most trusted source for health information about vaping
- 83% of health care providers felt they knew “nothing at all” or only “a little” about e-cigarettes
- Only 11.4% felt “very comfortable” talking to patients about e-cigarettes

# INTERVENTION



Extensive literature review on the health effects of vaping



Created 20 minutes presentation



Gave talk at HHHN health centers to providers, nurses, care managers, and medical students



Evaluated effectiveness with feedback survey

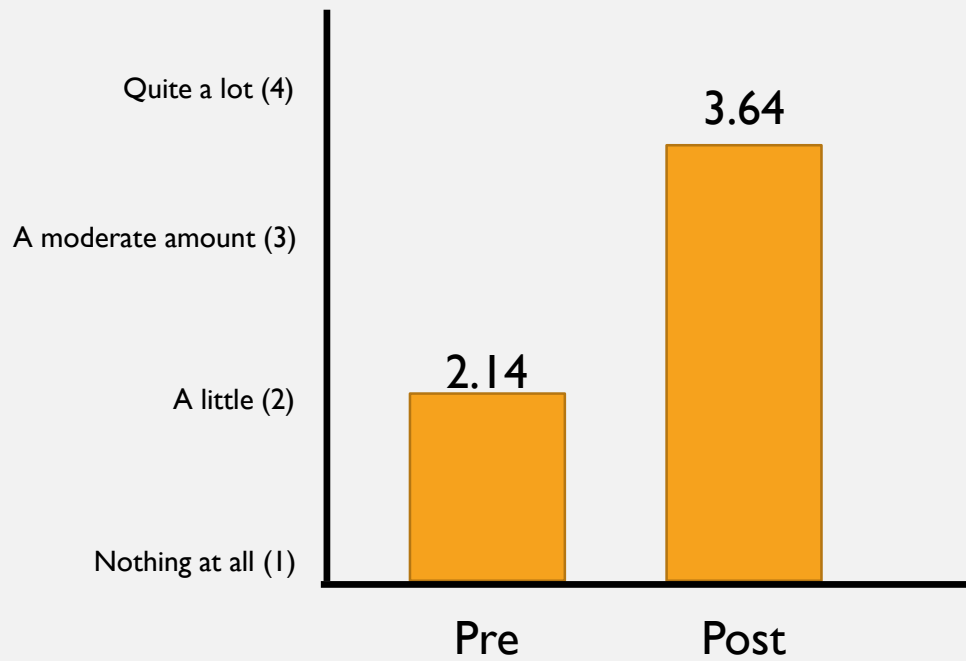


## RESULTS

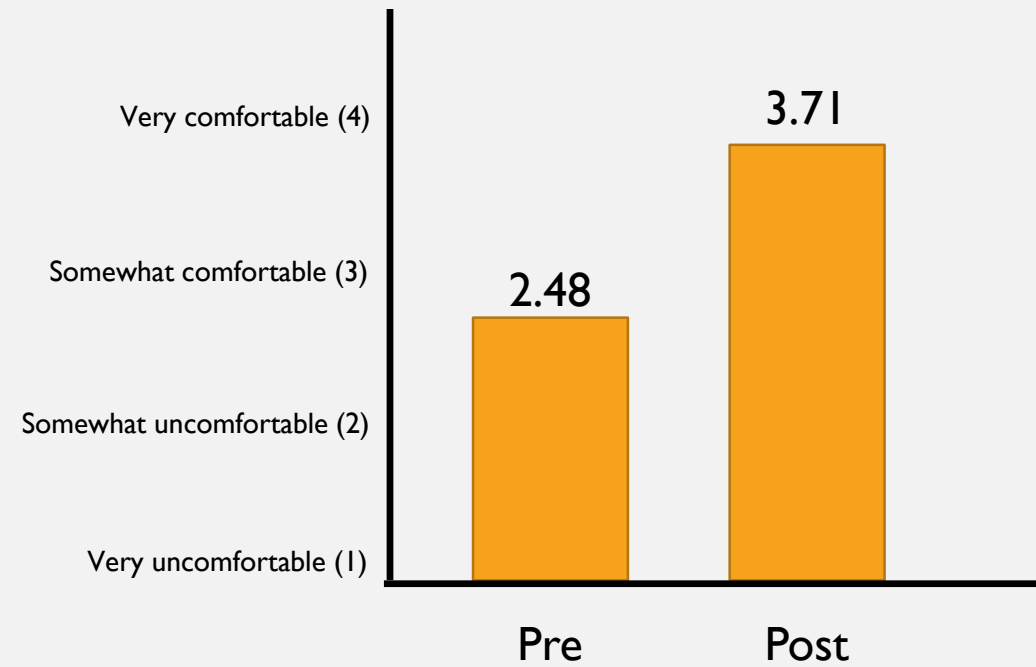
- Presented at 4 HHHN health centers
- 21 survey responses
  - 10 Providers, 5 Nurses, 2 Care Managers, 3 Medical Students, 1 Medical Secretary

# RESULTS

Knowledge about vaping

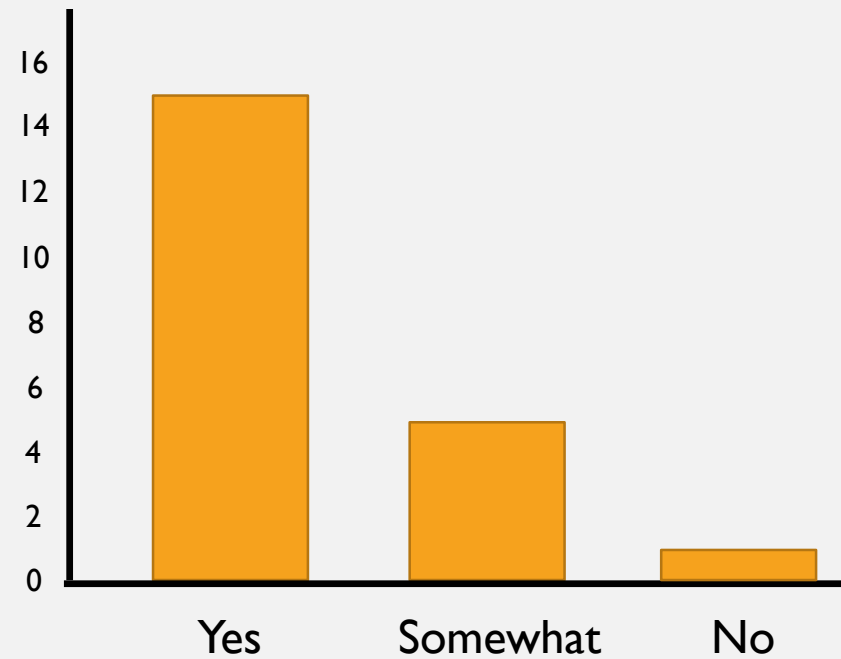


Comfort level discuss vaping with patients



# RESULTS

Did the presentation change how you will discuss vaping with patients?



# LIMITATIONS



Self-reported data



Did not reach every health center in the network



Medical staff availability

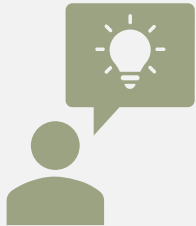


E-cigarette landscape changing rapidly



Research is ongoing

# RECOMMENDATIONS



Consider putting annotated PowerPoint on HWeb



From feedback, providers and nurses thought handouts for patients would be helpful



Continued education about vaping as research develops



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