2017

Online Supplementary Materials: Promising Themes for Antismoking Campaigns Targeting Youth and Young Adults

Emily Brennan

Laura Gibson
University of Pennsylvania, laura.gibson@asc.upenn.edu

Ani Momjian-Kybert

Jiaying Liu
University of Pennsylvania, jliu@asc.upenn.edu

Robert C. Hornik
University of Pennsylvania, rhornik@asc.upenn.edu

Follow this and additional works at: http://repository.upenn.edu/asc_papers
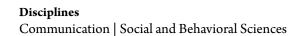
Part of the Communication Commons

Online Supplementary Materials: Promising Themes for Antismoking Campaigns Targeting Youth and Young Adults

Disciplines
Communication | Social and Behavioral Sciences

Promising Themes for Antismoking Campaigns Targeting Youth and Young Adults

Brennan E, Gibson LA, Kybert-Momjian, A, et al. Tob Regul Sci. 2017;3(1):29-46.

ONLINE ONLY SUPPLEMENTARY MATERIAL

APPENDIX A

Table A1

Weighted Sample Characteristics of the Samples Used in Analysis for Each of the Four Campaigns

	Prevent Initiation, 13- to 17-Year Olds Campaign	Prevent Initiation, 18- to 25-Year-Olds Campaign		Stop Progression, 18- to 25-Year-Olds Campaign			Encourage Cessation, 18- to 25-Year-Olds Campaign	
	Non-smokers	Never tobacco users[a][b]	Current tobacco users[b]	Non-daily cigarette smokers[a]	Non-daily tobacco users[c]	Daily tobacco users[c]	Former smokers[d]	Current smokers[d]
	N = 1,141	N = 1,049	N = 337	N = 497	N = 650	N = 538	N = 101	N = 838
	%	%	%	%	%	%	%	%
Girls	48.6	57.2	43.5	41.1	34.8	40.4	57.1	46.1
Race/ethnicity								
White non-Hispanic	56.6	47.5	52.9	56.3	62.0	76.2	59.3	59.1
Black non-Hispanic	14.3	18.7	16.0	11.4	11.9	9.1	2.8	14.0
Hispanic	20.9	23.1	21.6	24.1	19.2	8.3	23.8	19.0

Other[e]	8.2	10.7	9.5	8.2	6.9	6.4	14.1	8.0
Education								
High school or less	n/a	48.1	50.0	52.0	53.8	69.8	54.0	59.7
At least some college education	n/a	51.9	50.0	48.0	46.2	30.2	46.0	40.3
Lives in a metropolitan area	85.0	88.4	86.4	86.0	84.9	78.4	82.5	84.0
	M ± SD	M ± SD	M ± SD	M ± SD	M ± SD	M ± SD	M ± SD	M ± SD
Age	15.0 ± 1.4	21.0 ± 2.3	22.0 ± 2.1	21.3 ± 2.2	21.3 ± 2.3	21.7 ± 2.2	22.6 ± 2.2	21.6 ± 2.2
Sensation seeking (1-5)	2.8 ± 1.0	3.0 ± 1.0	3.3 ± 0.9	3.5 ± 0.9	3.5 ± 0.9	3.5 ± 0.9	3.2 ± 0.9	3.5 ± 0.9

Note. Due to rounding, % may not total to 100. Weights were assigned within each of the smoking status groups to match population distributions in the 2011 National Survey on Drug Use and Health. Thus, the estimates reported reflect expected population values. Specifically, the total sample of 13- to 17-year-olds was weighted by sex, age, race/ethnicity, and the proportion living in metropolitan areas. The total sample of 18- to 25-year-olds was weighted by these same characteristics, as well as education.

[a] This group comprised the analytic sample for the intention analysis for this campaign.

[b] These 2 groups were combined and then comprised the analytic sample for the behavior analysis for the Prevent Initiation 18- to 25-Year-Olds Campaign.

[c] These 2 groups were combined and then comprised the analytic sample for the behavior analysis for the Stop Progression 18- to 25-Year-Olds Campaign.

[d] These 2 groups were combined and then comprised the analytic sample for the behavior analysis for the Encourage Cessation 18- to 25-Year-Olds Campaign.

[e] Includes those who reported 2 or more races, or some other race.

APPENDIX B: *Prevent Initiation, 13- to 17-Year-Olds* **Campaign**

Table B1

Relative Promise of Individual Belief Items within Each Theme (*Prevent Initiation, 13- to 17-Year-Olds* Campaign)

Belief items were ranked from highest to lowest percentage to gain, and then grouped into quintiles. Percentage to gain values in the first (top) quintile ranged from 11.8% – 15.9%, and these are highlighted in **bold** text in the table. Percentage to gain values in the fifth (bottom) quintile ranged from 1.7% - 7.2%, and these are highlighted in *italicized* text in the table. All belief items were asked with the introductory stem "If I smoke, I will…", unless otherwise indicated with a superscript in the table (explained in the notes section below the table). Belief items were coded so that the desired response was "very likely" (the most antismoking belief), unless otherwise indicated in parentheses after the belief item.

In the table, themes are ordered by highest to lowest Relative Promise Index value. Within themes, individual beliefs are ordered from highest to lowest percentage to gain.

TABLE B1 **Belief Items (within themes)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Expression of Independence (Smoking) [RPI = 79]			
Show that I am independent (very unlikely)	**13.9**	**4.17**	**53**
Be making my own decisions (very unlikely)	**11.8**	**2.88**	**59**
Have control over my life (very unlikely)	11.2	3.54	46
Injunctive Social Norms from Peers [RPI = 77]			
Others my age will accept it (very unlikely)	**13.8**	**3.49**	**61**
Others my age will disapprove	**13.5**	**3.20**	**64**
My friends will accept it (very unlikely)	**13.1**	**3.79**	**53**
My friends will disapprove	11.7	3.01	57
My friends won't care about it (very unlikely)	11.2	2.71	60
Others my age won't care about it (very unlikely)	10.6	2.30	70
Social Perceptions (Smoking) [RPI = 73]			
Be unable to go to places that don't allow smoking	**15.6**	**5.20**	**46**

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Be able to show others that I'm not afraid to take risks (very unlikely)	**15.4**	**3.91**	**63**
Look immature	**15.0**	**3.85**	**64**
Gain friends (very unlikely)	**13.6**	**3.54**	**61**
Be unpopular	**13.6**	**2.93**	**72**
Lose friends	**12.7**	**3.14**	**62**
Look uncool	**12.4**	**2.90**	**63**
Look stupid	**12.3**	**3.55**	**56**
Not look confident	**12.0**	**2.87**	**63**
Look mature (very unlikely)	**12.0**	**3.47**	**48**
Get respect from others my age (very unlikely)	**11.8**	**3.18**	**56**
Lose respect from others my age	**11.8**	**2.74**	**62**
Look ridiculous	11.6	3.00	57
Look attractive (very unlikely)	10.6	3.29	45
Be sexually/romantically undesirable	10.3	2.24	68
Look cool (very unlikely)	9.9	2.73	50
Look confident (very unlikely)	9.7	2.75	48
Be popular (very unlikely)	9.7	2.41	58
Lose respect from my brother(s) and/or sister(s)	9.5	2.98	45
Look unattractive	9.3	2.32	57
Be sexually/romantically appealing (very unlikely)	9.1	2.79	45
Look intelligent (very unlikely)	7.5	2.69	38
Gain respect from my brother(s) and/or sister(s) (very unlikely)	*7.1*	*2.74*	*33*
Mood Effects [RPI = 72]			
Feel less bored (very unlikely)	**15.9**	**6.39**	**51**
Feel relaxed (very unlikely)	**13.3**	**3.75**	**54**
Feel less cranky (very unlikely)	11.5	3.77	46
Enjoy life more (very unlikely)	10.5	3.78	34
Feel better when I am sad (very unlikely)	10.3	3.14	46
Have something to do with my hands (very unlikely)	10.0	2.80	55
Feel content (very unlikely)	9.8	2.97	45
Be able to control my anger (very unlikely)	8.9	2.54	49
Feel more comfortable in social situations (very unlikely)	7.4	2.32	45

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Be able to forget about my problems (very unlikely)	*6.1*	*1.92*	*50*
Self-Efficacy [RPI = 58]			
How sure are you that, if you really wanted to, you could say no to a cigarette offer if you are at a party where most people are smoking? (completely sure) [a]	10.4	4.67	32
How sure are you that, if you really wanted to, you could say no to a cigarette offer if a very close friend offers it? (completely sure) [a]	9.0	3.58	34
How sure are you that, if you really wanted to, you could say no to a cigarette offer if someone you know offers it? (completely sure) [a]	8.1	3.96	28
Impact on Sports [RPI = 57]			
Do poorly in sports	10.7	3.37	41
Lose my breath easily while playing sports	10.6	3.94	33
Have less energy to play sports	7.7	2.86	37
General Social Norms (Smoking) [RPI = 55]			
Be more like everyone else (very unlikely)	10.8	2.50	62
Be doing what most others my age are doing (very unlikely)	10.4	2.32	69
Endangering Others [RPI = 55]			
Harm children through second-hand smoke	11.3	4.38	36
Harm my future children	9.4	3.81	35
Harm my friends and family through second-hand smoke	7.3	3.36	26
Harm nonsmokers through second-hand smoke	*6.9*	*2.77*	*30*
Physical (Cosmetic) Effects [RPI = 54]			
Get yellow fingers	**13.3**	**3.50**	**53**
Develop uneven skin coloring	**12.8**	**4.68**	**48**
Get wrinkles	**12.3**	**3.79**	**52**
Get yellow teeth	10.8	5.09	29
Develop brittle hair	10.2	2.47	54
Have a smelly home	9.9	3.95	37
Have smelly hair and clothes	9.1	4.11	27
Have a bad taste in my mouth	8.9	3.18	38
Look gross	8.3	2.97	40
Get bad breath	8.3	3.05	36
Addiction [RPI = 49]			

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Be controlled by smoking	**12.5**	**2.93**	**60**
Be unable to stop smoking when I want to	10.5	2.64	57
Become addicted to cigarettes	9.8	2.81	51
Become addicted to nicotine	9.7	2.65	49
Eventually need to smoke even more	7.8	2.09	54
General Social Norms (Not Smoking) [RPI = 47]			
Be more like everyone else [b]	9.3	1.91	78
Be doing what most others my age are doing [b]	*5.6*	*1.52*	*72*
Harmful Ingredients: Common Products Framing [RPI = 45]			
Inhale ammonia, which is also found in many household cleaners	**11.8**	**3.26**	**49**
Inhale mercury, which is also found in mascara	11.6	2.96	55
Inhale acetone, which is also found in nail polish remover	11.1	2.91	53
Inhale benzene, which is also found in some types of detergents	11.0	2.83	53
Inhale carbon monoxide, which is also found in car exhaust	10.9	3.07	48
Inhale lead, which is also found in some paints	10.6	2.78	52
Inhale nickel, which is also found in stainless steel	9.8	2.41	56
Inhale poisons	9.4	3.09	39
Inhale arsenic, which is also found in car batteries	9.3	2.41	53
Inhale nicotine	9.0	3.09	38
Inhale tar, which is also used to pave roads and driveways	8.9	2.58	46
Inhale formaldehyde, which is also found in glues and adhesives	8.4	2.20	53
Inhale chemicals	7.9	2.79	36
Physical (Health) Effects [RPI = 45]			
Develop sexual and/or fertility problems	**15.4**	**3.88**	**56**
Develop cancer	**14.6**	**5.30**	**47**
Lose my taste buds	**14.6**	**4.92**	**52**
Need chemotherapy and radiation	**14.4**	**4.21**	**54**
Stunt my growth	**14.2**	**3.91**	**53**
Develop inflammation in my lungs	**12.1**	**5.67**	**33**
Develop headaches	**11.9**	**2.74**	**55**
Develop a blood clot in my brain	**11.9**	**3.02**	**58**
Die an early death	11.7	3.64	41

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Develop diseases in my toes and fingers	11.6	3.07	59
Develop mouth cancer	11.5	2.86	55
Suffer a stroke	11.0	2.71	57
Develop high blood pressure	10.5	2.84	51
Develop fatal lung disease	10.3	4.10	37
Have a burning feeling in my throat	10.1	2.77	51
Get sick more easily	9.9	3.20	41
Develop circulation problems	9.6	3.08	41
Have difficulty concentrating	9.3	2.41	53
Keep myself from overeating (very unlikely)	9.3	2.34	55
Become short of breath	9.3	3.77	37
Have a soothing feeling in my throat (very unlikely)	9.0	3.15	41
Destroy my brain cells	9.0	3.26	36
Be able to focus (very unlikely)	8.1	2.44	45
Develop throat cancer	8.0	2.31	47
Develop bad coughs and phlegm	7.3	2.71	35
Harm my health	7.2	2.99	30
Clog my arteries	*7.1*	*2.14*	*42*
Be able to deal with physical pain (very unlikely)	*6.5*	*2.18*	*46*
Damage my body	*6.2*	*2.38*	*33*
Develop heart disease	*5.5*	*1.89*	*46*
Develop lung cancer	*5.4*	*2.03*	*36*
Peer Pressure from Others [RPI = 43]			
Do others your age encourage you to smoke (never) [c]	9.5	3.35	39
Do your friends offer you a smoke (never) [c]	8.2	3.76	30
Social Perceptions (Not Smoking) [RPI = 39]			
Look cool [b]	11.5	2.40	74
Look confident [b]	10.5	2.58	60
Get respect from others my age [b]	9.2	2.06	66
Gain friends [b]	9.1	2.02	70
Look intelligent [b]	8.0	2.13	57
Look attractive [b]	7.3	1.82	64
Gain respect from my brother(s) and/or sister(s) [b]	*6.7*	*1.98*	*53*

7

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Be popular [b]	6.1	1.53	78
Look mature [b]	5.4	1.61	62
Be sexually/romantically appealing [b]	4.4	1.37	75
Youth Susceptibility to Health Effects [RPI = 38]			
Be just as likely to damage my body as an adult smoker would	9.8	5.22	27
People my age who smoke every day are just as likely to harm their health as older people who smoke every day (strongly agree) [d]	8.3	2.62	44
If I smoke every day, I am just as likely to harm my health as an older person who smokes every day (strongly agree) [d]	6.6	2.20	42
Cost of Smoking [RPI = 37]			
Spend hundreds of dollars on tobacco products a year	11.3	4.81	30
Have less spending money	9.6	4.29	31
Spend thousands of dollars on tobacco products over my lifetime	7.9	2.90	33
Spend more money on doctor and dentist visits	7.2	2.33	42
Waste money I could have spent on other things	4.8	2.71	23
Harmful Ingredients: Health Effects Framing [RPI = 33]			
Inhale acetone, which makes it hard to breathe	8.9	2.81	44
Inhale lead, which causes cancer	8.2	2.57	43
Inhale benzene, which damages the heart	7.9	2.48	43
Inhale ammonia, which harms the lungs	7.8	2.51	42
Inhale nickel, which makes it hard to breathe	7.6	2.31	46
Inhale poisons that damage the body	7.5	2.75	37
Inhale formaldehyde, which harms the lungs	7.3	2.54	38
Inhale mercury, which causes cancer	7.3	2.21	46
Inhale tar, which causes lung cancer	7.2	2.58	38
Inhale carbon monoxide, which causes sexual and/or fertility problems	7.2	2.24	45
Inhale arsenic, which damages the heart	7.1	2.29	43
Inhale nicotine, which causes addiction	6.9	2.69	34
Inhale chemicals that damage the body	4.8	2.15	30
Expression of Independence (Not Smoking) [RPI = 28]			
Be showing that I am independent [b]	6.8	1.86	58
Have control over my life [b]	6.2	2.08	41

8

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE B1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Be making my own decisions [b]	*3.4*	*1.46*	*44*
Injunctive Social Norms from Parents [RPI = 21]			
Get in trouble with my parent(s)/guardian(s)	*5.6*	*2.33*	*32*
My parent(s)/guardian(s) will disapprove	*5.2*	*3.18*	*21*
My parent(s)/guardian(s) will be upset	*4.7*	*3.02*	*20*

Note. N = 1141 (total sample; weighted). In order to learn about a large number of beliefs, we randomly assigned participants to see sub-sets of beliefs, leading to variations in the number of respondents who provided valid data for each scale. In the study with 13- to 17-year-olds, respondents were randomly assigned to 1 of 2 conditions. In the Puff Stem Condition, questions began with "If I smoke *even 1 or 2 puffs,* I will…", whereas in the Daily Stem Condition, questions began with "If I smoke *every day*, I will…". Although most belief items were able to be asked using both versions of the question stems, beliefs in the *Cost of Smoking*, *Endangering Others*, and *Impact on Sports* themes were only able to be asked in the Daily Stem Condition, and therefore, were only answered by about half of the sample. For all other themes, preliminary analyses indicated that the 2 stem conditions produced results that were largely similar, and by combining the data, we were able to increase the sample size and hence the stability of our results. Half of the respondents received items only from the *Harmful Ingredients: Common Products Frame* theme, and the other half received items only from the *Harmful Ingredients: Health Effects Frame* theme. **Bold** text indicates beliefs with a percentage to gain value in the first (top) quintile (ie, most promising); *italicized* text indicates beliefs with a percentage to gain value in the fifth (bottom) quintile (ie, least promising).

[a] Respondents were asked to rate how sure they were to these 3 items (with response options on a 5-point scale ranging from *not at all sure* to *completely sure*). These items did *not* begin with the "If I smoke, I will" stem but rather were stated exactly as written above. For each of these beliefs, the desired response option was *completely sure*.

[b] The only difference with these items is that they began with the introductory stem "If I *do not smoke at all*, I will…". The desired response here was *very likely*.

[c] Respondents were asked how frequently these items happened (with response options on a 5-point scale ranging from *never* to *almost always*). These items did *not* begin with the "If I smoke, I will" stem but rather were stated exactly as written above. For each of these belief items, they were coded with the desired response of *never*.

[d] Respondents were asked whether they agreed or disagreed with the following statements (with response options on a 5-point scale ranging from *strongly disagree* to *strongly agree*). These items did *not* begin with the "If I smoke, I will" stem but rather were stated exactly as written above. For each of these beliefs, the desired response option was *strongly agree*.

Table B2

Sub-Group Similarities in the Relative Promise of Each Theme, Based on Percentage to Gain Estimates (%) (*Prevent Initiation, 13- to 17-Year-Olds* Campaign)

	Overall	Girls	Boys	13-15 year olds	16-17 year olds	White (ref)	Black	Hispanic	Low sensation seekers	High sensation seekers
	N=1141	N=554	N=587	N=698	N=443	N=646	N=163	N=238	N=707	N=433
Expression of Independence (S)	**12.8**	**11.4**	**14.0**	**11.0**	**15.3**	**11.1**	**18.1**	**15.0**	**11.3**	**14.7**
Injunctive Social Norms from Peers	**12.5**	**11.8**	**13.2**	**11.0**	**14.4**	**11.1**	**14.9**	**15.2**	**12.9**	**10.9**
Social Perception (S)	11.9	11.3	12.3	9.3	15.8*	11.6	12.8	12.9	10.4	13.9
Mood Effects	**11.7**	**12.5**	**10.9**	**9.8**	**14.4**	**11.2**	**9.5**	**15.2**	**9.9**	**14.1**
Self-Efficacy	9.6	8.3	10.8	10.5	8.6	9.4	7.9	12.2	7.9	12.1*
Impact on Sports[a]	**9.5**	**6.9**	**11.8**	**8.9**	**9.9**	**8.3**	**13.6**	**10.4**	**9.5**	**9.6**
General Social Norms (S)	9.2	8.5	9.9	6.1	13.9*	9.9	6.2	8.3	8.0	10.8
Endangering Others[a]	9.1	7.1	10.8	7.5	11.4	8.1	14.4	9.2	6.0	14.1*
Physical (Cosmetic) Effects	**9.0**	**7.0**	**10.8**	**8.5**	**9.4**	**9.1**	**11.5**	**8.6**	**7.9**	**10.5**
Addiction	**8.3**	**8.2**	**8.5**	**7.3**	**9.6**	**6.5**	**12.3**	**12.4**	**7.4**	**9.7**
General Social Norms (NS)	**8.0**	**5.2**	**10.9**	**6.9**	**9.2**	**9.2**	**3.0**	**10.3**	**10.2**	**5.7**
Harmful Ingredients: Common Products[a]	**7.7**	**7.7**	**7.5**	**6.1**	**9.8**	**6.8**	**6.9**	**14.5**	**7.9**	**7.4**
Physical (Health Effects)	**7.6**	**8.0**	**7.1**	**6.6**	**8.8**	**8.0**	**10.2**	**5.9**	**6.4**	**9.6**

Peer Pressure From Others	**7.3**	**7.6**	**7.0**	**6.1**	**8.6**	**6.1**	**9.4**	**9.2**	**6.1**	**8.6**
Social Perception (NS)	**6.7**	**4.4**	**9.2**	**7.7**	**5.7**	**7.7**	**9.9**	**3.5**	**8.8**	**4.8**
Youth Susceptibility to Health Effects	**6.6**	**5.7**	**7.5**	**6.2**	**7.0**	**7.8**	**5.2**	**6.1**	**6.7**	**6.5**
Cost of Smoking[a]	6.4	6.2	6.3	5.3	7.9	3.0	12.4*	12.7*	6.3	6.8
Harmful Ingredients: Health Effects[a]	**5.8**	**6.0**	**5.6**	**6.7**	**4.5**	**7.4**	**9.8**	**1.7**	**4.5**	**8.0**
Expression of Independence (NS)	**5.1**	**4.6**	**5.5**	**4.3**	**6.4**	**4.9**	**4.5**	**6.5**	**6.2**	**4.1**
Injunctive Social Norms from Parents	4.1	4.7	3.5	4.0	3.9	3.4	11.0*	1.6	5.2	2.4

Note. Bold text indicates that percentage to gain values for this theme were *not* significantly moderated by any of the audience characteristics, such that this theme would be expected to work in the same way across audience segments. White respondents were non-Hispanic White, and Black respondents were non-Hispanic Black. A fourth group of respondents were categorized into an "other" race/ethnicity group, but due to the small sample size and difficulty in interpreting findings for this group, the results are not reported. S = consequences of smoking framing; NS = consequences of not smoking framing; ref = referent category in statistical analyses.

[a] All of the individual beliefs in this set were asked of only half the total sample.

* Percentage to gain estimates for this level of the moderator are significantly different to the other level (or the specified reference category) at p < .05.

APPENDIX C: *Prevent Initiation, 18- to 25-Year-Olds* **Campaign**

Table C1

Relative Promise of Individual Belief Items within Each Theme (*Prevent Initiation, 18- to 25-Year-Olds* Campaign)

Belief items were ranked from highest to lowest percentage to gain, and then grouped into quintiles. In the intention analysis, percentage to gain values in the first (top) quintile ranged from 9.2 – 12.9%, and percentage to gain values in the fifth (bottom) quintile ranged from 1.1 – 6.6%. In the behavior analysis, percentage to gain values in the first quintile ranged from 13.1 – 18.4%, and percentage to gain values in the fifth quintile ranged from 5.1 – 8.5%. In the table, those in the first quintile (within each analysis) are highlighted in **bold** text and those in the fifth quintile are *italicized*. All belief items were asked with the introductory stem "If I smoke every day, I will…", unless otherwise noted with a superscript in the table (explained in the notes section below the table). Belief items were coded so that the desired response was "very likely" (the most antismoking belief), unless otherwise indicated in parentheses after the belief item.

In the table, themes are ordered by highest to lowest Relative Promise Index value. Within themes, individual beliefs are ordered from highest to lowest percentage to gain, based on scores from the intention analyses.

The task of selecting the most promising beliefs may be complicated by some inconsistency in findings from the intention and behavior analyses. We therefore recommend that attention is paid to both sets of findings, and that priority is given to those beliefs that were highly ranked (bolded in tables) in both analyses, or were at least highly ranked in one analysis and not poorly ranked in the other (poorly ranked beliefs are italicized).

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Injunctive Social Norms from Peers [RPI = 77]						
My friends will disapprove	**10.4**	**2.95**	**52**	13.0	3.77	59
My friends will accept it (very unlikely)	**9.5**	**2.67**	**52**	**15.2**	**5.82**	**60**
My friends won't care about it (very unlikely)	7.9	2.18	59	**15.0**	**4.22**	**66**
Others my age will accept it (very unlikely)	7.7	2.13	55	**14.9**	**4.61**	**63**
Others my age will disapprove	7.1	1.96	59	**13.9**	**4.13**	**66**
Others my age won't care about it (very unlikely)	*5.2*	*1.49*	*69*	**17.1**	**5.19**	**74**
Mood Effects [RPI = 76]						
Feel more comfortable in social situations (very unlikely)	**11.8**	**4.49**	**45**	13.1	4.22	53
Be able to forget about my problems (very unlikely)	**11.3**	**3.42**	**47**	9.6	2.93	53
Feel better when I am sad (very unlikely)	**10.8**	**3.08**	**49**	**14.8**	**4.72**	**57**
Be able to control my anger (very unlikely)	**10.6**	**3.23**	**49**	**15.5**	**5.79**	**57**
Enjoy life more (very unlikely)	**9.9**	**3.93**	**36**	**13.5**	**5.04**	**46**
Feel less cranky (very unlikely)	8.7	2.69	47	**15.0**	**5.99**	**56**
Feel content (very unlikely)	8.4	2.74	43	**15.2**	**5.33**	**53**
Feel relaxed (very unlikely)	7.2	2.29	49	**17.0**	**7.49**	**58**
Have something to do with my hands (very unlikely)	7.0	1.96	55	**16.7**	**5.90**	**63**
Feel less bored (very unlikely)	*6.3*	*2.06*	*46*	11.6	4.00	53
Social Perceptions (Smoking) [RPI = 75]						
Be sexually/romantically undesirable	**12.9**	**3.82**	**55**	12.3	3.51	61
Look uncool	**10.3**	**2.96**	**52**	**14.9**	**5.02**	**60**
Look stupid	**9.8**	**2.91**	**46**	**13.5**	**4.97**	**54**

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Gain friends (very unlikely)	**9.7**	**2.54**	**55**	10.8	2.92	60
Not look confident	**9.4**	**2.43**	**58**	12.0	3.22	64
Look mature (very unlikely)	**9.2**	**3.17**	**40**	12.8	5.35	48
Lose respect from others my age	9.0	2.38	56	**16.0**	**5.52**	**64**
Be sexually/romantically appealing (very unlikely)	8.9	3.65	38	**13.7**	**5.39**	**47**
Be able to show others that I'm not afraid to take risks (very unlikely)	8.6	2.38	55	11.6	3.18	61
Be popular (very unlikely)	8.4	2.67	48	*8.0*	*2.33*	*53*
Be unable to go to places that don't allow smoking	8.2	2.59	43	**14.4**	**5.91**	**52**
Look unattractive	8.2	2.40	46	**14.7**	**5.34**	**55**
Look attractive (very unlikely)	8.2	3.34	36	11.6	4.47	44
Look immature	8.1	2.25	53	**14.4**	**5.43**	**60**
Get respect from others my age (very unlikely)	8.0	2.51	43	11.4	3.51	51
Look confident (very unlikely)	8.0	2.51	44	12.2	3.84	52
Gain respect from my brother(s) and/or sister(s) (very unlikely)	7.7	3.41	30	9.7	4.05	38
Look intelligent (very unlikely)	7.3	2.97	33	11.1	4.62	42
Lose friends	7.1	1.90	60	**15.2**	**5.07**	**67**
Look ridiculous	7.1	2.27	47	**15.3**	**5.41**	**56**
Look cool (very unlikely)	6.6	2.61	38	10.1	3.45	46
Be unpopular	6.6	1.72	67	**13.8**	**3.40**	**72**
Lose respect from my brother(s) and/or sister(s)	*5.1*	*1.76*	*46*	**14.4**	**5.22**	**54**
Expression of Independence (Smoking) [RPI = 65]						
Show that I am independent (very unlikely)	9.1	3.17	43	12.2	4.08	51

14

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Be making my own decisions (very unlikely)	7.9	2.19	52	**14.2**	**5.86**	**60**
Have control over my life (very unlikely)	6.9	2.30	42	**16.6**	**6.84**	**53**
Physical (Health) Effects [RPI = 58]						
Be able to deal with physical pain (very unlikely)	**11.8**	**4.03**	**46**	11.2	3.80	53
Develop headaches	**11.0**	**3.57**	**48**	12.0	3.45	55
Develop throat cancer	**10.7**	**3.39**	**44**	11.3	3.65	52
Develop a blood clot in my brain	**10.6**	**2.98**	**58**	10.5	2.82	63
Become short of breath	**10.4**	**3.56**	**39**	11.3	3.69	47
Have a burning feeling in my throat	**10.4**	**3.24**	**46**	9.5	2.94	52
Develop sexual and/or fertility problems	**9.8**	**2.53**	**57**	10.3	2.61	62
Develop circulation problems	**9.3**	**3.35**	**41**	13.0	4.70	49
Develop diseases in my toes and fingers	9.1	2.82	54	13.0	3.74	60
Keep myself from overeating (very unlikely)	9.1	2.46	51	10.7	2.84	58
Develop heart disease	8.7	2.55	47	9.8	2.83	53
Clog my arteries	8.4	2.39	48	11.5	3.37	55
Need chemotherapy and radiation	8.3	2.22	56	**13.2**	**3.60**	**62**
Develop bad coughs and phlegm	8.2	3.33	34	11.4	4.43	42
Destroy my brain cells	8.1	2.63	43	9.5	2.93	49
Get sick more easily	8.0	2.63	42	9.1	2.92	49
Have difficulty concentrating	7.8	2.30	50	11.1	3.18	57
Be able to focus (very unlikely)	7.5	2.39	45	**15.5**	**6.00**	**55**
Stunt my growth	7.4	1.91	59	9.1	2.34	64

15

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Suffer a stroke	7.2	1.94	54	12.9	4.03	60
Develop lung cancer	7.0	2.51	41	10.4	3.29	48
Lose my taste buds	7.0	2.15	49	11.5	3.12	56
Harm my health	6.9	4.11	24	*7.1*	*3.36*	*30*
Develop cancer	6.9	2.46	40	*8.3*	*2.83*	*46*
Die an early death	6.9	2.39	43	*8.5*	*2.59*	*49*
Damage my body	6.8	3.56	28	8.9	3.65	36
Develop inflammation in my lungs	6.6	2.70	*34*	**13.4**	**5.49**	**44**
Have a soothing feeling in my throat (very unlikely)	*6.3*	*2.38*	*38*	12.2	4.11	47
Develop fatal lung disease	*5.7*	*1.96*	*42*	*8.0*	*2.67*	*47*
Develop high blood pressure	*5.3*	*1.95*	*45*	11.5	3.66	53
Develop mouth cancer	*4.7*	*1.70*	*46*	11.1	3.25	53
Self-Efficacy [RPI = 56]						
How sure are you that, if you really wanted to, you could say no to a cigarette offer if a very close friend offers it? (completely sure) [a]	**9.5**	**7.36**	**22**	11.2	6.16	32
How sure are you that, if you really wanted to, you could say no to a cigarette offer if you are at a party where most people are smoking? (completely sure) [a]	9.0	7.12	21	11.6	6.71	32
How sure are you that, if you really wanted to, you could say no to a cigarette offer if someone you know offers it? (completely sure) [a]	8.8	7.11	21	9.8	5.33	30
General Social Norms (Smoking) [RPI = 55]						
Be more like everyone else (very unlikely)	**9.5**	**2.43**	**58**	12.0	3.06	64
Be doing what most others my age are doing (very unlikely)	8.5	1.88	72	9.3	2.14	75
Harmful Ingredients: Common Products Framing [RPI = 49]						

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Inhale nickel, which is also found in stainless steel	**9.8**	**3.02**	**49**	10.7	2.87	55
Inhale ammonia, which is also found in many household cleaners	8.6	2.73	46	10.5	2.95	53
Inhale benzene, which is also found in some types of detergents	8.5	2.66	47	11.3	3.13	54
Inhale formaldehyde, which is also found in glues and adhesives	8.5	2.70	46	8.6	2.41	52
Inhale lead, which is also found in some paints	8.4	2.62	47	11.4	3.18	54
Inhale carbon monoxide, which is also found in car exhaust	8.3	2.81	43	*8.1*	*2.41*	*48*
Inhale nicotine	8.2	3.82	31	*6.3*	*2.37*	*36*
Inhale acetone, which is also found in nail polish remover	7.8	2.35	50	9.9	2.64	56
Inhale arsenic, which is also found in car batteries	7.6	2.45	46	10.6	2.97	53
Inhale mercury, which is also found in mascara	7.6	2.28	50	11.1	2.98	56
Inhale chemicals	7.2	3.04	33	*8.4*	*2.93*	*40*
Inhale poisons	7.2	2.87	35	10.2	3.42	43
Inhale tar, which is also used to pave roads and driveways	7.1	2.53	40	8.9	2.71	46
Youth Susceptibility to Health Effects [RPI = 48]						
If I smoke every day, I am just as likely to harm my health as an older person who smokes every day (strongly agree) [c]	9.1	3.00	43	8.9	2.76	49
People my age who smoke every day are just as likely to harm their health as older people who smoke every day (strongly agree) [c]	8.8	2.88	43	9.1	2.83	49
Be just as likely to damage my body as an adult smoker would	7.3	2.87	33	12.7	5.07	43
Social Perceptions (Not Smoking) [RPI = 46]						
Be popular [b]	**10.3**	**2.30**	**73**	*7.6*	*1.79*	*76*
Look cool [b]	**10.0**	**2.27**	**68**	*6.6*	*1.80*	*71*

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Be sexually/romantically appealing [b]	**9.7**	**2.72**	**58**	*8.1*	*2.07*	*62*
Look confident [b]	9.0	2.31	57	*7.1*	*1.93*	*61*
Gain friends [b]	9.0	2.05	68	*5.9*	*1.59*	*71*
Get respect from others my age [b]	8.0	2.04	61	*5.7*	*1.75*	*64*
Look mature [b]	7.3	2.01	55	*8.4*	*2.36*	*60*
Look attractive [b]	7.1	1.96	56	*7.0*	*1.96*	*59*
Gain respect from my brother(s) and/or sister(s) [b]	*6.0*	*1.98*	*45*	9.8	2.94	51
Look intelligent [b]	*5.6*	*1.84*	*53*	10.2	2.75	58
Impact on Sports [RPI = 45]						
Do poorly in sports	**10.2**	**3.52**	**44**	11.1	3.29	51
Have less energy to play sports	7.3	2.63	39	8.8	2.96	45
Lose my breath easily while playing sports	*5.8*	*2.44*	*32*	10.2	3.84	40
Endangering Others [RPI = 45]						
Harm my friends and family through second-hand smoke	9.1	3.51	35	8.6	3.18	42
Harm my future children	7.3	2.50	38	11.7	4.28	47
Harm children through second-hand smoke	*6.2*	*2.28*	*38*	**13.2**	**5.42**	**47**
Harm nonsmokers through second-hand smoke	*5.1*	*2.24*	*30*	11.5	5.12	39
General Social Norms (Not Smoking) [RPI = 44]						
Be doing what most others my age are doing [b]	**12.4**	**2.84**	**72**	*7.1*	*1.69*	*75*
Be more like everyone else [b]	*5.0*	*1.47*	*75*	10.0	2.14	78
Physical (Cosmetic) Effects [RPI = 44]						
Develop brittle hair	**12.0**	**3.48**	**53**	10.6	2.86	59

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Look gross	**9.7**	**3.56**	**42**	11.2	3.55	50
Have a bad taste in my mouth	**9.5**	**3.72**	**36**	10.7	4.18	44
Get yellow fingers	8.5	2.47	51	10.6	3.09	57
Get bad breath	8.4	4.27	29	9.4	3.94	37
Develop uneven skin coloring	8.1	2.45	47	11.5	3.51	54
Get wrinkles	7.9	2.54	47	9.6	2.91	53
Get yellow teeth	7.9	3.14	33	*7.5*	*2.76*	*39*
Have a smelly home	7.3	2.98	34	10.8	4.41	42
Have smelly hair and clothes	*6.0*	*3.09*	*26*	9.8	4.26	35
Peer Pressure from Others [RPI = 41]						
Do others your age encourage you to smoke? (never)[d]	*6.0*	*2.03*	*44*	*7.5*	*2.36*	*49*
Do your friends offer you a smoke? (never)[d]	*4.7*	*1.83*	*40*	**14.4**	**5.82**	**50**
Addiction [RPI = 39]						
Eventually need to smoke even more	**9.7**	**3.78**	**38**	8.7	3.01	44
Be controlled by smoking	8.4	2.98	44	8.7	2.61	50
Become addicted to nicotine	7.0	3.11	30	9.1	3.76	38
Become addicted to cigarettes	*5.4*	*2.37*	*31*	9.8	4.05	39
Be unable to stop smoking when I want to	*5.3*	*1.86*	*42*	**13.1**	**4.77**	**50**
Expression of Independence (Not Smoking) [RPI = 37]						
Have control over my life every day [b]	7.9	2.56	41	*7.4*	*2.44*	*47*
Be showing that I am independent [b]	7.8	2.20	53	*7.6*	*2.21*	*57*
Be making my own decisions [b]	7.6	2.69	37	11.2	4.14	45

19

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Injunctive Social Norms from Parents [RPI = 37]						
My parent(s)/guardian(s) will disapprove	7.0	2.81	33	9.5	3.45	41
My parent(s)/guardian(s) will be upset	*5.1*	*2.25*	*33*	10.8	4.77	41
Get in trouble with my parent(s)/guardian(s)	*1.1*	*1.11*	*54*	**15.3**	**5.43**	**62**
Cost of Smoking [RPI = 36]						
Spend thousands of dollars on tobacco products over my lifetime	8.5	3.82	32	*7.9*	*3.04*	*38*
Spend hundreds of dollars on tobacco products a year	7.1	3.25	30	*8.5*	*3.52*	*37*
Have less spending money	*6.5*	*2.94*	*30*	*8.5*	*3.39*	*37*
Waste money I could have spent on other things	*5.3*	*2.79*	*25*	*7.3*	*3.27*	*31*
Spend more money on doctor and dentist visits	*5.2*	*2.13*	*35*	11.8	4.64	44
Harmful Ingredients: Health Effects Framing [RPI = 27]						
Inhale nickel, which makes it hard to breathe	8.9	2.82	44	9.3	3.15	50
Inhale ammonia, which harms the lungs	8.2	2.92	38	*7.8*	*2.87*	*44*
Inhale mercury, which causes cancer	7.7	2.61	41	9.1	3.22	47
Inhale carbon monoxide, which causes sexual and/or fertility problems	7.5	2.58	40	9.5	3.47	46
Inhale arsenic, which damages the heart	7.3	2.55	39	9.6	3.50	46
Inhale acetone, which makes it hard to breathe	7.3	2.59	38	10.4	4.04	45
Inhale lead, which causes cancer	6.6	2.38	38	10.6	4.12	45
Inhale nicotine, which causes addiction	6.6	2.84	30	8.7	3.77	37
Inhale benzene, which damages the heart	*6.6*	*2.30*	*39*	10.5	3.94	46
Inhale poisons that damage the body	*6.4*	*2.68*	*32*	9.3	3.94	39
Inhale formaldehyde, which harms the lungs	*5.9*	*2.27*	*36*	*7.2*	*2.72*	*41*

20

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE C1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Inhale tar, which causes lung cancer	*5.6*	*2.37*	*31*	8.9	3.87	38
Inhale chemicals that damage the body	*5.5*	*2.38*	*31*	10.0	4.43	39

Note. N = 1,049 for the intention analysis and N = 1,387 for the behavior analysis (weighted). In order to learn about a large number of beliefs, we randomly assigned participants to see sub-sets of beliefs, leading to variations in the number of respondents who provided valid data for each scale. Half of the respondents received items only from the *Harmful Ingredients: Common Products Frame* theme, and the other half received items only from the *Harmful Ingredients: Health Effects Frame* theme. **Bold** text indicates beliefs with a percentage to gain value in the first (top) quintile (ie, most promising); *italicized* text indicates beliefs with a percentage to gain value in the fifth (bottom) quintile (ie, least promising).

[a] Respondents were asked to rate how sure they were to these 3 items (with response options on a 5-point scale ranging from *not at all sure* to *completely sure*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *completely sure*.

[b] The only difference with these items is that they began with the introductory stem "If I *do not smoke at all*, I will…". The desired response here was *very likely*.

[c] Respondents were asked whether they agreed or disagreed with these statements (with response options on a 5-point scale ranging from *strongly disagree* to *strongly agree*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *strongly agree*.

[d] Respondents were asked how frequently these events happened (with response options on a 5-point scale ranging from *never* to *almost always*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these belief items, they were coded with the desired response of *never*.

Table C2

Sub-Group Similarities in Relative Promise of Each Theme, Based on Percentage to Gain Estimates (%) from the Intention Analysis (*Prevent Initiation, 18- to 25-Year-Olds* Campaign)

	Overall N=1049	Men N=449	Women N=600	18-21 year olds N=612	22-25 year olds N=437	High school or less N=505	Some college N=544	White (ref) N=498	Black N=196	Hispanic N=243	Low sensation seekers N=601	High sensation seekers N=448
Injunctive Social Norms from Peers	**8.7**	**11.7**	**6.2**	**9.7**	**7.3**	**12.3**	**5.4**	**7.7**	**16.4**	**-0.4**	**7.4**	**9.9**
Mood Effects	8.8	11.8	6.2*	8.7	8.7	8.8	8.4	8.2	7.2	11.7	5.8	12.5*
Social Perceptions (S)	**8.7**	**9.4**	**7.5**	**9.5**	**7.6**	**10.7**	**6.6**	**7.5**	**10.1**	**8.7**	**8.0**	**9.3**
Expression of Independence (S)	**8.3**	**9.6**	**7.0**	**9.3**	**6.9**	**9.2**	**7.2**	**8.6**	**9.2**	**6.0**	**6.1**	**11.1**
Physical (Health) Effects	7.8	8.6	6.6	8.2	7.2	9.6	6.0	5.0	7.9	14.3*	7.9	8.0
Self-Efficacy	8.4	13.9	4.3*	8.9	7.6	11.3	5.5*	6.5	10.3	11.5*	8.7	8.2
General Social Norms (S)	**8.1**	**7.4**	**8.4**	**6.1**	**10.3**	**8.2**	**7.3**	**9.4**	**9.1**	**0.3**	**7.8**	**8.2**
Harmful Ingredients: Common Products [a]	**8.1**	**11.2**	**5.3**	**7.8**	**8.4**	**10.4**	**5.8**	**5.1**	**10.0**	**9.0**	**6.8**	**10.2**
Youth Susceptibility to Health Effects	7.7	12.4	4.2*	6.0	10.2	9.4	6.1	7.4	2.4	11.7	7.6	7.7
Social Perceptions (NS)	7.8	11.9	4.7*	7.6	8.1	9.8	5.7	5.8	13.4	8.8	9.6	4.8
Impact on Sports	**7.5**	**10.3**	**5.3**	**8.1**	**6.7**	**9.8**	**5.3**	**5.7**	**8.3**	**10.4**	**7.3**	**8.1**
Endangering Others	6.9	9.9	4.4*	6.6	7.3	9.4	4.6*	5.1	6.4	10.1	6.3	7.8

General Social Norms (NS)	**8.0**	**11.5**	**5.6**	**8.8**	**7.4**	**12.6**	**3.6**	**8.5**	**11.7**	**3.9**	**9.3**	**6.7**
Physical (Cosmetic) Effects	7.1	8.5	5.3	6.5	7.8	9.6	4.6*	4.8	8.8	10.6	7.2	7.2
Peer Pressure from Others	**5.4**	**6.3**	**4.2**	**4.8**	**6.0**	**6.0**	**4.8**	**4.2**	**10.0**	**2.9**	**5.1**	**4.7**
Addiction	**6.6**	**8.4**	**5.0**	**5.6**	**7.8**	**7.3**	**6.0**	**4.8**	**6.0**	**9.3**	**6.4**	**7.3**
Expression of Independence (NS)	**6.5**	**9.1**	**4.4**	**5.8**	**7.5**	**7.8**	**5.1**	**5.0**	**9.1**	**7.2**	**7.8**	**5.3**
Injunctive Social Norms from Parents	**5.4**	**8.1**	**3.1**	**4.8**	**6.8**	**5.4**	**5.0**	**4.6**	**4.9**	**8.0**	**3.9**	**7.8**
Cost of Smoking	6.2	7.9	4.6	5.0	7.8	8.9	3.6*	4.2	6.0	8.7	6.2	6.6
Harmful Ingredients: Health Effects [a]	**5.4**	**7.0**	**3.9**	**4.5**	**6.6**	**7.4**	**3.2**	**2.5**	**8.7**	**10.0**	**6.2**	**5.0**

Note. Bold text indicates that percentage to gain values for this theme were *not* significantly moderated by any of the audience characteristics, such that this theme would be expected to work in the same way across audience segments; however, attention should also be paid to the findings from the behavior analysis in Table C3 below. White respondents were non-Hispanic White, and Black respondents were non-Hispanic Black. A fourth group of respondents were categorized into an "other" race/ethnicity group, but due to the small sample size and difficulty in interpreting findings for this group, the results are not reported. S = consequences of smoking framing; NS = consequences of not smoking framing.

[a] All of the individual beliefs in the Harmful Ingredient sets were asked of only half the total sample.

* Percentage to gain estimates for this level of the moderator are significantly different to the other level (or the specified reference category) at p < .05.

Table C3

Sub-Group Similarities in Relative Promise of Each Theme, Based on Percentage to Gain Estimates (%) from the <u>Behavior Analysis</u> (*Prevent Initiation, 18- to 25-Year-Olds* Campaign)

	Overall N= 1386	Men N=639	Women N=747	18-21 year olds N=746	22-25 year olds N=640	High school or less N=674	Some college N=713	White (ref) N=676	Black N=250	Hispanic N=315	Low sensation seekers N=741	High sensation seekers N=645
Injunctive Social Norms from Peers	16.4	21.3	12.2*	12.5	20.8*	15.7	16.9	21.2	9.9*	10.2*	12.9	19.9*
Mood Effects	16.1	18.2	13.4	11.2	21.5*	17.1	15.1	19.8	9.7*	13.8	12.7	19.2*
Social Perceptions (S)	15.9	19.5	12.3*	12.5	19.4*	15.8	15.9	19.1	8.9*	12.9	12.8	18.9*
Expression of Independence (S)	13.5	18.0	9.4*	11.2	16.0	12.5	14.3	17.4	5.6*	11.4	10.1	17.0*
Physical (Health) Effects	12.0	14.1	9.3*	7.9	16.5*	14.6	9.8*	13.7	11.3	9.1	10.6	13.6
Self-Efficacy	10.2	11.4	8.6	5.8	15.2*	11.4	9.3	11.9	7.8	8.1	9.1	11.5
General Social Norms (S)	10.3	13.4	7.2	7.5	13.8	8.7	11.2	11.9	4.6	12.0	5.9	15.0*
Harmful Ingredients: Common Products[a]	8.2	4.3	9.5	6.9	9.7	13.8	3.6*	9.8	13.4	4.4	10.2	6.5
Youth Susceptibility to Health Effects	**9.1**	**9.9**	**7.2**	**8.1**	**9.8**	**11.0**	**7.3**	**10.1**	**9.1**	**9.3**	**9.1**	**8.9**
Social Perceptions (NS)	**8.0**	**9.2**	**6.8**	**6.2**	**9.5**	**6.1**	**9.5**	**10.3**	**4.8**	**4.3**	**6.8**	**8.8**
Impact on Sports	**8.5**	**10.1**	**6.5**	**6.6**	**10.7**	**9.0**	**8.0**	**9.3**	**9.0**	**7.6**	**9.1**	**8.2**
Endangering Others	10.0	12.2	7.5*	6.7	13.6*	11.1	9.1	12.6	7.5	7.4	9.8	10.2
General Social Norms (NS)	**6.7**	**8.6**	**5.3**	**4.8**	**7.9**	**5.4**	**7.8**	**8.6**	**15.0**	**-2.3**	**6.7**	**6.9**

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

Physical (Cosmetic) Effects	**9.1**	**9.4**	**7.7**	**7.5**	**10.7**	**10.4**	**8.0**	**11.2**	**5.5**	**7.5**	**9.4**	**9.0**
Peer Pressure from Others	12.4	13.2	10.9	8.3	17.1*	10.4	14.4	13.6	11.3	10.6	8.0	17.1*
Addiction	8.8	8.5	8.4	6.3	11.5*	9.3	8.4	9.9	10.8	5.7	9.6	8.4
Expression of Independence (NS)	**8.5**	**10.3**	**6.6**	**7.3**	**9.4**	**7.4**	**9.5**	**9.7**	**6.4**	**7.5**	**6.4**	**11.0**
Injunctive Social Norms from Parents	**10.9**	**11.7**	**9.4**	**8.3**	**12.8**	**13.7**	**8.7**	**12.6**	**7.1**	**10.0**	**11.6**	**10.8**
Cost of Smoking	8.7	10.0	6.8	6.0	11.7*	10.2	7.4	9.2	9.0	8.2	7.6	10.1
Harmful Ingredients: Health Effects[a]	**7.6**	**8.7**	**6.1**	**5.8**	**9.6**	**6.4**	**8.5**	**7.1**	**11.9**	**1.8**	**8.4**	**7.4**

Note. Bold text indicates that percentage to gain values for this theme were *not* significantly moderated by any of the audience characteristics, such that this theme would be expected to work in the same way across audience segments; however, attention should also be paid to the findings from the intention analysis in Table C2 above. White respondents were non-Hispanic White, and Black respondents were non-Hispanic Black. A fourth group of respondents were categorized into an "other" race/ethnicity group, but due to the small sample size and difficulty in interpreting findings for this group, the results are not reported. S = consequences of smoking framing; NS = consequences of not smoking framing.

[a] All of the individual beliefs in the Harmful Ingredient sets were asked of only half the total sample.

* Percentage to gain estimates for this level of the moderator are significantly different to the other level (or the specified reference category) at *p* <.05.

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

APPENDIX D: *Stop Progression, 18- to 25-Year-Olds* **Campaign**

Table D1

Relative Promise of Individual Belief Items within Each Theme (*Stop Progression, 18- to 25-Year-Olds* Campaign)

Belief items were ranked from highest to lowest percentage to gain, and then grouped into quintiles. In the intention analysis, percentage to gain values in the first (top) quintile ranged from 21.7 – 52.1; percentage to gain values in the fifth (bottom) quintile ranged from -5.1 – 12.0. In the behavior analysis, percentage to gain values in the first quintile ranged from 9.9 – 22.6; percentage to gain values in the fifth quintile ranged from -10.6 – 1.4. In the table, those in the first quintile are highlighted in **bold** text and those in the fifth quintile are *italicized*. All belief items were asked with the introductory stem "If I smoke every day, I will…", unless otherwise noted with a superscript in the table (explained in the notes section below the table). Belief items were coded so that the desired response was "very likely" (the most anti-smoking belief), unless otherwise indicated in parentheses after the belief item.

In the table, themes are ordered by highest to lowest Relative Promise Index value. Within themes, individual beliefs are ordered from highest to lowest percentage to gain, based on scores from the intention analysis.

The task of selecting the most promising beliefs may be complicated by some inconsistency in findings from the intention and behavior analyses. We therefore recommend that attention is paid to both sets of findings, and that priority is given to those beliefs that were highly ranked (bolded in tables) in both analyses, or were at least highly ranked in one analysis and not poorly ranked in the other (poorly ranked beliefs are italicized).

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Injunctive Social Norms from Peers [RPI = 83]						
Others my age will accept it (very unlikely)	**32.9**	**5.21**	**86**	**22.6**	**3.27**	**86**
My friends won't care about it (very unlikely)	**24.4**	**3.33**	**85**	**20.3**	**2.90**	**86**
My friends will accept it (very unlikely)	**22.7**	**2.96**	**87**	**19.3**	**2.58**	**88**
My friends will disapprove	20.4	2.76	85	7.8	1.46	84
Others my age won't care about it (very unlikely)	15.1	2.11	89	8.8	1.50	91
Others my age will disapprove	*10.7*	*1.68*	*88*	7.7	1.45	86
Mood Effects [RPI = 76]						
Feel relaxed (very unlikely)	**37.0**	**5.98**	**89**	5.6	1.29	90
Feel more comfortable in social situations (very unlikely)	**30.0**	**4.83**	**82**	9.4	1.61	82
Be able to control my anger (very unlikely)	**28.8**	**4.13**	**86**	**10.2**	**1.66**	**84**
Enjoy life more (very unlikely)	**28.5**	**5.02**	**76**	**14.4**	**2.19**	**78**
Feel less bored (very unlikely)	**28.0**	**3.94**	**86**	3.3	1.17	83
Feel better when I am sad (very unlikely)	**27.3**	**3.84**	**85**	**16.3**	**2.29**	**84**
Feel content (very unlikely)	**27.0**	**3.93**	**83**	**16.1**	**2.25**	**84**
Feel less cranky (very unlikely)	**26.1**	**3.77**	**84**	**21.1**	**3.00**	**86**
Have something to do with my hands (very unlikely)	**24.9**	**3.23**	**88**	3.1	1.15	89
Be able to forget about my problems (very unlikely)	20.5	3.04	77	5.1	1.32	75
Physical (Health) Effects [RPI = 61]						
Clog my arteries	**29.8**	**5.21**	**77**	3.8	1.22	76
Be able to focus (very unlikely)	**25.7**	**3.93**	**81**	**19.2**	**2.68**	**84**
Develop circulation problems	**25.5**	**4.43**	**78**	*0.8*	*1.05*	*73*

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Keep myself from overeating (very unlikely)	**24.4**	**3.77**	**79**	7.9	1.50	80
Develop inflammation in my lungs	**23.7**	**4.27**	**72**	4.9	1.32	71
Have a burning feeling in my throat	**21.7**	**3.25**	**79**	*-0.7*	*0.96*	*73*
Have difficulty concentrating	21.7	3.25	80	8.8	1.59	80
Lose my taste buds	21.6	3.50	75	8.2	1.58	75
Develop bad coughs and phlegm	20.9	4.42	62	3.3	1.25	61
Get sick more easily	20.2	3.66	71	**11.7**	**1.94**	**74**
Have a soothing feeling in my throat (very unlikely)	19.4	3.22	74	5.3	1.34	73
Develop high blood pressure	18.5	2.62	82	*0.4*	*1.02*	*76*
Develop mouth cancer	17.7	2.81	74	5.9	1.38	74
Develop diseases in my toes and fingers	17.6	2.36	85	2.0	1.11	83
Become short of breath	16.6	3.28	62	1.6	1.11	62
Develop headaches	15.9	2.54	74	**10.3**	**1.76**	**77**
Develop a blood clot in my brain	15.1	2.19	84	4.7	1.27	81
Develop fatal lung disease	14.8	2.59	69	3.5	1.23	71
Damage my body	14.5	3.27	54	6.6	1.57	59
Develop throat cancer	14.2	2.24	77	*0.8*	*1.05*	*74*
Suffer a stroke	14.2	2.07	84	*-0.3*	*0.99*	*80*
Need chemotherapy and radiation	14.0	2.13	82	5.3	1.32	80
Develop lung cancer	13.8	2.36	67	7.9	1.58	71
Die an early death	13.2	2.29	70	4.8	1.33	69
Develop sexual and/or fertility problems	12.4	1.95	81	9.4	1.61	82

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Develop cancer	12.3	2.28	72	6.1	1.43	69
Harm my health	12.0	2.89	55	2.5	1.21	54
Destroy my brain cells	*11.8*	*2.07*	*71*	**10.0**	**1.76**	**73**
Stunt my growth	*11.6*	*1.92*	*80*	8.9	1.58	81
Develop heart disease	*11.3*	*1.94*	*77*	4.6	1.29	74
Be able to deal with physical pain (very unlikely)	*11.1*	*1.85*	*77*	7.0	1.46	75
Injunctive Social Norms from Parents [RPI = 60]						
My parent(s)/guardian(s) will be upset	**21.7**	**3.57**	**74**	**12.9**	**2.12**	**72**
My parent(s)/guardian(s) will disapprove	13.4	2.46	69	**14.1**	**2.40**	**68**
Get in trouble with my parent(s)/guardian(s)	*9.5*	*1.60*	*89*	**22.4**	**3.12**	**89**
Social Perceptions (Smoking) [RPI = 57]						
Look attractive (very unlikely)	**30.7**	**6.23**	**73**	6.5	1.42	75
Get respect from others my age (very unlikely)	**29.1**	**5.00**	**77**	4.3	1.26	77
Be unable to go to places that don't allow smoking	**24.7**	**3.71**	**81**	8.5	1.55	79
Look confident (very unlikely)	**24.4**	**3.81**	**79**	7.7	1.50	78
Gain friends (very unlikely)	**22.8**	**3.47**	**78**	3.9	1.22	77
Look intelligent (very unlikely)	**22.5**	**4.12**	**71**	**10.4**	**1.87**	**70**
Be sexually/romantically appealing (very unlikely)	20.6	3.32	75	**12.2**	**1.98**	**76**
Be able to show others that I'm not afraid to take risks (very unlikely)	18.7	2.91	76	*-0.6*	*0.97*	*78*
Look mature (very unlikely)	17.6	2.62	81	*0.4*	*1.02*	*78*
Look cool (very unlikely)	17.0	2.74	71	2.9	1.18	68
Be popular (very unlikely)	16.2	2.77	69	*-1.6*	*0.91*	*68*

29

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Lose friends	15.0	2.07	90	4.7	1.25	88
Be sexually/romantically undesirable	14.7	2.30	81	**17.3**	**2.47**	**82**
Gain respect from my brother(s) and/or sister(s) (very unlikely)	14.0	2.80	62	5.9	1.46	64
Look stupid	13.7	2.11	77	**10.7**	**1.75**	**80**
Lose respect from others my age	12.8	1.84	88	**11.6**	**1.76**	**87**
Look immature	*9.5*	*1.59*	*86*	*1.4*	*1.07*	*84*
Look ridiculous	*9.5*	*1.59*	*87*	3.2	1.17	83
Lose respect from my brother(s) and/or sister(s)	*7.6*	*1.52*	*81*	**14.5**	**2.06**	**84**
Not look confident	*7.1*	*1.40*	*87*	9.2	1.58	84
Be unpopular	*2.9*	*1.15*	*90*	*1.4*	*1.07*	*88*
Look unattractive	*-2.1*	*0.88*	*77*	8.6	1.57	78
Look uncool	*-4.3*	*0.79*	*84*	**11.7**	**1.81**	**83**
Self-Efficacy [RPI = 57]						
How sure are you that, if you really wanted to, you could say no to a cigarette offer if a very close friend offers it? (completely sure) [a]	20.1	4.08	64	8.1	1.69	64
How sure are you that, if you really wanted to, you could say no to a cigarette offer if you are at a party where most people are smoking? (completely sure) [a]	18.6	3.41	67	**9.9**	**1.84**	**67**
How sure are you that, if you really wanted to, you could say no to a cigarette offer if someone you know offers it? (completely sure) [a]	17.7	3.99	59	9.9	1.96	61
Expression of Independence (Smoking) [RPI = 55]						
Have control over my life (very unlikely)	**34.0**	**6.84**	**81**	**12.0**	**1.90**	**81**
Be making my own decisions (very unlikely)	13.5	1.90	90	**17.8**	**2.41**	**89**
Show that I am independent (very unlikely)	12.1	1.95	76	3.4	1.20	74

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Endangering Others [RPI = 54]						
Harm my future children	**28.6**	**5.86**	**73**	**10.1**	**1.73**	**76**
Harm nonsmokers through second-hand smoke	21.6	4.32	66	9.4	1.77	68
Harm my friends and family through second-hand smoke	20.6	3.61	71	7.0	1.50	70
Harm children through second-hand smoke	20.0	3.20	74	9.9	1.74	73
Physical (Cosmetic) Effects [RPI = 49]						
Have a bad taste in my mouth	**23.9**	**4.89**	**64**	7.4	1.57	66
Get yellow teeth	19.6	4.08	61	5.5	1.43	62
Have smelly hair and clothes	19.4	5.00	61	5.0	1.39	62
Look gross	19.2	2.82	77	**12.5**	**1.97**	**78**
Get wrinkles	18.3	2.81	76	7.2	1.50	73
Have a smelly home	14.6	2.62	67	7.2	1.55	67
Get bad breath	13.8	2.97	59	2.1	1.16	57
Develop brittle hair	12.9	2.03	76	7.0	1.45	77
Develop uneven skin coloring	12.4	1.96	79	3.0	1.18	75
Get yellow fingers	*7.5*	*1.57*	*76*	4.8	1.29	76
Harmful Ingredients: Common Products Framing [RPI = 46]						
Inhale lead, which is also found in some paints	21.1	3.67	69	6.0	1.44	69
Inhale nickel, which is also found in stainless steel	19.4	3.25	69	7.1	1.50	73
Inhale ammonia, which is also found in many household cleaners	19.4	3.36	68	4.0	1.26	69
Inhale poisons	19.0	3.88	61	6.8	1.57	62
Inhale acetone, which is also found in nail polish remover	19.0	3.23	68	6.9	1.51	70

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Inhale arsenic, which is also found in car batteries	17.1	3.01	66	6.1	1.45	68
Inhale carbon monoxide, which is also found in car exhaust	16.8	3.16	62	3.3	1.25	62
Inhale benzene, which is also found in some types of detergents	16.6	2.89	66	**9.9**	**1.81**	**70**
Inhale tar, which is also used to pave roads and driveways	15.7	3.32	57	3.1	1.23	60
Inhale formaldehyde, which is also found in glues and adhesives	15.5	2.79	64	3.4	1.24	65
Inhale mercury, which is also found in mascara	15.4	2.55	69	7.5	1.56	70
Inhale chemicals	14.8	3.45	53	2.0	1.17	54
Inhale nicotine	*11.2*	*2.92*	*47*	*-0.4*	*0.97*	*47*
Social Perceptions (Not Smoking) [RPI = 46]						
Look confident [b]	**23.5**	**3.89**	**75**	4.8	1.30	76
Get respect from others my age [b]	20.0	3.06	78	*1.2*	*1.07*	*76*
Be sexually/romantically appealing [b]	16.0	2.47	77	9.5	1.70	75
Look mature [b]	15.3	2.23	79	1.5	1.08	76
Look cool [b]	14.6	2.13	84	5.8	1.32	83
Gain respect from my brother(s) and/or sister(s) [b]	13.5	2.46	69	4.9	1.33	71
Look intelligent [b]	*10.8*	*1.82*	*79*	8.3	1.55	78
Look attractive [b]	*9.0*	*1.68*	*74*	3.2	1.19	73
Be popular [b]	*6.0*	*1.34*	*88*	*-4.3*	*0.82*	*87*
Gain friends [b]	*3.1*	*1.20*	*79*	**15.0**	**2.15**	**83**
Impact on Sports [RPI = 45]						
Lose my breath easily while playing sports	18.8	3.75	63	*-0.2*	*0.99*	*60*
Have less energy to play sports	16.0	3.17	62	6.5	1.53	63

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Do poorly in sports	*9.3*	*1.69*	*76*	4.1	1.26	73
Youth Susceptibility to Health Effects [RPI = 44]						
People my age who smoke every day are just as likely to harm their health as older people who smoke every day (strongly agree) [c]	15.0	2.69	67	4.2	1.29	68
If I smoke every day, I am just as likely to harm my health as an older person who smokes every day (strongly agree) [c]	14.6	2.59	68	4.9	1.34	68
Be just as likely to damage my body as an adult smoker would	13.5	2.52	65	5.8	1.43	67
General Social Norms (Smoking) [RPI = 43]						
Be doing what most others my age are doing (very unlikely)	**52.1**	**16.45**	**88**	*-2.4*	*0.90*	87
Be more like everyone else (very unlikely)	15.0	2.28	80	*-6.3*	*0.73*	82
Addiction [RPI = 42]						
Be unable to stop smoking when I want to	**22.0**	**3.51**	**76**	*-2.7*	*0.86*	*73*
Eventually need to smoke even more	18.8	3.50	66	8.4	1.65	69
Become addicted to cigarettes	14.4	2.75	63	*-2.6*	*0.83*	*54*
Be controlled by smoking	*11.7*	*1.99*	*77*	3.6	1.23	74
Become addicted to nicotine	*9.6*	*1.97*	*61*	*0.7*	*1.05*	*55*
Cost of Smoking [RPI = 42]						
Spend more money on doctor and dentist visits	**23.0**	**3.85**	**75**	**10.0**	**1.76**	**73**
Spend hundreds of dollars on tobacco products a year	18.7	4.33	59	*-3.3*	*0.78*	*54*
Have less spending money	16.8	4.12	57	*0.9*	*1.07*	*54*
Spend thousands of dollars on tobacco products over my lifetime	15.0	3.50	56	1.5	1.12	54
Waste money I could have spent on other things	*8.5*	*2.43*	*46*	3.1	1.31	47
Peer Pressure from Others [RPI = 40]						

33

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Do your friends offer you a smoke? (never)[d]	*7.6*	*1.47*	*85*	7.5	1.44	84
Do others your age encourage you to smoke? (never)[d]	*2.4*	*1.19*	*63*	*-4.6*	*0.74*	*60*
Expression of Independence (Not Smoking) [RPI = 38]						
Be showing that I am independent [b]	15.3	2.42	73	3.7	1.22	74
Be making my own decisions [b]	*12.0*	*2.36*	*62*	4.6	1.33	66
Have control over my life every day [b]	*10.3*	*1.95*	*70*	2.2	1.15	68
Harmful Ingredients: Health Effects Framing [RPI = 37]						
Inhale nickel, which makes it hard to breathe	**21.7**	**3.95**	**73**	*0.0*	*1.00*	*69*
Inhale benzene, which damages the heart	20.2	3.62	73	*-0.8*	*0.95*	*70*
Inhale formaldehyde, which harms the lungs	19.3	4.03	67	1.8	1.13	60
Inhale lead, which causes cancer	18.1	3.33	71	3.2	1.22	66
Inhale acetone, which makes it hard to breathe	17.9	3.23	72	1.6	1.11	65
Inhale mercury, which causes cancer	16.6	3.01	71	2.8	1.18	69
Inhale poisons that damage the body	16.1	3.32	65	2.6	1.19	61
Inhale tar, which causes lung cancer	15.1	3.41	61	*0.4*	*1.03*	*57*
Inhale ammonia, which harms the lungs	14.0	2.76	67	3.5	1.25	63
Inhale nicotine, which causes addiction	13.6	2.84	64	*1.3*	*1.10*	*57*
Inhale carbon monoxide, which causes sexual and/or fertility problems	13.2	2.51	69	2.6	1.18	65
Inhale chemicals that damage the body	12.7	3.14	56	*1.2*	*1.10*	*54*
Inhale arsenic, which damages the heart	12.1	2.41	66	3.0	1.21	64
General Social Norms (Not Smoking) [RPI = 26]						
Be doing what most others my age are doing [b]	0.1	1.01	84	*-1.3*	*0.94*	*83*

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE D1	Intention Analysis			Behavior Analysis		
Belief Items (within themes)	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Be more like everyone else [b]	-5.1	0.76	89	3.3	1.17	88

Note. N = 497 for the intention analysis and N = 1,188 for the behavior analysis (weighted). In order to learn about a large number of beliefs, we randomly assigned participants to see sub-sets of beliefs, leading to variations in the number of respondents who provided valid data for each scale. Half of the respondents received items only from the *Harmful Ingredients: Common Products Frame* theme, and the other half received items only from the *Harmful Ingredients: Health Effects Frame* theme. **Bold** text indicates beliefs with a percentage to gain value in the first (top) quintile (ie, most promising); *italicized* text indicates beliefs with a percentage to gain value in the fifth (bottom) quintile (ie, least promising).

[a] Respondents were asked to rate how sure they were to these 3 items (with response options on a 5-point scale ranging from *not at all sure* to *completely sure*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *completely sure*.

[b] The only difference with these items is that they began with the introductory stem "If I *do not smoke at all*, I will…". The desired response here was *very likely*.

[c] Respondents were asked whether they agreed or disagreed with these statements (with response options on a 5-point scale ranging from *strongly disagree* to *strongly agree*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *strongly agree*.

[d] Respondents were asked how frequently these events happened (with response options on a 5-point scale ranging from *never* to *almost always*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these belief items, they were coded with the desired response of *never*.

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

Table D2

Sub-Group Similarities in Relative Promise of Each Theme, Based on Percentage to Gain Estimates (%) from the <u>Intention Analysis</u> (*Stop*

Progression, 18- to 25-Year-Olds Campaign)

	Overall	Men	Women	18-21 year olds	22-25 year olds	High school or less	Some college	White (ref)	Black	Hispanic	Low sensation seekers	High sensation seekers
	N=497	N=293	N=204	N=264	N=233	N=258	N=239	N=280	N=57	N=120	N=176	N=321
Injunctive Social Norms from Peers	**28.7**	**35.9**	**20.8**	**22.1**	**34.0**	**23.2**	**30.0**	**34.7**	**40.4**	**-0.9**	**34.4**	**25.2**
Mood Effects	**32.0**	**36.9**	**25.9**	**34.2**	**29.8**	**36.2**	**26.8**	**35.2**	**33.2**	**27.1**	**41.3**	**27.2**
Physical (Health) Effects	**23.6**	**28.7**	**18.2**	**24.2**	**22.9**	**22.8**	**21.5**	**24.9**	**12.4**	**20.2**	**21.0**	**25.1**
Injunctive Social Norms from Parents	13.5	12.3	15.1	13.9	13.3	12.6	11.4	13.5	7.4	7.2	-0.7	17.6*
Social Perceptions (S)	**15.5**	**19.8**	**8.7**	**8.8**	**21.7**	**14.5**	**15.9**	**22.0**	**14.8**	**11.1**	**16.0**	**15.4**
Self-Efficacy	20.2	21.6	18.3	17.9	23.0	26.4	13.5*	15.5	25.2	28.5	18.1	21.1
Expression of Independence (S)	19.8	34.5	7.1*	19.2	20.4	20.3	17.2	20.3	34.7	9.8	23.4	17.1
Endangering Others	**21.0**	**24.7**	**16.8**	**22.8**	**19.0**	**19.8**	**20.5**	**24.2**	**11.5**	**17.8**	**16.5**	**22.8**
Physical (Cosmetic) Effects	15.5	17.6	13.0	17.2	13.7	11.1	17.0	19.2	-2.8*	10.7	14.5	15.9
Harmful Ingredients: Common Products[a]	**15.5**	**22.2**	**8.9**	**19.6**	**12.1**	**21.6**	**10.2**	**15.1**	**17.0**	**15.1**	**13.6**	**16.2**
Social Perceptions (NS)	**12.7**	**18.5**	**3.9**	**12.8**	**12.7**	**12.4**	**13.2**	**18.8**	**13.4**	**-1.1**	**8.1**	**14.6**
Impact on Sports	**16.0**	**17.6**	**13.7**	**17.5**	**14.1**	**11.5**	**19.7**	**16.2**	**6.3**	**18.8**	**22.4**	**13.3**
Youth Susceptibility to Health Effects	14.1	13.3	15.0	14.3	13.9	9.0	17.7	13.1	-0.3	22.1	5.4	18.4*
General Social Norms (S)	25.2	37.9	8.7*	17.3	33.4	27.3	23.4	21.1	31.1	18.5	32.9	20.3

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

Addiction	13.7	11.8	16.4	19.3	7.9	12.8	12.8	17.6	-6.5*	10.1	11.8	14.6
Cost of Smoking	16.3	21.3	11.1	20.2	12.4	14.8	15.5	15.3	-2.0*	22.8	16.0	16.3
Peer Pressure from Others	**6.3**	**5.2**	**7.6**	**8.6**	**4.3**	**7.0**	**6.4**	**7.8**	**-10.3**	**-3.3**	**0.7**	**11.9**
Expression of Independence (NS)	**12.3**	**10.5**	**14.7**	**8.0**	**17.3**	**11.8**	**13.8**	**17.2**	**19.3**	**0.0**	**3.4**	**16.3**
Harmful Ingredients: Health Effects[a]	**12.7**	**15.4**	**9.2**	**14.6**	**10.1**	**8.4**	**12.7**	**11.5**	**-9.0**	**20.9**	**11.1**	**13.3**
General Social Norms (NS)	**-0.8**	**1.3**	**-4.9**	**1.5**	**-2.7**	**2.4**	**-4.0**	**5.9**	**-8.2**	**-6.6**	**-8.2**	**3.2**

Note. Bold text indicates that percentage to gain values for this theme were *not* significantly moderated by any of the audience characteristics, such that this theme would be expected to work in the same way across audience segments; however, attention should also be paid to the findings from the behavior analysis in Table D3 below. White respondents were non-Hispanic White, and Black respondents were non-Hispanic Black. A fourth group of respondents were categorized into an "other" race/ethnicity group, but due to the small sample size and difficulty in interpreting findings for this group, the results are not reported. S = consequences of smoking framing; NS = consequences of not smoking framing.

[a] All of the individual beliefs in the Harmful Ingredient sets were asked of only half the total sample.

* Percentage to gain estimates for this level of the moderator are significantly different to the other level (or the specified reference category) at *p* <.05.

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

Table D3

Sub-Group Similarities in Relative Promise of Each Theme, Based on Percentage to Gain Estimates (%) from the <u>Behavior Analysis</u> (*Stop Progression, 18- to 25-Year-Olds* Campaign)

	Overall N= 1188	Men N=745	Women N=443	18-21 year olds N=593	22-25 year olds N=595	High school or less N=725	Some college N=463	White (ref) N=813	Black N=126	Hispanic N=170	Low sensation seekers N=431	High sensation seekers N=757
Injunctive Social Norms from Peers	23.6	24.8	20.7	32.5	16.0*	25.5	19.1	25.3	29.2	3.9*	27.1	21.9
Mood Effects	**15.0**	**12.7**	**18.7**	**13.3**	**16.4**	**9.5**	**20.9**	**14.2**	**22.5**	**10.9**	**8.7**	**19.4**
Physical (Health) Effects	**10.8**	**8.2**	**15.3**	**11.3**	**10.5**	**6.1**	**12.7**	**11.8**	**15.0**	**9.9**	**8.9**	**11.6**
Injunctive Social Norms from Parents	**18.8**	**16.2**	**23.3**	**22.5**	**14.1**	**19.0**	**14.5**	**21.9**	**7.4**	**10.1**	**22.1**	**17.0**
Social Perceptions (S)	**15.0**	**15.0**	**14.7**	**10.0**	**20.1**	**12.8**	**18.5**	**15.3**	**22.8**	**13.9**	**15.2**	**15.0**
Self-Efficacy	**10.7**	**8.3**	**14.6**	**7.6**	**13.3**	**10.6**	**8.8**	**11.9**	**4.9**	**8.3**	**11.6**	**10.1**
Expression of Independence (S)	9.2	9.0	9.8	9.3	9.4	3.0	16.9*	7.9	14.9	9.7	6.3	11.3
Endangering Others	**7.4**	**5.1**	**11.3**	**9.8**	**5.3**	**3.9**	**10.4**	**9.4**	**1.9**	**11.3**	**6.0**	**7.9**
Physical (Cosmetic) Effects	**8.3**	**8.0**	**8.8**	**8.9**	**8.0**	**5.2**	**10.1**	**8.5**	**7.2**	**10.9**	**7.0**	**8.7**
Harmful Ingredients: Common Products[a]	**6.5**	**4.7**	**9.9**	**8.1**	**5.5**	**8.3**	**1.2**	**7.4**	**-0.8**	**13.2**	**7.4**	**5.5**
Social Perceptions (NS)	**8.4**	**6.4**	**11.9**	**11.6**	**6.3**	**8.9**	**7.9**	**7.3**	**11.8**	**3.3**	**4.2**	**10.1**
Impact on Sports	**4.8**	**4.3**	**5.9**	**5.8**	**3.7**	**2.9**	**7.0**	**6.1**	**6.9**	**13.1**	**2.1**	**5.7**
Youth Susceptibility to Health	**5.9**	**7.9**	**4.1**	**9.8**	**2.4**	**4.8**	**5.6**	**6.3**	**6.3**	**14.3**	**9.9**	**4.0**

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

Effects												
General Social Norms (S)	-4.9	-3.4	-6.4	-5.1	-3.8	-8.3	2.7	-4.5	13.8	-9.2	-2.7	-6.3
Addiction	4.4	5.8	2.0	5.9	3.5	1.6	6.5	5.2	1.1	10.4	2.3	5.2
Cost of Smoking	2.1	3.5	0.9	2.6	2.1	-0.3	2.8	3.4	3.0	4.0	2.5	1.7
Peer Pressure from Others	9.7	12.7	6.9	12.6	7.1	8.9	12.2	11.5	5.2	3.8	8.0	11.6
Expression of Independence (NS)	3.0	0.4	7.2	4.3	2.1	3.1	3.1	1.6	9.5	-0.1	0.4	3.6
Harmful Ingredients: Health Effects[a]	1.4	3.8	-1.5	0.8	2.5	-2.3	4.1	4.1	-2.1	0.4	1.2	1.8
General Social Norms (NS)	4.7	3.0	7.2	5.3	4.4	8.8	-1.4	5.5	-12.1	8.5	7.4	3.1

Note. Bold text indicates that percentage to gain values for this theme were *not* significantly moderated by any of the audience characteristics, such that this theme would be expected to work in the same way across audience segments; however, attention should also be paid to the findings from the intention analysis in Table D2 above. White respondents were non-Hispanic White, and Black respondents were non-Hispanic Black. A fourth group of respondents were categorized into an "other" race/ethnicity group, but due to the small sample size and difficulty in interpreting findings for this group, the results are not reported. S = consequences of smoking framing; NS = consequences of not smoking framing.

[a] All of the individual beliefs in the Harmful Ingredient sets were asked of only half the total sample.

* Percentage to gain estimates for this level of the moderator are significantly different to the other level (or the specified reference category) at $p < .05$.

APPENDIX E: *Encourage Cessation, 18- to 25-Year-Olds* **Campaign**

Table E1

Relative Promise of Individual Belief Items within Each Theme (*Encourage Cessation, 18- to 25-Year-Olds* Campaign)

Belief items were ranked from highest to lowest percentage to gain, and then grouped into quintiles. Percentage to gain values in the first (top) quintile ranged from 11.9 – 25.7. These are highlighted in **bold** text in the table. Percentage to gain values in the fifth (bottom) quintile ranged from -3.7 – 4.7, and these are *italicized* in the table. All belief items were asked with the introductory stem "If I smoke every day, I will…", unless otherwise noted with a superscript in the table (explained in the notes section below the table). Belief items were coded so that the desired response was "very likely" (the most anti-smoking belief), unless otherwise indicated in parentheses after the belief item.

In the table, themes are ordered by highest to lowest Relative Promise Index value. Within themes, individual beliefs are ordered from highest to lowest percentage to gain.

TABLE E1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Social Perceptions (Smoking) [RPI = 91]			
Be unable to go to places that don't allow smoking	**17.1**	**5.40**	**81**
Not look confident	**16.9**	**4.54**	**86**
Look intelligent (very unlikely)	**15.5**	**9.26**	**73**
Be sexually/romantically appealing (very unlikely)	**15.5**	**4.81**	**76**
Look unattractive	**13.8**	**4.67**	**79**
Look confident (very unlikely)	**12.9**	**3.96**	**80**
Be unpopular	**12.1**	**2.59**	**88**
Be sexually/romantically undesirable	**12.1**	**2.88**	**85**
Look stupid	**11.9**	**3.56**	**83**
Lose friends	11.5	3.12	90
Look immature	10.9	2.81	85
Look mature (very unlikely)	10.8	2.97	76
Look cool (very unlikely)	10.0	3.67	72
Lose respect from others my age	9.9	2.28	90

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE E1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Look ridiculous	9.2	2.55	85
Gain respect from my brother(s) and/or sister(s) (very unlikely)	8.5	3.22	66
Look attractive (very unlikely)	7.8	2.35	75
Look uncool	6.7	1.94	86
Lose respect from my brother(s) and/or sister(s)	6.3	1.99	88
Get respect from others my age (very unlikely)	5.0	1.95	79
Gain friends (very unlikely)	*4.7*	*1.69*	*80*
Be able to show others that I'm not afraid to take risks (very unlikely)	*3.3*	*1.50*	*78*
Be popular (very unlikely)	*2.9*	*1.48*	*70*
Mood Effects [RPI = 87]			
Feel better when I am sad (very unlikely)	**21.4**	**5.86**	**86**
Feel relaxed (very unlikely)	**21.4**	**5.45**	**91**
Feel more comfortable in social situations (very unlikely)	**20.9**	**5.68**	**83**
Feel content (very unlikely)	**16.6**	**3.86**	**85**
Have something to do with my hands (very unlikely)	**14.1**	**3.05**	**89**
Feel less cranky (very unlikely)	**13.4**	**3.12**	**88**
Enjoy life more (very unlikely)	**12.8**	**3.44**	**82**
Be able to forget about my problems (very unlikely)	**12.1**	**3.76**	**78**
Be able to control my anger (very unlikely)	11.4	2.96	86
Feel less bored (very unlikely)	10.0	2.63	84
Self-Efficacy [RPI = 64]			
How sure are you that, if you really wanted to, you could say no to a cigarette offer if you are at a party where most people are smoking? (completely sure) [a]	**14.9**	**8.02**	**69**
How sure are you that, if you really wanted to, you could say no to a cigarette offer if a very close friend offers it? (completely sure) [a]	**12.8**	**7.35**	**66**
How sure are you that, if you really wanted to, you could say no to a cigarette offer if someone you know offers it? (completely sure) [a]	**12.4**	**8.61**	**63**
Physical (Health) Effects [RPI = 62]			
Be able to focus (very unlikely)	**14.1**	**3.66**	**85**
Develop diseases in my toes and fingers	**11.9**	**3.24**	**83**
Keep myself from overeating (very unlikely)	11.7	3.55	83
Have a soothing feeling in my throat (very unlikely)	11.1	3.65	76

41

TABLE E1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Develop circulation problems	10.9	3.40	74
Get sick more easily	10.4	3.43	75
Develop lung cancer	10.1	3.33	74
Need chemotherapy and radiation	9.6	2.56	82
Lose my taste buds	9.6	2.81	78
Develop inflammation in my lungs	9.5	3.10	72
Develop a blood clot in my brain	9.4	2.84	84
Develop high blood pressure	9.4	2.51	81
Develop heart disease	9.0	2.62	76
Develop sexual and/or fertility problems	8.9	2.79	84
Develop throat cancer	8.7	2.41	75
Develop bad coughs and phlegm	8.5	3.48	62
Damage my body	8.3	4.69	60
Stunt my growth	7.6	2.26	82
Die an early death	7.5	2.51	71
Develop mouth cancer	7.5	2.41	80
Clog my arteries	7.1	2.16	78
Become short of breath	7.1	3.98	62
Develop fatal lung disease	6.6	2.17	73
Suffer a stroke	6.4	1.90	83
Have a burning feeling in my throat	5.4	1.77	77
Harm my health	5.1	3.01	54
Be able to deal with physical pain (very unlikely)	5.0	1.87	76
Destroy my brain cells	*4.2*	*1.75*	*76*
Develop headaches	*3.0*	*1.42*	*79*
Develop cancer	*1.9*	*1.38*	*73*
Have difficulty concentrating	*1.7*	*1.22*	*84*
Expression of Independence (Smoking) [RPI = 56]			
Be making my own decisions (very unlikely)	**18.2**	**4.98**	**89**
Have control over my life (very unlikely)	9.0	2.83	85
Show that I am independent (very unlikely)	*4.6*	*1.68*	*79*
Peer Pressure from Others [RPI = 55]			
Do your friends offer you a smoke? (never) [b]	**12.7**	**3.37**	**84**

TABLE E1 **Belief Items (within themes)**	**Percentage to gain (%)**	**Odds Ratio**	**Percentage to move (%)**
Do others your age encourage you to smoke? (never) [b]	*2.3*	*1.51*	*57*
Physical (Cosmetic) Effects [RPI = 54]			
Get wrinkles	**12.6**	**4.97**	**73**
Develop uneven skin coloring	**12.4**	**5.08**	**75**
Have a smelly home	**12.1**	**4.12**	**73**
Look gross	**12.1**	**3.79**	**80**
Have a bad taste in my mouth	10.5	4.71	69
Get bad breath	10.2	8.43	57
Have smelly hair and clothes	9.0	4.09	62
Get yellow teeth	7.2	3.18	66
Develop brittle hair	7.0	2.13	79
Get yellow fingers	5.1	1.90	78
Expression of Independence (Not Smoking) [RPI = 53]			
Be showing that I am independent [c]	9.9	3.04	77
Be making my own decisions [c]	8.5	2.88	66
Have control over my life every day [c]	7.3	2.85	71
Endangering Others [RPI = 48]			
Harm children through second-hand smoke	**16.1**	**6.81**	**73**
Harm my future children	**12.1**	**4.19**	**77**
Harm nonsmokers through second-hand smoke	10.8	4.84	70
Harm my friends and family through second-hand smoke	8.9	2.97	74
Impact on Sports [RPI = 48]			
Do poorly in sports	11.5	3.59	74
Have less energy to play sports	8.5	3.87	65
Lose my breath easily while playing sports	7.9	4.24	60
Social Perceptions (Not Smoking) [RPI = 47]			
Get respect from others my age [c]	10.5	3.09	78
Be sexually/romantically appealing [c]	10.0	2.64	80
Look attractive [c]	9.4	3.32	74
Look intelligent [c]	9.1	2.67	80
Look mature [c]	8.6	2.60	80
Look confident [c]	6.9	2.11	78
Gain friends [c]	6.7	2.15	87

43

TABLE E1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Gain respect from my brother(s) and/or sister(s) [c]	6.5	2.17	73
Look cool [c]	*4.0*	*1.63*	*85*
Be popular [c]	*3.3*	*1.43*	*87*
Injunctive Social Norms from Peers [RPI = 45]			
Others my age will accept it (very unlikely)	**25.7**	**9.04**	**87**
My friends will accept it (very unlikely)	**13.6**	**3.07**	**90**
My friends won't care about it (very unlikely)	9.3	2.43	89
My friends will disapprove	9.0	2.40	87
Others my age will disapprove	*4.0*	*1.51*	*90*
Others my age won't care about it (very unlikely)	*-0.1*	*0.99*	*93*
General Social Norms (Not Smoking) [RPI = 43]			
Be more like everyone else [c]	8.3	2.12	89
Be doing what most others my age are doing [c]	5.8	2.03	85
Youth Susceptibility to Health Effects [RPI = 40]			
Be just as likely to damage my body as an adult smoker would	10.2	4.80	68
If I smoke every day, I am just as likely to harm my health as an older person who smokes every day (strongly agree) [d]	*3.5*	*1.64*	*70*
People my age who smoke every day are just as likely to harm their health as older people who smoke every day (strongly agree) [d]	*3.0*	*1.54*	*69*
Cost of Smoking [RPI = 39]			
Spend more money on doctor and dentist visits	9.0	2.90	74
Have less spending money	6.9	3.53	55
Waste money I could have spent on other things	6.2	4.14	46
Spend thousands of dollars on tobacco products over my lifetime	4.9	2.58	57
Spend hundreds of dollars on tobacco products a year	4.8	3.26	53
Injunctive Social Norms from Parents [RPI = 39]			
Get in trouble with my parent(s)/guardian(s)	10.9	2.39	93
My parent(s)/guardian(s) will be upset	6.5	2.02	78
My parent(s)/guardian(s) will disapprove	5.6	2.09	77
Harmful Ingredients: Common Products Framing [RPI = 38]			
Inhale acetone, which is also found in nail polish remover	6.9	2.55	73
Inhale mercury, which is also found in mascara	6.5	2.43	74
Inhale poisons	6.1	2.62	67

44

Brennan E, Gibson LA, Kybert-Momjian A, et al. Promising themes for antismoking campaigns targeting youth and young adults. Tob Regul Sci. 2017;3(1):29-46; doi: https://doi.org/10.18001/TRS.3.1.4

TABLE E1 Belief Items (within themes)	Percentage to gain (%)	Odds Ratio	Percentage to move (%)
Inhale carbon monoxide, which is also found in car exhaust	5.2	2.34	65
Inhale benzene, which is also found in some types of detergents	5.1	2.03	74
Inhale lead, which is also found in some paints	4.8	1.96	74
Inhale formaldehyde, which is also found in glues and adhesives	*4.3*	*2.00*	*67*
Inhale nicotine	*3.9*	*2.65*	*48*
Inhale arsenic, which is also found in car batteries	*3.3*	*1.64*	*72*
Inhale nickel, which is also found in stainless steel	*3.2*	*1.55*	*76*
Inhale ammonia, which is also found in many household cleaners	*3.1*	*1.57*	*73*
Inhale chemicals	*3.1*	*1.86*	*56*
Inhale tar, which is also used to pave roads and driveways	*2.7*	*1.61*	*62*
Harmful Ingredients: Health Effects Framing [RPI = 35]			
Inhale arsenic, which damages the heart	10.0	4.43	63
Inhale carbon monoxide, which causes sexual and/or fertility problems	9.0	3.42	66
Inhale benzene, which damages the heart	8.2	2.74	70
Inhale nickel, which makes it hard to breathe	7.7	2.60	70
Inhale mercury, which causes cancer	7.1	2.46	69
Inhale acetone, which makes it hard to breathe	6.9	2.46	68
Inhale tar, which causes lung cancer	6.9	3.34	56
Inhale poisons that damage the body	6.7	2.70	62
Inhale formaldehyde, which harms the lungs	6.2	2.55	61
Inhale chemicals that damage the body	5.7	2.87	54
Inhale nicotine, which causes addiction	5.4	2.37	59
Inhale lead, which causes cancer	5.1	1.93	68
Inhale ammonia, which harms the lungs	*4.2*	*1.80*	*65*
General Social Norms (Smoking) [RPI = 29]			
Be more like everyone else (very unlikely)	*3.2*	*1.61*	*80*
Be doing what most others my age are doing (very unlikely)	*-1.3*	*0.83*	*88*
Addiction [RPI = 26]			
Be controlled by smoking	10.0	3.12	74
Eventually need to smoke even more	9.2	3.30	71
Become addicted to nicotine	*3.6*	*1.84*	*58*
Become addicted to cigarettes	*3.2*	*1.65*	*56*
Be unable to stop smoking when I want to	*-3.5*	*0.56*	*76*

45

Note. N = 939 (weighted). In order to learn about a large number of beliefs, we randomly assigned participants to see sub-sets of beliefs, leading to variations in the number of respondents who provided valid data for each scale. Half of the respondents received items only from the *Harmful Ingredients: Common Products Frame* theme, and the other half received items only from the *Harmful Ingredients: Health Effects Frame* theme

[a] Respondents were asked to rate how sure they were to these 3 items (with response options on a 5-point scale ranging from *not at all sure* to *completely sure*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *completely sure*.

[b] Respondents were asked how frequently these events happened (with response options on a 5-point scale ranging from *never* to *almost always*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these belief items, they were coded with the desired response of *never*.

[c] The only difference with these items is that they began with the introductory stem "If I *do not smoke at all*, I will…". The desired response here was *very likely*.

[d] Respondents were asked whether they agreed or disagreed with these statements (with response options on a 5-point scale ranging from *strongly disagree* to *strongly agree*). These items did *not* begin with the "If I smoke every day, I will" stem but rather were stated exactly as written. For each of these beliefs, the desired response option was *strongly agree*.