The health effects of smoking chop-chop (illicit tobacco)

Campbell Aitken, Tim Fry
Background

- Chop-chop = black-market tobacco
- ~ 8.6% of the Australian population (2004) has smoked chop-chop
- 'Home-grown' or diverted from farm crops
- estimated to cost Australian taxpayers ~ $450 million per annum in lost taxes
- Is chop-chop use associated with poor health?
What’s already known?

- Some smokers consider chop-chop to be more ‘natural’ and less harmful than legal tobacco.

- The evidence suggests the reverse - that chop-chop carries more risk than licit tobacco.
Study design

- Focus groups - smokers with experience of chop-chop
- Australia-wide telephone survey of tobacco smokers
Focus groups - methods

- Three groups containing eight smokers each, held over three weeks in September 2006
- All had smoked chop-chop at least once
- Recruited from street drug scenes in inner Melbourne, an advertisement at a smoking paraphernalia retailer, and by word of mouth
Focus group results (1)

- Most participants believed;
  - chop-chop is healthier than licit tobacco - 'not chemically treated'
  - addiction is partially due to chemicals in licit tobacco - chop-chop is less addictive

- Some maintained risks equal - "Everybody that smokes knows that they are killing themselves"
Focus group results (2)

- All reported that the quality of chop-chop tobacco varied greatly
- High levels of moisture in chop-chop were commonly mentioned:

  "I will not roll it wet. I have to dry it .... I can’t smoke it straight out of the bag"
Focus group results (3)

Perceived health effects of chop-chop use:

- rapid-onset headaches
- nausea
- heartburn
- serious fungal infections
Telephone survey

- Economics - prevalence of use, price thresholds, estimates of tax avoided
- How does the health of chop-chop smokers compare to the health of people who smoke only licit tobacco?
- What distinguishes chop-chop-users from non-users?
Telephone survey - methods

- selected by Random Digit Dialling from the telephone white pages, stratified by state
- 18+ self-identified regular smokers
- Interviews conducted Mar-Jun '07, using CATI
- Health status measured using the SF-8™
- Specific health conditions - disability weights
Telephone survey - results (1)

- 1,621 complete interviews - RR 62.8%.
- 95.6% reported smoking tobacco daily
- 58.3% had heard of chop-chop
- Lifetime (ever) chop-chop users = 24.5%
- Current (>= occasional) chop-chop users = 7.1%
## Telephone survey – results (2)

<table>
<thead>
<tr>
<th>Current use predictors</th>
<th>OR (95% CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Began smoking aged &lt; 16 years</td>
<td>1.65 (1.09, 2.50)</td>
<td>0.019</td>
</tr>
<tr>
<td>Age (years)</td>
<td>0.98 (0.97, 1.00)</td>
<td>0.019</td>
</tr>
<tr>
<td>SF-8™ Social Functioning &lt; 48</td>
<td>1.61 (1.06, 2.44)</td>
<td>0.026</td>
</tr>
<tr>
<td>Disability weight &gt; 0</td>
<td>1.95 (1.08, 3.51)</td>
<td>0.027</td>
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</tbody>
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### Telephone survey - results (3)

<table>
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<tr>
<th>Lifetime use predictors</th>
<th>OR (95% CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 45</td>
<td>1.82 (1.38, 2.39)</td>
<td>0.000</td>
</tr>
<tr>
<td>SF-8™ Mental Health &lt; 49</td>
<td>1.61 (1.22, 2.13)</td>
<td>0.001</td>
</tr>
<tr>
<td>&gt; 120 cigarettes smoked / week *</td>
<td>1.39 (1.06, 1.83)</td>
<td>0.018</td>
</tr>
<tr>
<td>SF-8™ Bodily Pain &lt; 50†</td>
<td>1.40 (1.06, 1.85)</td>
<td>0.019</td>
</tr>
<tr>
<td>Began smoking aged &lt; 16 years</td>
<td>1.33 (1.01, 1.75)</td>
<td>0.042</td>
</tr>
</tbody>
</table>

* licit tailor-made or roll-your own tobacco, or chop-chop
† a lower score represents more pain
Conclusions

- Our data imply that chop-chop smoking is associated with decreased mental and physical health.
- Chop-chop smokers also reported high tobacco consumption and low age of smoking onset.
- Income, education level, and employment status were not significant predictors (but, sampling bias?)
Conclusions

- Harm reduction - deterrence of future chop-chop use through info at point-of-sale and warning labels?