“Raising the legal minimum age for cigarette purchase to 21 could gut our key young adult market (17-20).”
—Phillip Morris Executive
“Tobacco 21 –
An Idea Whose Time Has Come”

Over 25% of Nations Population
In 2018
• Introduced in 26 states
  – 2 are still pending
• Local policy movement

Looking forward to 2019
• State and local focus

Policy Status
TOBACCO
eighteen twenty-one

“Think Strategically, Act Locally”
The Problem

- 95% of current smokers started before they were 21

- Having the first cigarette by age 18 makes it twice as likely to become a lifelong smoker

- Thousands of young people start smoking cigarettes every day
The Problem

Estimated percentage of high school students who currently use any tobacco product,* any combustible tobacco product,† ≥2 tobacco products,§ and selected tobacco products — National Youth Tobacco Survey, United States, 2011–2017¶,**,**,††

Chart from Wang, T et al., Tobacco use among middle and high school students — United States, 2011-2017, Morbidity and Mortality Weekly Report 2018;67(22);629-633
Nicotine Addiction and Youth

• Brain development continues until mid-20s
  – Decision making
  – Impulse control
  – Sensation seeking
  – Peer Pressure

• Adolescent brains are uniquely vulnerable to addiction
2009 Family Smoking Prevention & Tobacco Control Act

- Set a federal minimum age at 18 and gave states authority to have stronger regulations

- Called for a study on the implications of raising the minimum sale age
Policy Impact on Initiation

Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>% DECREASE IN INITIATION RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 15 yrs old</td>
<td>15</td>
</tr>
<tr>
<td>15–17 yrs old</td>
<td>20</td>
</tr>
<tr>
<td>18–20 yrs old</td>
<td>15</td>
</tr>
</tbody>
</table>
Needham Case History

- Surrounded by cities in West-Metro Boston
- Youth can literally walk across the street and be in another city
Needham High School Smoking Rates

Kessel, S. et al, 2015
Changing the Trend

“Tobacco 21 works by putting the legal purchasers outside the social circles of most high school students, making it more difficult for 15 to 17 year-olds to pass as legal purchasers or have legal purchasers as a friend.”

Rob Crane, MD
President
Preventing Tobacco Addiction Foundation
“The age to buy tobacco should be raised to 21.”

Oppose 29.5%

Support 70.5%

“Do you favor or oppose raising the legal minimum age to purchase all tobacco products from 18 to 21?”

- Strongly Favor: 50%
- Somewhat Favor: 25%
- Somewhat Oppose: 14%
- Strongly Oppose: 11%

King et al, 2015. CDC Summer Styles Survey.
Favorability toward Raising the Legal Minimum Sales Age

King et al, 2015. CDC Summer Styles Survey.
Thousands of young people start using tobacco and nicotine products every day, with e-cigarette and vapor product use rising dramatically. Early users of tobacco are twice as likely to become lifelong smokers, with 95% of current smokers beginning before age 21. Tobacco 21 policy raises the minimum legal sales age of all tobacco products to 21. Such policies are projected to save thousands of lives and reduce tobacco use among youth.

Join the growing number of organizations, businesses and individuals that support Tobacco 21 policies.

Organization Name: ________________________________

Your Name and Title: _______________________________

Address: _______________________________________

City, State, Zip: ___________________________________

Phone: _________________________________________

E-Mail: _________________________________________

May we include your organization’s logo on our list of endorsers of Tobacco 21 policy? ______ yes  ______ no
Tobacco 21 Endorsements
Missouri Endorsers of Tobacco 21
**Total Annual Excess Cost of a Smoker to a Private Employer**

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess Absenteeism</td>
<td>$517</td>
</tr>
<tr>
<td>Presenteeism</td>
<td>$462</td>
</tr>
<tr>
<td>Smoke Breaks</td>
<td>$3,077</td>
</tr>
<tr>
<td>Excess Health Care Costs</td>
<td>$2,056</td>
</tr>
<tr>
<td>Pension Benefit (if provided)</td>
<td>($296)</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td><strong>$5,816</strong></td>
</tr>
</tbody>
</table>

Opposition

- Most common argument against Tobacco21

“Old enough to fight for our country and old enough to vote ... then old enough to buy tobacco”
Opposition

• Will decrease city sales tax revenue and hurt business income

18-20 year olds are not a major portion of tobacco sales

18-20 year olds account for only 2% tobacco sales

Opposition

@vaping4lifer · 9h
@ksdknews don't get left out at the @Tobacco21 attack on ecigs st louis county council vote 6p.m. bring camera's
Flavors Hook Kids

THIS IS NOT HOT SAUCE.

What is it?

2018 California Department of Public Health
www.flavorshookkids.org
Flavors Hook Kids

THIS IS NOT ICE CREAM.

What is it?

2018 California Department of Public Health
www.flavorshookkids.org
THIS IS NOT APPLE JUICE.

What is it?

2018 California Department of Public Health
www.flavorshookkids.org
Flavors Hook Kids

THIS IS NOT WHIPPED CREAM.

What is it?

2018 California Department of Public Health
www.flavorshookkids.org
Flavors Hook Kids

THIS IS NOT A FLASH DRIVE.

What is it?

2018 California Department of Public Health
www.flavorshookkids.org
TOBACCO 21:
SAMPLE ORDINANCE

Components:

- Strong definition of Tobacco Products, including e-cigarettes
- Setting the SALE age at 21
- Enforcement
  - Tobacco Retail License
  - Health Department
  - Systematic Compliance Checks
- Penalty on Retailer
  - Minimum of $300, graduated, ability to suspend or revoke license
- No penalty on youth for Purchase, Use or Possession
- Age Verification
- Signage
- Education of Retailers
- Effective Date
Preparing for Implementation

- Educational Materials
  - Staff
  - Retailers
  - Signage
  - Web
21 environmental health specialists and 2 underage tobacco auditors
Each specialist covers a territory, based on zip code
  – Conducts 2 tobacco enforcement inspections annually at each tobacco retailer
Supervisory staff conducts tobacco compliance audits at 50% of the tobacco retailers each year
  – 1 of 4 supervisors takes an underage person into the field and sends them into the establishment to attempt to purchase tobacco/alternative cigarette products
Compliant retailers = thanked for denying sale to the underage person
Non-compliant retailers = citation requiring payment of a $250 fine is given to the clerk and to the owner of the tobacco retail establishment.
  – If the fine is not paid within 60 days, a copy of the citation is sent to the courts and a court appearance is scheduled
Notes:
- Annual inspections continue to occur yearly for all licensed retail tobacco vendors, including those found compliant in previous years.
- Licensees who have been fined or had their licenses suspended or revoked can request an appeal hearing.
- Fines collected will be placed in CPH Education and Compliance fund.

Draft 10/30/2017
### Compliance and Initial Underage Buy Attempts

<table>
<thead>
<tr>
<th>Initial Underage Buy Attempts</th>
<th>Compliant Facilities</th>
<th>Non-Compliant Facilities</th>
<th>Compliance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>823</td>
<td>544</td>
<td>279</td>
<td>66%</td>
</tr>
</tbody>
</table>

**2nd Round Buy Attempts**

<table>
<thead>
<tr>
<th>Compliant Facilities</th>
<th>Non-Compliant Facilities</th>
<th>Compliance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>10</td>
<td>71%</td>
</tr>
</tbody>
</table>
Maximizing the Impact of Tobacco 21 Laws Across the United States

✓ Increase random compliance check inspections by having those aged 18 to 20 years attempt to buy tobacco products multiple times per year at each location where tobacco is sold.

✓ Use epidemiological mapping to track where illegal sales are occurring and where fines are being imposed to identify high-priority locations to crack down on youth access to tobacco, especially in areas where tobacco retail density is high.

✓ Levy maximum penalties for each infraction to help deter illegal sales and to defray the cost of enforcement activities.

✓ Publicize fines and license suspensions so that all tobacco retailers understand the severe consequences of noncompliance with Tobacco 21 laws.

✓ Revoke and then retire the license to sell tobacco when multiple infractions occur within a defined period.

✓ Pursue maximum criminal penalties for illicit tobacco suppliers and for selling illegal loose single tobacco products.

✓ Continue studying Tobacco 21 laws in real-world settings to optimize effectiveness for different geographic and regulatory contexts.

Winickoff, J. 2018.
CDC Generic Logic Model
## California Tobacco 21 Logic Model

### Inputs:
- Statewide Tobacco 21 Implementation Plan
- Surveillance of Tobacco-Related Attitudes and Behaviors
- Surveillance of Tobacco Sales to Minors
- Statewide Tobacco Cessation Quitline

### Activities
- Distribute new age-of-sale warning signs to all CA tobacco retailers
- Develop and disseminate materials to educate retailers about increased age of sale and effective employee training
- Administer and promote a statewide tobacco use quitline to general public and 18–20-year-old tobacco users
- Display ads at point of sale to educate public about increased age of sale and quitline
- Conduct enforcement-related compliance checks of tobacco sales to minors under 21
- Educate American Indian communities about tobacco age of sale disparity

### Outputs
- Warning signs posted at 100% of tobacco retailers
- Educational materials and training tools distributed to retailers
- Operational quitline promoted to diverse populations and 18–20-year-old tobacco users
- Advertisements notifying public about new law and quitline displayed at tobacco retailers
- Demand letters issued to violating retailers through compliance checks of tobacco sales to minors under 21
- Educational materials for American Indian communities

### Short-Term Outcomes
- Increase awareness and support for new age-of-sale law among the general public and 18–20-year-olds
- Increased perception among youth that tobacco is difficult to obtain
- Increased awareness of new age of sale among retailers
- Increased competence of retailers to comply with the new age-of-sale law
- Increased compliance with new age-of-sale law
- Increased awareness of dangers of young adult smoking
- Increased call volume to quitline from diverse callers and 18–20-year-old tobacco users
- Increased awareness among American Indian leaders about disparity in age of sale and health consequences

### Intermediate Outcomes
- Decreased illegal sales of tobacco to youth under 18 and young adults ages 18–20
- Decreased ability for minors under age 21 to obtain tobacco products
- Decreased sales of tobacco products
- Decreased susceptibility to experimentation with tobacco products
- Increased quit attempts among tobacco users ages 18–20
- Increased quit attempts among all tobacco users
- Increased number of tribal compacts or tribal policies with age of sale as 21

### Long-Term Outcomes
- Increased age of tobacco use initiation
- Decreased tobacco use initiation
- Decreased tobacco use prevalence among young adults ages 18–20
- Decreased youth and adult tobacco use prevalence
- Decreased tobacco consumption
- Decreased exposure to secondhand smoke/toxic aerosol
- Decreased tobacco-related morbidity and mortality
- Minimized tobacco-related disparities among American Indian population

### Environmental Context:
State excise tax rates, rates of tobacco use, national media campaigns, state tobacco control funding, utilization of statewide quitline, tobacco cessation insurance coverage, tobacco and e-cigarette industry spending.

**Note:** "Tobacco products" include electronic smoking devices; "smoking" includes smoking tobacco and vaping electronic smoking devices; "smoke-free" and "secondhand smoke" include tobacco smoke and toxic aerosol emitted from electronic smoking devices; and "thirdhand smoke" includes residue from tobacco.
### St. Louis County Logic Model

**Tobacco 21 (T21) Evaluation Framework**

**PURPOSE:** To determine the effect of T21 [IMPLEMENTATION] in order to decrease underage tobacco use

#### GOALS
1. Work with regional and national partners to ensure successful ordinance implementation
2. Standardize tobacco enforcement from an agency and county level
3. Reduce the incidence of youth smoking and improve health outcomes

#### INPUTS
<table>
<thead>
<tr>
<th>DPH Staff</th>
<th>Environmental Health Services Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Enforcement Program</td>
<td>Evaluation Program</td>
</tr>
<tr>
<td>Technology / Equipment</td>
<td>Field data collection</td>
</tr>
</tbody>
</table>

#### PARTNERS
<table>
<thead>
<tr>
<th>T21 STL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHD / Jurisdictions (City of St. Louis, Columbia, Independence)</td>
</tr>
</tbody>
</table>

#### EVIDENCE BASE
| Practice: Needham, MA, regional LHDs, etc. |
| Research: Winickoff, etc. |

#### TIME
| Funding |
| Salary for additional staff |

#### OUTPUTS

| Partnership & Collaboration: Identify stakeholder coalition (T21 STL) |
| Provide / Receive technical assistance |
| # decision-makers |
| # partner agencies |
| # partner campaigns (type, audience) |
| # community media campaigns |
| # of families |
| # of youth |

| Planning: Establish baseline output / outcome metrics, data collection, Assessment & Evaluation Reports |
| Implementation: Provide retailer training and education |
| # retailer licenses |
| # vape shops |
| # cigarette retailers |

| Enforcement: Streamline inspection and audit activities to comply with FDA guidelines |
| # citations issued |
| # compliance audits |
| # enforcement inspections |

#### OUTCOMES

| Short-term |
| Quality of relationships, level of participation and engagement, types of gaps, vulnerabilities, inefficiencies |
| Increased consumer awareness |
| Family condoning or defending use of tobacco |

| Change in KSA among partners |
| Increased partnership collaboration |
| Increased retailer knowledge |
| Change in retailer motivations |
| Motivation to sell tobacco <21 |
| Motivation to comply |

| Increased inspector KAS |
| Hx data, purpose, rules / regs, division policy / procedure, process |
| Inspection |
| Audit |

| Intermediate |
| T21 policies adopted |
| Inspection and Audit policies, rules, regulations |
| Inspection and Audit Fidelity |
| Increased retailer ID checks |
| Decreased audit violations |

| Long-term (examples) |
| Reduced social access |
| % cigarettes obtained from friends or family |
| % high school students obtaining cigarettes in retail environment |

- Reduced youth tobacco initiation
- % of middle school students who had ever tried a cigarette
- % of middle school students who had ever tried a cigarette before age 11
- % middle school students smoked at least one cigarette/day
- % new 18 year old smokers
- % past 30-day tobacco use rate for high school students
- % of adult smokers
- % of adult smokers before age 18

#### ASSUMPTIONS:
- Evidence-based & population appropriate policies; qualified implementation staff and partners; static resources & staff; accurate licensing and revenue collection

#### EXTERNAL FACTORS:
- Additional cause-effect chains and feedback loops; population demographics, family circumstances & values; cost benefit of retailer compliance; partner capacity and goals
Chicago reported a 36% decrease in cigarette and e-cigarette use rates among 18 – 20 year-olds, from 15.2% in 2016 to 9.7% in 2017.

In California, statewide retailer violation rates to under 18 year-olds decreased from 10.3% to 5.9% since implementation of T21

Chicago DPH, 2018; Zhang. et al, 2018
Current Findings

Tobacco Control Policy Adoption Dynamics: A Case Study of Missouri

...look at raising the age of purchase or sale from 18 to 21 and to me that is an easier lift...because you are not asking elected officials to increase taxes, you are not asking voters to increase taxes...and you are not pulling in enemies

Clean indoor air was the hard one. And actually, our vape ordinance was more difficult than Tobacco 21.

Tobacco tax is a much, much, much tougher sell... and it’s a different conversation and big and little tobacco stood up and that made it harder.

Everett. et al, 2018
Legal Authority for Tobacco 21

**States with Express Preemption:**
- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

**States with No Apparent Preemption:**
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

**States Expressly Not Preempted:**
- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

Berman, M. 2014.
Legal Challenges

**WIBW**

City Council will appeal tobacco court ruling, discussed sales tax

**RhodyBeat**

Vaping business sues Barrington over new tobacco law

18 and older may buy tobacco in Genesee County for now, judge rules
“If a man has never smoked by age 18, the odds are three-to-one he never will. By age 24, the odds are twenty-to-one.”

“Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers first begin to smoke while still in their teens…”

From 1981 report by Myron Johnston of Philip Morris’ marketing research department.