

Tobacco Use Prevention Among Youth and Young Adults

North Carolina Child Fatality Task Force
Unintentional Death Prevention Committee

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The Health Consequences
of Smoking—50 Years of Progress

A Report of the Surgeon General

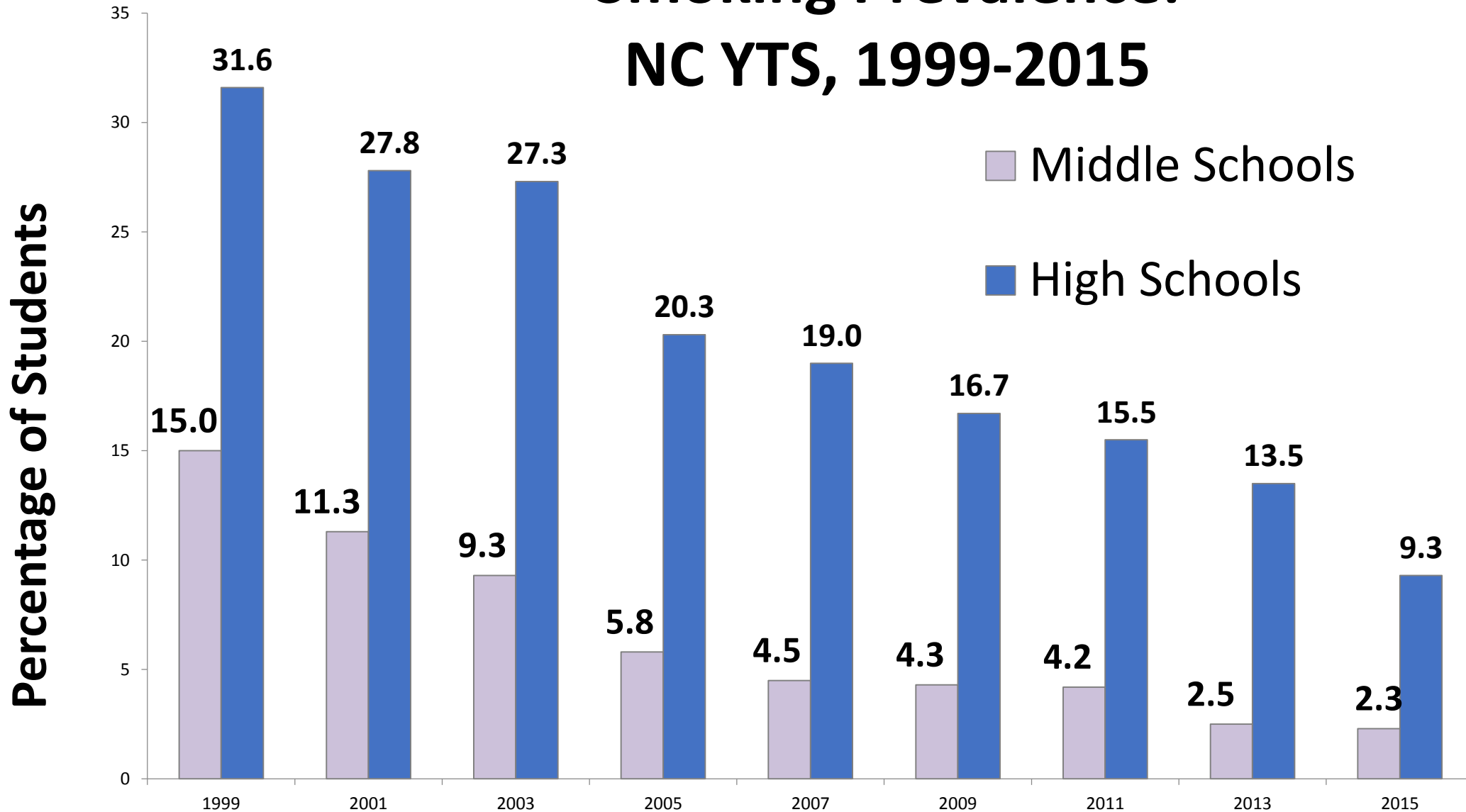


U.S. Department of Health and Human Services

90%

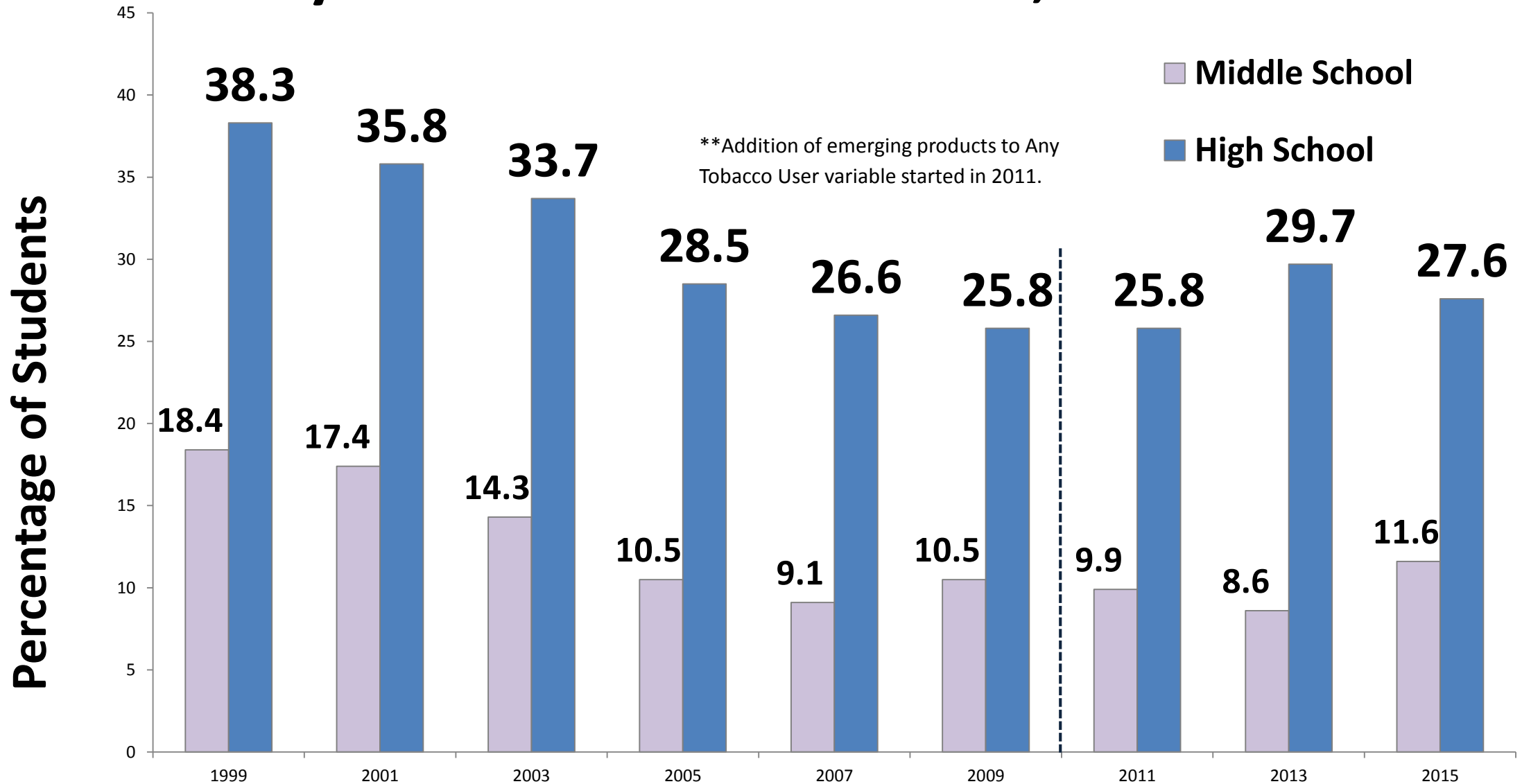
of tobacco users
start before the age of 18

NC Middle & High School Current* Smoking Prevalence: NC YTS, 1999-2015

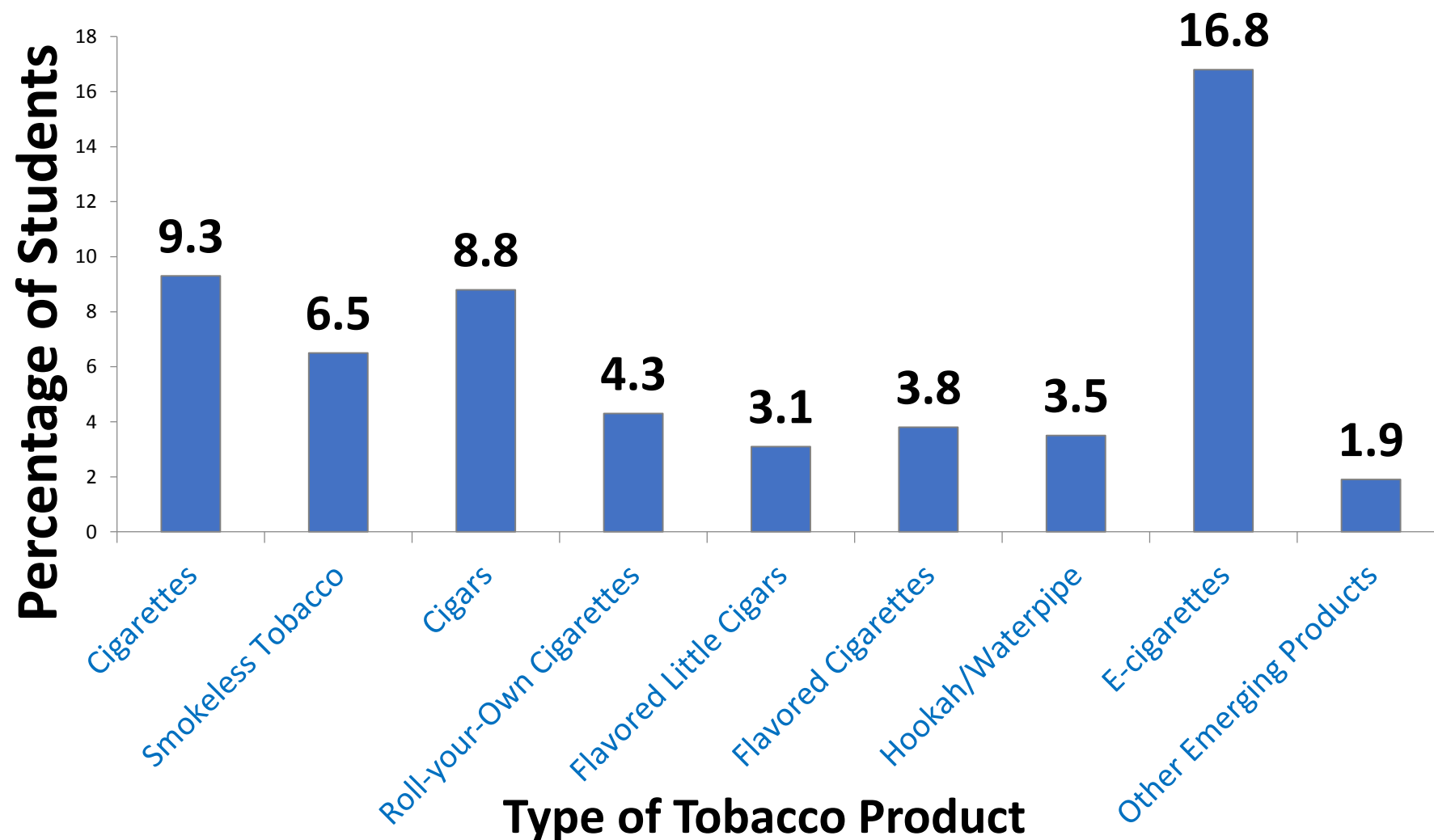


*Current use is defined as using 1+ days of past 30 days.

NC Middle & High School Current* Users of Any Tobacco Product: NC YTS, 1999-2015



Percentage of High School Students Currently Using Tobacco Products by Type of Product: NC YTS, 2015



Anatomy of an E-Cigarette



Terms for Various Electronic Cigarettes

- Cigalikes
- E-cigars
- E-pipes
- E-Hookah
- Vape Pens
- Hookah Pens
- Personal Vaporizers
- Mods
- JUULs

Types of E-Cigarettes



Disposables



Rechargeable –
Replacement Cartridges



Rechargeable –
Refillable Tank System



Mods

Image Source: Wake Forest Baptist Health; ecigaretteb2c.com

JUUL E-cigarette



JUUL's Sleek Design

- The JUUL device, with its sleek design that resembles a flash drive, is a special hit with teens.
- Teens say:
 - "It's definitely more discreet"
 - "JUULs are so simple and easy to use"
 - "JUUL has multiple flavors"
- A starter kit sales for \$49.99



JUULpods and Flavors

- The product has 5 flavors in so-called “pods” for the JUUL.
- These pre-filled JUULpods are sold in the following flavors:
 - Fruit Medley, Virginia Tobacco, Cool Mint, or Crème Brulee and Mango.
 - The “Cool Mint” is basically “Cool Menthol”.
- \$15.99 per 4-pack of JUULpods



JUULpods and Flavors (cont.)

- Each pre-filled pod is equal to about 1 pack of cigarettes. Some reviews of the product suggest about 200 puffs.
- The JUULpods contain 0.7 ml of e liquid with a big kick of **5% nicotine by weight**.
- The pods contain glycerol and propylene glycol , nicotine, flavors and benzoic acid.

Rising JUUL Use Among Youth

- An editor for New York University's student newspaper documented JUUL's rising on-campus popularity, even in dorms.
- A student newspaper at the University of Illinois called JUUL a “new epidemic sweeping the campus.”
- In suburban D.C., a high school's principal took doors off its bathroom stalls to keep students from using drugs inside —namely JUUL.

Source: <https://www.usatoday.com/story/money/nation-now/2017/10/31/juul-e-cigs-controversial-vaping-device-popular-school-campuses/818325001/>

JUUL Reaches Mainstream Youth Audience

- JUUL has also managed to capture a more mainstream audience.

Teen Quote: *(with example misperceptions)*

- "People who JUUL can be normal people, but people who vape are like a certain crowd," Schooley says. Using the device isn't called vaping, a verb reserved for more complex or modified contraptions, but JUULing. The words give the device a less ominous atmosphere than e-cigarette or vaping. "I know it's an e-cigarette, but I don't like to call it that because you can JUUL and not be addicted to nicotine," "I don't smoke cigarettes, and I don't think I ever will."

Source:

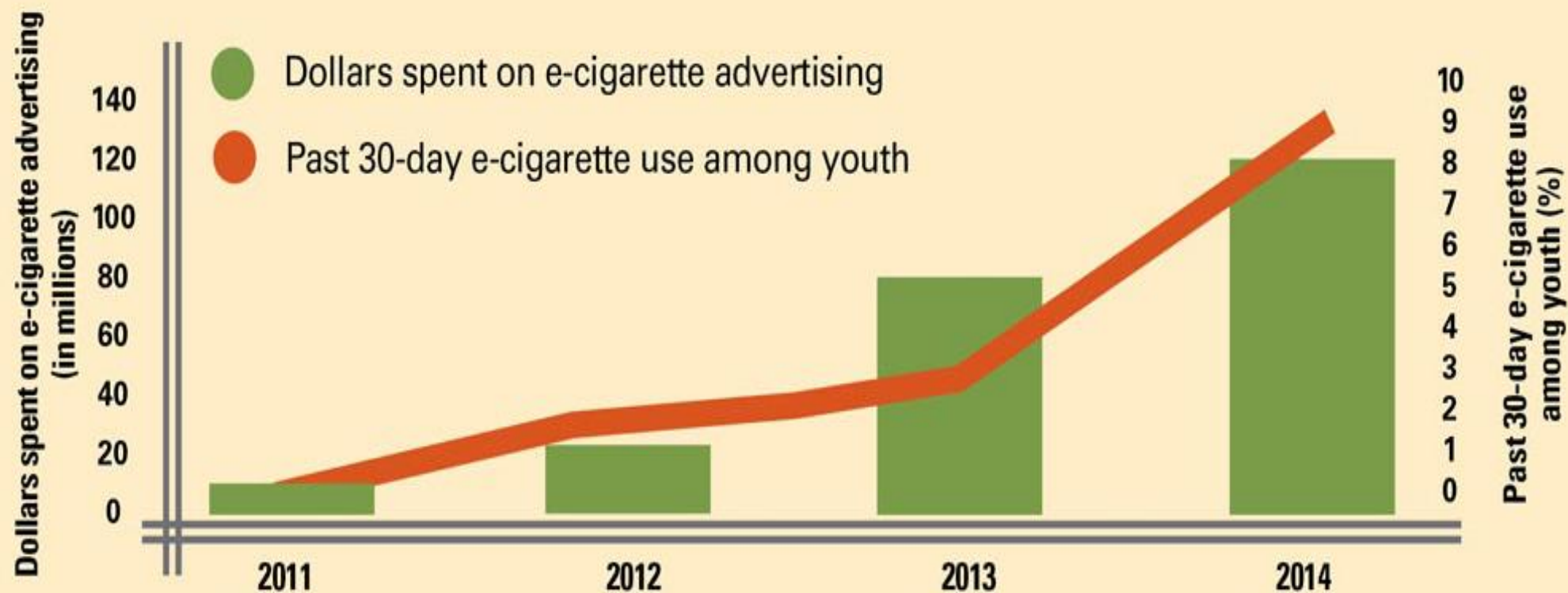
<https://www.npr.org/sections/health-shots/2017/12/04/568273801/teenagers-embrace-juul-saying-its-discreet-enough-to-vape-in-class>

Perception of JUUL Use Among Teens (*often over estimated*)

Teens are saying:

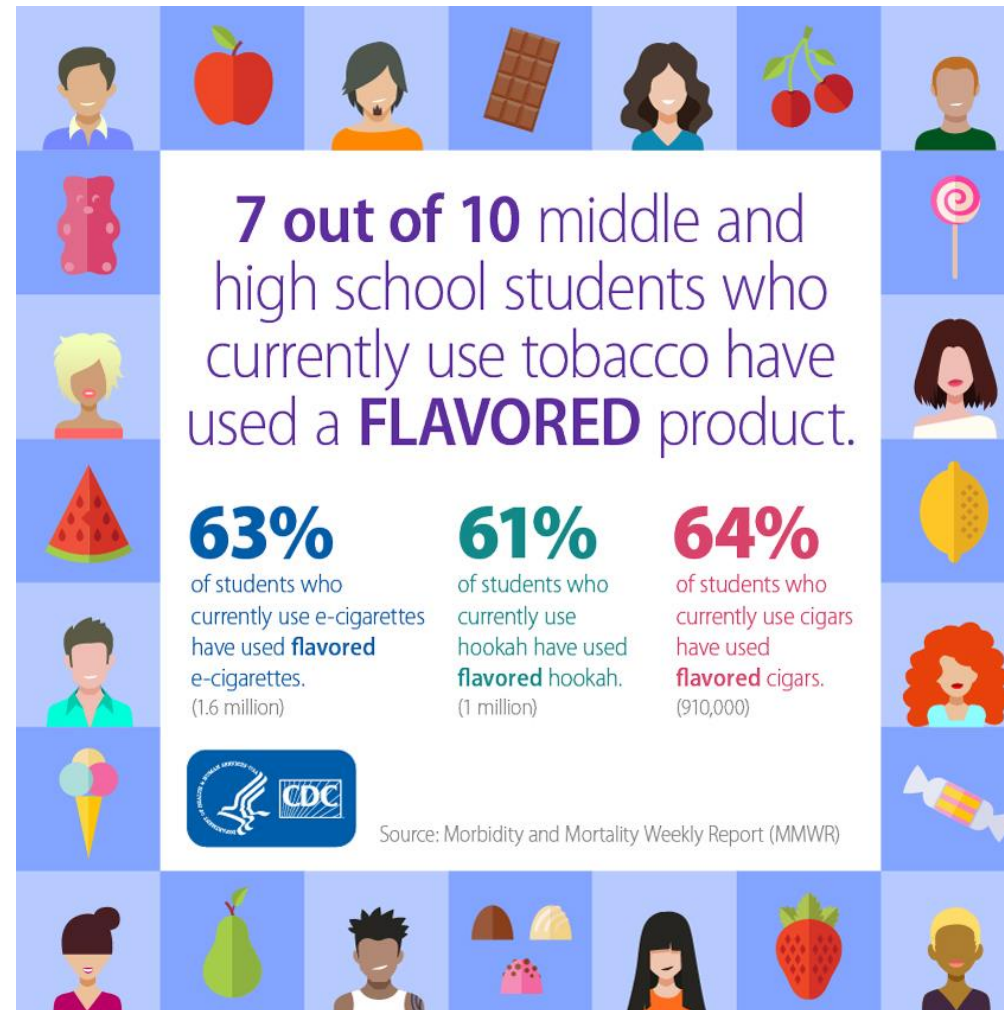
- "I wanna say like 50 or 60 percent? I don't know. Maybe it's just the people I know".
- "All my friends in college have one".
- "It just blew up over the summer."

E-cigarette use among youth is rising as e-cigarette advertising grows



SOURCE: National Youth Tobacco Survey, 2011-2014; Kim et al (2014), Truth Initiative (2015).

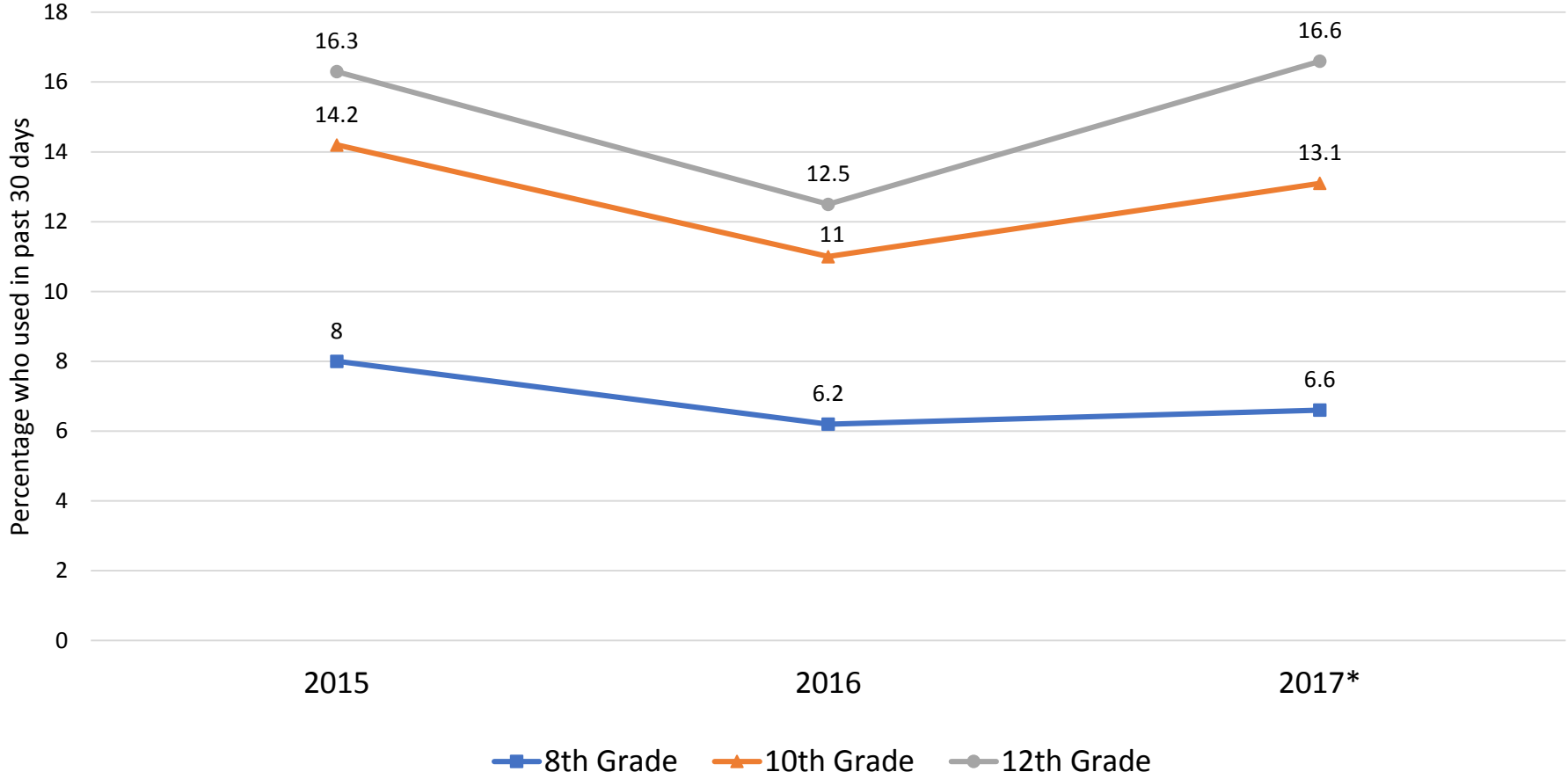
A Majority of Current Youth E-cigarette Users Report Using Flavored E-cigarettes



National Trends in Youth E-cigarettes Use

30 Day Use

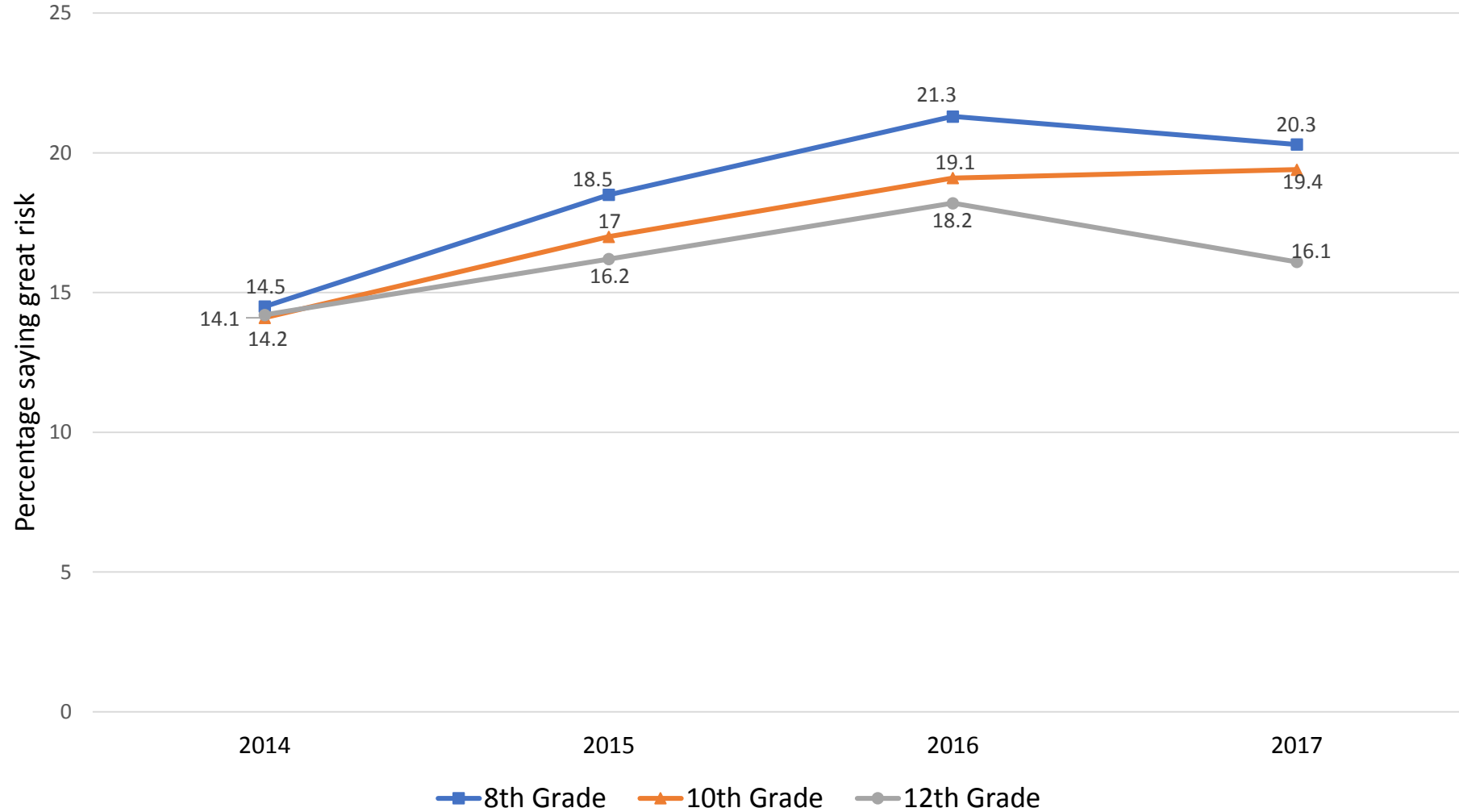
Monitoring the Future 2015-2017



*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and just flavoring. Beginning in 2017, data presented for any vaping are based on these new questions.

National Perceptions of Harmfulness of Using E-cigarettes Regularly

Monitoring the Future 2014-2017



Research at UNC-CH School of Medicine (TCORS)

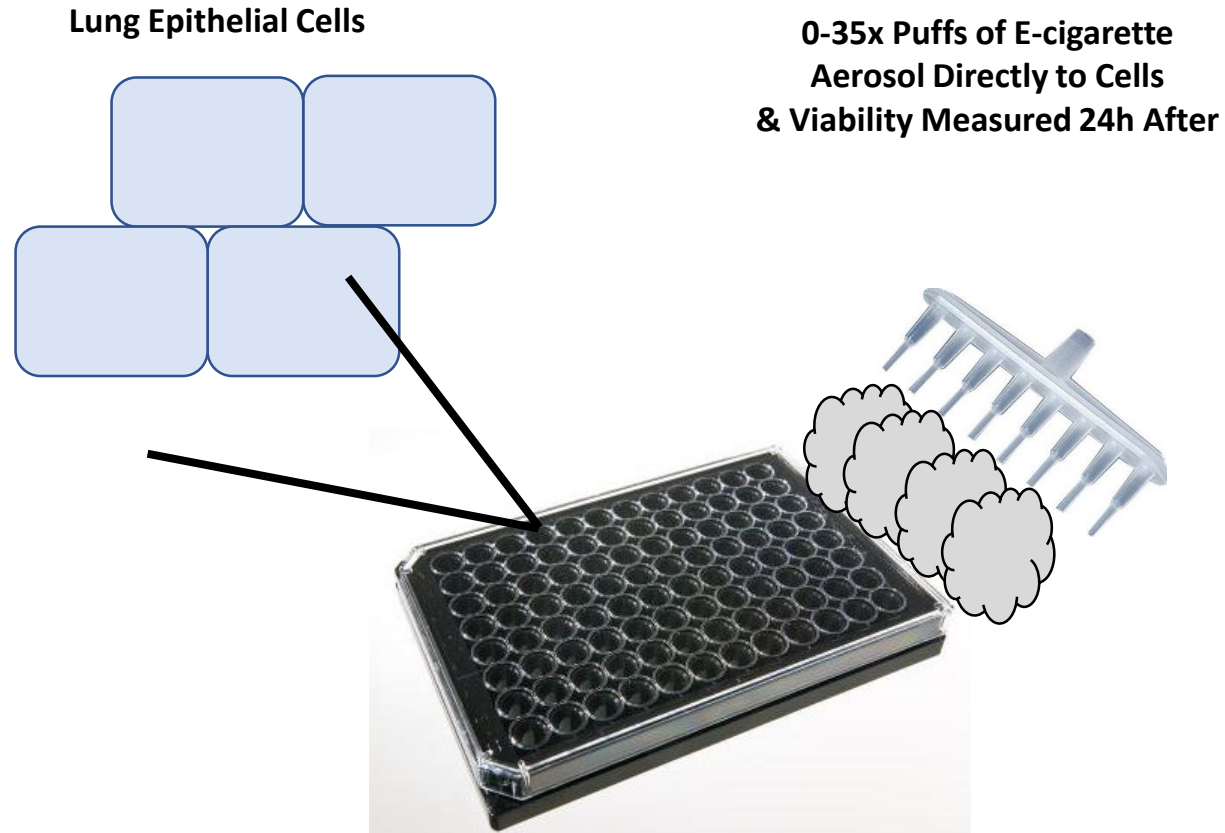
“When we expose (human lung) cells to e-liquids in either e-liquid form or in aerosol . . . We see cell death, we see that cells get stressed, because of exposure to e-liquids. These are definitely negative effects on the cells we study in the lab.”

Dr. Flori Sassano

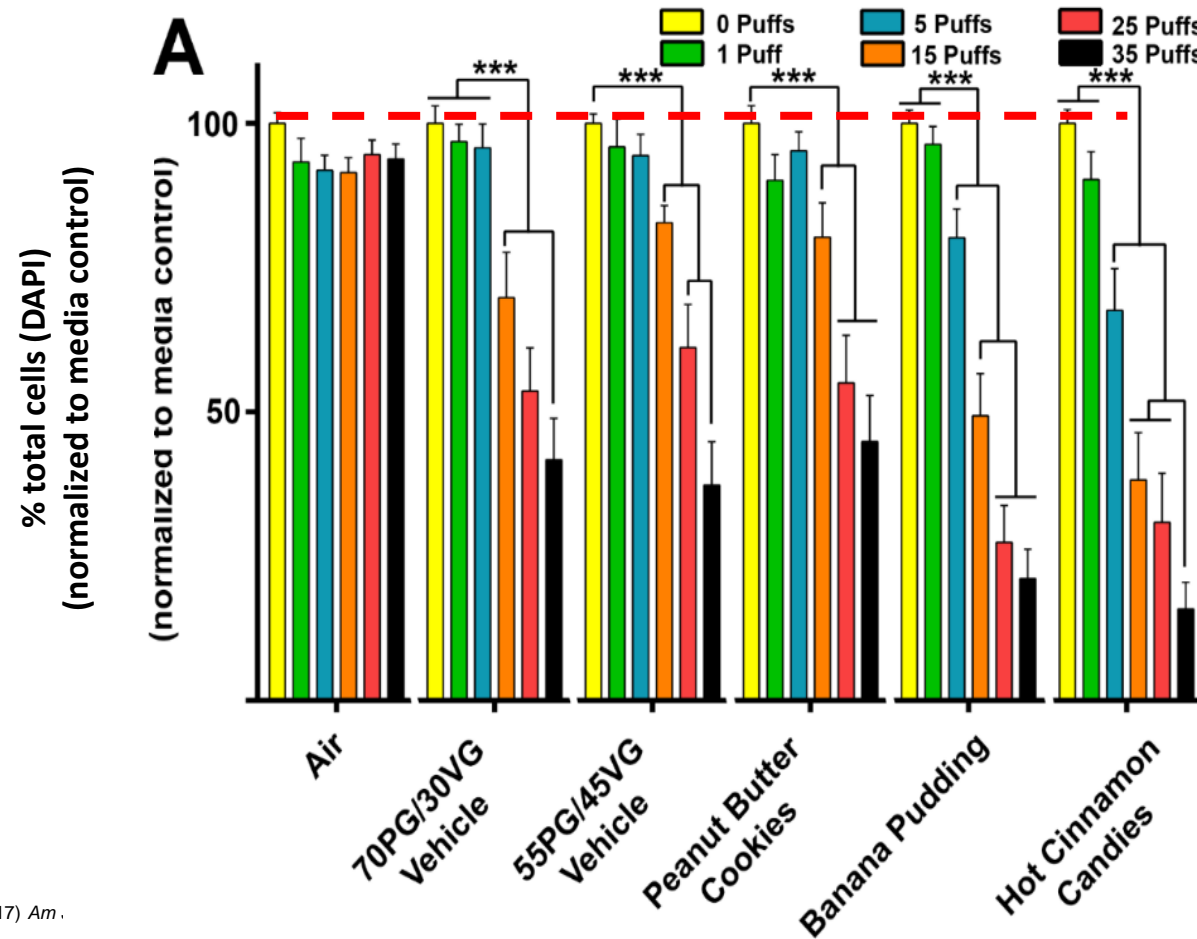
TARRAN LAB, MARSICO LUNG INSTITUTE
UNIVERSITY OF NORTH CAROLINA

Research at UNC-CH School of Medicine (TCORS)

Methods: E-cigarette Aerosol Exposures



Cell screening data after flavored e-liquid aerosol exposures show similar flavor-dependent dose-dependent decreases in cell viability ≥ 5 puffs



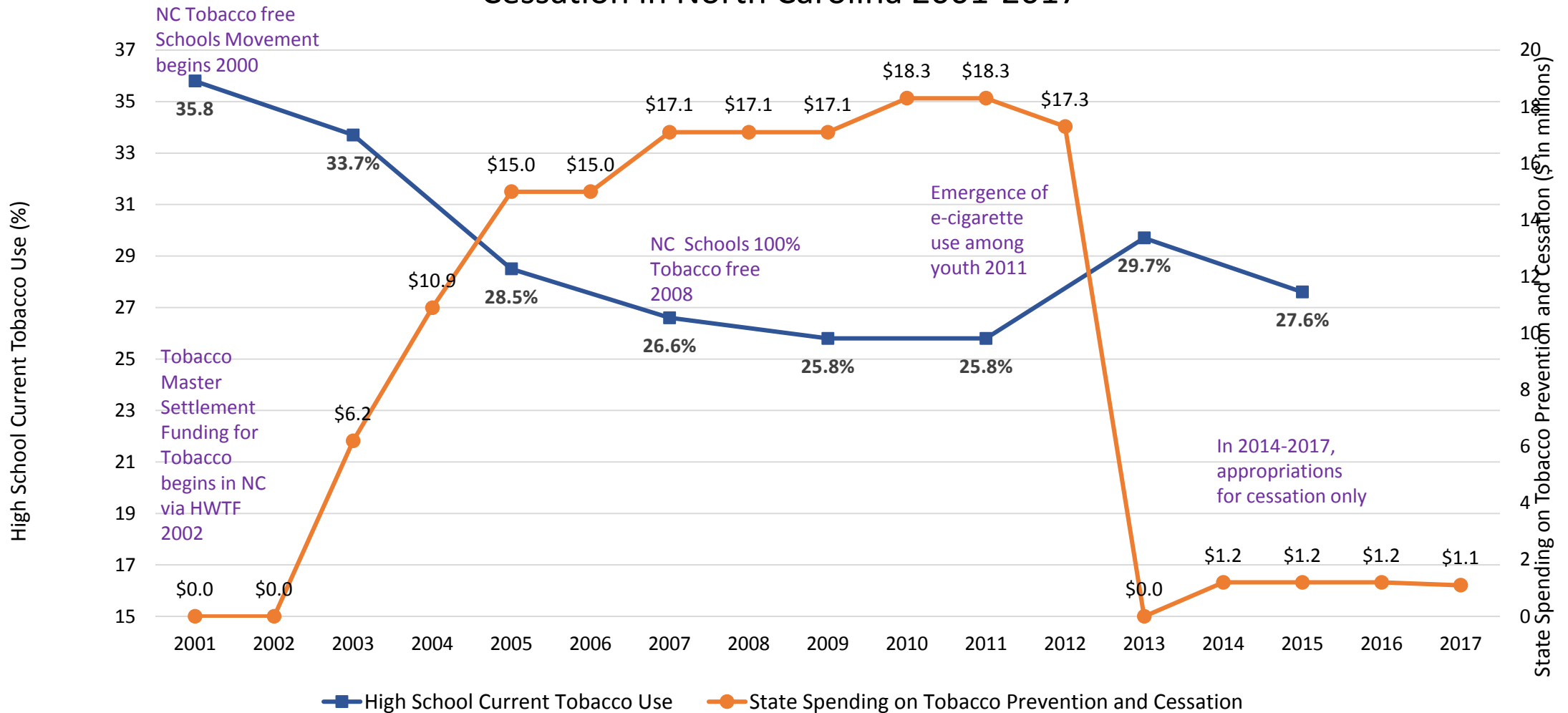
National Academies of Sciences, Engineering, and Medicine Report on E-cigarettes

- National Academies of Sciences, Engineering, and Medicine released a new report on e-cigarettes Tuesday that's the most comprehensive look at the evidence to date.
- A panel of experts analyzed the findings of 800 peer-reviewed studies and came out with a grab bag of conclusions about e-cigarettes' public health impact.
- 600-page Report
- The FDA commissioned the NAS report to help inform its regulations.

Major Conclusions of the Report

- **1) E-cigarettes may — or may not — help adults quit smoking**
- There is “insufficient evidence” that e-cigarettes can help people quit smoking.
- **2) E-cigarette use increases the likelihood that young people will smoke cigarettes**
- Children using e-cigarettes are at an increased risk of using tobacco cigarettes in the future
- **3) The big-picture/long term health effects of e-cigarettes are still a question mark**
- Committee didn't report that e-cigarettes are safe or that switching from traditional cigarettes to e-cigarette use will save lives.

High School Tobacco Use and State Spending on Tobacco Use Prevention and Cessation in North Carolina 2001-2017

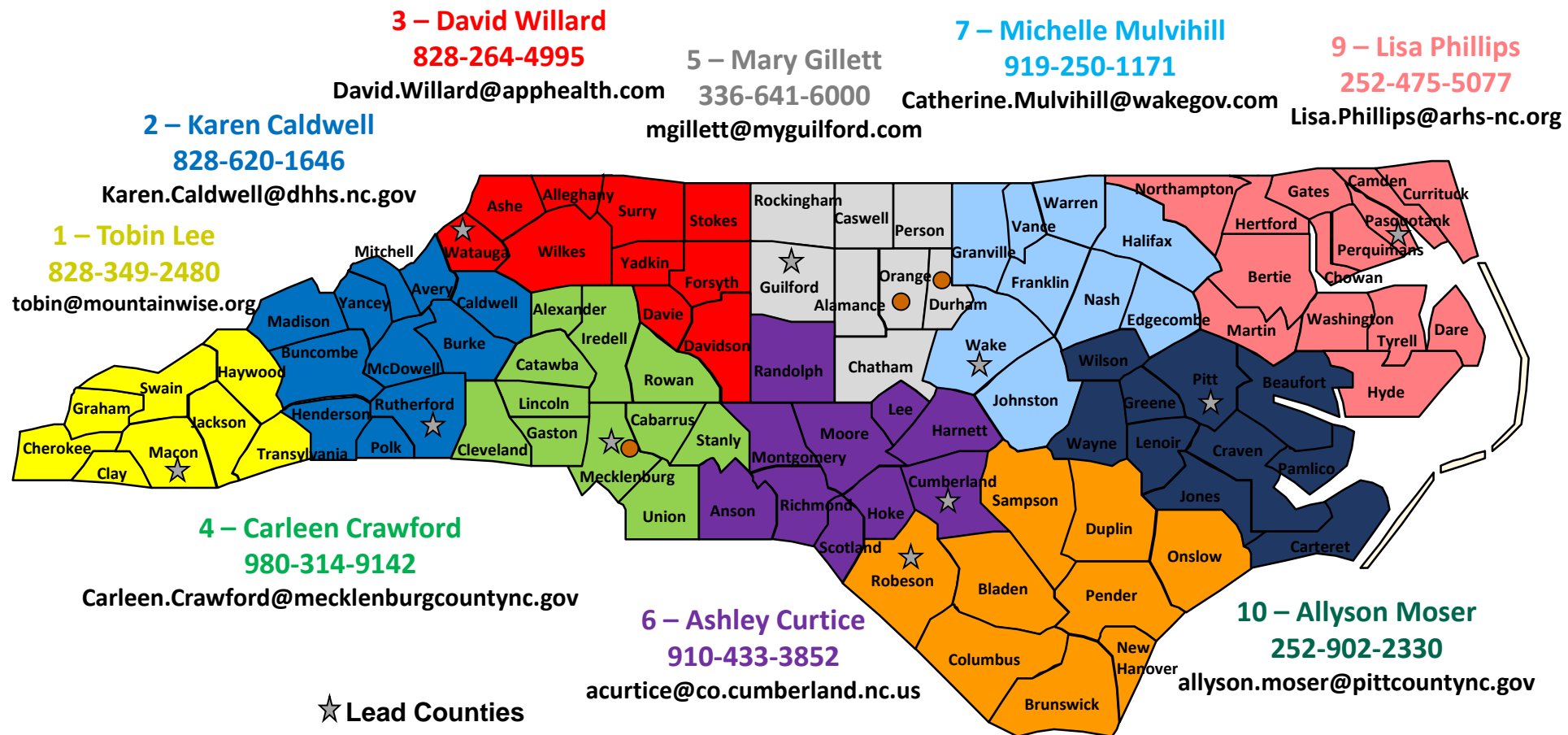


Since 2001, North Carolina has received an average of **\$149,825,874 per year** from the Tobacco Master Settlement Agreement

Current FY18 State Funding for Tobacco Use Prevention

- **\$375,000** for ten regional tobacco use prevention programs through local health departments and collaborating partners, covering all one hundred (100) counties in North Carolina.
- **\$75,000** for a contract with Youth Empowered Solutions (YES!) to plan and conduct trainings and technical assistance in collaboration with state and local agencies focused on peer-led, adult-supported tobacco use prevention programs.
- **\$50,000** for a contract with UNC-CH, Tobacco Prevention Evaluation Program (TPEP), an independent evaluator, to assess the reach and effectiveness of the tobacco use prevention program.

Tobacco Prevention and Control Branch (TPCB) Funds Regions 2015-2020



1. Macon County Public Health
2. Rutherford-Polk-McDowell District Health Department
3. Appalachian District Health Department
4. Mecklenburg County Health Department
5. Guilford County Department of Health and Human Services, Public Health Division

6. Cumberland County Public Health Department
7. Wake County Human Services
8. Robeson County Department of Public Health
9. Albemarle Regional Health Services
10. Pitt County Health Department

- Local Tobacco Coordinators
- Durham County Health Department – Natalie Rich, nrich@dconc.gov
 - Orange County Health Department – April Richard, arichard@orangecountync.gov
 - Mecklenburg County Health Department – Kim Bayha, Kimberly.bayha@mecklenburgcountync.gov

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Questions