Youth Possession Laws: Promising Approach Or Diversion?

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Bridging the Gap: Research Informing Practice for Healthy Youth Behavior

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Purpose of the Initiative:

➢ To evaluate the impact of:
  • Policies
  • Programs
  • Practices

➢ Addressing various types of substances:
  • Alcohol Use
  • Illicit Drug Use
  • Tobacco Use

➢ At various levels:
  • State
  • Community
  • School
  • Individual
Data Collections

- Half-Sample of MTF Schools Cycling Out of the National Sample
  - c. 215 Schools Per Year
  - National Replicate Sample

- Administrators in Those Schools Surveyed

- Community Data Collected From Their Catchment Areas
  - Observational Studies of Retail Outlet and Communities
  - Key Informant Interviews in the Community
  - Local Ordinances and Regulations
  - Other Existing Archival Data

- State Level Data on Laws, Policies, and Environmental Data
Key Informant Surveys

- Modular Approach:
  - Core Modules
    - Universal Questions
    - Demographic Module
    - Health Department
    - Police Agency
    - Police Officer
    - Coalitions
  - 5 Targeted Modules
    - Youth access enforcement
    - Policy/media advocacy
    - Public education
  - Ordinance Feedback Modules
    - Youth Tobacco Possession
    - Keg Registration
    - Curfews
    - Inhalants
    - Drug Paraphernalia
    - Medical Marijuana
State Tobacco Policy/Legislative Data

- Tobacco Control Expenditures – CDC/NCI/RTI - Since 1991

- Price Data – Tax Burden on Tobacco, American Chamber of Commerce Researchers’ Association, Observational Data, Scanner Data, Self-Reported Data – 1955+

- Smoke-Free Air Laws – CDC, ALA, RPCI; 1991+

- Sales to Minors’ Laws – CDC, SLATI, MIT; 1991+

- Purchase, Possession, and Use Laws – CDC, ALA, RPCI; 1988+
Real Average Cigarette Excise Tax

State and Federal Tax (FY00 cents per pack)

Year
Cigarette Smoking Among Youth by the Average Price of a Pack of Cigarettes in 50 States and the District of Columbia, 1999

Average Price of a Pack of Cigarettes (in cents)

Percent Past Month Smokers (Adolescents)

Sources: 1999 NHSDA (12-17 year olds); 1999 Tax Burden On Tobacco
Note: Past Month Smoking = smoking on ≥ 1 day during the previous 30 days

$r^2 = 0.255$
$\beta = -0.045$
$P < 0.001$
$N = 51$
12th Grade 30 Day Smoking Prevalence and Price

### Cigarette Price

- $1.25
- $1.50
- $1.75
- $2.00
- $2.25
- $2.50
- $2.75
- $3.00
- $3.25

### Smoking Prevalence

- 1981: 39
- 1986: 37
- 1991: 35
- 1996: 33

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**Year**

- 1981
- 1986
- 1991
- 1996

Sources: 1989 Surgeon General’s Report, ALA’s SLATI, CDC’s STATE system, Roswell Park Cancer Institute. Note: Includes the District of Columbia; Alabama = only state with no restrictions on public smoking.
Mean Smoke-Free Air Law Rating Per State* -- United States, 1988-2001

*Includes the District of Columbia; Theoretical Range = -5-42

Sources: ALA’s SLATI, CDC’s STATE system, and Roswell Park Cancer Institute
Cigarette Smoking Among Youth by the Clean Indoor Air Legislation Rating in 50 States and the District of Columbia, 1999

Sources: 1999 NHSDA (12-17 year olds); ALA’s SLATI, CDC’s STATE system, and the Roswell Park Cancer Institute.
Note: Past Month Smoking = smoked on ≥ 1 day in the previous 30 days
Possession, Use, and Purchase Laws

- Penalize minors, not vendors
- States want to avoid criminal record for offender (Teen Court or Peer Court)
- Penalties include:
  - Fines -- most common
    - range as high as $750 (some graduated)
    - majority ≤ $100
- Other penalties in lieu of or in addition to fines:
  - Community Service
  - Smoking Education Classes
  - Smoking Cessation Classes
  - Driver’s License Suspension
Arguments In Favor of PUP Laws

- Promote Accountability, Personal Responsibility
  - Vendors Shouldn’t be Liable

- Add a Cost to Tobacco Use

- Can be Used by Law Enforcement Officers to Inspect Suspicious Youths - May Reduce Crime Rate

- Send a Message That Adults Mean What They Say

- Alcohol Experience - minimum age increase (to 21 years old) has reduced drinking and saved lives
Arguments Against PUP Laws

- Youths are Enticed to Smoke by Marketing, Only to Be Punished for Wanting the Promoted Product
- Enforcement Costs; May Reduce STM Enforcement
- Profiling
- Youth Focus Diverts Attention/Resources From Effective Tobacco Control Efforts
- Kids Rebel
- Age-aspiration Means Adult Status is Attractive
- Efficacy of Sales to Minors Laws in Doubt
Number of U.S. States including D.C.*, with Legislation Restricting Possession of Cigarettes to Persons aged ≥18 years, 1988-2001

*District of Columbia

Number of U.S. States including D.C.*, with Legislation Restricting the Use of Cigarettes to Persons aged ≥18 years, 1988-2001

*District of Columbia

Number of U.S. States including D.C.*, with Legislation Restricting the Purchase of Cigarettes to Persons aged ≥18 years, 1988-2001

*District of Columbia

Mean Number of Possession, Use, and Purchase Laws per State* -- United States, 1988-2001

Possession, Purchase, and Use Index (Mean)

Year


*Includes the District of Columbia; Theoretical Range = 0-3
Sources: ALA’s SLATI, CDC’s STATE system, and Roswell Park Cancer Institute
Tobacco Possession Ordinance Enforced in Your Community

Resources Adequate to Effectively Enforce Tobacco Possession Ordinance

LOCAL ENFORCEMENT: 2001
LOCAL ENFORCEMENT

Pattern of Possession Ordinance Enforcement:

- **Enforced among any youth smoker**: 54.4% in 1999, 63.5% in 2000
- **Enforced only in response to complaint**: 33.3% in 1999, 30.6% in 2000
- **Enforced rarely**: 15.0% in 1999, 3.2% in 2000

Year
- **1999**: 54.4% (among any youth smoker), 33.3% (response to complaint), 15.0% (rarely)
- **2000**: 63.5% (among any youth smoker), 30.6% (response to complaint), 3.2% (rarely)
Local Enforcement: 2001

Community Priority of Tobacco Possession Ordinance Enforcement

Effectiveness of Possession Ordinance in Giving Police a Tool to Intercept Youth for Other Issues or Concerns
Local communities indicate that the following are typical actions taken when a minor is caught possessing tobacco:

- Citation issued
- Notification of parents
- Warning issued
- Appearance in peer or teen court

Local communities indicate that the following are typical penalties imposed when a minor is caught possessing tobacco (2001):

- Fines (65%)
- Community service (19%)
- Participation in Tobacco Cessation Program (15%)
- Counseling (12%)
**Policy Implementation – Tobacco Possession**

<table>
<thead>
<tr>
<th>If saw 14 year old smoking in public park, would:</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>give teen warning</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>notify parents</td>
<td>23%</td>
<td>40%</td>
</tr>
<tr>
<td>do nothing</td>
<td>65%</td>
<td>47%</td>
</tr>
</tbody>
</table>
Effectiveness of Possession Ordinance in reducing tobacco use by minors:

Year | Percent
--- | ---
1999 | 50.0, 35.1, 8.1
2000 | 46.8, 28.6, 15.6

Legend:
- Very Effective
- Somewhat Effective
- Not Very Effective
- No Help at All
Cigarette Smoking Among Youth by the Historical PPU Legislation Rating in 50 States and the District of Columbia, 1999

Sources: 1999 NHSDA (12-17 year olds); ALA’s SLATI, CDC’s STATE system, and the Roswell Park Cancer Institute

Note: Past Month Smoking = smoked on > 1 day during the previous 30 days Historical PPU Legislation Rating = Sum of PPU laws for previous 8 years (0 = no law; 1 = law present)
Control Variables for Merged Analyses

- Tobacco Control Expenditures, Cigarette Prices, Sales to Minors Laws, Smoke-free Air Laws

- Age, Sex, Race/Ethnicity, Father’s Education, Mother’s Education, Respondent’s Earned Income, Respondent’s Income From Other Sources, Labor Force Status, Mother’s Work Status, Religiosity, School Performance
Table 1. Logit Analyses of the Association Between Purchase, Possession, and/or Use Laws and Cigarette Smoking among Minors – United States, 1991-1998

<table>
<thead>
<tr>
<th>Past Month Smoking</th>
<th>Adjusted*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient (z-score)</td>
</tr>
<tr>
<td>Purchase</td>
<td>-0.075 (-1.75)</td>
</tr>
<tr>
<td>Possession</td>
<td>-0.050 (-1.11)</td>
</tr>
<tr>
<td>Use</td>
<td>-0.017 (-0.46)</td>
</tr>
<tr>
<td>PPU Index</td>
<td>-0.040 (-2.08)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Month Smoking Intensity</th>
<th>Adjusted*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient (z-score)</td>
</tr>
<tr>
<td>Purchase</td>
<td>-0.089 (-1.94)</td>
</tr>
<tr>
<td>Possession</td>
<td>-0.066 (-1.39)</td>
</tr>
<tr>
<td>Use</td>
<td>-0.016 (-0.41)</td>
</tr>
<tr>
<td>PPU Index</td>
<td>-0.048 (2.30)</td>
</tr>
</tbody>
</table>

*Adjusted for demographics, risk, and tobacco control variables
N (Weighted) = 248,369
Table 2. Logit Analyses of the Association Between Purchase, Possession, and/or Use Laws and Past Month Smoking among Minors, by Age and Risk Group – United States, 1991-1998

<table>
<thead>
<tr>
<th>Age/Risk Group</th>
<th>Purchase</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
</tr>
<tr>
<td>≤ 14 yrs/Low</td>
<td>-2.13</td>
<td>0.033</td>
<td>-2.00</td>
<td>0.046</td>
<td>-1.99</td>
<td>0.047</td>
<td>-3.53</td>
</tr>
<tr>
<td>≤ 14 yrs/Medium</td>
<td>-0.68</td>
<td>0.497</td>
<td>-2.05</td>
<td>0.040</td>
<td>-2.79</td>
<td>0.005</td>
<td>-2.91</td>
</tr>
<tr>
<td>≤ 14 yrs/High</td>
<td>0.15</td>
<td>0.885</td>
<td>-0.22</td>
<td>0.826</td>
<td>-1.52</td>
<td>0.128</td>
<td>-0.58</td>
</tr>
<tr>
<td>15-16 yrs/Low</td>
<td>-0.96</td>
<td>0.336</td>
<td>-0.52</td>
<td>0.602</td>
<td>-1.54</td>
<td>0.124</td>
<td>-1.49</td>
</tr>
<tr>
<td>15-16 yrs/Medium</td>
<td>-0.61</td>
<td>0.541</td>
<td>0.89</td>
<td>0.373</td>
<td>0.90</td>
<td>0.366</td>
<td>0.56</td>
</tr>
<tr>
<td>15-16 yrs/High</td>
<td>-1.83</td>
<td>0.068</td>
<td>1.02</td>
<td>0.309</td>
<td>2.10</td>
<td>0.035</td>
<td>0.28</td>
</tr>
<tr>
<td>17 yrs/Low</td>
<td>-2.08</td>
<td>0.038</td>
<td>-1.36</td>
<td>0.174</td>
<td>0.91</td>
<td>0.361</td>
<td>-1.60</td>
</tr>
<tr>
<td>17 yrs/Medium</td>
<td>-0.58</td>
<td>0.559</td>
<td>-0.18</td>
<td>0.859</td>
<td>-0.35</td>
<td>0.725</td>
<td>-0.75</td>
</tr>
<tr>
<td>17 yrs/High</td>
<td>-1.60</td>
<td>0.111</td>
<td>-0.26</td>
<td>0.795</td>
<td>0.64</td>
<td>0.520</td>
<td>-1.23</td>
</tr>
</tbody>
</table>

Note: Adjusted for demographics and tobacco control variables
N (Weighted) for each age/risk strata ranges from 9,894 – 62,766
Table 3. Logit Analyses of the Association Between Purchase, Possession, and/or Use Laws and Past Month Smoking Intensity among Minors, by Age and Risk Group – United States, 1991-1998

<table>
<thead>
<tr>
<th>Age/Risk Group</th>
<th>Purchase</th>
<th></th>
<th>Possess</th>
<th></th>
<th>Use</th>
<th></th>
<th>PPU Index</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
<td>p-value</td>
<td>z-score</td>
<td>p-value</td>
</tr>
<tr>
<td>≤ 14 yrs/Low</td>
<td>-2.20</td>
<td>0.028</td>
<td>-2.13</td>
<td>0.033</td>
<td>-1.98</td>
<td>0.047</td>
<td>-3.64</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>≤ 14 yrs/Medium</td>
<td>-0.61</td>
<td>0.542</td>
<td>-2.15</td>
<td>0.032</td>
<td>-2.94</td>
<td>0.003</td>
<td>-3.03</td>
<td>0.002</td>
</tr>
<tr>
<td>≤ 14 yrs/High</td>
<td>-0.31</td>
<td>0.753</td>
<td>-1.23</td>
<td>0.218</td>
<td>-1.74</td>
<td>0.082</td>
<td>-1.51</td>
<td>0.130</td>
</tr>
<tr>
<td>15-16 yrs/Low</td>
<td>-1.11</td>
<td>0.268</td>
<td>-0.69</td>
<td>0.492</td>
<td>-1.77</td>
<td>0.077</td>
<td>-1.73</td>
<td>0.084</td>
</tr>
<tr>
<td>15-16 yrs/Medium</td>
<td>-0.84</td>
<td>0.402</td>
<td>0.58</td>
<td>0.564</td>
<td>0.78</td>
<td>0.435</td>
<td>0.17</td>
<td>0.861</td>
</tr>
<tr>
<td>15-16 yrs/High</td>
<td>-2.28</td>
<td>0.023</td>
<td>0.36</td>
<td>0.719</td>
<td>2.00</td>
<td>0.045</td>
<td>-0.30</td>
<td>0.763</td>
</tr>
<tr>
<td>17 yrs/Low</td>
<td>-2.18</td>
<td>0.029</td>
<td>-1.50</td>
<td>0.135</td>
<td>0.78</td>
<td>0.434</td>
<td>-1.73</td>
<td>0.084</td>
</tr>
<tr>
<td>17 yrs/Medium</td>
<td>-0.97</td>
<td>0.331</td>
<td>-0.61</td>
<td>0.544</td>
<td>-0.45</td>
<td>0.653</td>
<td>-1.29</td>
<td>0.197</td>
</tr>
<tr>
<td>17 yrs/High</td>
<td>-1.26</td>
<td>0.209</td>
<td>-1.01</td>
<td>0.313</td>
<td>0.21</td>
<td>0.830</td>
<td>-1.48</td>
<td>0.139</td>
</tr>
</tbody>
</table>

Note: Adjusted for demographics and tobacco control variables
N (Weighted) for each age/risk strata ranges from 9,894 – 62,766
Compliance Check Analysis

- Draws on data from FDA compliance checks done from 1998 through early 2000
  - over 100,000 initial checks
  - control for conditions of check, store characteristics
- Data on state policies matched based on store location
  - Includes sales to minors policies and policies limiting youth purchase, use, or possession
- Data on community population characteristics added based on store zip code
Compliance Check Analysis Results

- Compliance more likely in states with more comprehensive restrictions on sales to minors.

- Compliance less likely in rural, low-income, and/or minority neighborhoods.

- Compliance not significantly related to state policies limiting youth purchase, use, or possession of tobacco products. Weak evidence that compliance is higher in states with these policies.
Conclusions

- Policies limiting youth purchase, use and/or possession of tobacco products have spread rapidly during the 1990s
  - Enforcement increasing in recent years

- Mixed support for these policies at the level of implementation and enforcement
  - Not a high priority in most communities
  - Inadequate resources provided in many communities
  - Perceived to have little impact on youth smoking

- Policies more commonly used as tool to intercept youth for other concerns or issues
Conclusions

- State laws limiting youth purchase, use, and/or possession of tobacco products have little impact on youth smoking prevalence or intensity.

- Some evidence that combination of policies has weak impact on overall youth smoking.
  - Effects appear limited to lower risk/younger teens who are least likely to smoke to begin with.

- No evidence that purchase, use, or possession laws adversely impact on retailer compliance with sales to minors policies.
Next Steps

- PUP Analyses to Incorporate:
  - State Enforcement Data
  - Local Laws and Enforcement
  - Focus Group Data in Communities with Various Degrees of Enforcement
  - Cost-Effectiveness Analysis

- Ongoing/Planned Analyses of Merged Data Sets:
  - Tobacco Control Expenditures, Smoke-Free Indoor Air Laws
  - Other Outcomes, Such as Purchase Experiences, Attitudes, Quitting
Bridging the Gap

Research Informing Practice for Healthy Youth Behavior

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