JUUL and Other Emerging Tobacco Products

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- **7.2%** for high school students

- **1.5%** for middle school students

- In 2017, **9,553 Mississippi public high school students** had smoked cigarettes on at least one of the past 30 days.

- The prevalence of current smoking has **decreased by 76%** since 1998, leading to 30,649 fewer young smokers.

- In the past year, the prevalence of current smoking has **not changed significantly**.

- In 2017, **1,607 Mississippi public middle school students** had smoked cigarettes on at least one of the past 30 days.

- The prevalence of current smoking has **decreased by 93%** since 1998, leading to 20,468 fewer young smokers.

- In the past year, the prevalence of current smoking has **changed significantly**.
**Current Electronic Cigarette Use**

**Mississippi Public Schools**

**High Schools (2010-2017)**

- 2010: 1.2%
- 2011: 2.3%
- 2012: 2.7%
- 2013: 2.9%
- 2014: 10.1%
- 2015: 12.0%
- 2016: 10.3%
- 2017: 11.5%

- High school Caucasians are more likely to currently use e-cigarettes than African-Americans.

**Middle Schools (2010-2017)**

- 2010: 0.6%
- 2011: 1.0%
- 2012: 1.1%
- 2013: 1.5%
- 2014: 6.7%
- 2015: 4.6%
- 2016: 5.9%
- 2017: 4.8%

- 8th graders are more likely to currently use e-cigarettes than 6th graders.

**Significant Demographic Differences**
Preliminary 2018 National Youth Tobacco Survey Findings

- Surge in youth current e-cigarette use
  - 78% increase from 2017 to 2018 for high school students
  - 48% increase from 2017 to 2018 for middle school students
- 20.8% of high school students reported current e-cigarette use
  - Up from 11.7% in 2017
- 4.9% of middle school students reported current e-cigarette use
  - Up from 3.3% in 2017
- 28% of high school current e-cigarette users used on 20+ days
  - Up from 20% in 2017
- 68% of high school current e-cigarette users used flavored e-cigarettes
  - Up from 61% in 2017
JUUL use among Mississippi College Students

- 69.5% of students were aware of JUUL
- 59.4% of students were aware each pod contains as much nicotine as a pack of cigarettes
- 37.1% of students had tried JUUL
- 76.1% reported past 30 day use of JUUL
- 9.9% of students who reported JUUL trial did not report e-cigarette trial
What is JUUL?

- Introduced in 2015
- Each pod contains 59 mg/ml of nicotine
  - Equivalent to a pack of cigarettes (~200 puffs)
- Mimics a cigarette’s ability to rapidly deliver nicotine to the brain
- Nicotine delivery system is very efficient and nicotine levels are high
  - Increases risk of addiction among novice nicotine users
- First e-cigarettes that are easy to use, maintain, and provide high levels of nicotine
- iPhone of e-cigarettes
- Early research indicates youth who were not previously at risk for initiating cigarette smoking are initiating nicotine use with Juul e-cigarettes
- E-cigarette use increases risk of using combustible tobacco cigarettes
JUUL

- Pods are not refillable
  - Contain a concentrated juice cocktail of salts and organic acids found in tobacco leaves
- Available in 8 flavors
  - Mango, Cool Mint, Virginia Tobacco, Cool Cucumber, Classic Menthol, Fruit Medley, Creme Brulee, Classic Tobacco
- JUUL starter pack costs $49.99 and a 4 pack of pods costs $15.99
  - Starter pack: JUUL device, USB charger, 4 JUUL pods (Virginia Tobacco, Mint, Mango, Creme)
- Requires little maintenance
- ALL JUUL PODS CONTAIN NICOTINE
Stealth Vaping

- Small, discreet, and easily confused for flash drives
- Aerosol emission is minimal compared to other e-cigarettes
  - Easier for users to hide use in classrooms and other indoor places
- Higher levels of propylene glycol gives hit to throat like a cigarette
  - Results in less vapor cloud than other e-cigarettes
- YouTube videos and other websites teach kids how to conceal and stealth vape
  - Vape apparel
    - [https://vaprwear.com](https://vaprwear.com)
- To use a JUUL has become a verb - JUULing
  - Common on social media
- Depending on frequency and amount of usage ~ established smoker
JUUL Sales

- Best selling and fastest growing e-cigarette on the market
  - 75% of the market share of the total e-cigarette category (Nielsen)
    - Last 4 week period ending October 6, 2018
    - Sales exploded 728% year-over-year
- Over one million JUUL systems sold to date
- Available directly from JUUL Labs, Inc., other online retailers, and at 12,000 convenience stores in the U.S.
- More prevalent in affluent areas due to discretionary income
  - However, JUUL coupons and discounts seen at convenience stores in rural areas
- Online purchases for 21+
### E-cigarette market share

<table>
<thead>
<tr>
<th>Company</th>
<th>Market share, last 4 weeks</th>
<th>YoY growth for 52 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juul Labs</td>
<td>32.9%</td>
<td>699.0%</td>
</tr>
<tr>
<td>BAT</td>
<td>27.4%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Altria</td>
<td>15.2%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Imperial Tobacco</td>
<td>11.4%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Logic (Japan Tobacco)</td>
<td>7.2%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

Nielsen / Wells Fargo
October 2018

Source: Wells Fargo
Resources

- Stanford Medicine Tobacco Prevention Toolkit
  - [http://med.stanford.edu/tobaccopreventiontoolkit/E-Cigs/ECigUnit6.html](http://med.stanford.edu/tobaccopreventiontoolkit/E-Cigs/ECigUnit6.html)

- Vox video on JUUL: How JUUL made nicotine go viral
  - [https://www.youtube.com/watch?time_continue=46&v=AFOpoKBUyok](https://www.youtube.com/watch?time_continue=46&v=AFOpoKBUyok)

- JUULERS against JUUL
  - [https://www.youtube.com/watch?time_continue=384&v=7EsNG7RcStQ](https://www.youtube.com/watch?time_continue=384&v=7EsNG7RcStQ)

- The New York Times - The Price of Cool: A teenager, a Juul, and nicotine addiction
FDA and JUUL

- Revisit compliance policy as it applies to ENDS products that are flavored, including all flavors other than tobacco, mint, and menthol
- All flavored ENDS products sold in age-restricted, in-person locations, and if sold online, under heightened practices for age verification
- Advance a proposed ruling seeking to ban menthol in combustible tobacco products, including cigarettes and cigars
- Propose a policy to ban flavors in cigars
- No proposed timeframe for these changes

https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm625884.htm
JUUL Changes

- Shut down social media accounts
  - Facebook and Instagram
- Stop selling nicotine liquids with flavors at bricks and mortar stores
  - Mango, fruit medley, creme brulee, cucumber
- Will continue to sell all its products on its website
- New device
  - Less nicotine, more intense vapor - enhance rate at which nicotine is absorbed by the body
  - Lower nicotine version with 3% nicotine or 23 mg/ml of nicotine is already available in the US
    - Only in Mint and Virginia Tobacco flavors

Other Stealth Vaping Products

- **PHIX**
  - Pods are not refillable
  - Each PHIX pod contains 1.5mL with 5% nicotine by weight
  - Equivalent to 2 packs of cigarettes or 400 puffs
  - Like JUUL, ALL PHIX PODS CONTAIN NICOTINE
  - Flavors: Original Tobacco, Hard Strawberry, Spearmint, Butterscotch Tobacco, Ice Tobacco
    - Also, Infusion Cool Melon, Blue Raspberry, and Cool Grape
  - Bundle kit: Phix battery and charger, Mixed pack of 4 pods = $35.00
    - 4 pack replacement of pods = $19.99

- Many other brands of similar pod based devices
IQOS - Philip Morris International

- IQOS = I Quit Ordinary Smoking
- Heat not burn product
- Heats the tobacco just enough to release a nicotine containing tobacco vapor without burning the tobacco
- Available in two versions
  - First - 3 main components: heated tobacco unit (HEETS or HeatSticks), an IQOS holder, and charger (must be recharged after each use)
  - Second - integrated that combines the holder and charger and allows multiple uses without charging the battery (recharged after 10 consecutive uses)
- Consumer pushes a button to turn on the heater
- Once finished, the HEETs or HeatSticks are removed from the holder and thrown away
IQOS

- Different from e-cigarettes
  - Use real tobacco not flavored liquid nicotine

- Concept
  - Allow users to experience something that looks and feels like smoking without inhaling combustible tobacco

- Little research available on the health effects of using or being exposed to heat not burn products

- Not currently available in the US

- Concerns
  - Another addiction pathway
  - Promote use of more than one tobacco product at a time
  - An attempt to renormalize smoking
Where is IQOS available?

* EU Region: Andorra, Bulgaria, Canary Islands, Croatia, Cyprus, Czech Republic, Denmark, France, Germany, Greece, Italy, Latvia, Lithuania, Monaco, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Switzerland, United Kingdom.
For More Information

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