Susceptibility To Electronic Cigarette Use Among Current Nonsmokers

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Presenter Disclosures

Robert McMillen

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- Legacy

Background: Trends in Electronic Cigarette Use

<table>
<thead>
<tr>
<th>Year</th>
<th>Ever Use</th>
<th>Current Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.8 (1.3-2.3)</td>
<td>0.3 (0.1-0.5)</td>
</tr>
<tr>
<td>2011</td>
<td>7.3 (6.4-8.2)</td>
<td>0.8 (0.5-1.1)</td>
</tr>
<tr>
<td>2012</td>
<td>10.6 (9.5-11.7)</td>
<td>2.6 (2.0-3.2)</td>
</tr>
<tr>
<td>2013</td>
<td>13.0 (11.8-14.1)</td>
<td>6.8 (5.9-7.7)</td>
</tr>
</tbody>
</table>

Nicotine & Tobacco Research (2014)  
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### Background: Electronic Cigarette Use, 2013

<table>
<thead>
<tr>
<th></th>
<th>Never Smokers</th>
<th>Former Smokers</th>
<th>Nondaily Smokers</th>
<th>Daily Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
</tr>
<tr>
<td><strong>Ever Use</strong></td>
<td>3.5 (2.7-4.3)</td>
<td>13.5 (11.1-15.9)</td>
<td>47.0 (38.5-55.5)</td>
<td>54.2 (48.7-59.7)</td>
</tr>
<tr>
<td><strong>Current Use</strong></td>
<td>1.4 (0.9-1.9)</td>
<td>5.4 (3.8-7.0)</td>
<td>34.1 (26.0-42.2)</td>
<td>30.3 (25.2-35.4)</td>
</tr>
</tbody>
</table>

**Background:**

- Among all current electronic cigarette users
- 12.6% are never smokers
- 19.9% are former smokers
  - 5.8% are former smokers who quit before 2007
- Somewhere between 18.4% & 32.5% of current electronic cigarette users were not smoking combustible cigarettes when they initiated use

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Methods
• Administered Fall 2013
• Random Digit Dial Landline Frame
  • Survey Research Laboratory at the Social Science Research Center, Mississippi State University
• Probability-based Internet Panel
  • GfK: Panel members were recruited by probability-based sampling, and households were provided with access to the Internet and hardware if needed

Results
• RDD Landline
  • N= 1,552
  • Co-operation rate, 91.9%
• Probability-based Internet Panel
  • N=1,693
  • Final completion rate, 63.5%
  • Length of time on the panel ranged from 44 days to 14 years, median time on panel was 2.2 years
Results

- 85.7% of adults have never tried an e-cigarette
  - Never smokers (n = 1,438)
  - Former Smokers (n = 618)

Susceptible to E-Cigarettes

- Never smokers: 6.7%
  - Former smokers: 13.9%
    - p < .05
    - Never smokers
      - 18-24: 17.7%
      - 25-44: 6.5%
      - 45-64: 4.4%
      - 65+: 1.8%
      - p < .05
    - Former smokers
      - 18-24: 47.4%
      - 25-44: 21.4%
      - 45-64: 11.1%
      - 65+: 5.8%
      - p < .05
Susceptible to E-Cigarettes

- Have seen an e-cigarette ad: 17.4%
- Have not: 12.5%
  - p<.05
  - 18-24: 28.2% v. 16.2%, ns
  - 25-44: 20.3% v. 11.8%, p=.007
  - 45-64: 15.1% v. 14.5%, ns
  - 65+: 9.6% v 5.5%, ns

Discussion

- Over 20% of young adult never and former smokers who have never tried e-cigarettes are susceptible to using them in the future.
- The substantial number of vulnerable young adult nonsmokers illustrates the imperative for sales and marketing regulation to protect nonsmokers from being recruited to e-cigarette use and possible nicotine addiction.
- Until the risks of e-cigarettes are better defined, it is irresponsible to allow an unrestrained industry to encourage uptake of a potentially hazardous product.
Limitations

• Self-report, cross-sectional data
• Non-validated modification of Pierce’s Susceptibility to Smoking variables

Questions?

Minh-Tri 1st Place winner, FAMRI/AAP/Richmond Center Art Contest 2010