

**Supplementary Table 2: Perceptions of relative risk of non-combustible nicotine products (n<sub>SAMPLE</sub>=157, n<sub>STUDY</sub>=54, n<sub>RECORD</sub>=55)**

Reference	Product Comparison(s)	Authors, YOP	Study Design	Study Population	Measures	Results
			Design (Mode) Recruitment method Location Time	Size Age & Description	Presentation Question Responses Assessment (Question - Responses)	General Samples Smoker Samples Other Product User Samples
20 and 21	NRT vs CCs	Bansal et al, 2004; Cummings et al, 2004	Cross-sectional survey (telephone) Probability-based sampling United States September 2001	1,046 Adult current smokers	- Are nicotine patches ... to cause someone to have a heart attack as cigarettes? ... more likely, about as likely, or less likely ... Open (Direct - Continuous - Rating)	- <i>Full sample:</i> < 35%  <i>Among NRT ever users (n=395):</i> < 37%  <i>Among NRT never users (n=651):</i> < 34%
22 and 23	ECs vs CCs	Ambrose et al, 2014; Amrock et al, 2014	Cross-sectional survey (paper) ( <i>National Youth Tobacco Survey</i> ) Probability-based sampling United States 2012	24,658 Youth (students)	<i>Awareness prompt</i> Do you believe that electronic cigarettes or e-cigarettes, such as Ruyan or NJOY, are ... than regular cigarettes? ... less harmful, equally harmful, or more harmful ... Open (Direct - Continuous - Rating)	<i>Among those aware of e-cigarettes (n=12,396):</i> < 34% = 18% > 3% DK 45%  <i>Among never smokers (n=17,877):</i> < 25% = 15% > 2% DK 57%  <i>Among former smokers (n=4,123):</i> < 41% = 17% > 4% DK 38%  <i>Among current smokers (n=2,247):</i> < 54% = 16% > 5% DK 24%  <i>Among e-cigarette ever users (n=1,676):</i> < 72% = 13% > 4% DK 12%  <i>Among e-cigarette current users (n=518):</i> < 74% = 12% > 5% DK 9%
24A	ECs vs CCs	Pearson et al, 2012	Cross-sectional survey (internet) Probability-based sampling United States June 2010	2,649 Adults	<i>Awareness prompt</i> <i>Visual cue</i> Compared to regular-strength cigarettes, do you think that electronic or e-cigarettes are ... to a person's health? ... a lot less harmful, a little less harmful, about the same, a little more harmful, or a lot more harmful ... Open (Direct - Continuous - Rating)	- <i>Among current smokers aware of e-cigarettes (n=1,308):</i> < 71%

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24B	ECs vs CCs	Pearson et al, 2012	Cross-sectional survey (phone) ( <i>Legacy Longitudinal Smoker Cohort</i> ) Non-probability-based sampling United States April 2010	3,658 Adult former & current smokers	<i>Awareness prompt</i> Compared to regular-strength cigarettes, do you think that electronic or e-cigarettes are ... to a person's health? ... a lot less harmful, a little less harmful, about the same, a little more harmful, or a lot more harmful ... Open (Direct - Continuous - Rating)	-  <i>Among current smokers aware of e-cigarettes (n=1,882):</i> < 85%
27	SLT vs CCs	Schaefer et al, 1985	Cross-sectional survey (paper) Probability-based sampling Texas, United States Spring 1983	5,392 Youth (students)	- i) How harmful is dipping/chewing to a person's health? ii) How harmful is smoking cigarettes to a person's health? Very harmful, somewhat harmful, slightly harmful, or not harmful (Indirect)	<i>Full sample:</i> i) very 40% somewhat 40% slightly 15% not 3%  ii) very 77% somewhat 17% slightly 3% not 2%  < (very harmful)
28	SLT vs CCs	Prokhorov et al, 2002	Cross-sectional survey (paper & face-to-face) Non-probability-based sampling Texas, United States Summer 1998	4,089 Adult healthcare professionals & educators	- Do you believe that snuff or chewing tobacco use is a safe alternative to smoking? Yes or no Open (Direct - Categorical)	-  <i>Among healthcare professionals (n=1,711):</i> < 3%  <i>Among educators (n=2,004):</i> < 10%
29	SLT vs CCs	Haddock et al, 2004	Cross-sectional survey (paper) Non-probability-based sampling United States September 2000	36,012 Young adults entering the US Air Force	- If a smoker switched from cigarettes to chewing tobacco/snuff, how much would they reduce their health risks associated with using tobacco products? 5-point Likert scale: <i>no reduction in risk to they would no longer be at risk</i> Open (Direct - Continuous - Rating)	<i>Among males (n=26,742):</i> = 75% < 25%  <i>Among females (n=9,270):</i> = 80% < 20%
30	SLT vs CCs	O'Connor et al, 2005	Cross-sectional survey (telephone) ( <i>International Tobacco Control Policy 4-Country Survey, Wave 2</i> ) Probability-based sampling United States	2,028 Adult smokers	<i>Awareness prompt</i> As far as you know, are any smokeless tobacco products less harmful than ordinary cigarettes? Agree or disagree Open (Direct - Categorical)	-  <i>Among those aware of SLT (n=1,661):</i> < 11% = or > 83% DK 6%



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			Design (Mode) Recruitment method Location Time	Size Age & Description	Presentation Question Responses Assessment (Question - Responses)	General Samples	Smoker Samples	Other Product User Samples
			Maryland, United States Spring 2004		... less harmful, as harmful, or more harmful Open (Direct - Continuous - Rating)	NRT vs cigarettes <i>Full sample:</i> <i>Nicotine patch:</i> < 80% = or > 20%  <i>Nicotine gum:</i> < 76% = or > 24%  <i>Nicotine inhaler:</i> < 47% = or > 53%		
34	SLT vs CCs	Tomar & Hatsukami, 2007	Repeat cross-sectional survey (paper) Probability-based sampling United States 1999-2003	11,093 Youth (students)	<i>Awareness prompt built into measure</i> How much do you think people risk harming themselves (physically or in other ways): ... if they smoke one or more packs of cigarettes per day? ... if they use smokeless tobacco regularly (chewing tobacco, plug, dipping tobacco, snuff)? ... no risk, slight risk, moderate risk, great risk, or can't say - drug unfamiliar Numeric scores were assigned to the ordinal response categories as follows: "no risk"=1, "slight risk"=2, "moderate risk=3", and "great risk"=4. The difference in perceived risk was calculated as the numeric difference between the reported perceived risk of harm from smoking a pack or more of cigarettes per day and the reported perceived risk of harm from regularly using SLT. Based on these differences, respondents were categorized as perceiving equal risk of harm from using either product, perceiving greater risk from smoking, or perceiving greater risk from using SLT. (Indirect)	<i>Full sample:</i> < 41% = 53% > 6%	-	-
35	SLT vs CCs	Kaduri et al, 2008	Cross-sectional survey (paper) Probability-based sampling Ilala, Dar es Salaam, Tanzania 2006	1,010 Youth (students)	- Is smokeless tobacco safer than cigarettes? Yes or no Open (Direct - Categorical)	-	-	<i>Among smokeless tobacco ever users (n=28):</i> < 29% = or > 36% DK 36%

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36	SLT vs CCs	Overland, Hetland & Aaro, 2008	Cross-sectional survey (telephone) Probability-based sampling Norway September 2007	2,415 Youth & young adults	- The following is a list of nicotine products. How harmful do you think each one of these are, if used daily? 7-point scale: <i>harmless (1) to very harmful (7)</i> The ratings were used as continuous variables to estimate mean ratings for each product. For direct comparisons of cigarettes and snus, variables were constructed for each participant that reflected the mean rated harmfulness of factory-made cigarettes and low-tar cigarettes, and the mean rated harmfulness of loose snus and prepackaged snus. (Indirect)	<i>Full sample:</i> - < 59% = 19% > 22%
37	SLT vs CCs	Biener & Bogen, 2009	Repeat cross-sectional survey (telephone) ( <i>Indiana Adult Tobacco Survey</i> ) Probability-based sampling Indiana, United States 2006-2007	3,544 Adults	- Using chewing tobacco or snuff is safer to the individual user than smoking regular cigarettes. 4-point Likert scale: <i>strongly agree to strongly disagree</i> Closed (Direct - Continuous - Rating)	<i>Full sample:</i> - < 12% = or > 88%
38	SLT vs CCs	Timberlake et al, 2009	Cross-sectional survey (telephone) ( <i>California Tobacco Survey</i> ) Probability-based sampling California, United States 2005	2,995 Adult smokers	- Would you replace your cigarettes with smokeless tobacco, dip, or chew if you thought it had fewer health consequences? Definitely not, probably not, probably yes, or definitely yes Closed (Direct - Categorical)	<i>Full sample:</i> - < 12% = or > ? 88%
39	SLT vs CCs	Carpenter & Gray, 2010	Experimental pilot study (randomized controlled trial) Non-probability-based sampling South Carolina, United States December 2008	31 Adult smokers	<i>Visual aids of potentially reduced exposure products – Ariva &amp; Stonewall (SLT)</i> Compared with cigarettes, how risky would this PREP (potentially reduced exposure product) be for your health? Less risky, equally risky, or more risky Open (Direct - Continuous - Rating)	- <i>Among those in experimental (SLT arm (n=19):</i> <i>Visit 1;2:</i> - < 67%; 83% = 33%; 16% > 0%; 0%  <i>Among those in control (cigarette) arm (n=12):</i> <i>Visit 1;2:</i> - < 92%; 75% = 8%; 25% > 0%; 0%

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40	SLT vs CCs	Gartner et al, 2010	Cross-sectional survey (internet) Non-probability-based sampling Australia August 2008	401 Adult smokers	- [Participants were asked to select whether they thought SLT products were ... than cigarettes] ... a lot more, a little more, about equally, a little less, or a lot less Open (Direct - Continuous - Rating)	- <i>Full sample:</i> < 19% = or > 82%
41	SLT vs CCs	Peiper et al, 2010	Cross-sectional survey (paper) Non-probability-based sampling Kentucky, United States October 2007	597 Adult full-time faculty at University of Louisville	- With regard to <u>general health</u> risk, how harmful are the following: cigarette smoking, secondhand smoke, smokeless tobacco, nicotine [Question was also asked for: <u>heart attack and stroke, cancer, oral cancer</u> ] 7-point Likert scale: <i>not at all harmful to extremely harmful</i> For each health domain, the mean score and the standard deviation were computed for cigarette and SLT items. The proportion of respondents indicating a score of 1 or 2 (which was classified as low risk), a score of 3-5 (moderate risk), and a score of 6-7 (high risk) were calculated for each exposure. Low and moderate risk categories were combined when the number of respondents in either one was less than five. An assessment of how individual respondents scored cigarettes in direct comparison with SLT was conducted by subtracting SLT scores from cigarette scores, resulting in three categories: perception of SLT as higher risk than cigarettes (a negative value); no difference in risk perception (zero); and the perception of cigarettes as higher risk than SLT (a positive value). (Indirect)	- <i>Full sample:</i> <i>General health</i> (n=585): < 49% = 49% > 2%  <i>Heart attack/stroke</i> (n=576): < 66% = 33% > 0%  <i>All cancer</i> (n=586): < 38% = 60% > 1%  <i>Oral cancer</i> (n=588): < 14% = 50% > 36%
42	SLT vs CCs NRT vs CCs	Wikmans & Ramstrom, 2010	Cross-sectional survey (internet) Non-probability-based sampling Sweden 2009	1,016 Adult smokers	- Snus use is almost as harmful to health as smoking. True or false Closed (Direct - Categorical)  - Long term use of nicotine from patches or gums is almost as harmful to health as smoking. True or false Closed (Direct - Categorical)	- SLT vs cigarettes <i>Full sample:</i> < 25% > or DK 75%  NRT vs cigarettes <i>Full sample:</i> < 41% = or > or DK 59%

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43	SLT vs CCs	Callery et al, 2011	Experimental study Non-probability-based sampling Canada 2008	611 Young adult smokers	<i>Experimental conditions</i> In your opinion, how harmful to health is this product compared to regular cigarettes? 5-point Likert scale: <i>a lot less harmful to a lot more harmful</i> Open (Direct - Continuous - Rating)	- <i>Full sample:</i> < 72% = or > 28%
44	SLT vs CCs	McClave-Regan & Berkowitz, 2011	Cross-sectional survey (paper) ( <i>ConsumerStyles</i> ) Probability-based sampling United States June 2008	10,108 Adult consumers	- Smokeless tobacco products like chewing tobacco, snuff, dip, or snus are ... than cigarettes? ... more harmful, as harmful as, or less harmful ... Open (Direct - Continuous - Rating)	- <i>Among smokers (n=1,622):</i> < 2% = 48% > 17% DK 33%  <i>Among dual users (n=79):</i> < 8% = 64% > 6% DK 23%
45	SLT vs CCs	Smith et al, 2011	Cross-sectional survey (paper) Non-probability-based sampling San Diego county, United States 2010	689 Youth (students)	- Please rank the following items in terms of health risks (use 1, 2, 3, and 4). Use '1' for the item that is the most harmful and use '4' for the item that is least harmful: chewing tobacco or dip; cigarettes; cigars; hookah Score: "1" to most harmful item, and "4" to least harmful item Open (Direct - Continuous - Ranking)	<i>Full sample:</i> - < Cigarettes 1.92 Cigars 2.44 Chewing tobacco or dip 2.34 Hookah 3.16
46	SLT vs CCs NRT vs CCs	Borland et al, 2012	Pre-post design Non-probability-based sampling Australia; Sweden; United Kingdom; United States 2007-2009	170; 101; 187; 59 Adult current smokers	<i>Intervention:</i> Fact sheet summarizing scientific knowledge on the relative harms of nicotine and SLT as compared to smoked tobacco In your opinion, are [ANY smokeless tobacco products/nicotine replacement products] less harmful than ordinary cigarettes? No, they are more harmful; no, they are similarly harmful; yes, they are a little less harmful; yes, they are a lot less harmful Open (Direct - Mixed)	- SLT vs cigarettes <i>(Pre:post)</i> <i>Australia:</i> < 8%; 36% <i>Sweden:</i> < 14%; 28% <i>UK:</i> < 22%; 54% <i>US:</i> < 7%; 27%  NRT vs cigarettes <i>(Pre:post)</i> <i>Australia:</i> < 43%; 53% <i>Sweden:</i>



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						<p>(n=221): &lt; 65% = 34% &gt; 2%</p> <p>Among current daily dual users (n=364): &lt; 82% = 17% &gt; 1%</p>
49	SLT vs CCs  SLT vs NRT	Regan, Dube & Arrazola, 2012	Cross-sectional survey (paper) ( <i>HealthStyles</i> ) Probability-based sampling United States September 2009	4,556 Adults	<i>Awareness prompt</i> Smokeless tobacco products like chewing tobacco, snuff, dip, or snus are ... than [cigarettes / NRT]? ...more harmful, as harmful as, less harmful, or don't know Open (Direct - Continuous- Rating)	<p>SLT vs cigarettes <i>Snus:</i> Among those aware of snus (n=2,014): &lt; 5% = 50% &gt; 8% DK 37%</p> <p><i>Dissolvables:</i> Among those aware of dissolvable tobacco products (n=474): &lt; 4% = 39% &gt; 7% DK 50%</p> <p>SLT vs NRT <i>Snus:</i> Among those aware of snus (n=2,014): &lt; 2% = 22% &gt; 24% DK 52%</p> <p><i>Dissolvables:</i> Among those aware of dissolvable</p>

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						<i>tobacco products (n=474):</i> < 2% = 24% > 21% DK 54%
50	SLT vs CCs ECs vs CCs	Choi & Forster, 2013	Cross-sectional survey (telephone) ( <i>Minnesota Adolescent Community Cohort Study</i> ) Probability-based sampling Minnesota, United States 2010-2011	2,607 Young adults	- Please indicate your level of agreement with the following statements: [Snus / e-cigarettes] [is / are] less harmful than cigarettes. 5-point Likert scale: <i>strongly agree</i> to <i>strongly disagree</i> Closed (Direct - Continuous - Rating)	SLT vs cigarettes <i>Among those aware of snus (n=1,689):</i> < 17% = or > 75% DK 7%  E-cigarettes vs cigarettes <i>Among those aware of e-cigarettes (n=2,624):</i> < 53%  E-cigarettes vs cigarettes <i>Among those aware of e-cigarettes (n=1,835):</i> < 14% = or > 6% DK 7%  E-cigarettes vs cigarettes <i>Among those aware of e-cigarettes (n=1,835):</i> < 14% = or > 6% DK 7%
51	SLT vs CCs	Popova & Ling, 2013	Cross-sectional survey (internet) Probability-based sampling United States November 2011	1,836 Adult former & current smokers	<i>Visual aid</i> <i>Direct measure:</i> a) Compared to smoking cigarettes, using new smokeless tobacco, such as snus, is ... 7-point scale: <i>a lot less harmful (-3) to a lot more harmful (+3)</i> Open (Direct - Continuous - Rating)  <i>Indirect measure:</i> b) i) In your opinion, how harmful are new smokeless tobacco products, such as snus, to general health? b) ii) In your opinion, how harmful is smoking cigarettes for health? 7-point scale: <i>not at all harmful (1) to extremely harmful (7)</i> Responses ranged from “not at all harmful” (1) to “extremely harmful” (7). Differences between means were examined using t-tests. (Indirect)	-  <i>Full sample:</i> a) < 22% = 59% > 18%  b) < 52% = 33% > 13%
52	SLT vs CCs	Ayo-Yusuf & Agaku, 2014	Cross-sectional survey (face-to-face) ( <i>South African Social Attitudes Survey</i> ) Probability-based sampling	2907 Adults	- Do you believe that snuff is a safer alternative to smoking cigarettes? Using snuff is safer than smoking, using snuff is	-  <i>Among non-tobacco users (n=1,991):</i> < 12%  <i>Among current snuff users (n=119):</i> < 68%

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			South Africa 2007		equally as harmful as smoking, or using snuff is more harmful than smoking Open (Direct - Continuous - Rating)	= 49% > 10% DK 30%  <i>Among current smokers (n=678):</i> < 6% = 50% > 13% DK 32%
53	SLT vs CCs  ECs vs CCs	England et al, 2014	Cross-sectional survey (paper) Probability-based sampling United States February 2012	252 Adult obstetricians-gynecologists	- How would you rate the health effects of the following tobacco products (chewing tobacco/snuff/snus, electronic cigarettes, dissolvable tobacco products) in pregnant women? No health effects, adverse effects but safer than cigarettes, or adverse effects the same as cigarettes Open (Direct - Mixed)	SLT vs cigarettes <i>Full sample:</i> <i>Snuff/snus:</i> < 24% = 50% DK 20% M 9%  <i>Dissolvable tobacco:</i> < 20% = 36% DK 37% M 8%  E-cigarettes vs cigarettes <i>Full sample:</i> < 29% = 14% DK 37% M 8%
54	SLT vs CCs	Kaufman et al, 2014	Cross-sectional survey (internet) Probability-based sampling United States March 2013	2,067 Adults	- Do you believe that snus is less or more harmful to one's health than ordinary cigarettes? Much less harmful, less harmful, about the same, more harmful, much more harmful Open (Direct - Continuous - Rating)	<i>Full sample:</i> < 6%  <i>Among ever users of snus (n=99):</i> < 23%
55	SLT vs CCs	Lund & Scheffels, 2014	Repeat cross-sectional survey (telephone) Probability-based sampling Norway 2008-2011	2,661 Youth & adult ever smokers & snus users	- Compare the health risks for a group of daily smokers with a group of daily users of snus. The smokers and snus users belong to the same age group, and have used tobacco for the same length of time. Diseases: cancer of the oral cavity, lung cancer,	<i>Among current smokers (n=1,131):</i>  <i>Cancer of oral cavity (n=1,121):</i> < 7%

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					stomach cancer, and cardiovascular disease The risk is ... far higher for snus users, somewhat higher for snus users, more or less equal for snus users and smokers, somewhat higher for smokers, or far higher for smokers Open (Direct - Continuous - Rating)	= 59% > 34%  <i>Lung cancer</i> (n=1,141): < 78% = 22% > 0.4%  <i>Stomach cancer</i> (n=1,056): < 14% = 67% > 19%  <i>Cardiovascular disease</i> (n=1,107): < 49% = 51% > 0.4%
56	SLT vs CCs  ECs vs CCs	Richardson et al, 2014	Cross-sectional survey (telephone) Probability-based sampling United States September 2011	1,487 Adult current & former smokers	- Compared to regular-strength cigarettes, do you think that i) snus; ii) chewing tobacco, snuff, dip; iii) dissolvables; iv) electronic nicotine delivery systems are ... to health? ...a lot less harmful to a person's health, a little less harmful, about the same, a little more harmful, or a lot more harmful Open (Direct - Continuous - Rating)	-  SLT vs cigarettes <i>Among current smokers (n=765):</i> <i>i) Snus:</i> < 11% = 42% > 18% DK 29%  <i>ii) Chewing tobacco, snuff, dip:</i> < 10% = 50% > 36% DK 5%  <i>iii) Dissolvables:</i> < 14% = 31% > 9% DK 45%  E-cigarettes vs cigarettes <i>Among those aware of e-</i>  SLT vs cigarettes <i>i) Snus:</i> <i>Among never users (n=836):</i> < 12% = 48% > 23% DK 18%  <i>Among ever users (n=172):</i> < 38% = 48% > 11% DK 3%  <i>ii) Chewing tobacco, snuff, dip:</i> <i>Among never users (n=1,083):</i> < 10% = 48% > 38% DK 4%

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						<i>cigarettes (n=1,216):</i> < 65% = 10% > 3% DK 21%  <i>iii)</i> <i>Dissolvables:</i> <i>Among never users (n=489):</i> < 17% = 38% > 13% DK 32%  <i>Among ever users (n=51):</i> < 41% = 29% > 8% DK 22%  E-cigarettes vs cigarettes <i>Among e-cigarette ever users (n=221):</i> < 79% = 10% > 4% DK 6%
57	ECs vs CCs	Goniewicz & Zielinska-Danch, 2012	Cross-sectional survey (paper) Probability-based sampling Poland June 2011	13,787 Youth & young adults (students)	- Do you think e-cigarettes are harmful? Yes, they are more harmful than tobacco cigarettes; yes, they are as harmful as tobacco cigarettes; yes, but they are less harmful than tobacco cigarettes; no, they are absolutely not harmful Open (Direct - Mixed)	<i>Full sample:</i> < 55%
58	ECs vs CCs	Adkison et al, 2013	Cross-sectional survey (telephone & internet) ( <i>International Tobacco Control Policy 4-Country Survey; Wave 8</i> ) Probability-based sampling	5,939 Adult current & former smokers	<i>Awareness prompt</i> Do you think electronic cigarettes are ... than regular cigarettes to health? ... more harmful, equally harmful, or less harmful	-  <i>Among those aware of e-cigarettes (n=5,921):</i> < 70%

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			Australia; Canada; United Kingdom; United States June 2011		Open (Direct - Continuous - Rating)	Australia: < 71% Canada: < 64% United Kingdom: < 82% United States: < 66%
59	ECs vs CCs	Dawkins et al, 2013	Cross-sectional survey (internet) Non-probability-based sampling 33 countries May 2012	1,347 Adult e-cigarette users	- Please indicate your opinion regarding the following statement: E-cigarettes feel healthier than smoking. 4-point Likert scale: <i>not at all</i> to <i>very much so</i> Closed (Direct - Continuous - Rating)	- Among formerly smoking ecig users (n=1,108): < 83% = or > 0.5%  Among currently smoking ecig users (n=213): < 72% = or > 1%
60	ECs vs NRT ECs vs CCs	Dockrell et al, 2013	Cross-sectional survey (internet) Probability-based sampling Great Britain April 2010	1,380 Adult smokers	- Compared with [nicotine replacement products (e.g., gums, patches, inhalers, etc.) / conventional tobacco products (e.g., cigarettes, cigars, roll-ups, etc.)], which of the following statements best describes how safe you consider e-cigarettes? Much safer, somewhat safer, about as safe, somewhat less safe, or much less safe Open (Direct - Continuous - Rating)	- E-cigarettes vs NRT Full sample: < 28% = 34% > 6% DK 32%  E-cigarettes vs cigarettes Full sample: < 71% = 5% > 2% DK 22%
61	ECs vs CCs	Goniewicz, Lingas & Hajek, 2013	Cross-sectional survey (internet) Non-probability-based sampling Poland November 2009	179 E-cigarette users	- Do you think that e-cigarettes are safe for your health? Yes, they are absolutely safe; no, but they are less dangerous than cigarettes; no, they are as dangerous as cigarettes; no, they are more dangerous than cigarettes Open (Direct - Mixed)	- Among smoking ecig users (n=154): < 83% = 1% > 1%  Among non-smoking ecig users (n=25): < 72% = 4%

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						> 8%	
62	ECs vs CCs	Li et al, 2013	Cross-sectional survey (telephone) Probability-based sampling New Zealand September 2011	480 Adult former & current smokers	- Please indicate your level of agreement with the following statement: E-cigarettes are safer to use than tobacco cigarettes. 5-point scale: <i>strongly disagree</i> to <i>strongly agree</i> Closed (Direct - Continuous - Rating)	- <i>Full sample:</i> < 33% = or > 33% DK 34%	
63	ECs vs CCs	Sutfin et al, 2013	Cross-sectional survey (internet) Probability-based sampling North Carolina, United States Fall 2009	4,444 Adults (students)	- Compared with a regular cigarette, how harmful do you think e-cigarettes are? ... less harmful, as harmful, or more harmful Open (Direct - Continuous - Rating)	<i>Full sample:</i> < 23% = 17% > 2% DK 50%	- <i>Among e-cigarette ever users (n=216):</i> < 45% = 17% > 3% DK 23%  <i>Among e-cigarette never users (n=4,228):</i> < 22% = 16% > 2% DK 51%
64	ECs vs CCs	Baeza-Loya et al, 2014	Cross-sectional survey (paper/internet) Non-probability-based sampling International 2013	184 Adults	- Do you think that tobacco cigarettes/e-cigarettes are harmful for pregnant women to use? Do you think that tobacco cigarettes/e-cigarettes can give you lung cancer? Definitely yes, probably yes, probably not, definitely not Scores of 0, 1, 2, and 3 were assigned to the	<i>Full sample:</i> <i>Harmful for pregnant women:</i> <  <i>Cause lung cancer:</i>	- -



Reference	Product Comparison(s)	Authors, YOP	Study Design	Study Population	Measures	Results		
			Design (Mode) Recruitment method Location Time	Size Age & Description	Presentation Question Responses Assessment (Question - Responses)	General Samples	Smoker Samples	Other Product User Samples
68	ECs vs CCs	Gallus et al, 2014	Cross-sectional survey (face-to-face) Probability-based sampling Italy May 2013	3,000 Youth + adults	- Please indicate your opinion regarding the following statements concerning e-cigarettes: 1. They are less harmful because there is no tobacco combustion 2. They are less harmful because they contain only nicotine 3. They are more harmful than traditional cigarettes True or false Closed (Direct - Categorical)	<i>Full sample:</i> < 1. 65% 2. 48% 3. 23%	-	-
69	ECs vs NRT ECs vs CCs	Harrell et al, 2014	Cross-sectional survey (internet) Non-probability-based sampling United States November 2013	1,434 Adult ex-smoking e-cigarette users	- Drug expectancy for each of cigarettes, e-cigarettes, and NRT: Health risks: “__ is/was hazardous to my health” 7-point scale: <i>strongly disagree (1) to strongly agree (7)</i> The drug expectancies of e-cigarettes were compared to those of cigarettes and NRT. One item from nine of the factors in Smoking Consequences Questionnaire – Adult (SCQ-A) was used in each version of the expectancy survey. The focus here is on the negative item of health risk. Expectancies were compared using two sets of paired t-tests (cigarettes vs e-cigarettes; e-cigarettes vs NRT). Cohen’s <i>d</i> was calculated for each comparison. Based on published guidelines, Cohen’s <i>d</i> ranges were labelled as small (0.2-0.4), medium (0.5-0.7), and large (0.8+). (Indirect)	-	-	E-cigarettes vs NRT <i>Full sample:</i> <  M (SD) E-cigarette: 2.17 (1.36) NRT: 3.72 (1.47)  Cohen’s <i>d</i> : 0.83 (large)  E-cigarettes vs cigarettes <i>Full sample:</i> <  M (SD) Cigarette: 6.66 (1.08) E-cigarette: 2.17 (1.36)  Cohen’s <i>d</i> (cigarette vs e-cigarette): 2.53 (large)

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70	ECs vs CCs	Kandra et al, 2014	Cross-sectional survey (internet) Probability-based sampling North Carolina, United States 2013	787 Adult physicians	- Do you believe e-cigarettes lower the risk of cancer for patients who use them instead of smoking cigarettes? Yes or no Closed (Direct - Categorical)	Full sample: < 65% = or > 35%	
71	ECs vs CCs	Tan & Bigman, 2014	Cross-sectional survey (paper) ( <i>Health Information National Trends Survey</i> ) Probability-based sampling United States January 2013	3,630 Adults	<i>Awareness prompt within RRP measure</i> Compared to smoking cigarettes, would you say that electronic cigarettes are ... ? ... much less harmful, less harmful, just as harmful, more harmful, much more harmful, or I've never heard of electronic cigarettes Open (Direct - Continuous - Rating)	Among those aware of e-cigarettes (n=2,609): < 51%  Among non-smokers aware of e-cigarettes (n=2,052): < 46%  Among current smokers aware of e-cigarettes (n=586): < 65%  Among former smokers aware of e-cigarettes (n=939): < 50%	
72	ECs vs CCs	Tucker et al, 2014	Cross-sectional survey (paper) Probability-based sampling Los Angeles County, United States October 2013	292 Youth & young adult homeless current smokers	- In your opinion, are electronic or e-cigarettes ... as smoking cigarettes? ... less harmful, just as harmful, or more harmful ... Open (Direct - Continuous - Rating)	-  Among e-cigarette ever users (n=83): < 45% = 27% > 4% DK 25%	
73	ECs vs CCs	Pokhrel et al, 2015	Cross-sectional survey (internet) Non-probability-based sampling	307 Adults (students)	- 14 items on potential reduced exposure tobacco products, modified for e-cigarettes; 7 of 14 items represented beliefs that e-cigarettes are less harmful than cigarettes:	Harm reduction factor (across all 7 items; range 7-49):	Among e-cigarette ever users (n=132): Mean (SD) 34.8 (9.6)

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			Hawaii, United States October 2013		1. E-cigarettes are less harmful than cigarettes 2. E-cigarettes do reduce the harmful effects of cigarette smoking 3. E-cigarettes cut down on the harmful effects of secondhand smoke 4. E-cigarettes provide a safer way to get nicotine 5. E-cigarettes are lower in tar or carbon monoxide than cigarettes 6. E-cigarettes make smoking safer 7. E-cigarettes are healthier than cigarettes 7-point scale: <i>strongly disagree</i> (1) to <i>strongly agree</i> (7) Closed (Direct - Continuous - Rating)	<i>Full sample:</i> Mean (SD) 35.9 (10.9)  <i>Among e-cigarette non-users (n=175):</i> 29.4 (9.1)
74	NRT vs CCs	Herbert, Coleman & Britton, 2005	Cross-sectional survey (paper) Non-probability-based sampling Nottingham, England N/A	350 Adult general practitioners	- Please indicate your response to the following statement: NRT is safer than smoking in pregnancy. 5-point Likert scale: <i>strongly agree</i> to <i>strongly disagree</i> Closed (Direct - Continuous - Rating)	<i>Full sample (n=238):</i> < 71% = or > 0.5% DK 28%
75	NRT vs CCs	Shiffman et al, 2008	Cross-sectional survey (paper) Probability-based sampling United States September 2002	3,203 Adult former & current smokers	- Please indicate whether you agree or disagree with the following statement: Stop-smoking products with nicotine are just as harmful as cigarettes. 5-point Likert scale: <i>strongly agree</i> to <i>strongly disagree</i> Closed (Direct - Continuous - Rating)	<i>Full sample:</i> < (or >) 34% = 26% DK 40%
76	NRT vs CCs	Bobak et al, 2010	Cross-sectional surveys (face-to-face) Probability-based sampling Great Britain August 2004; February 2006	605; 1,434 Adult current smokers	- Please indicate whether you agree or disagree with the following statement: Stop-smoking products with nicotine are just as harmful as cigarettes. 5-point Likert scale: <i>strongly agree</i> to <i>strongly disagree</i> Closed (Direct - Continuous - Rating)	<i>Full sample:</i> < (or >) 34% = 66%

Abbreviations: SLT = smokeless tobacco; CCs = combustible cigarettes; ECs = electronic cigarettes; NRT = nicotine replacement therapy; DK = don't know; M = missing; SD = standard deviation.