Qualitative Study on Cigarettes and Smoking: Knowledge, Beliefs, and Misperceptions

Focus Group Summary Report

Prepared for

Food and Drug Administration
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1. INTRODUCTION

The Tobacco Control Act (Public Law 111-31) amends the Federal Food, Drug, and Cosmetic Act to grant the Food and Drug Administration (FDA) authority to regulate the manufacture, marketing, and distribution of tobacco products to protect public health and reduce tobacco use by minors. Under the act, FDA is charged with activities such as preventing youth access to cigarettes, requiring graphic health warnings on cigarette packaging, making public the list of harmful and potentially harmful constituents in tobacco products, implementing public education campaigns, developing advertising restrictions, and developing products standards. To meet the requirements under the act, FDA is conducting consumer research to provide the data needed to help guide the development of activities directed at the consumer. In this study, FDA aims to evaluate consumer knowledge, beliefs, and misperceptions related to cigarettes and cigarette smoking. To achieve this objective, the FDA Center for Tobacco Products (CTP) partnered with RTI International to conduct a series of focus groups (FGs) with a wide-ranging sample of the population that included various ages, races, and levels of educational attainment.

This formative study design used 16 FGs with adults and adolescents, including users and non-users of tobacco products from three U.S. cities. The FGs examined participants’ beliefs about the harms of smoking, general impressions about cigarette pack warnings, reactions to cigarette pack warning statements, and attitudes toward sources of warning messages.

1.1 Study Design

From May to June 2015, RTI conducted a total of 16 FGs (146 participants) across three U.S. cities: Baltimore, MD (5 groups); Memphis, TN (6 groups); and Portland, OR (5 groups). RTI worked with CTP to develop the methodology and FG segmentation. For approval of this study RTI and FDA entered into an IRB Authorization Agreement for the IRB review and approval for this study. This study was approved by the Institutional Review Board at RTI and the Office of Management and Budget.

Of the 16 FGs, 6 were conducted with older adult smokers (≥ 30 years of age), 6 were conducted with younger adult smokers (18–29 years of age), and 4 were conducted exclusively with adolescents (16–17 years of age). Half of the adolescent groups consisted of adolescents who had smoked a cigarette in the last 30 days, and half consisted of adolescents classified as “susceptible” of initiating smoking based on three items.¹ For our study, we defined “susceptible” as responding with an answer other than “definitely not” to at least one of the following screener items (from the response options: definitely not, probably not, probably yes, or definitely yes):

Do you think you will smoke a cigarette soon?
If one of your best friends offered you a cigarette, would you smoke it?
Do you think you will smoke a cigarette at any time in the next year?

Adolescent groups were separated by gender. Older adult and younger adult groups were recruited with a mix of gender, race, ethnicity, and education levels. Table 1-1 shows the segmentation for the FGs.

<table>
<thead>
<tr>
<th>City</th>
<th>Segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore (n = 5)</td>
<td>2 older adult groups, 2 younger adult groups, 1 adolescent male susceptible group</td>
</tr>
<tr>
<td>Memphis (n = 6)</td>
<td>2 older adult groups, 2 younger adult groups, 1 adolescent male smoker group, 1 adolescent female smoker group</td>
</tr>
<tr>
<td>Portland (n = 5)</td>
<td>2 older adult groups, 2 younger adult groups, 1 adolescent female susceptible group</td>
</tr>
</tbody>
</table>

### 1.2 Methods

RTI subcontracted with local market research companies in each of the FG locations to recruit participants and provide the facilities for hosting the FG discussions. Using convenience sampling and a screener developed by FDA and RTI, the market research companies recruited participants from their databases who met the requirements for inclusion in the specific subpopulations (see Appendix A for the adult screener and Appendix B for the adolescent screener). To be eligible to participate, respondents had to be able to read, understand, and speak English and be comfortable talking in a group. Individuals were ineligible for participation if they had other characteristics that could potentially bias responses (e.g., connections to the tobacco industry; employed by the federal government; or employed in the public health, advertising, or marketing industries) or if they had participated in market research in the past 6 months. Most FGs had 10 participants each, with a total of 146 participants. Upon arrival at the FG facility, adult participants read and signed an informed consent form (see Appendix C) and were rescreened to confirm eligibility. Adolescent participants read and signed an assent form (see Appendix D), and their parents signed a permission form (see Appendix E). Experienced moderators conducted the FG discussions using a moderator guide developed by FDA and RTI (see Appendix F), and trained staff members took notes during the discussions. Each FG discussion lasted approximately 1 hour. Adult participants received a monetary incentive of $75 for participating in the FG discussion. Adolescent participants received a monetary incentive of $40 for participating in the discussion, and their parents received $25 for accompanying them to the facility.
The majority of each one-hour discussion was focused on participants’ reactions to specific warning statements. Appendix G—List of Statements and Segments—shows the 26 statements that were presented to participants, including their grouping by list (e.g. Adult A, Adolescent B), and the demographic segment that reviewed each statement. Before discussing each statement, the moderator read the statement aloud and displayed a written statement to the group. Participants were also given their own booklets containing the statements.

To facilitate conversation about novel information in the statements, the moderator asked the participants to use a worksheet (Appendix H—Sample New Information Worksheet) to note the statements that contained information that was new to them. The moderator also used a worksheet (Appendix I—Sample Attention-grabbing Statements Worksheet) to gather information and inform the discussion about which statements were the most attention-grabbing. Participants were asked to note the three statements that were most attention-grabbing.

Each FG discussion was audio-recorded by the local market research facility and video-streamed by an independent subcontractor. The audio files were professionally transcribed by an independent subcontractor. The note-taker for each FG entered notes into an Excel spreadsheet and then used the notes to review the audio files and transcripts for accuracy. Analysis was conducted through a systematic review of the notes matrix and transcripts to identify common themes and any exceptions to these themes and, where possible, to identify similarities and differences among the various subpopulations included in the study.
2. PARTICIPANT CHARACTERISTICS

As part of the screening process, the local market research firms collected basic demographic information, which is presented in Table 2-1. The total number of participants was 146. The average age for adult participants was 36.7 years, and the average age for adolescent participants was 16.4 years. There were approximately equal numbers of male and female participants. Participants who had some college or a 2-year degree made up the largest proportion of adult participants (43.0%), followed by participants who had a high school diploma or GED (23.4%), a college degree (23.4%), a postgraduate degree (5.6%), or less than a high school diploma (4.7%). The majority of participants identified their race/ethnicity as white (56.2%) or black or African American (30.8%). The remaining participants identified as “other” (6.8%), more than one race/ethnicity (4.8%), Korean (0.7%), or Vietnamese (0.7%). Nine participants (6.2%) identified themselves as ethnically Hispanic; two were Mexican, Mexican American, or Chicano/a; three were Puerto Rican; and two were of another Hispanic, Latino/a, or Spanish origin. Participant characteristics by city can be found in Appendix J.

Table 2-1. Focus Group (FG) Participants: Demographic Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltimore</td>
<td>43</td>
<td>29.5%</td>
</tr>
<tr>
<td>Portland</td>
<td>46</td>
<td>31.5%</td>
</tr>
<tr>
<td>Memphis</td>
<td>57</td>
<td>39.0%</td>
</tr>
<tr>
<td>Age Cohort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older adult (30+)</td>
<td>57</td>
<td>39.0%</td>
</tr>
<tr>
<td>Younger adult (18–29)</td>
<td>50</td>
<td>34.2%</td>
</tr>
<tr>
<td>Adolescents (16–17)</td>
<td>39</td>
<td>26.7%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>69</td>
<td>47.3%</td>
</tr>
<tr>
<td>Male</td>
<td>77</td>
<td>52.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>137</td>
<td>93.8%</td>
</tr>
<tr>
<td>Yes—Mexican, Mexican American, Chicano/a</td>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>Yes—Puerto Rican</td>
<td>3</td>
<td>2.1%</td>
</tr>
<tr>
<td>Yes—another Hispanic, Latino/a, or Spanish origin</td>
<td>2</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

(continued)
### Table 2-1. Focus Group (FG) Participants: Demographic Characteristics (continued)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82</td>
<td>56.2%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>45</td>
<td>30.8%</td>
</tr>
<tr>
<td>Korean</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>6.8%</td>
</tr>
<tr>
<td>More than one race</td>
<td>7</td>
<td>4.8%</td>
</tr>
<tr>
<td><strong>Education (adults only n = 107)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>5</td>
<td>4.7%</td>
</tr>
<tr>
<td>High school graduate or GED</td>
<td>25</td>
<td>23.4%</td>
</tr>
<tr>
<td>Some college or 2-year degree</td>
<td>46</td>
<td>43.0%</td>
</tr>
<tr>
<td>College degree</td>
<td>25</td>
<td>23.4%</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>6</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

* Percentages may not total 100% because of rounding.
3. FINDINGS

This section addresses key findings across four major topic areas:

- beliefs about the harms of smoking,
- general impressions about cigarette pack warnings,
- reactions to cigarette pack warning statements, and
- attitudes toward sources of warning messages.

For each major topic area, we identify and describe subtopic findings across the FGs. Although the study was not designed to identify group differences, findings were examined to identify differences, if any, among age groups (older adults and younger adults vs. adolescents) and tobacco user subgroups (adolescent smokers and susceptible groups). Some differences emerged between adults and adolescents, so, where appropriate, findings are discussed by age group. In those cases, references to "adults" pertain to both younger adult groups and older adult groups.

<table>
<thead>
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<th>Key Findings</th>
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<tr>
<td>The purpose of this study was to gain a better understanding of knowledge, beliefs, and misperceptions about cigarettes and cigarette smoking. The findings from these FGs may be used to inform future studies and guide the development of FDA’s activities directed at the consumer.</td>
</tr>
<tr>
<td>Beliefs About the Harms of Smoking</td>
</tr>
<tr>
<td>- Participants mentioned numerous health effects of smoking, including lung cancer; heart disease or cardiovascular disease; throat cancer; gum disease; mouth or oral cancer; cancer (general); and lung disease, lung problems, or respiratory problems.</td>
</tr>
<tr>
<td>- Participants believed that the likelihood of experiencing health effects from smoking depends on how much or how often people smoke, how long they have smoked and whether they quit.</td>
</tr>
<tr>
<td>- In general, participants believed that health effects were more likely to happen to smokers compared with nonsmokers who are exposed to secondhand smoke.</td>
</tr>
<tr>
<td>- The conditions most often linked to exposure to secondhand smoke were lung disease, lung problems, and respiratory problems; asthma; heart disease; lung cancer; and birth defects or problems for the fetus.</td>
</tr>
<tr>
<td>- Other common concerns about smoking included the stigma associated with being a smoker and concerns about the effects of smoking on one’s appearance.</td>
</tr>
<tr>
<td>General Impressions About Cigarette Pack Warnings</td>
</tr>
<tr>
<td>- When asked for their thoughts about current cigarette pack warnings, participants said that they typically did not pay attention to the warning statements. They noted that this was because of the small size of the warning statements, the length of time the statements have been used, and the nonspecific nature of the wording.</td>
</tr>
<tr>
<td>- Many participants mentioned that the current warning statements are not as powerful as the smoking prevention ads on television, highlighting the graphic images of health effects from smoking.</td>
</tr>
<tr>
<td>- Participants also compared warning statements on cigarette packs in the United States with those in other countries and believed that the larger, graphic warnings would be more effective in dissuading people from smoking.</td>
</tr>
<tr>
<td>- A few participants said that the statements are best used for preventing youth from initiating smoking.</td>
</tr>
<tr>
<td>Reactions to Cigarette Pack Warning Statements</td>
</tr>
<tr>
<td>- Participants consider the statements that present new information to be the most attention-grabbing.</td>
</tr>
</tbody>
</table>
However, participants often questioned the believability of some of these novel statements.
• There was a widespread negative reaction to statements of the type “X causes Y” (e.g. “cigarettes cause,” “smoking causes,” “tobacco smoke causes,” or “secondhand smoke causes” ... [specific disease / health effect])
• Participants expressed a desire for more information about the relationship between the amount and duration of smoking (or secondhand smoke exposure) to the health effects of smoking (or secondhand smoke exposure).
• Participants had positive reactions to aspects of statements that showed a mechanism of effect. They often stated that they wanted to know “how” smoking cigarettes or secondhand smoke was related to the health effect being presented.
• Participants were most receptive to statements relating to pregnancy and children and indicated that the statements would make them more mindful about smoking around children.
• Adolescents were more likely to believe the statements than adults.
• Some participants indicated that larger, graphic warnings would be more effective at getting their attention and would be more believable.

**Attitudes Toward Sources of Warning Messages**
• When asked who they thought these warning statements came from if they saw them on a cigarette pack, the entities that groups most often mentioned were "the government," the Surgeon General and the FDA.
• Participants in all segments mentioned doctors or other medical experts as a source from which the warning statements would be believable.

### 3.1 Beliefs About the Harms of Smoking

This section encompasses two subtopic areas:

- beliefs about health effects of smoking and
- beliefs about other harms of smoking.

#### 3.1.1 Health Effects

Participants were asked what first came to mind when they thought of cigarettes, and, in particular, what concerns they had about cigarette smoking. The moderator recorded answers on a whiteboard as participants called out their concerns. The moderator probed for health effects of smoking in particular. Participants named the following health effects (in approximate order of frequency of mention):

- lung cancer
- heart disease or cardiovascular disease
- throat cancer
- gum disease
- mouth or oral cancer
- cancer (general)
- lung disease, lung problems, or respiratory problems
- emphysema
- blood pressure
• addiction to nicotine
• birth defects or problems for the fetus
• Chronic obstructive pulmonary disease (COPD)
• shortened life span
• asthma
• loss of limbs
• blindness
• intestinal problems
• brain tumor
• sexual dysfunction/impotence
• kidney problems
• aneurisms
• liver failure
• stomach cancer

Participants were asked which of these health effects they heard about most often. The most frequently mentioned health effects were lung cancer, throat cancer, cancer in general, and heart disease.

Participants had a variety of opinions about how likely it is that a smoker would experience health effects. In general, participants stated that the likelihood of experiencing effects depends on how much or how often people smoke, how long they have smoked and whether they quit. Some participants also mentioned that genetics or the state of one’s immune system play a role in whether or not a smoker experiences health effects.

• "It depends on the individual, I guess. Yes, there’s no doubt that the smoking does cause some of those diseases or all of those diseases, but how do you know if it’s going to affect you? It doesn’t me, and I keep on smoking, you know." (older adult, Baltimore)

• "Yeah, I believe it’s genetics, a lot of it is genetics, with everything we do or that we get as far as health." (older adult, Portland)

One adolescent mentioned that health effects would depend on the age at which the person started smoking.

• “Yeah, because like if your lungs are still developing, wouldn’t it be worse for you when you start smoking?” (adolescent female susceptible, Portland)
Some participants who believed that experiencing health effects was not likely pointed out that friends or family members who did not smoke had nevertheless developed some of these health conditions. They also shared stories of smokers who had lived long lives.

- "The only one in my family that ever had cancer of the lungs never smoked a day in his life, and he didn’t live with a smoker, so I’m just not sold on it. I’m dead serious.” (older adult, Portland)

Although one adolescent female smoker said that secondhand smoke was worse than smoking cigarettes, in general, participants believed that health effects were more likely for smokers compared with nonsmokers who are exposed to secondhand smoke.

- “I think it’s probably for both because they say that there’s bad effects of secondhand smoking, but I think there’s probably more chance if you’re actually smoking yourself.” (young adult, Baltimore)

The moderator probed to determine which health effects participants associated most with secondhand smoke. The conditions most often mentioned were lung disease, lung problems, and respiratory problems; asthma; heart disease; lung cancer; and birth defects or problems for the fetus. When secondhand smoke was mentioned, a common theme was protecting children from the effects of secondhand smoke.

- “No, no, you know, accepting for myself is one thing but like my secondhand smoke, I don’t want my smoke to, to injure someone else, my grandchildren, for instance, or your grandchildren or whoever may be there. No, I don’t want to do that. I don’t know if it will harm them, but just to be sure, I’m not going to smoke around them.” (older adult, Baltimore)

- “People that smoke, like especially people that smoke in the car with their kids, a lot of my, not a lot but a few of my friends have done it in the past, and their kids have asthma because of it.” (older adult, Memphis)

Participants in two older adult groups also mentioned “third-hand smoke” as a concern.

- “I don’t smoke around my niece at all but the, the nicotine or, or the stuff that’s, that’s still on our clothes gets around my niece, and they [doctors] say that she has like third-hand smoke, which I’ve never heard before, but they say that’s like stronger than secondhand smoke.” (older adult, Baltimore)

### 3.1.2 Other Harms

When asked about their concerns about smoking, participants named the following additional concerns (in approximate order of frequency of mention):

- stigma associated with smoking, isolation, inconvenience of having to smoke away from others
stained teeth or other problems with teeth
- aging of the skin or wrinkled skin
- bad smell associated with smoke
- bad breath
- discolored nails or fingers
- aging (general)
- loss of sense of taste
- hair loss
- appearance (general)
- cost of cigarettes
- time spent on smoking
- effects on personal relationships

3.2 General Impressions About Cigarette Pack Warnings

Participants were asked what came to mind when they thought about warnings on cigarette packs or ads. A few participants thought of the statements as a “sneaky” way for companies to disclose health effects without people actually noticing them.

- “They’ve always been small print or if it’s in a commercial, it’s always spoken really fast.” (adolescent male susceptible, Baltimore)
- “I think they put it on there just so they can’t get sued all the time, when somebody comes around with cancer and they say, ‘I think it’s from smoking cigarettes.’” (older adult, Memphis)

Often, participants thought of the warnings that pertain to pregnancy. One adolescent thought the statements were only about pregnancy.

- “You pay attention to it, but it usually doesn’t pertain to men, because the only thing that it really says is it’s harmful to women who are pregnant.” (adolescent male susceptible, Baltimore)

Some participants thought that the health effects on warnings were exaggerated.

- “And, you know, so you can’t, it’s hard to generalize. If you take this, sorry, if you take statistics, you can bend them, and they do bend them, to say 50,000 people die of lung cancer because of smoking. Out of what number? Do you take 50,000, which is just over the top, and you take it out of a million people who smoke, 50,000 is really insignificant, percentagewise.” (older adult, Baltimore)
Participants were also asked how much they notice (or pay attention to) warnings on cigarette packs or ads. Across all groups, participants stated that they generally did not pay attention to the warning statements. They noted that this was because of the small size of the warning statements, the length of time the statements have been used, and the nonspecific nature of the wording. Some participants also noted that they already knew the information on the statements.

- “And I’ve held like cigarette packs before, and I don’t remember seeing like a warning label and if I, if it was on there, it had to be really small.” (adolescent male susceptible, Baltimore)
- “I have trouble seeing, so a lot of labels on there, I can’t see, that’s why I don’t, I don’t pay no attention to them, anyway.” (older adult, Memphis)
- “With the warnings, they’ve been there so long now, I think we just ignore it.” (older adult, Baltimore)
- “Not really too much, I guess, because I’ve seen it so many times and I’ve kind of read it so many times, just sitting there looking at it. So no, it’s kind of like, almost kind of like white noise now.” (younger adult, Baltimore)
- “I think we get desensitized to it, like I’m not going to read my pack. I know exactly what it looks like. I smoke the same thing every time. So yeah, why would I, why would I read it or look at it?” (younger adult, Baltimore)
- “More after I started, more often, but now I just … don’t know it’s there.” (adolescent male smoker Memphis)
- “It seems like the last one I looked at, I don’t know how long ago that was, just said ‘Warning: Smoking cigarettes can be dangerous to your health’ or something, something really general and vague.” (older adult, Memphis)
- “It’s not blatant enough.” (older adult, Portland)
- “I think by the time you reach the age to be able to buy cigarettes, you’re already informed enough.” (younger adult, Memphis)
- “Well, no, I think that most people that buy cigarettes know what they’re buying.” (adolescent female smoker, Memphis)

Participants would often begin talking about the smoking prevention ads on television, highlighting the graphic images of health effects from smoking. When the moderator redirected them to talk about the warning statements on cigarette packs, they noted that the warning statements on cigarette packs were less powerful.
"I don’t pay attention to that until you see, like, an example of what could actually happen to you because they’re like, ‘Oh, this could happen,’ on the packs but when you see a commercial, they’re like, ‘This did happen.’” (younger adult, Memphis)

Most participants did not see the current warning statements as a deterrent to smoking.

"I don’t think it deters anyone. I’ve never seen someone be like, ‘Oh,’ and then put it back.” (younger adult, Baltimore)

Some participants stated that they intentionally ignored the warnings because they did not like them. Some older adult participants noted that once people have been smoking a while, the warnings would not be effective. A few participants said that the statements are best used for preventing youth from initiating smoking.

"Yeah, it should be more telling kids not to start, rather than telling people who choose to do it things they already know, really.” (younger adult, Baltimore)

"If I was a teenager just starting to smoke, that [referring to a graphic ad such as those used in other countries] might make a big difference, especially under 14, 15-year-olds.” (older adult, Portland)

In several groups, participants compared warning statements on cigarette packs in the United States with those in other countries. Overall, participants believed that the larger, graphic warnings would be more effective in dissuading people from smoking.

"I think pictures would be better, like what he was saying with Thailand.” (younger adult, Baltimore)

"Like when I visited Jordan and they’ve got the same Surgeon General warnings, but it’s more graphic-like. You’ll see the inside of someone’s lungs, you know, as a graphic picture on a pack of Marlboro Lights or like a term baby, you know, a pregnant lady, then it shows like a shriveled up fetus, like that.” (older adult, Memphis)

"In other countries, they’ll have pictures of like dead fetuses on the pack or like a giant thing that just says, ‘Poison,’ and that, I mean, I have [inaudible], I still bought cigarettes in other countries, but it’s still, like, you just don’t want to look at your pack because of that. You see like these crazy pictures, like a black lung or whatever it is. They keep it right there on the pack. So I look at our warning and it’s like, it’s nothing, you know, it’s this little blurb that you don’t even look at.” (older adult, Portland)

"We should definitely do it like Asia. We should show an inside of a lung all raw, mutated, and pus. See if you want to pick up that pack.” (older adult, Portland)
• [regarding graphic warning labels in Australia] "It’s more immediately recognizable as like, ‘Oh, this is a real thing,’ like, ‘This is happening to me, potentially,’ and by buying this and smoking all of this, I’m potentially exacerbating all of these things, like this thing that might happen to me, whereas if it’s just words, just a warning, it’s a lot easier to brush off. It doesn’t give, you don’t internalize it as easily." (younger adult, Portland)

3.2.1 Surgeon General as a Message Source

Across all groups, the “Surgeon General” was one of the first things participants mentioned spontaneously when the topic of warnings on cigarette packs or ads was brought up.

Participants usually identified the position as that of a government official, but most participants were unsure of the specific roles and responsibilities of the Surgeon General.

• ”That’s, I believe, a federal, like a government like doctor who, they kind of like pass down, they’re kind of mandated to pass down information regarding certain products, like tobacco products, and so that entity says that those products are harmful to health.” (adolescent male susceptible, Baltimore)

• "Epidemiology and if there’s a virus, like when Ebola or I think like the Center of Disease Control, maybe he’s about with that somehow, NIH [National Institutes of Health].” (older adult, Biltmore)

• "I figure just some government guy.” (adolescent male smoker, Memphis)

• "Well, isn’t it the government head man over medical issues?” (older adult, Memphis)

• "ATF [The Bureau of Alcohol, Tobacco, Firearms, and Explosives], Tobacco.” (older adult, Memphis)

• “Probably the FDA or something, I don’t know.” (younger adult, Memphis)

Some participants saw it as an agency rather than an individual.

• ”It’s not a person. It’s a...I think it’s a group.” (younger adult, Memphis)

Participants often associated the Surgeon General with the original cigarette pack warnings.

• "I think it was, I forget his first name, Dr. Coop, C-o-o-p. He was the one who originally did the warnings...said that smoking was hazardous. I believe he was the one.” (older adult, Baltimore)

Some participants associated the position with health-related warnings in general.

• "I just know that they put it on anything dangerous that can harm you.” (adolescent female smoker, Memphis)
Some participants associated the position with research.

- "I’m thinking it’s maybe a research group that, that, that oversees the causes and effects of smoking." (older adult, Baltimore)

- "Like I said, to me, it’s like the Attorney General, he’s just like, you know, the Grand Poohbah of, you know, all the research probably comes to him, you know, as far as that goes.” (younger adult, Baltimore)

One participant thought the Surgeon General was associated with the manufacture of cigarettes.

- “The guy who created the cigarettes.” (younger adult, Baltimore)

In general, participants seemed to trust the Surgeon General, but some had doubts.

- "I think I would trust it and believe it because they know all of it but they’re only going to tell us part of it.” (younger adult, Portland)

- "It wouldn’t make me feel any stronger about anything. I would have to do the research myself, but I wouldn’t believe it.” (older adult, Memphis)

- “I mean, it could be some actor, you know, I don’t know. I’m not really sure.” (adolescent female susceptible, Portland)

A few participants were unsure about whether or not to trust the statements, given that the statements are on the pack, even though the messages may be attributed to the Surgeon General.

- “But I don’t know if I trust it because that was probably the tobacco company that put it on there. I mean, I don’t, I just take it as like still a warning but...” (adolescent male smoker, Memphis)

### 3.3 Reactions to Cigarette Pack Warning Statements

For each statement, we present participants’ reactions, including information about comprehension, believability, and positive or negative evaluations of the statement wording.

For each statement, we also present participants’ responses from the worksheets that were used to collect information on which statements presented new information and which statements were the most attention-grabbing. **It is important to note that participants’ selections are in relation to the other statements they viewed, which varied by group.** For more information about the data from these worksheets, please see:

- Appendix K: New Information Worksheet Data—Adults
- Appendix L: New Information Worksheet Data—Adolescents
Appendix M: Attention-grabbing Worksheet Data—Adults
Appendix N: Attention-grabbing Worksheet Data—Adolescents

The 26 statements are grouped by theme. The findings for each statement are preceded by information regarding the statement grouping (list) and the FG segments that viewed the statement.

3.3.1 Lung Disease

3.3.1.1 Cigarettes Cause Fatal Lung Disease

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<tr>
<td>Adolescent A</td>
<td>Adolescent male susceptible; adolescent male smoker</td>
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Most participants, both adults and adolescents, understood the meaning of “lung disease” and "fatal." Some participants mentioned “cancer.” Others described the lungs failing or described specific diseases, such as COPD.

- “Your lungs fail and you can’t breathe.” (younger adult, Baltimore)
- “You’re going to die from smoking. Smoking kills.” (older adult, Memphis)

Many of the adults did not find the statement believable. Their comments suggested that the primary reason they didn’t believe it was that it was too definitive.

- “The minute you pick up a cigarette, you take that drag, you’ve got emphysema.” (younger adult, Portland)

However, some adults did believe the statement. Some of those who believed it mentioned that they knew people who had experienced the effects.

Adolescents tended to believe the statement, although one adolescent pointed out that people who haven’t heard about the effects or seen them might not believe it. One adolescent also said that the threshold for risk should be stated.

- "I guess like something I would, I would want to know is, like, if that can only happen if it was one cigarette or like how many cigarettes would it take, like the risk level?” (adolescent male susceptible, Baltimore)

Participants, both adults and adolescents, said that they would find the statement more believable if the word “may” or “can” was inserted before the word “cause.”

- "I think it’s believable, but like you said, 'may cause fatal lung disease’ would probably be better.” (older adult, Baltimore)
Most participants did believe that the statement applied to them; however, some young adults acknowledged that they did not think the threat was immediate.

- "I think that since we’re all young, we probably think it won’t happen until we’re older.” (younger adult, Baltimore)

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<td>Top 3 attention-grabbing</td>
<td>15.8%</td>
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### 3.3.1.2 Smoking Causes Death from Lung Diseases such as Emphysema and Chronic Bronchitis

Participants noted that the statement was very similar to the previous one.

- "The same, just more specific as to why.” (younger adult, Baltimore)
- "I think it’s pretty much the same thing as the first one. It’s just going into more detail.” (older adult, Memphis)

However, some participants appreciated that the examples were specific. Some participants said that the details make the statement more believable.

- "It’s almost, like, more believable because it has more words and a more descriptive element.” (younger adult, Portland)

Still, some participants thought the statement was too long.

- "Right, yeah, it’s, it’s too long and it’s, it’s, it’s all, it’s all off, the emphysema and the chronic bronchitis should be first, I mean, if they wanted to be effective. It should be absolutely first and then description afterwards.” (younger adult, Portland)
- "It’s too lengthy for me. I wouldn’t pay attention.” (older adult, Memphis)

Several participants pointed out that "bronchitis" is a common ailment that is not always caused by smoking cigarettes.
• "I know somebody with bronchitis that was born with it. He didn’t get it from smoking cigarettes.” (older adult, Memphis)

A few participants made similar statements regarding a friend or relative who had emphysema who had not smoked. One participant said he thought the statement was a "scare tactic."

Participants again recommended that the word “can” be inserted before “causes.” Without the word “can,” they interpret the statement as saying that 100% of smokers will get bronchitis or emphysema or that all bronchitis or emphysema is caused by smoking.

Several participants mentioned that “smoking” could refer to other substances and proposed the use of "cigarettes” instead.

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3.3.1.3 Smoking Permanently Damages Your Airways and Lungs

- Adult A
- Adolescent A

• 2 older adult groups; 2 younger adult groups
• Adolescent male susceptible; adolescent male smoker

Many participants believed the statement, and some mentioned that they had experienced some lung damage or irritation. Some participants were in agreement that smoking can cause permanent damage.

• "It means once you quit, you don’t repair all the damage.” (younger adult, Baltimore)

However, the most common reaction to this statement was that it contradicted information participants have seen on commercials and in publications that discuss the benefits of quitting.

• "Well, unless they say, I’ve read this several times, and they’ll say it on commercials, they say if you stop smoking for 3 weeks that, or a year, whatever, there’s a timeframe they give you that your lungs go back to normal. So this is, if what they said in the beginning was true, then this is a false statement.” (older adult, Baltimore)
• “In my doctor’s office, there’s a chart and he has there, I don’t know the numbers but it tells you, you know, 1 day, 1 week, 1 month, and 1 year as to what’s healing in your body if you quit.” (older adult, Baltimore)

One adult participant recommended that the statement provide more information about how smoking permanently damages the airways and lungs, information about the timeframe, and information about the relationship between the amount and duration of smoking and the risk.

• “If you smoke your entire life, you can permanently damage your airways and lungs, you know. If you smoke a pack of cigarettes once a month, you know, are you really permanently damaging your lungs, or when they say ‘permanently damage,’ how much damage are they talking about?...a little bit, you know, 1%, 2%, or are they talking about 50% or 75%?” (older adult, Memphis)

Adolescents also had questions about how long it would take for smoking to damage the airways and lungs. They generally believed the statement but noted that if people smoke for a while but do not experience the damage, they may cease to pay attention to the statement.

Another recommendation provided was to add “if you don’t quit smoking” to the statement or change the statement to say “smoking temporarily damages the airways and lungs.”

• “Yeah, I mean, I, I think, I think everyone here is aware that it does affect your lungs and your breathing, but people want to hear that if you do quit, like what can happen.” (younger adult, Portland)

• ”Yeah, positive examples.” (younger adult, Portland)

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<td>38.9%</td>
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### 3.3.1.4 Smoking Causes COPD, a Serious Lung Disease, and Permanently Scars Lung Tissue

- **Lists**
  - Adult A
  - Adolescent A

- **Segments**
  - 2 older adult groups; 2 younger adult groups
  - Adolescent male susceptible; adolescent male smoker
One adult participant did not understand the word “scars” in this context. Some did not know the meaning of “COPD.” One adult participant mentioned that even if people do not know the acronym “COPD,” they can get a general understanding of what the statement is about. Most adolescents did not know the meaning of “COPD,” but understood it to be a serious lung disease and understood the rest of the statement. When asked if it applied to them, they said that it would depend on at what age they started smoking and for how long they smoked. Some participants said that the word “serious” was not needed because all lung disease is serious.

Similar to their reactions to previous statements, participants reacted negatively to the absence of the word “can” or “could” before “causes.” Because they believed other things could cause COPD, some participants said the statement was too general. As was the case with the previous statement, some participants questioned the use of the word “permanently.”

- “I just don’t agree with the ‘permanently’ because I always understood, as well, that if you stop smoking at a certain age, if you catch it before it progresses to the fatal point or when you have cancer that it is irreversible, so I don’t really know if it’s true, but I thought if you stopped smoking at a certain age or at a certain point, you can reverse any damage that it does cause, and everything would be back as new, but if you have cancer and you’re so far gone at that point, it’s irreversible.” (older adult, Baltimore)

One participant noted that the wording could make smokers defensive.

- “I feel like this, this ‘permanently’ and all this like, I don’t know, negative connotation is, is only making smokers more likely to get defensive because people have smoking attached to their stress level, and when they read something stressful, it makes them want to smoke.” (younger adult, Portland)

Participants suggested adding “can” or “may” to this statement before “causes” and before “permanently” as well.
### Section 3 — Findings

#### 3.3.2 Quitting Smoking

**3.3.2.1 Quitting Smoking Now Greatly Reduces Serious Risks to your Health**

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<td>Adolescent A</td>
<td>Adolescent male susceptible; adolescent male smoker</td>
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Most adult and adolescent participants understood this warning statement.

- "It would be in your best interest to stop smoking." (older adult, Memphis)

Most adult and adolescent participants thought the statement was believable.

- "And it’s very believable. It does reduce the risk." (older adult, Portland)
- "I was going to say like this is just common sense. You just kind of already know this. I mean, like you, you know some of these other things, too, but like you already know that if you stop smoking now, clearly you’re going to make your health better in the future. So I don’t really feel like this needs to be put on a box." (younger adult, Baltimore)

Some adult and adolescent participants noted that they thought there might be a point at which this statement might not be true because the “damage has already been done.” Some participants brought up that if a person has been smoking for many years, quitting might not be that beneficial.

- “Yeah, if you’ve been smoking for like 60 years, why would it now matter? Why would your health, health risks reduce?” (adolescent male susceptible, Baltimore)
### 3.3.2.2 Quitting Smoking Now Reduces Risk of Dying from Cancer and Heart Disease

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<td>Adolescent A</td>
<td>Adolescent male susceptible; adolescent male smoker</td>
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Most adult and adolescent participants understood this warning statement and thought the statement was believable.

- "I like this one just because it’s talking about, again, it’s talking about now but it’s also talking about like the risk of your future, so it’s not just talking about, you know, one or the other." (younger adult, Baltimore)

Some participants thought that the “reduces risk” part of the statement was ambiguous.

- "...but ‘reduces the risk,’ you know, how much of a reduction in the risk is there?” (older adult, Memphis)

- “The ‘greatly reduces’ in the last one and this one, it just says ‘reduces,’ so it’s kind of ambiguous, again, the extent to which it reduces something, especially considering that the last one said ‘serious risks,’ which I’m sure include dying from cancer and heart disease. So it’s like saying the same thing, but one is less than the other.” (adolescent male susceptible, Baltimore)

Some participants did not think this statement was believable because they believed that if someone has been smoking for many years, the damage has already been done.

- “It’s not believable because if you’ve been smoking for a long time then the risks are there. Even if you haven’t been smoking for a long time, the risks are there because now like the lady who had the voice box or whatever, now when they play that commercial, they, after the commercial is done, like, they have the little deceased thing. I think she’s dead now. So you’re not just magically not going to die because you quit smoking. It’s just you’re probably not going to die as fast because the, the, the effects are still there, like your lungs are still like shriveled up. Your throat is still like horrible, so something’s still inside your body. People don’t get that.” (adolescent male susceptible, Baltimore)

- "Well, you know, they say that when you quit, if the damage is done, it’s done, you know. You can stop for 10 years and, you know, still have all the damage.” (older adult, Memphis)
Some participants pointed out that this statement might be more appropriate for or applicable to younger smokers.

- “It sounds like this for people like 18 to 30 that’s what I feel like it’s for.” (younger adult, Baltimore)
- “It might come across as more true for somebody younger just starting smoking than it would for somebody older who’d been smoking for a long period of time.” (older adult, Memphis)

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### 3.3.3 Cancer
#### 3.3.3.1 Cigarettes Cause Cancer

Participants understood the statement. Some participants, both adults and adolescents, believed that it was too generic or too short. Several participants used the words “blatant” or “blanket” to describe the statement. One younger adult participant pointed out that the lack of caveats such as the amount or duration of smoking can make one suspicious of the entire statement. However, a few participants appreciated that it was “to the point.”

Many participants thought the statement was not believable because it said “causes” and not “can cause” or “may cause.” When reacting to the statement, participants commonly pointed out that some people smoke and do not get cancer.

- “It’s false. ‘It may cause cancer’ would be more, or ‘may contribute to’ would be more honest. Just blatantly saying that smoking a cigarette is going to give you cancer, period, end of sentence, is, you know, it’s just not true.” (older adult, Portland)

Participants were generally comfortable with adding a “can cause” or “may cause” to the statement. One participant suggested the following:
• “Cigarettes are associated with an increased chance of getting cancer.” (younger adult, Memphis)

Some adult participants thought that the statement would be effective in preventing initiation of smoking, but that it would not be effective in getting those who already smoke to quit.

• "Maybe if I was young, 14 and 15, when we were starting smoking, they certainly didn’t have anything like that on cigarettes." (older adult, Portland)

Some adolescents mentioned that warnings such as this one are getting more common and therefore are not as effective as they used to be.

• "I think if you’re like thinking about this in terms of like an ad or a warning, it’s not very effective in trying to scare people because we hear it all the time now.” (adolescent female susceptible, Portland)

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### 3.3.3.2 Smoking Causes Many Forms of Cancer, such as Lung, Liver, Stomach, Oral, Cervical, Pancreatic, Kidney, Colorectal, Bone Marrow, Blood, and Bladder Cancer

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<td>Adolescent B</td>
<td>Adolescent female susceptible; adolescent female smoker</td>
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Participants generally understood the statement. One participant assumed it meant that smoking causes all forms of cancer. For adolescents, in particular, the link between smoking and some forms of cancer (e.g., bone marrow, blood, and bladder cancer) was new information. The term “colorectal” was not familiar to at least one adolescent.

Adolescent participants generally believed the statement. Adult participants had mixed opinions about whether the statement was believable. As with the other statements, many participants wanted to insert the word “may” before “causes.” When presented with the option “smoking is a cause of...,” they generally agreed that wording was better than “smoking causes.” They also wanted statistics, evidence, or information on how smoking
causes these forms of cancer, as well as information about the relationship between the amount of smoking and the risks.

- "I mean, most people believe it but there are some skeptics that, that needs the proof. If you want to say 'this will do something,' I want the proof. Now if you say 'it may do it,' okay, I understand the may part." (older adult, Baltimore)

- "I want to see the numbers of, it doesn’t, it says it causes forms of cancer, but it doesn’t tell you how much the person had smoked that had the cancer.” (older adult, Baltimore)

- "I’m fine with the statement, like yes, it can cause cancer. Yes, it does increase your risk for this, but there’s no clear indication of how it may go about causing you to get blood cancer or bone marrow cancer or any of these other things. It could, perhaps, add in like, you know, a little link to be able to look at the research that it has undergone to actually give this link between bone marrow cancer and actually smoking cigarettes. Then it’d probably be a lot better, and I’d actually see the connection much more clearly.” (younger adult, Memphis)

- "I’ve seen proof of lung cancer, but I ain’t never seen no proof of none of that.” (older adult, Portland)

Specifying multiple forms of cancer increased the perception of risk for at least one adult participant and one adolescent participant.

- "I think it shows that there’s that many different types, so the possibility of getting one of them is higher, like versus this, smokers might just think, ‘Oh, just lung cancer,’ like, you know, that might in their mind be like the chance of getting one thing is lower than getting all of these different types of cancer.” (younger adult, Portland)

- "I think this is much scarier. I mean, just because, than the previous one, because when you say, ‘cancer,’ it’s like they said, it’s a really broad term and it’s like, ‘Okay, whatever.’ But when you hear this, it’s like it can cause this and this and this and this and this and this, and it’s like, 'Dang.”’ (adolescent female susceptible, Portland)

In one group, a few adult participants stated that the additional detailed information will get people’s attention better than the more general statements. They also pointed out, however, that the type would have to be larger.

One participant also noted that the placement of the statement on a cigarette pack increases believability because the companies would require evidence of the correlation between smoking and the outcomes.
• “I would definitely believe that in the context because if this is actually on tobacco products, then you know that there must have been push back from the tobacco companies, so for it to be on there, like there has to be, there has to have been lots of studies that have been multiply replicated and proven to be true or at least, you know, some sort of like significant correlation between smoking and these things.” (younger adult, Portland)

Some adult participants stated that graphic images would make the statement more believable.

• "Seeing something like that ain’t going to put no fear in you. You got to visibly see what’s happening inside that body to scare you to stop and quit smoking.” (older adult, Portland)

Some participants also had doubts about the likelihood of smoking causing cancer in organs besides the lungs. For example, one adult didn’t understand how smoking could cause bladder cancer.

• “Because the bladder is down there and I’m smoking up here.” (younger adult, Memphis)

One participant pointed out that, to distinguish smoking tobacco from smoking other substances, the statement should specify “cigarettes.”

Participants in one group also noted that participants would be more open to looking for this information and paying attention to it when they are ready to quit.

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**3.3.3.3 Smoking Causes Bladder Cancer, Which Can Lead to Painful and Frequent Urination**

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<td>Adolescent female susceptible; adolescent female smoker</td>
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Most adult participants did not believe the statement. As was the case regarding other statements, participants stated that the wording implied that smoking *definitely* causes bladder cancer, which made the statement less believable. Also, many adult participants associated bladder cancer with drinking too much alcohol or associated it with other types of liquids, and therefore had a difficult time making a link between smoking and bladder cancer.

- "Now if it said ‘smoking causes more, causes you to drink more alcohol, which will lead to painful and frequent urination,’ that’s truthful." (older adult, Baltimore)

- "I don’t see this as believable in my eyes for the simple fact, smoking causes bladder cancer. Bladder is normally from drinking, I mean, food and drink and that’s just me rationalizing in my head, that’s what would make me not believe this from the jump and it, it’s frequent urination, painful urination, smoking is inhaling, so from me inhaling, where would I have, what would, what would build up my bladder?” (older adult, Baltimore)

- "Again, there’s no, there’s no clear indication or explanation of how there is a link between smoking cigarettes and getting bladder cancer.” (younger adult, Memphis)

Some adults were confused about the difference between “bladder cancer” and “bladder infections.” One participant noted that bladder cancer does not appear to be prevalent. Another noted that the statement was less relevant to smoking than the others.

A few participants discussed the fact that the statement was direct, specific, and descriptive, which they thought would make it more attention-grabbing, especially if there were different statements on different cigarette packs. However, they also made comments indicating that the statement was lacking in additional information about some of the more severe consequences.

- "I think it’s helpful. I’m just wondering what else bladder cancer brings to the table. Like, you know, painful and frequent urination, you know, that’s bad but I just feel like there’s a little bit more, like if they were trying to make this really stick, if they were trying to make it like really, really stick, it would have to be a little bit more something else, rather than just painful and frequent urination. Like I know there’s other consequences, like, yeah, it might eventually kill me, as well.” (young adult, Portland)

Adolescents were more likely than adults to believe the statement, particularly because they thought that cigarette companies would not put the statement on the packs unless they had to because it was true. They thought it was “random” (adolescent female smoker, Memphis) and “more specific” (adolescent female susceptible, Portland) than some of the other statements. The terms “painful” and “frequent urination” seemed to make more of an impression on the adolescents than on the adults.
• “Yeah, it definitely like causes an impression because you’re like, ‘Oh, I don’t want to be in pain.’” (adolescent female susceptible, Portland)
  
  o [reply] “Yeah, or peeing a lot.” [Laughter] (adolescent female susceptible, Portland)

• “I think this would be even more effective because who hasn’t had the ‘I accidentally peed in class’ trick, like [Laughter] it gets personal, no matter what you do, so.” (adolescent female susceptible, Portland)

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**3.3.4 Heart Disease and Stroke**

**3.3.4.1 Cigarettes Cause Strokes and Heart Disease**

Most participants understood this statement. Most participants also thought this statement was very believable.

• “It’s self-explanatory.” (younger adult, Baltimore)

Some participants in the adolescent female susceptible group stated that they “don’t really associate [stroke and heart disease] directly with smoking.” Another participant in the group noted:

• “I never really thought of cigarettes causing strokes because it’s always been so focused on lungs and throat.” (adolescent female susceptible, Memphis)

Some participants thought the statement is slightly misleading because it says “causes” and not “can cause” or “may cause”. When probed, all participants who disliked the use of “cause” thought that the statement would be improved by changing the wording to “is a cause of.”
• "I’m about to go to medical school, so like, I mean, they teach you that health effects aren’t directly related to one thing. It’s not necessarily a cause. It’s kind of, it would increase your risk of." (younger adult, Memphis)

• "I don’t think that it, it causes, it causes every stroke and heart disease.” (older adult, Memphis)

• “They should put ‘can cause’...because it’s not automatically going to cause a stroke or heart disease, but they can cause stroke and heart disease.” (adolescent female smoker, Memphis)

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### 3.3.4.2 Smoking Causes Heart Attacks and Strokes by Clogging Your Arteries

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Most participants understood this warning statement. Some participants noted that they liked this statement better than the previous statement because it explains how smoking causes heart attacks and strokes.

• "I like that one, I think that one works better because it tells you like why it does those things.” (younger adult, Baltimore)

• "It actually tells you how it, like that’s relating what is actually happening.” (adolescent female smoker, Memphis)

However, some participants thought the statement wording was slightly misleading because they did not think that smoking clogs arteries.

• "Smoking hardens your arteries. It doesn’t clog them.” (Older adult, Memphis)

• "It’s a little deceiving because from what I’ve been, I’ve read, smoking doesn’t really clog your arteries as much as it reduces the size of the arteries, making them easier to clog.” (older adult, Memphis)
• “Yeah, I’m, the word ‘clogging,’ it’s a little, it’s, it’s not quite accurate.” (older adult, Portland)

• “Using that statement, it’s misleading because what happens is the arteries constrict from the nicotine and, I don’t, I don’t know that they actually get clogged by the nicotine, but they will constrict, and if you’ve got any cholesterol build up, like I do now, then as soon as that, the arteries constrict or they’re constricted all the time because you constantly got the nicotine in your system. You keep replenishing it. So when you’re, the, the arteries actually get constricted.” (older adult, Portland)

A few participants also noted that the statement should say “can cause” or “increases the risk of.”

• “I think, shouldn’t it say ‘it increases your risk’ because people are going to think, well, say they have parents who smoke, they’re going to think, ‘Well, that didn’t happen to them, so it’s not going to happen to me.’” (adolescent female smoker, Memphis)

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**3.3.4.3 Smoking Causes Blood Vessels to Weaken, Causing Severe Bleeding and Death from Ruptured Blood Vessels**

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Most participants found this warning statement to be very believable. In a few groups, participants thought the statement was “a little intense.” When asked what made the statement intense, one participant said:

• “Just ‘severe bleeding and death,’ I mean, just, just saying that straight out.” (Older adult, Portland)

In a few groups, participants commented that this statement was “more wordy” than the other statements, although some participants did not find that problematic.

• "But it, so it tells you exactly what the consequence is, right? So I, to me, it’s wordy but I, it tells me what’s about to happen and it has [more of] that sense of immediacy than some of the other ones to me.” (younger adult, Baltimore)
In one group, a few participants were confused by the statement because it seemed to be contradictory. One participant said, "I just want to know how it reduces blood flow but it causes severe bleeding at the same time." (older adult, Portland)

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### 3.3.5 Pregnancy and Harm to Fetus

#### 3.3.5.1 Smoking during Pregnancy Can Harm Your Baby

Most participants understood and liked this statement.

- "I think that’s just so self-explanatory and so like, I think it’s factual, you know. There’s no arguing about it." (younger adult, Portland)

- "This is the best one so far." (older adult, Portland)

Most participants thought this statement was very believable and clear. For many participants, this statement was believable because it was similar to other statements that they had heard regarding pregnancy and risks to a child’s health.

- "Today, yeah, I mean, that’s like they tell you not to drink, not to do drugs, strenuous exercise, there’s different things. So, you know, I can, I can certainly understand that statement." (older adult, Baltimore)

- "[The baby] needs the nutrition from the mother and from the mother smoking, that’s putting, bringing in toxins into her system and that’s like when they tell a mother, do not drink while she’s nursing because she’s putting that to the child. If you’re smoking, you can harm the baby..." (older adult, Baltimore)

When asked about why the statement is believable for them, some participants also brought up social norms regarding pregnant women and smoking.

- "I think that’s kind of one of those things where it’s like if anyone saw a woman noticeably pregnant and was smoking, it would like if I’m walking down the street and smoking, no one really says anything, but if you see a pregnant woman walking
down the street smoking, someone will probably be like, ‘You shouldn’t be doing it.’” (younger adult, Memphis)

- I’ve seen pregnant women smoking cigarettes, and it just, every time I see it, it’s just like, I don’t know, it bothers me a lot.” (younger adult, Portland)

Some participants found the statement believable because they had personal experiences and had witnessed effects of smoking on children firsthand.

- “Everything that I took [when I was pregnant], I was in the hospital seven times, it went straight to my daughter. So this is very believable for me.” (older adult, Portland)

- “Like, I’ve seen people that smoked that had babies, and it’s true.” (younger adult, Memphis)

- “Underweight babies and babies taking longer to develop than the next one.” (older adult, Portland)

Some participants did not think this statement applied to males, but other participants thought it applied to everyone.

- “The only way it might apply to me is if my wife was pregnant.” (older adult, Baltimore)

- “It doesn’t apply to a man.” (older adult, Portland)

Some participants noted that this statement was better than previous statements because the wording was “can” instead of “will.”

- “At least they did, they didn’t say ‘will hurt your baby’...they said ‘can harm your baby.’ So the wording’s a little better.” (older adult, Baltimore)

- “Yes, and they’ve also got the right word there; you got ‘can.’” (older adult, Portland)

Although many participants throughout the FGs took issue with some statements being too absolute, one participant disagreed:

- “Everyone keeps bring that up about the, ‘these are absolute statements.’ I think it’s implied that it is like ‘may.’ Like I, I don’t read it as being like absolute.” (older adult, Baltimore)
3.3.5.2 Smoking during Pregnancy Can Stunt Your Baby’s Growth

Most participants thought this statement was believable.

- "Yeah, I mean, it’s kind of like an understood thing." (younger adult, Memphis)

- "I mean, the last statement was the same way as, you know, 'smoking causes cancer,' it’s just you’ve heard it a million times." (younger adult, Portland)

Some participants talked about how they know there is existing evidence that this statement is true.

- "Well, there’s tons of stats out on low birth weight among women smokers." (older adult, Baltimore)

Some participants took personal experiences into account when deciding whether they believed the statement. In some cases, participants had experienced this outcome firsthand, and they believed the statement. Some participants who had not experienced the outcome firsthand did not believe it.

- "It’s not believable to me because of my own family situation. My brother, my sister, and I were born not low birth weight, and my mother was a smoker." (older adult, Baltimore)

- "Well, I’m not going to get personal but one of my family members, his growth has been stunted. He was born premature. So I’ve seen a lot of things firsthand from smoking during pregnancy." (younger adult, Memphis)

- "I’ve seen it to be true, not in all situations but, you know, you know, I agree with it." (older adult, Portland)

Some participants noted that this statement stood out from the rest because “babies are different.”
• "I just think when you bring babies into just about anything, it kind of like, it kind of sets everyone straight because like, like the one before, I mean, it’s like you can do whatever you want to yourself but when you start harming someone else, and I know like secondhand smoke, but I guess pregnancy is kind of a whole ‘nother situation.” (younger adult, Memphis)

Some participants noted that stunted growth was a theme or health issue they had heard related to smoking before, but in the context of smokers.

• "Well, see, to me, many years ago, and I haven’t heard it lately, they used to say, ‘If you smoke, it’s going to stunt your growth.’” (older adult, Baltimore)

• “I don’t know about babies’ growth, but I know that, because I started smoking at a young age, and they said that it stunts your growth.” (younger adult, Memphis)

In one group, participants thought that because this statement used the word ‘can,’ it was more acceptable and believable because it was a more accurate statement.

• “It’s the ‘can’ makes it acceptable to me because it doesn’t happen to everyone, but it does happen to a high percentage of people.” (older adult, Portland)

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### 3.3.5.3 Smoking during Pregnancy Can Lead to Deformities in Your Baby

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Overall, participants understood this statement; however, some participants found it hard to believe that smoking could lead to deformities in babies. They mentioned that deformities were more associated with genetics, illegal drugs, or alcohol.

• "I’ve just never heard of cigarettes just causing, just cigarettes causing deformities.” (younger adult, Memphis)

• "Deformities generally happen from genetics.” (older adult, Portland)

• "So I don’t really buy that deformities are a direct cause to, to smoking, even if it says ‘can’ in this particular case.” (older adult, Portland)
• "We think of, we associate drinking with deformities more than smoking." (younger adult, Portland)

However, one group thought that using the word “deformities” made the statement seem more important.

• "I mean, I think it can even go further but, you know, it’s on the right, it’s on the right path of just really stressing the importance of it, you know. When you start to throw words like ‘deformities’ in there…it’s implying you’re like taking away their rights, like it was like them being pregnant is like you’re trapping them in a little jail…” (younger adult, Portland)

Some participants used personal experiences to explain why they either believed or did not believe the statement.

• "Yes, where her child has a hurt hip, to where one of his legs are longer than the other and he’s missing, he has four fingers, no, three fingers and a thumb on one hand.” (younger adult, Memphis)

• “This is a personal experience. I smoked while I was pregnant. I didn’t know I was pregnant, but there’s nothing wrong with my child.” (younger adult, Memphis)

One group also brought up that the statement seems to be targeted more to women than to men, but one participant thought it still applied to men.

• "Definitely sounds like it’s more targeted towards women, and so if you’re a man looking at that, I think it’d be real easy to just go like, ‘It doesn’t apply to me.’” (younger adult, Portland)

• "I don’t know if like I feel excluded from it, though, like it’s still good to know for me as well…I mean guys also have that nurturing kind of feeling, especially if, you know, the baby is going to be yours.” (younger adult, Portland)

Some participants brought up that using the word “can” instead of a more absolute term made the statement more believable.

• "Yea, it’s not, it’s not an absolute since it’s not telling you that it will. It’s letting you know that it can.” (older adult, Baltimore)

• "If it said 'if you smoke during a pregnancy your baby will definitely be deformed,’ then I wouldn’t 100% agree with it.” (younger adult, Memphis)
### Worksheet Adult Adolescent

| New information | 16.1% | — |
| Top 3 attention-grabbing | 35.5% | — |

#### 3.3.6 Secondhand Effects on Children

#### 3.3.6.1 Tobacco Smoke Can Harm Your Children

Most participants understood and generally believed this statement. Some participants qualified their belief by stating that it does not *necessarily* harm children, but it *can*, or that the harm depends on the intensity of the smoke.

- “*But it’s, it, if you’re outside on the, on the beach or whatever, I don’t see where it’s going to bother anybody.*” (older adult, Baltimore)

Some participants believed that for this statement, the word “can” should be deleted.

- “*There should be no ‘can’ in this one.*” (young adult, Portland)
  - [reply] “*Because their bodies, it’s still growing.*” (young adult, Portland)

One participant noted that smoke could cause asthma in children. Several participants said that the statement would make them more mindful about smoking around children, and that the statement applies to everyone, even those who do not have their own children.

- “*It applies to everybody, if you have a heart—everybody that has a child in their lives or in some way, shape, or form.*” (young adult, Portland)

- “*It applies to everyone because there’s kids everywhere.*” (young adult, Portland)
3.3.6.2 **Secondhand Smoke Causes Respiratory Illness in Children**

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Most participants understood and had positive reactions to this statement.

- "*I think, to me, that’s a true statement. There are a lot of kids with asthma and, you know. I just can’t determine where they’re getting it from.*" (older adults, Baltimore)
- "*That’s a wonderful statement.*" (younger adult, Portland)

One participant said that this statement would require proof. Some participants noted that, like many of the statements, it is “far too definitive” (older adult, Memphis). However, replacing “causes” with “is a cause of” satisfied one participant.

Comparisons were made with the statement, “Tobacco smoke can harm your children.” One participant preferred “Secondhand smoke causes respiratory illness in children” because it was more specific.

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3.3.6.3 **Secondhand Smoke Causes Pneumonia and Other Lung Infections in Children**

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Participants did not indicate that they had trouble understanding this statement; however, many participants had not heard of the connection between secondhand smoke and pneumonia. Several participants stated that adding “can cause” or “may cause” would make the statement more believable. Several participants also mentioned their own experience as a child or as a parent who smoked, and noted that they or their children did not experience pneumonia or lung infections as a result of secondhand smoke; these participants were therefore less likely to pay attention to the statement.
One participant noted that the statements pertaining to children generally had a greater impact.

- "I mean, if they just put anything that pretty much pertains to children, it might affect a little bit more better. I mean, I don’t want to do that to my child." (young adult, Portland)

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### 3.3.7 Secondhand Effects in General

#### 3.3.7.1 Tobacco Smoke Causes Fatal Lung Disease in Nonsmokers

Participant reactions to this statement were mixed. Most participants understood the statement and thought it referred to secondhand smoke or smoking around nonsmokers.

- "Don’t expose others to your cigarette smoke.” (older adult, Memphis)
- "You could be harming a person next to you who don’t smoke.” (older adult, Memphis)

Some older adult and adolescent participants noted that the statement would be clearer if it specified that secondhand smoke is how nonsmokers are exposed to tobacco smoke.

- "Also, I don’t like how it doesn’t mention the word 'secondhand smoke’ at all.” (adolescent male susceptible, Baltimore)
- "[You should add] ‘secondhand smoke’ because it, because you’re thinking, 'How would a nonsmoker get a fatal lung disease?’” (older adult, Portland)

Some participants did not believe the statement. Some participants noted that the word “fatal” made the statement less believable and seem overstated.

- "I can acknowledge that it can cause some problems for those who are around it a significant part of the time, but ‘fatal?’” (older adult, Memphis)
• “Secondhand smoke does cause damage, but ‘fatal,’ you’re not really taking it in yourself, so I wouldn’t really understand too much about it.” (adolescent male susceptible, Baltimore)

• “I think it would, it’s fatal depending on the circumstance, like if you have asthma or something, it could be fatal, but just generally, I don’t, I don’t think that’s like true-ish.” (adolescent male susceptible, Baltimore)

Some participants noted that amount of exposure to secondhand smoke was an important factor, but that this was not reflected in this statement.

• “I mean, if you’re not around anyone who smokes, or you’re around a lot of people that smoke very often, you know, maybe one puff gets blown in your face every three months, you know. I can’t really see it doing too much damage.” (adolescent male susceptible, Baltimore)

• “Like if you just say ‘in nonsmokers,’ well, anyone who doesn’t smoke is a nonsmoker, right? But if you say ‘nonsmokers that were exposed to secondhand smoke,’ it’s a little different.” (younger adult, Memphis)

Some adult participants stated that this statement was not relevant to them because when they smoked, they usually did not smoke around nonsmokers and therefore did not expose others to secondhand smoke.

• “I usually smoke alone, too, so this doesn’t really apply to me.” (younger adult, Baltimore)

• “Yeah, because a lot of people are considerate smokers now. Like, we don’t smoke in cars with kids.” (older adult, Memphis)

• “I smoked normally outside, so I’m not like smoking in someone’s face, you know, like I’m smoking in my own car, you know, with the windows down, but if I have a nonsmoker in the car, I don’t smoke.” (older adult, Portland)

Some participants in older adult groups and the adolescent male smoker group thought the statement would be better if it said “may cause” or “is a cause of” rather than “causes.”

• “I think they need to change it to where it either says ‘can cause lung disease’ or ‘may cause’ because saying ‘it causes it,’ that means everybody that’s around tobacco smoke eventually will die from lung disease, because not everybody’s going to get, and we know that’s not true... so when they say ‘it causes it,’ it can’t, they can’t prove that it causes it. It can only contribute to it...because you’re making a positive statement here when we all know it’s a gray area.” (older adult, Portland)
### 3.3.7.2 Secondhand Smoke Causes Death in Nonsmokers

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<td>Adult C</td>
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<tr>
<td>Adolescent B</td>
<td>Adolescent female susceptible; adolescent female smoker</td>
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Most participants understood this statement. A few adult participants noted that this statement was conveying the same message as the previous statement ("Tobacco smoke causes fatal lung disease in nonsmokers"). In a younger adult group, participants thought "secondhand smoke" would be a better term to use, rather than "tobacco smoke," because it is more understandable and attention-grabbing.

Some adult participants did not believe the statement. Some adult participants thought that the word “death” made the statement seem exaggerated and easier to dismiss as not true. One younger adult participant did not believe that someone would die “because they had secondhand smoke in their lungs” *(younger adult, Baltimore)*.

- "Yeah, it’s just, it’s almost like overstated, if that makes sense, like health risks or health effects." *(younger adult, Memphis)*

- "Tell you that, you know, if you’re around somebody else that smokes, you’re going to die. It’s kind of unbelievable." *(older adult, Portland)*

Participants in all segments noted that the statement omitted the fact that the severity of negative health effects depends on the amount of exposure to secondhand smoke, which made the statement less believable and seem overstated. Participants also noted that negative health effects from exposure to secondhand smoke are more long-term than short-term, and that this statements did not convey that difference.

- "It would also be more clear if it said ‘lifelong secondhand smoke’ causes death in smokers.” *(younger adult, Baltimore)*

- "Just because if you were to look at it and say, ‘well,’ you know, somebody’s walking down the street and they smell their smoke, you’re going to get, you’re going to die. That’s, I don’t, I just don’t, I don’t see it.” *(older adult, Portland)*
• “This is just, because they not the ones smoking, I mean, I’ve had to inhale, inhale a lot of smoke, but you got to be around somebody that’s constantly lighting them up.” (older adult, Memphis)

• “Well, I think that it’d be better if it said, like, if they’re exposed to the smoke over a longer period of time, because you’re not going to die after you’ve been exposed to secondhand smoke once, more than likely.” (adolescent female smoker, Memphis)

Some adult participants thought that the statement was “too absolute” and the language should be changed to reflect that not everyone experiences this negative health effect.

• “They need to quit putting that this is going to happen to you...because it does not happen to every single person.” (younger adult, Memphis)

• “And it also is, it should say, ‘it may cause,’ or ‘it can cause,’ or ‘it could cause.’” (older adult, Portland)

Some adult participants said that this warning statement was not relevant to smokers because it was about someone else’s health and not their own. Some adult participants thought that it was targeted to nonsmokers to let them know it is not good to be around cigarette smoke.

• “Also, if you, if I was a nonsmoker, this would probably draw me into it because of that secondhand smoke...[if] I’m a nonsmoker [I think], ‘Oh, my God, I’m going to die if somebody sitting next to me smoking.”’ (younger adult, Baltimore)

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<tr>
<td>Top 3 attention-grabbing</td>
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<td>33.3%</td>
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### 3.3.8 Other Tobacco Control Act Statements

#### 3.3.8.1 Smoking Can Kill You

- Adult B
- 2 older adult groups; 2 younger adult groups

Some participants noted that this statement is something that is said all the time. Another common reaction to the statement, voiced by multiple participants, was that “anything can kill you.” One participant noted that the statement had “shock value” (older adult, Baltimore), and another thought that the word “kill” “just doesn’t set right with a lot of
people.” (younger adult, Memphis). Although participants did not argue that the statement wasn’t true, a few mentioned that it could be upsetting.

- "I don’t think anyone really wants to, I don’t guess, owning up to it, but any smoker doesn’t really like looking at this or want to see that or want to hear that. It can, I mean, I’m sure a lot of people read that and it kind of piss them off a little bit, kind of like a whatever.” (younger adult, Memphis)

An additional criticism of this statement was that it was not specific enough.

- "I don’t know, you can kind of brush it off a little bit. There’s not enough for me to hold onto there, like, yeah, like you’re right. Like this one here says, like, ‘It can kill you,’ like, you know, like, ‘Hey, it can kill you,’ but, like, it doesn’t do that, you know. It doesn’t tell me how. It doesn’t tell me why. It doesn’t tell me, like, you know, what are my options? Like, it’s just going to kill me kind of deal but, like, so people like to kind of brush it off and pretend, like...Nah. [Laughter]” (younger adult, Portland)

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### 3.3.8.2 Cigarettes Are Addictive

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<td>Adult A</td>
<td>2 older adult groups; 2 younger adult groups</td>
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Almost all participants understood this statement and said that it was believable. Participants were quick to share their personal stories with addiction and stated that their personal experiences made the statement easy to believe.

- “Out of all the bad news from it, you know, we’re still smoking.” (older adult, Memphis)

- "I think anybody who’s ever smoked for more than maybe a few weeks understands that.” (younger adult, Baltimore)

Some participants thought the statement might be more difficult for nonsmokers to understand. Some recalled when they did not yet understand the process of addiction.
• "No, I think they don’t understand it. They would have to try it first and see for themselves. They say, ‘Put it down, come on, just quit.’ It’s not that easy.” (younger adult, Baltimore)

A few participants in one group discussed their thoughts about the cause of addiction. Nicotine was mentioned as well as forming a “habit,” such as becoming accustomed to holding something in the hand or smoking after eating or smoking while driving.

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<td>Top 3 attention-grabbing</td>
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### 3.3.9 New Statements

#### 3.3.9.1 Smoking Causes Sexual Dysfunction in Men

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<td>2 older adult groups; 2 younger adult groups</td>
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<tr>
<td>Adolescent A</td>
<td>Adolescent male susceptible; adolescent male smoker</td>
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Most participants had not heard of smoking causing sexual dysfunction in men. Many participants did not believe this statement, citing that they had never heard of or experienced this health issue associated with smoking before.

• "I don’t think it’s believable." (older adult, Baltimore)

• "I’ve never heard it before.” (older adult, Memphis)

• "I’ve never experienced that.” (younger adult, Baltimore)

Some participants were unclear about what “sexual dysfunction” referred to. Some participants thought it referred to erectile dysfunction and others thought it referred to sterility. Some participants thought the statement made sense because smoking is related to blood flow restrictions.

• "I mean, I’m pretty sure that it has to do with, with the heart and like blood function.” (younger adult, Portland)

A few participants distinguished between sexual dysfunction as a long-term effect versus a short-term effect.
• "[It’s not believable] unless they’ve done studies over a long term, but I don’t think it’s a short-term." (older adult, Baltimore)

A few participants also noted that because there is treatment for sexual dysfunction, this statement and health issue is not as scary as others.

• "Even if this is true, even if this was 100% true, they have a fix for that, and it’s a little pill form. I mean, I’m just saying, I mean, I’ll notice that, like if you want to smoke a cigarette and you want to be sexual, you know there’s a pill." (older adult, Memphis)

• "Just in case, there’s always Cialis." (older adult, Baltimore)

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### 3.3.9.2 Smoking Causes Gangrene, Buerger’s Disease, and Diabetes, Which Can Lead to Amputation of Limbs

- **Lists**
  - Adult B
  - Adolescent B

- **Segments**
  - 2 older adult groups; 2 younger adult groups
  - Adolescent female susceptible; adolescent female smoker

None of the participants in any segment were able to accurately define Buerger’s disease. Only a few participants had heard of it.

• "I don’t know what it is. I’ve heard of it, but I don’t know. I know gangrene and I know diabetes but I don’t know Buerger’s disease." (older adult, Baltimore)

• "Buerger’s disease, what is that?" (younger adult, Baltimore)

• "I don’t know what the first two are." (adolescent female susceptible, Portland)

Some participants had not heard before that diabetes and gangrene are related to smoking. In some groups, participants did not understand how gangrene could be related to smoking.

• "What does, I’m just curious, what the heck would gangrene have to do with cigarettes?" (older adult, Portland)

• "Gangrene is a little extreme." (older adult, Portland)
One participant pointed out that “they’re all related…I’m not sure they’re all related to smoking.”

Many participants did not think the statement was believable. For some, the statement was not believable because they had never heard it before.

- "I don’t know of anybody that’s gotten gangrene from smoking.” (older adult, Baltimore)
- "Or diabetes from smoking, I’ve never heard that." (older adult, Baltimore)
- "I think it, I don’t understand how smoking has to do with any of that.” (adolescent female susceptible, Portland)
- "Like we were talking about the cancer thing, like, so many people will already have diabetes who don’t smoke, it doesn’t really make an impact because it’s like, 'well, I have a family history of diabetes, even if I don’t smoke, I’ll probably get it.’” (adolescent female susceptible, Portland)

Other participants were confused about the association between diabetes or gangrene and smoking because they knew each to be caused by other things than smoking.

- "I don’t know what it would take. I mean, if you have diabetes, I know that it makes it worse. I guess it can lead to it. I mean, but it’s not the number one cause of it. I know that.” (younger adult, Memphis)
- "My dad died of diabetes, and he never smoked, so I don’t believe it, either.” (younger adult, Memphis)

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<td>Top 3 attention-grabbing</td>
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<td>76.2%</td>
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### 3.3.9.3 Smoking Causes Diabetes

- Adult C  
  - 2 older adult groups; 2 younger adult groups
- Adolescent A  
  - Adolescent male susceptible; adolescent male smoker

Many participants had not heard before that smoking causes diabetes, and many did not think this statement was believable.
• “I never heard that.” (younger adult, Memphis)
• “I don’t believe this one.” (younger adult, Baltimore)

Some participants did not think the statement was believable because they had never heard it and had not seen proof. Some participants pointed out that diabetes is caused by other things besides smoking and that this statement seemed to contradict other information they knew about diabetes.

• “I have [heard this before], but I know there’s a lot more causes of diabetes other than smoking, and I know not every smoker contracts diabetes, so even though, you know, rewording it might be, might make it more believable.” (older adult, Memphis)

• “Like both my, my parents and my grandparents, they both have diabetes. I smoke. They don’t even smoke. I smoke and I don’t have diabetes.” (younger adult, Memphis)

• “Children get it all the time... pregnant women get it all the time.” (younger adult, Memphis)

• “Being overweight causes diabetes.” (older adult, Portland)

• “Just hearing the other causes of diabetes, usually from too many sweets or genetics, so smoking, it just doesn’t seem believable.” (adolescent male susceptible, Baltimore)

Some participants wanted to know how, or through what mechanism, diabetes is caused by smoking.

• “Yeah, I need more information and on, you know, how smoking could exactly cause that.” (younger adult, Baltimore)

• “If it would be like me being, like the third one, like where it actually breaks it down and tells you how it’s causing this, maybe then it’d be believable. It tells you how it’s happening.” (younger adult, Baltimore)

One participant thought the connection between smoking and diabetes could be related to circulation and blood flow to the pancreas, but was not sure.

• “If you stop circulation to a pancreas, it can stop functioning, as well, and that’s the only thing I can think of, blood restriction to your pancreas.” (older adult, Portland)

Some participants thought the statement would be more believable if it said “may cause” or “might be a contributing factor.”

• “It needs to say ‘may cause.’” (younger adult, Memphis)
### 3.3.9.4 Smoking Causes Blindness

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<td>Adult C</td>
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<tr>
<td>Adolescent B</td>
<td>Adolescent female susceptible; adolescent female smoker</td>
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Most participants had not heard that smoking causes blindness, and many were unsure about whether to believe the statement.

- "Because you hear, you know, like we know the facts of how, like, cigarettes can cause cancer and, like, what the cancers it can cause, but you don’t hear about it causing blindness, like most, more, most of the population has to wear glasses or contacts and are considered blind, like that’s not, it’s not going to register with you that smoking can cause it.” (adolescent female susceptible, Portland)

- "Right, I’d like to know how it causes, I’m not saying I don’t believe either of them, but I don’t believe them yet because I haven’t, there’s no evidence.” (younger adult, Baltimore)

Some participants did not believe the statement and thought it was an exaggeration.

- "It almost sounds too extreme.” (adolescent female susceptible, Portland)

- "Like it’s such a large leap from doing this to, ‘I can’t see,’ that it seems almost unrealistic.” (adolescent female susceptible, Portland)

Some participants said they would believe the statement if it was less absolute and used “may cause” or “can cause.”

- "And we’re back to the same thing of stating ‘it causes it.’ No, it doesn’t cause it. It may contribute to it. It may affect it but it doesn’t flat out cause it.” (older adult, Portland)

- "Honestly, if they have the same issue with every one that comes up, it’s too absolute. It doesn’t list smoking as one of the factors or a contributing factor a risk factor—it’s too absolute and too simplistic.” (older adult, Memphis)
### 3.4 Attitudes Toward Sources of Warning Messages

We asked FG participants who they thought these warning statements came from if they saw them on a cigarette pack. The entities that groups most often mentioned were “the government,” the Surgeon General, and the FDA (Table 3-1). In some groups, participants also mentioned “nonsmokers,” health departments, tobacco companies, and people who had experienced the specific health issue in the statement. Overall, there do not appear to be differences by age (i.e., adolescents, older adults, younger adults) or by city.

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<th>Table 3-1. Sources of Warning Messages</th>
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<tr>
<td>Entities Mentioned by FG Participants</td>
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<td>The government</td>
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<td>Tobacco companies</td>
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<td>“Somebody who had this problem,” “someone that had just gone through them”</td>
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Overall, the entities that participants said would be the most believable sources of information were doctors or other medical professionals or experts, the Surgeon General,
the tobacco industry, or smokers who had experienced the specific health problem included in the warning statement. The entities mentioned varied somewhat by segment.

Participants in all segments mentioned doctors or other medical experts as a source from which the warning statements would be believable. One participant thought that the statements would be especially believable if they came from a well-known doctor, such as Sanjay Gupta. Another participant in an older adult group thought that medical experts would be more believable because their statements would be their "professional opinion."

- "I feel like it would be better if it was coming from like the medical field." (adolescent female smoker, Memphis)
- "If it was a recognizable doctor, like if Ben Carson or Sanjay Gupta was on a commercial saying this, as opposed to just some random guy that no one knows.” (younger adult, Baltimore)

Adult participants, but not adolescent participants, also mentioned the Surgeon General as a believable source. A participant in an older adult group noted that the statements made by the Surgeon General are believable because "It’s got to go through a series of tests and checks and approvals" (older adult, Portland). Another participant expressed that the Surgeon General is a believable source because making statements such as these is part of what that job entails. Another participant noted that the Surgeon General does not get anything in return, so there is no conflict of interest.

- "I associate the Surgeon General as being someone who knows what they’re doing, hopefully, and is, has no agenda and is just trying to look out for us. If it came from the Surgeon General, I would, I would believe it.” (younger adult, Portland)
- "I mean, the Surgeon General’s not getting nothing. I don’t know who else.” (younger adult, Memphis)

In adolescent groups and older adult groups, but not younger adult groups, participants mentioned that they thought warning statements coming from a research center or other unbiased group would be most believable.

- “There’d have to be some type of research center for me.” (older adult, Memphis)
- "Like NIH and, you know, all, all these government oversight committees and stuff, they’re not going to be worried about, there’s not going to be any interference with, let’s say, the tobacco lobbying, you know, pay for influence from, you know, trying to create a market or increase a market.” (older adult, Portland)
- "Like a group that wasn’t directly associated with the tobacco company, but yeah, or a group that didn’t have any bias in the topic of tobacco.” (adolescent male smoker, Memphis)
• "Maybe like a group of experts on like tobacco." (adolescent male smoker, Memphis)

In older adult and younger adult groups, participants said that if the statements came from the tobacco industry, they would be very believable. Participants noted that the warning statements about the negative health effects of smoking and cigarettes are not in the best interest of the tobacco industry, so if the tobacco industry put those statements on cigarette packs, they must be true.

• "If it came from like other options, like if the cigarette companies, themselves, put it on there, like they decided to put it on there, I would have to believe it because like, like we all said, they’re not going to put these things in there if it doesn’t hold value or anything, you know, because that, that makes them lose profit." (younger adult, Portland)

In adolescent and younger adult groups, but not older adult groups, participants said that the warning statements would be more believable if they came from smokers who had experienced the negative health effect in the statement.

• "Anyone can say, ‘This study proved this,’ and but like when you see those commercials with the real person and a real experience, it’s a little more personal." (younger adult, Baltimore)

Participants in the younger adult groups, but not the older adult or adolescent groups, mentioned FDA as a source from which the warning statements would be more believable.

• "I think FDA is a good, recognizable one." (younger adult, Baltimore)

• “The FDA have a lot of rules and regulations, so they mostly just check every product that we all endure, whether if it’s a hair care product or whether it’s food or whether if it’s cigarettes, that’s, those are the people that’s supposed to be looking out for us little people, but I don’t know. It just necessarily depends.” (younger adult, Portland)

“The government” was mentioned as a source that participants said would not make the warning statements more believable, although it was not always clear from participants’ statements which governmental agency they were referring to. In one instance in an older adult group, FDA was mentioned.

In summary, all segments mentioned doctors or medical professionals as a source of information they would find believable. Older and younger adult groups, but not adolescent groups, mentioned the Surgeon General and the tobacco industry as a credible source of information. None of the adolescent groups brought up the Surgeon General, FDA, or the tobacco industry when asked from which entities the warning statements would be the most believable. As previously mentioned, adolescent groups responded that the statements would be more believable coming from smokers who had experienced the health effect,
doctors or other health professionals or experts, or other groups that are not biased regarding the topic of tobacco.
4. DISCUSSION AND LIMITATIONS

4.1 Discussion

A key finding from the FGs was that people do not typically pay attention to the current warning statements on cigarette packs. The current statements are mostly related to some of the health effects that participants commonly mentioned before viewing the specific statements (for smoking: lung, mouth or throat cancer, heart disease and lung disease or other respiratory problems; for secondhand smoke: lung disease, lung problems, and respiratory problems; asthma; heart disease; lung cancer; and birth defects or problems for the fetus).

One of the reasons participants said they do not pay attention to the current statements is the length of time that the statements have been used. For the most part, the statements no longer catch the attention of consumers. The FG data show that participants consider the statements that present new information to be the most attention-grabbing. For each list, there was a high correlation between the percentage of participants who said that a statement presented new information and the percentage of participants who noted that the same statement was one of the three statements that were most attention-grabbing. In fact, when the statements within any list are ranked in order by the percentage of participants who mention that the statement presents new information, for four out of the five lists (Adult B, Adult C, Adolescent A, Adolescent B; see Appendices K-N), the top three statements were the same as those ranked in the top three for grabbing their attention. For the fifth list (Adult A), the top two statements were the same in both rankings. This finding highlights the importance of presenting new information to consumers, however, the FG discussions also show that participants were less likely to believe statements relating to health effects that they had not heard of before or statements that were not similar to any current statements. Although new information is likely to be noticed, additional educational efforts may need to accompany some of these warnings when they are released if they are to be believed by consumers, particularly for health effects that are less commonly experienced.

Another reason participants cited for not noticing the current warnings is that they are small and contain only text. Although participants were not specifically asked, they made numerous statements indicating that larger, graphic warnings would be more effective at getting their attention and would be more believable.

A third reason participants cited for disregarding the current statements is that they are too general. This is consistent with the findings from the discussions of each of the statements presented in the FGs. Participants often stated that they wanted to know “how” smoking...
cigarettes or secondhand smoke was related to the health effect being presented. Participants had positive reactions to aspects of statements that showed a mechanism of effect. When presented with a relatively general statement, especially if the statement indicated direct causality (X causes Y), participants often stated that they wanted to have statistics or some other kind of evidence for the effect. In general, providing more details seems likely to increase participants’ perception that a statement is true, particularly for those statements that have to do with health effects that are not related to the lungs, such as bladder cancer, blindness, and sexual dysfunction.

The most prevalent finding across groups and statements was the negative reaction to statements of the type “X causes Y” (e.g. “cigarettes cause,” “smoking causes,” “tobacco smoke causes,” or “secondhand smoke causes” … [specific disease / health effect]). Participants referred to these statements as “blanket,” “absolute” or “definitive” statements. Participants often reasoned that these statements are not true because 1) other factors could also lead to the disease or health effect; and 2) participants have observed that not all smokers experience the disease or health effect. Participants often took personal experiences and anecdotal information into account when deciding whether they believed a statement. If their experience differed from their perception of the statement’s meaning, they often disbelieved the whole statement. Usually, participants suggested using “can cause,” “may cause,” or “increases the risk of” instead of “cause” or “causes.” In some FGs, at the request of FDA, the moderator probed for the acceptability of the wording “is a cause of,” which was also preferred over “cause” or “causes.” The challenge of concisely communicating population level risk information to individual consumers in a way that they will understand was highlighted by these FGs.

Related to the negative reaction to “X causes Y” statements, participants also expressed a desire for more information about the relationship between the amount and duration of smoking to the health effects. This is consistent with findings from the discussions about health effects of smoking that took place before participants viewed the specific statements. Participants believed that the likelihood of experiencing health effects from smoking depends on how much or how often people smoke, how long they have smoked and whether they quit. Participants also indicated that effects of secondhand smoke are related to how much smoke is inhaled. If statements do not take amount or duration of exposure into account, participants seem to be more likely to discount the statements.

Additional consumer education might also be needed with regard to the positive effects of quitting vs. the permanent effects of smoking on the body. Participants perceived contradictions between the mention of permanent health effects and the information they have seen and heard on commercials and in publications that discuss the benefits of quitting, as well as the statements that refer to the positive effects of quitting.
4.2 Limitations

As with all qualitative methods of research, it should be noted that results are not generalizable and therefore cannot be extended to wider populations. However, RTI took care to include a cross-section of participants from multiple racial groups, various ages and educational levels, and both genders.
Appendix A:
Adult Screener

RTI/FDA Tobacco Focus Groups—Adults
Screening Questionnaire
Cigarette Knowledge and Beliefs

Hello, this is ______________ from [FACILITY NAME], a local market research firm. May I please speak to ______________?

(Hello, this is ______________ from [FACILITY NAME], a local market research firm.) We are working with RTI International, a nonprofit research organization, and the Food and Drug Administration (FDA) on a research study about tobacco products, and would like to include your opinions. I want to assure you that we are not from a tobacco company or a company that sells quit-smoking aids.

We are holding a focus group discussion* on [DATE] with approximately 9 other people like you. The discussion group starts at [TIME] and will last no longer than 90 minutes. For study purposes, the group discussion will be audio recorded, and FDA project team members may observe the discussion via video streaming.

* If the respondent doesn’t know what a “focus group” is or needs clarification, say “a focus group is just another name for a group discussion. It involves a group of individuals who talk about a particular topic such as tobacco use.”

In appreciation for your participation, you will be reimbursed for your time, effort, and travel expenses. Participation in the group is completely voluntary and your responses will be kept private to the fullest extent allowed by law. Would it be OK if I ask you a few questions now in order to see if you are eligible to be in one of the groups?

☐ Yes – Continue.
☐ No – Thank and end call.

Q1. What is your current age? _______

☐ 18–20  Recruit for Younger Adult group
☐ 21–25  Recruit for Younger Adult group
☐ 26–29  Recruit for Younger Adult group
☐ 30–34  Recruit for Older Adult group
☐ 35–39  Recruit for Older Adult group
☐ 40–45  Recruit for Older Adult group
☐ 46–49  Recruit for Older Adult group
☐ 50–59  Recruit for Older Adult group
☐ 60–65  Recruit for Older Adult group
☐ Over 65  Recruit for Older Adult group
Q2. On a scale of 1-5, how comfortable are you understanding and speaking English? 1 is very uncomfortable and 5 is very comfortable. ______________

[TERMINATE if 3 or lower]

Q3. On a scale of 1-5, how comfortable are you talking in a group of people your age? 1 is very uncomfortable and 5 is very comfortable. ______________

[TERMINATE if 3 or lower]

Q4. Have you smoked at least 100 cigarettes in your entire life?

☐ Yes  Continue.
☐ No  Thank the respondent and terminate.

Q5. Which of the following describes how often you smoke cigarettes ...? (Read list.)

☐ Every day  Continue.
☐ Some days  Continue
☐ Not at all  Thank the respondent and terminate.

Q6. In the past 5 years, have you or any member of your household worked for any of the following? (Read list. If yes to any, thank the respondent and terminate.)

☐ A tobacco or cigarette company
☐ A public health or community organization involved in communicating the dangers of smoking or the benefits of quitting
☐ A marketing, advertising, or public relations agency or department
☐ The U.S. Food and Drug Administration (FDA)
☐ The National Institutes of Health (NIH)
☐ The Centers for Disease Control and Prevention (CDC)
☐ The Substance Abuse and Mental Health Services Administration (SAMHSA)
☐ The Centers for Medicare & Medicaid Services (CMS)
☐ The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)
☐ The Alcohol and Tobacco Tax and Trade Bureau (TTB)

Q7. Have you or any member of your household ever lobbied on behalf of the tobacco industry?

☐ Yes  Thank the respondent and terminate.
☐ No  Continue.

Q8. Have you or any member of your household personally represented or worked on behalf of a tobacco company in connection with a tobacco lawsuit?

☐ Yes  Thank the respondent and terminate.
☐ No  Continue.

Q9. Have you participated in any paid market research in the past 6 months?

☐ Yes  Thank the respondent and terminate.
☐ No  Continue.
Q10. What is your sex? *(Recruit equal numbers of males and females per group)*

- [ ] Male
- [ ] Female

Q11. What is the highest level of education that you have completed? *(Read list. Recruit a mix to show per group. No more than two postgraduates per group.)*

- [ ] Less than high school diploma  **Continue.**
- [ ] High school graduate or GED  **Continue.**
- [ ] Some college or 2-year degree  **Continue.**
- [ ] College degree  **Continue.**
- [ ] Postgraduate degree  **Continue.**

Q12. Are you Hispanic, Latino/a, or of Spanish origin?

- [ ] No, not of Hispanic, Latino/a, or Spanish origin  → Skip to Q14
- [ ] Yes

Q13. Choose all that apply.

- [ ] Mexican, Mexican American, Chicano/a
- [ ] Puerto Rican
- [ ] Cuban
- [ ] Another Hispanic, Latino/a, or Spanish origin

Q14. What is your race or ethnicity? Choose all that apply. *(Read list. Recruit a mix to show per group. Recruit no more than 75% Non-Hispanic Whites per group.)*

- [ ] White
- [ ] Black or African American
- [ ] American Indian or Alaska Native
- [ ] Asian Indian
- [ ] Chinese
- [ ] Filipino
- [ ] Japanese
- [ ] Korean
- [ ] Vietnamese
- [ ] Other Asian
- [ ] Native Hawaiian
- [ ] Guamanian or Chamorro
- [ ] Samoan
- [ ] Other Pacific Islander

Great! You qualify for our study. The focus group discussion will be held on [DATE] at [TIME] and will last no longer than 90 minutes. For your time and opinions, you will receive $75 at the end of the session.
Q15. Would you like to participate in the focus group discussion at [TIME] on [DATE]?

☐ Yes  Continue. Assign to appropriate group (see Q1)

☐ No  Thank the respondent and terminate.

Great! May I please have your mailing and/or e-mail address to send you a confirmation letter with directions? [Verify address and phone number.] We are asking for your contact information only for the purpose of sending you a reminder letter and giving you a call to remind you of the focus group discussion. We will destroy all contact information at the conclusion of the groups.

We are only inviting a few people, so it is very important that you notify us as soon as possible if for some reason you are unable to attend. Please call [recruiter] at [telephone number] if this should happen. We look forward to seeing you on [date] at [time]. If you normally wear corrective lenses, contacts, or glasses to read please remember to have them with you during the focus group.
**NOTE** THIS PAGE MUST BE STORED SEPARATELY FROM THE SCREENER AND FOCUS GROUP DATA. PLEASE DESTROY UPON COMPLETION OF FOCUS GROUP.

NAME: ___________________________________________________________

ADDRESS: ________________________________________________________

CITY: ____________________________________________________________

ZIP CODE: _________________________________________________________

E-MAIL: ___________________________________________________________

What is the best time to reach you? What is the best telephone number to reach you at that time?

BEST TIME TO BE REACHED: _________________________________________

BEST PHONE NUMBER: _____________________________________________

Is there another time and number we can try if we miss you?

ALTERNATE TIME: _________________________________________________

ALTERNATE PHONE NUMBER: _______________________________________

Thank you. That’s all the questions I have today. Please try to arrive at least 15 minutes before the starting time. If you have any questions or find that you are unable to attend, please call [facility’s phone number] as soon as possible. Thank you again for your time. We look forward to seeing you at [TIME] on [DATE].

**Read if necessary:**

If you have any questions about the study, you may contact Denise Dickinson of RTI at 1-800-334-8571, ext. 25594 (toll free). If you have concerns about how participants are being treated in the study, you may contact RTI’s Office of Research Protection toll-free at 1-866-214-2043.
Appendix B:  
Adolescent Screener  

OMB No. 0910-0674  
Exp 3/31/16  

Recruitment Script for Adolescents  
RTI/FDA Tobacco Focus Groups—Adolescents  
Screening Questionnaire  
Cigarette Knowledge and Beliefs  

Parent Introduction:  
Hello, this is ____________ from [FACILITY NAME], a local market research firm. May I please speak to Mr. Ms. ____________?  

(Hello, Mr./Ms. ____________ this is ____________ from [FACILITY NAME], a local market research firm. We are working with RTI International, a nonprofit research organization, and the Food and Drug Administration (FDA) on a research study about tobacco products. I want to assure you that we are not from a tobacco company or a company that sells quit-smoking aids. I would like to talk to you about a study we plan to conduct for the Food and Drug Administration. We are recruiting for an upcoming group discussion in which participants will be asked to discuss their knowledge and beliefs related to cigarettes. We believe it is particularly important to talk with teens about this issue. Can we speak to ____________ [teen’s name] to see if he/she is able to participate in the study? If he/she is able to participate, we will need you to sign a permission form prior to his/her participation in the study. If your child qualifies for the study, I will ask to speak to you again at the end of the call so that I can give you more information. Before I ask to speak with ____________ [teen’s name], I’d like you to ask [him/her] to go sit somewhere that’s quiet and private, where no one else can hear [his/her] answers.  

IF PARENT QUESTIONS THE NEED FOR PRIVACY, SAY:  
We have a rule that everyone who participates in our research is assured privacy to the fullest extent allowable by law, including children.
Adolescent Introduction:

Hello _______________________, my name is ___________________. I’m with [FACILITY NAME]. We’re working with RTI International, a nonprofit research organization, and the Food and Drug Administration (FDA) on a research study about tobacco products, and we’re interested in talking to teens about cigarette smoking.

We are holding a focus group discussion on [DATE] with approximately 9 other teens like you. The discussion group starts at [TIME] and will last no longer than 90 minutes. For study purposes, the group discussion will be audio recorded, and FDA project team members may observe the discussion via video-streaming. In appreciation for your participation, you will be reimbursed for your time, effort, and travel expenses. Participation in the group is completely voluntary, and your responses will be kept private to the extent allowable by law. Would it be OK if I ask you a few questions now in order to see if you are eligible to be in one of the groups? Your answers to these questions will also be kept private to the extent allowable by law.

[YES] Continue. Great! Please find a comfortable place where you like to sit, where it is quiet and you can talk by yourself and where you are the only person who can hear my questions and nobody else can hear your answers. Have you found a good place? (Do you want to take a minute to find a place where you can talk by yourself?)

[NO] THANK AND END CALL

Screening Questions

Q1. Before I start, how old are you?
   If < 16 → Thank and end call
   If >18 → administer Adult Screener
   If 16 → Continue
   If 17 → Will you turn 18 before [Date of group]?
      [YES] Thank and end call.
      [NO] Continue

Q2. On a scale of 1-5, how comfortable are you understanding and speaking English? 1 is very uncomfortable, 3 is somewhat comfortable, and 5 is very comfortable.

   [TERMINATE if 3 or lower]

Q3. On a scale of 1-5, how comfortable are you talking in a group of people your age? 1 is very uncomfortable and 5 is very comfortable. _______________

   [TERMINATE if 3 or lower]
Q4. Have you participated in a focus group discussion* or interview within the past 6 months?

[YES] Thank and end call.
[NO] Continue

* If the respondent doesn’t know what a “focus group” is or needs clarification, say “a focus group is just another name for a group discussion. It involves a group of individuals who talk about a particular topic such as tobacco use.”

Q5. Have you ever smoked a cigarette, even one puff?

[YES] Continue for CURRENT SMOKER GROUP
[NO] Continue for SUSCEPTIBLE → Skip to Q6

Q6. In the past 30 days, have you smoked a cigarette?

[YES] ASSIGN TO CURRENT SMOKER GROUP, → Skip to Q9
[NO] Continue

Q7. Do you think you will smoke a cigarette soon? (Select one.)

1. Definitely Not
2. Probably Not
3. Probably Yes
4. Definitely Yes

Q8. If one of your best friends offered you a cigarette, would you smoke it? (Select one.)

1. Definitely Not
2. Probably Not
3. Probably Yes
4. Definitely Yes

Q9. Do you think you will smoke a cigarette at any time in the next year? (Select one.)

1. Definitely Not
2. Probably Not
3. Probably Yes
4. Definitely Yes

IF Q7 = 1 and Q8 = 1 and Q9 = 1, NOT ELIGIBLE. TERMINATE.
Otherwise assign to SUSCEPTIBLE GROUP
Demographic Questions

Q10. Are you male or female?
   [□] Male  [ASSIGN TO MALE GROUP]  [□] Female  [ASSIGN TO FEMALE GROUP]

Q11. What grade are you in?
   [□] 7th grade
   [□] 8th grade
   [□] 9th grade
   [□] 10th grade
   [□] 11th grade
   [□] 12th grade
   [□] No longer attending school
   [□] Other _______________________

Q12. Are you Hispanic, Latino/a, or of Spanish origin?
   [□] No, not of Hispanic, Latino/a, or Spanish origin → Skip to Q14
   [□] Yes

Q13. Choose all that apply.
   [□] Mexican, Mexican American, Chicano/a
   [□] Puerto Rican
   [□] Cuban
   [□] Another Hispanic, Latino/a, or Spanish origin

Q14. What is your race or ethnicity? Choose all that apply.
   *(Read list. Recruit a mix to show per group.)*
   [□] White
   [□] Black or African American
   [□] American Indian or Alaska Native
   [□] Asian Indian
   [□] Chinese
   [□] Filipino
   [□] Japanese
   [□] Korean
   [□] Vietnamese
   [□] Other Asian
   [□] Native Hawaiian
   [□] Guamanian or Chamorro
   [□] Samoan
   [□] Other Pacific Islander
   [□] Other
From what you told me it looks like you are eligible to participate in the study. I would like to invite you to participate in a group discussion with about 9 other people your age. The discussion will last no more than 90 minutes, will be audio-taped, and observed by the study group. As I said earlier, your participation and everything you say during the discussion will remain private to the extent allowable by law. You will receive $40 or participating. Are you interested in participating in this study?

[YES] Continue
[NO] Thank and end call

Because you are under age 18, we will need a parent or guardian’s permission for you to be in the focus group. Will you be able to have a parent or a guardian sign a form giving you permission to attend?

[YES] Continue
[NO] Thank and end call

I’m glad that you will be able to join us! The focus group discussion will take place on [Day], [Date], at [Time.] at [site location].

Will you be available to participate at this time?

[YES] Continue
[NO] Thank and end call

You will need to bring the permission form I will send you with your parent or guardian’s signature when you come to the focus group. If you don’t have this permission form, you won’t be able to participate. I would also like to send you a confirmation letter and directions to the place where we will hold the focus group or group discussion. In order to do so, please verify your mailing address and phone number where you can be reached. We are asking for your contact information only for the purpose of sending you a reminder letter and giving you a call to remind you of the discussion group. We will destroy all contact information when we are finished with all the focus groups.

We are only inviting a few people, so it is very important that you let us know as soon as possible if for some reason you are unable to attend. Please call [recruiter] at [telephone number] if this should happen. We look forward to seeing you on [date] at [time]. If you normally wear corrective lenses, contacts, or glasses to read please remember to have them with you during the focus group.

**Parent Information for Adolescents Scheduled to Participate:**

Now, I would like to give your parent/guardian this information that I just gave you about the focus group or group discussion. I will not share your responses to the questions I asked you.
Instructions to the Parent/Guardian
Your child is eligible to participate in the focus group or group discussion and has been scheduled to participate on [DAY], [DATE] at [TIME]. Because your child is under 18, we must get written permission from you in order for him/her to participate. We will be sending you a permission form to review and sign if you consent to your child’s participation. If you will be accompanying your child to his/her session, please bring this completed form with you. If you are unable to accompany your child, he/she must bring the signed permission form with him/her in order to participate. Your child will be given $40 for his/her participation. If you accompany your child, you will receive $25.
Omb No. 0910-0674
Exp 3/31/16

**NOTE** THIS PAGE MUST BE STORED SEPARATELY FROM THE SCREENER AND FOCUS GROUP DATA. PLEASE DESTROY UPON COMPLETION OF FOCUS GROUP.

NAME: ________________________________________________________________

ADDRESS: _____________________________________________________________

CITY: _________________________________________________________________

ZIP CODE: _____________________________________________________________

E-MAIL: _______________________________________________________________

What is the best time to reach you? What is the best telephone number to reach you at that time?

BEST TIME TO BE REACHED: ______________________________________________

BEST PHONE NUMBER: ___________________________________________________

Is there another time and number we can try if we miss you?

ALTERNATE TIME: _______________________________________________________

ALTERNATE PHONE NUMBER: _____________________________________________

Thank you. That’s all the questions I have today. Please have your child arrive at least 15 minutes before the starting time. If you have any questions or find that your child is unable to attend, please call [facility’s phone number] as soon as possible. Thank you again for your time. We look forward to seeing your child at [TIME] on [DATE].

Read if necessary:
If you have any questions about the study, you may contact Denise Dickinson of RTI at 1-800-334-8571, ext. 25594 (toll free). If you have concerns about how participants are being treated in the study, you may contact RTI’s Office of Research Protection toll-free at 1-866-214-2043.
Appendix C:
Adult Informed Consent Form

OMB No. 0910-0674
Exp 3/31/16

Consent to Participate in Focus Group Qualitative Study on Cigarettes and Smoking

Paperwork Reduction Act Statement: The public reporting burden for this information collection has been estimated to average 5 minutes per response to complete the Consent statement (the time estimated to read, review, and complete). Send comments regarding this burden estimate or any other aspects of this information collection, including suggestions for reducing burden, to PRAStaff@fda.hhs.gov.

Introduction
You are being asked to participate in a research study. Before you decide if you want to take part in this study, you need to read this Informed Consent form so that you understand what the study is about and what you will be asked to do. This form also tells you who can be in the study, the risks and benefits of the study, how we will protect your information, and who you can call if you have questions. Please ask the researcher to explain anything you don’t understand before you make your decision. You will receive a copy of this consent form for your records.

Purpose
This research study is being conducted by RTI International for the U.S. Food and Drug Administration’s (FDA) Center for Tobacco Products (CTP). The purpose of today’s focus group is to get opinions and knowledge of cigarettes and smoking. You are one of approximately 192 participants who will take part in this study.

Procedures
If you agree to participate, you will be asked to participate in a focus group discussion with about 9 other people and answer some questions about your opinions and knowledge of cigarettes and smoking. Tonight’s discussion will be audio-taped and may be video-streamed (but not recorded). We will use the tapes to prepare a summary of each group’s discussion; however, your name will not be associated with your responses in any reports. At the completion of this study, the audio recordings will be destroyed. Additionally, staff members from FDA may be viewing tonight’s discussion in person (behind a one-way mirror) or remotely (via video-streaming).

Study Duration
Your participation in this study will take no longer than 90 minutes.

Possible Risks or Discomforts
There are minimal psychological, social, or legal risks to participating in this study. You will be asked to share your attitudes and opinions in a group setting; however, tonight’s topic is not sensitive in nature. Your participation is voluntary, and you can choose not to answer any of the questions.

Benefits
There are no direct benefits to you from participating in this study. Your opinions will help us improve our understanding of how people think about and use tobacco products.

Payment for Participation
You will receive $75 for your participation. This will be given to you at the end of the focus group session. You have the right to terminate your participation at any point, without
penalty. If you must leave or are asked to leave for any reason before the conclusion of the session, you will receive the full incentive amount.

**Privacy**
We will create transcripts of tonight’s discussion. To help protect your privacy, only your first name will be used during the group discussion and your identity will never be linked to what you say during the discussion. Any forms for the project that have your name or anything that could identify you will be kept in a locked file cabinet. Except for this consent form, these forms will be destroyed once the project ends. Upon completion of the study, we are required to store these transcripts for at least three years. Transcripts will be stored securely on a password-protected computer. Information from this study may be published in professional journals or presented at scientific conferences, but your privacy will be respected and no names will be used in any report or presentation.

The Institutional Review Board (IRB) at RTI International has reviewed this research. An IRB is a group of people who are responsible for assuring that the rights of participants in research are protected. The IRB may review the records of your participation in this research to assure that proper procedures were followed.

**Future Contacts**
We will not contact you in the future.

**Your Rights**
Your decision to take part in this research study is completely voluntary. You can refuse any part of the study and you can stop participating at any time. You can refuse to answer any question. If you decide to participate and later change your mind, you will not be contacted again or asked for further information.

**Your Questions**
You may ask questions or express concerns about this consent form, the study, your rights as a research subject, or report problems (e.g., any research–related injuries) at any time before, during or after the study. You may contact the research team through the Principal Investigator of the study, Denise Dickinson of RTI at (919) 485-5594. If you have concerns about how you are treated in the study, you may contact RTI’s Office of Research Protection toll-free at 1-866-214-2043.

**YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.**
Your signature below indicates that you have read the information provided above, have received answers to any questions you may have, and have freely decided to participate in this research. By agreeing to participate in this research, you are not giving up any of your legal rights.

<table>
<thead>
<tr>
<th>Date</th>
<th>Signature of Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Printed Name of Participant

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above-named individual.

<table>
<thead>
<tr>
<th>Date</th>
<th>Signature of Person Obtaining Consent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Printed Name of Person Obtaining Consent
Appendix D: Adolescent Assent Form

OMB No. 0910-0674
Exp: 3/31/16

Paperwork Reduction Act Statement: The public reporting burden for this information collection has been estimated to average 5 minutes per response to complete the Assent statement (the time estimated to read, review, and complete). Send comments regarding this burden estimate or any other aspects of this information collection, including suggestions for reducing burden, to PRAStaff@fda.hhs.gov.

Assent to Participate in Focus Group Qualitative Study on Cigarettes and Smoking

Introduction and Purpose
You have been asked to participate in a focus group as part of a research project. The purpose of the focus group is to better understand how young people feel and think about cigarettes and smoking.

RTI International, a non-profit research company in North Carolina will be doing the focus group. The research is sponsored by the Food and Drug Administration (FDA).

Procedures
During the focus group you will be joining a group of about 9 other people your age to talk with a member of the project team from RTI International. You will be asked for your opinions and knowledge of cigarettes and smoking. The focus group will last no more than 90 minutes.

We will be conducting focus groups around the country with young people for this study. You are one of approximately 192 participants who will take part in this study.

Some of the people working on the project may watch the focus group through a one-way mirror and take notes. It may also be video-streamed to other staff who couldn’t be here. The focus group will be audio recorded. All recordings will be destroyed at the end of the project.

Risk/Discomforts
There is no known physical risk to you from being in this study. Though unlikely, there is a small chance that you might feel embarrassed or upset by the things that are talked about during the focus group. You can say you do not want to talk about any topic for any reason. You can also stop being in the focus group at any time.

Benefits
There is no direct benefit to you for being in this study. What we learn from the study will help the FDA better understand how people think about tobacco and health.

Privacy
We will audio tape and may video-stream (but not record) the focus group. Notes will be made of the recordings. We will only use first names in the notes. Your comments will be kept private to the extent allowed by law. The audio recordings and notes will be kept on a
password-protected computer. Only certain project staff who have been trained on the
project will be able to see them. Any forms for the project that have your name or anything
that could identify you will be kept in a locked file cabinet. Except for this consent form,
these forms will be destroyed once the project ends. However, there is still a small chance
that your privacy could be broken. We will not share information with anyone outside of the
study unless it is necessary to protect you, or if it is required by law. **Information you
share about your tobacco-related attitudes, beliefs and behaviors will not be
shared with others, including your parents.**

**Future Contact**

We will not contact you in the future.

**Payment**

We will give you $40 for your time, effort and travel costs.

**Right to Refuse or Withdraw**

It is your choice to be in this study. You can choose not to talk about any topic. You can
stop your participation in the focus group at any time without penalty.

**Persons to Contact**

You may ask questions or express concerns about this assent form, the study, your rights
as a research subject, or report problems (e.g., any research–related injuries) at any time
before, during or after the study. You may contact the research team through the Principal
Investigator of the study, Denise Dickinson of RTI at (919) 485-5594. If you have concerns
about how you are treated in the study, you may contact RTI’s Office of Research Protection
toll-free at 1-866-214-2043.

**Your Assent**

I have read this assent form. I understand what I am being asked to do. My questions have
been answered and any words I did not understand have been explained to me. I agree to
be in this research study for the purposes listed above. I will receive a copy of this assent
form for my records.

---

**Print** your name here if you want to be in this study

**Sign** your name here if you want to be in this study  

Date

Name of Witness to Assent  

Assent (Print)  

Signature  

Date
Appendix E: Parent Permission Form

OMB No. 0910-0674
Exp: 3/31/16

Paperwork Reduction Act Statement: The public reporting burden for this information collection has been estimated to average 5 minutes per response to complete the Parental Permission Form (the time estimated to read, review, and complete). Send comments regarding this burden estimate or any other aspects of this information collection, including suggestions for reducing burden, to PRAStaff@fda.hhs.gov.

Parental Permission Form for Focus Group Qualitative Study on Cigarettes and Smoking

PURPOSE: Your child has been asked to participate in a focus group as part of a research project. The purpose of the focus group is to get information on how young people feel and think about cigarettes and smoking. RTI International, a non-profit research company in North Carolina, will be doing the focus group. The research is sponsored by the Food and Drug Administration (FDA).

PROCEDURES: If you agree to let your child participate in a focus group, your child will join about 9 others and be asked questions to help us understand what teens think and know about cigarettes and smoking. We will explain the procedures to your child and ensure he/she is comfortable before we begin. The focus group will take no more than 90 minutes. Each focus group will be audio-taped and may be video-streamed (but not recorded) to project staff members.

REQUIREMENTS FOR CONTINUED PARTICIPATION: Your child may end his/her participation or refuse to answer any questions at any time for any reason. There will be no consequences, and your child will still be paid. Additionally, if at any time the moderator feels it is not in your child’s best interest to continue, he/she will stop your child’s participation in the focus group.

RISKS/DISCOMFORTS: As part of the focus group, your child will be asked questions about perceptions, awareness, beliefs, and behaviors around tobacco products. Your child may feel uncomfortable being asked these questions. None of the questions are sensitive in nature. Participation is voluntary and your child can choose not to answer any of the questions.

BENEFITS: There are no direct benefits to you or your child for participating in this study. However, the results from this study will help FDA better understand how people think about tobacco products.

PRIVACY: Any forms for the project that have your name or your child’s name or anything that could identify you will be kept in a locked file cabinet. Except for this consent form and
your child’s assent form, these forms will be destroyed once the project ends. We will not collect any personal identifying information during the focus group. Neither your name nor your child’s name will be connected to his/her answers; therefore, no information provided during the focus group can be used to identify you or your child. We will not share information with anyone outside of the study unless it is necessary to protect you or your child, or if it is required by law. **Information your child shares about their tobacco-related attitudes, beliefs and behaviors will not be shared with others, including you.**

**CONSENT WITHDRAWL:** Your child’s participation in this study is completely voluntary. You may withdraw your consent and stop your child’s participation at any time. If you decline to allow your child to participate in this study, you and your child will not be affected in any way.

**PAYMENT:** Your child will receive $40 for his/her time and opinions plus $25 for a parent/guardian that accompanies them to the study facility.

By signing this form, you agree to allow your child to participate in our research study.

You may ask questions or express concerns about this permission form, the study, your child’s rights as a research subject, or report problems (e.g., any research-related injuries) at any time before, during or after the study. You may contact the research team through the Principal Investigator of the study, Denise Dickinson of RTI at (919) 485-5594. If you have concerns about how participants are being treated in the study, you may contact RTI’s Office of Research Protection toll-free at 1-866-214-2043. You will receive a copy of this (permission) form for your records.

<table>
<thead>
<tr>
<th>Parent or Guardian’s Printed Name</th>
<th>Date</th>
<th>Parent or Guardian’s Signature</th>
</tr>
</thead>
</table>
Qualitative Study on Cigarettes and Smoking: Knowledge, Beliefs, and Misperceptions about Cigarettes and Cigarette Smoking
Moderator Guide

Research Questions
1. What knowledge (accurate and misperceptions) do people possess with regard to cigarette smoking?
2. What information do people take away from the draft warning statements?
3. Do people think the draft warning statements are believable/realistic/factual?
4. Do people think that the draft warning statements will provide new information and/or knowledge to the public?
5. To whom should these statements be attributed so that they are the most believable/realistic/factual and attended to?

Introduction and Ground Rules [3 minutes]
MODERATOR: Welcome and thank you for participating in tonight’s discussion. My name is _______________. Tonight, I am interested in hearing your opinions about tobacco products. You have been asked to participate in tonight’s discussion [all groups except adolescent susceptible: because you have smoked cigarettes].

Before we begin, I want to go over a few ground rules for our discussion tonight, which will last about an hour.

- Your participation is voluntary and you have the right to not answer any question or withdraw from the study at any time.
- If at any time you are uncomfortable with my questions, you can choose not to answer. Just let me know that you prefer not to answer.
- Everything we discuss today will be kept private to the extent allowable by law. Your name and contact information, which only the study staff knows, will not be given to anyone else, and no one will contact you after this discussion is over.
- Tonight’s discussion will be audio-recorded. The recordings will help me write the final report and will be kept in a secure location and then destroyed at the end of the study. No names will be mentioned in the final report created from these interviews.
Behind me is a one-way mirror. Behind that are some of my colleagues. We are also videostreaming our group. They’re watching to make sure that I ask you all of the questions I have for you today. Near the end of our conversation, I’m going to go into the back and see if they have any last minute questions for you.

Most importantly, there are no right or wrong answers. I want to know your opinions. I do not work for the people sponsoring this research and I didn’t write the questions we’re going to look at, so don’t hold back on giving me your honest opinions.

I’m not a medical doctor or an expert on smoking or tobacco, so I can’t answer specific questions.

Please silence your cell phones.

Do you have any questions before we begin?

Warm-up [2 minutes]

What would you be doing if you weren’t here?

General Probes—Apply throughout:

Knowledge/information source: Where did you hear this?

If topic moves to other tobacco products—Remind participants that in this discussion we are asking them to only focus on cigarettes. “The only tobacco product we’ll be talking about today is cigarettes.”

Part I: Beliefs about the harms of smoking [12-15 Minutes]

1. I’d like to know what first comes to mind when you think of cigarettes, and, in particular, what concerns you have about cigarette smoking.

Probes:

- (if no health effects brought up by participants):
  - What have you heard about the health risks of cigarette smoking?

- (if health effect brought up, write effect on white board and probe:)
  - If “Cancer” is mentioned ask “What kind of cancer?”
  - If “Lung damage” or other general lung effects are brought up ask “What does that mean?”
  - Can you tell me more about that?
  - Is that something that is likely to happen to smokers or is it pretty rare?
  - (if they say they have heard something but don’t believe it) Why not?
  - Is that something that you think might happen to you (if you continued smoking (for susceptible youth: if you smoked?)
  - (Be sure to ask this for EVERY health effect mentioned): Is that for people who smoke cigarettes or from being exposed to secondhand smoke or both?
• If someone gets that, what would happen to them? (trying to get physical consequences...death, having to be on oxygen, etc....)
  – (to probe for additional health effects not mentioned by participants): What other things have you heard about the health risks of cigarette smoking? (ask all probes in red text above for each new health effect mentioned)

2. Which of these health effects do you hear about most often? Which of these health effects do you hear most often for secondhand exposure to cigarette smoking? Which of these do you not hear about much? Are any of the risks/harmful effects that we discussed things that you haven’t heard before today?

**Part II: Reactions to Warning Statements [40-45 Minutes]**

*Transition: Now that we’ve talked about what you know about the health effects of smoking we’re going to focus on warnings on cigarette packs and ads*

1. What comes to mind when you think about warnings on cigarette packs or ads?

2. How much do you notice (or pay attention to) warnings on cigarette packs or ads?

   Probes:
   
   – (if they bring up the Surgeon General) Who is the Surgeon General [interested in the job/duties/responsibilities, not the SG’s name]/What do they do? Do you trust information from the Surgeon General?

Now we’re going to show you some warnings that could appear on cigarette packs or ads and ask for your reactions to them.

* [Show warnings one at a time, repeat items for each warning statement]*

3. What do you think this statement means in your own words?

4. Is there anything unclear/confusing about it?

   Probes:

   – Would explaining how this (outcome) happens make it clearer?

5. How believable is this statement? (why/why not?)

   – If you saw this warning on a pack of cigarettes, would you believe it?

   – If participant says “not everyone who smokes gets Y,” or suggests saying “Smoking can cause Y” instead, ask if it would be better/more acceptable/believable if it were rephrased as "X is a cause of Y."

6. Does this apply to you? (why/why not?)

   [Show all warnings on the board in front of the group]
7. If you saw any of these statements on cigarette packs, who would you think put them there? Who should these warnings come from to be the most believable? Would you trust the information more or less if it came from...

Probes:
- Surgeon General
- Food and Drug Administration (FDA)
- Department of Health and Human Services
- Medical/Public Health Experts
- Federal Government

8. We’ve heard that some of this information is new to a lot of people. We’re interested in knowing which statements we talked about taught you something new about cigarettes or smoking that you didn’t know before you came here today. Please take a minute to use the sheet we gave you called “New Information” and place a check mark in the box next to the statements that taught you something new about cigarettes or smoking.

[wait for participants to finish] [NOTE: they should answer based on whether they had heard this information before they came today, regardless of whether they think the information is real/accurate]

Now we’ll quickly talk about each statement. For statement # [1], what did you learn that you did not know before you came here? [repeat for all statements]

Probe:
- Was there any part of the statement that was different from something you already knew?
- Do you think the information in this statement is well known (do you think many other people know this)?

[if time permits]
I’m going to step out of the room for a minute to see if my colleagues have any additional questions for you. In the meantime, I’m going to pass out a handout with all of the statements that we talked about today. The statements are the same ones that are up on the board. While I am out of the room, please put an X in the boxes next to the 3 statements that grabbed your attention the most. On the line under each of those three statements, please write a brief reason why that statement got your attention.

**False Close [3 minutes]**

[Check back room for any additional or follow-up questions]

Before we wrap up, I’d like to quickly hear from you about which statements grabbed your attention the most.” When participants name the statements, the moderator will ask participants to say what features of the chosen statements were attention-grabbing.
Conclusion and Debrief [2 minutes]

I would like to thank you for coming here today and participating in this discussion. This research was sponsored by the Food and Drug Administration also known as the FDA. FDA would like to thank you for sharing your opinions as they will be very useful in helping them to understand people’s reactions and thoughts about the tobacco products we have talked about.

The FDA wants you to know that there is no safe tobacco product, including the products we talked about today. If you want to get more information on tobacco products or talk to someone if you’re thinking about quitting, call 1-800-QUIT-NOW or visit [http://smokefree.gov](http://smokefree.gov).
## Appendix G: Lists of Statements and Segments

(all statements were seen by 2 older adult FGs and 2 younger adult FGs)

<table>
<thead>
<tr>
<th>Adult Code</th>
<th>Adolescent Code</th>
<th>Statements</th>
<th>Content Theme/Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult B1</td>
<td>Adol B1</td>
<td>Cigarettes cause cancer.</td>
<td>adolescent females Cancer</td>
</tr>
<tr>
<td>Adult B2</td>
<td>Adol B2</td>
<td>Smoking causes many forms of cancer such as lung, liver, stomach, oral, cervical, pancreatic, kidney, colorectal, bone marrow, blood, and bladder cancer</td>
<td>adolescent females Cancer</td>
</tr>
<tr>
<td>Adult B3</td>
<td>Adol B3</td>
<td>Smoking causes bladder cancer, which can lead to painful and frequent urination</td>
<td>adolescent females Cancer</td>
</tr>
<tr>
<td>Adult C1</td>
<td>Adol B4</td>
<td>Cigarettes cause strokes and heart disease</td>
<td>adolescent females Heart disease/stroke</td>
</tr>
<tr>
<td>Adult C2</td>
<td>Adol B5</td>
<td>Smoking causes heart attacks and strokes by clogging your arteries</td>
<td>adolescent females Heart disease/stroke</td>
</tr>
<tr>
<td>Adult C3</td>
<td>—</td>
<td>Smoking causes blood vessels to weaken causing severe bleeding and death from ruptured blood vessels</td>
<td>Heart disease/stroke</td>
</tr>
<tr>
<td>Adult A1</td>
<td>Adol A1</td>
<td>Cigarettes cause fatal lung disease</td>
<td>adolescent males Lung disease</td>
</tr>
<tr>
<td>Adult A2</td>
<td>—</td>
<td>Smoking causes death from lung diseases such as emphysema and chronic bronchitis</td>
<td>Lung disease</td>
</tr>
<tr>
<td>Adult A3</td>
<td>Adol A2</td>
<td>Smoking permanently damages your airways and lungs</td>
<td>adolescent males Lung disease</td>
</tr>
<tr>
<td>Adult A4</td>
<td>Adol A3</td>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td>adolescent males Lung disease</td>
</tr>
<tr>
<td>Adult A9</td>
<td>Adol A6</td>
<td>Smoking causes sexual dysfunction in men</td>
<td>adolescent males New statements</td>
</tr>
<tr>
<td>Adult B8</td>
<td>Adol A7</td>
<td>Smoking causes gangrene, Buerger’s disease, and diabetes, which can lead to amputation of limbs</td>
<td>adolescent females New statements</td>
</tr>
<tr>
<td>Adult C8</td>
<td>Adol A7</td>
<td>Smoking causes diabetes</td>
<td>adolescent males New statements</td>
</tr>
<tr>
<td>Adult C9</td>
<td>Adol B7</td>
<td>Smoking causes blindness</td>
<td>adolescent females New statements</td>
</tr>
<tr>
<td>Adult A8</td>
<td>—</td>
<td>Cigarettes are addictive</td>
<td>Other TCA statements</td>
</tr>
<tr>
<td>Adult Code</td>
<td>Adolescent Code</td>
<td>Statements</td>
<td>Adolescent Segments</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Adult B7</td>
<td>—</td>
<td>Smoking can kill you</td>
<td>Other TCA statements</td>
</tr>
<tr>
<td>Adult B4</td>
<td>—</td>
<td>Smoking during pregnancy can harm your baby</td>
<td>Pregnancy/harms to fetus</td>
</tr>
<tr>
<td>Adult B5</td>
<td>—</td>
<td>Smoking during pregnancy can stunt your baby’s growth</td>
<td>Pregnancy/harms to fetus</td>
</tr>
<tr>
<td>Adult B6</td>
<td>—</td>
<td>Smoking during pregnancy can lead to deformities in your baby</td>
<td>Pregnancy/harms to fetus</td>
</tr>
<tr>
<td>Adult C4</td>
<td>Adol A4</td>
<td>Quitting smoking now greatly reduces serious risks to your health</td>
<td>adolescent males</td>
</tr>
<tr>
<td>Adult C5</td>
<td>Adol A5</td>
<td>Quitting smoking now reduces risk of dying from cancer and heart disease</td>
<td>adolescent males</td>
</tr>
<tr>
<td>Adult C6</td>
<td>Adol A8</td>
<td>Tobacco smoke causes fatal lung disease in nonsmokers</td>
<td>adolescent males</td>
</tr>
<tr>
<td>Adult C7</td>
<td>Adol B8</td>
<td>Secondhand smoke causes death in nonsmokers</td>
<td>adolescent females</td>
</tr>
<tr>
<td>Adult A5</td>
<td>—</td>
<td>Tobacco smoke can harm your children</td>
<td></td>
</tr>
<tr>
<td>Adult A6</td>
<td>—</td>
<td>Secondhand smoke causes respiratory illness in children</td>
<td></td>
</tr>
<tr>
<td>Adult A7</td>
<td>—</td>
<td>Secondhand smoke causes pneumonia and other lung infections in children</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Sample New Information Worksheet

OMB No. 0910-0674

Qualitative Study on Cigarettes and Smoking
“New Information” Worksheet
Adults—List A

Please place a check mark in the box next to the statements that taught you something new about cigarettes or smoking.

☐ Cigarettes cause fatal lung disease

☐ Smoking causes death from lung diseases such as emphysema and chronic bronchitis

☐ Smoking permanently damages your airways and lungs

☐ Smoking causes COPD, a serious lung disease, and permanently scars lung tissue

☐ Tobacco smoke can harm your children

☐ Secondhand smoke causes respiratory illness in children

☐ Secondhand smoke causes pneumonia and other lung infections in children

☐ Cigarettes are addictive

☐ Smoking causes sexual dysfunction in men
Qualitative Study on Cigarettes and Smoking
"Top 3 Attention-Grabbing Statements" Worksheet
Adults—List A

Please put an X in the boxes next to the **3 statements that grabbed your attention the most**. On the line under each of those three statements, please write a brief reason why that statement got your attention.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes cause fatal lung disease</td>
<td></td>
</tr>
<tr>
<td>Smoking causes death from lung diseases such as emphysema and chronic bronchitis</td>
<td></td>
</tr>
<tr>
<td>Smoking permanently damages your airways and lungs</td>
<td></td>
</tr>
<tr>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td></td>
</tr>
<tr>
<td>Tobacco smoke can harm your children</td>
<td></td>
</tr>
<tr>
<td>Secondhand smoke causes respiratory illness in children</td>
<td></td>
</tr>
<tr>
<td>Secondhand smoke causes pneumonia and other lung infections in children</td>
<td></td>
</tr>
<tr>
<td>Cigarettes are addictive</td>
<td></td>
</tr>
<tr>
<td>Smoking causes sexual dysfunction in men</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix J: Participant Characteristics by City

<table>
<thead>
<tr>
<th>City</th>
<th>Overall</th>
<th>Baltimore</th>
<th>Portland</th>
<th>Memphis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
<td>100%</td>
<td>43</td>
<td>29.5%</td>
</tr>
<tr>
<td>Age Cohort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older Adult</td>
<td>57</td>
<td>39.0%</td>
<td>17</td>
<td>39.5%</td>
</tr>
<tr>
<td></td>
<td>Older Adult Average Age (SD)</td>
<td>57</td>
<td>46.5 (12.89)</td>
<td>17</td>
</tr>
<tr>
<td>Younger Adult</td>
<td>50</td>
<td>34.2%</td>
<td>16</td>
<td>37.2%</td>
</tr>
<tr>
<td></td>
<td>Younger Adult Average Age (SD)</td>
<td>50</td>
<td>25.4 (2.85)</td>
<td>16</td>
</tr>
<tr>
<td>Overall Adult</td>
<td>107</td>
<td>36.7 (14.28)</td>
<td>107</td>
<td>37.0 (16.32)</td>
</tr>
<tr>
<td>Adolescents</td>
<td>39</td>
<td>26.7%</td>
<td>10</td>
<td>23.3%</td>
</tr>
<tr>
<td></td>
<td>Adolescent Average Age (SD)</td>
<td>39</td>
<td>16.4 (.50)</td>
<td>107</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>69</td>
<td>47.3%</td>
<td>12</td>
<td>27.9%</td>
</tr>
<tr>
<td>Male</td>
<td>77</td>
<td>52.7%</td>
<td>31</td>
<td>72.1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>137</td>
<td>93.8%</td>
<td>41</td>
<td>95.3%</td>
</tr>
<tr>
<td>Yes, Mexican, Mexican American, Chicano/a</td>
<td>4</td>
<td>2.7%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Yes, Puerto Rican</td>
<td>3</td>
<td>2.1%</td>
<td>2</td>
<td>4.7%</td>
</tr>
<tr>
<td>Yes, Another Hispanic, Latino/a, or Spanish origin</td>
<td>2</td>
<td>1.4%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82</td>
<td>56.2%</td>
<td>30</td>
<td>69.8%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>45</td>
<td>30.8%</td>
<td>10</td>
<td>23.3%</td>
</tr>
<tr>
<td>Korean</td>
<td>1</td>
<td>0.7%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>1</td>
<td>0.7%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Samoan</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>6.8%</td>
<td>3</td>
<td>7.0%</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>Baltimore</td>
<td>Portland</td>
<td>Memphis</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>More than 1 race</td>
<td>7</td>
<td>4.8%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>5</td>
<td>4.7%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>High school graduate or GED</td>
<td>25</td>
<td>23.4%</td>
<td>7</td>
<td>21.2%</td>
</tr>
<tr>
<td>Some college or 2-year degree</td>
<td>46</td>
<td>43.0%</td>
<td>14</td>
<td>42.4%</td>
</tr>
<tr>
<td>College degree</td>
<td>25</td>
<td>23.4%</td>
<td>8</td>
<td>24.2%</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>6</td>
<td>5.6%</td>
<td>4</td>
<td>12.1%</td>
</tr>
</tbody>
</table>
## Appendix K: New Information Worksheet Data—Adults

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List A</strong> (n=38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes sexual dysfunction in men</td>
<td>26</td>
<td>68.4%</td>
</tr>
<tr>
<td>Secondhand smoke causes pneumonia and other lung infections in children</td>
<td>13</td>
<td>34.2%</td>
</tr>
<tr>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td>4</td>
<td>10.5%</td>
</tr>
<tr>
<td>Smoking permanently damages your airways and lungs</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Secondhand smoke causes respiratory illness in children</td>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>Smoking causes death from lung diseases such as emphysema and chronic bronchitis</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Tobacco smoke can harm your children</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Cigarettes cause fatal lung disease</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cigarettes are addictive</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>List B</strong> (n=31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes gangrene, Buerger’s disease, and diabetes, which can lead to amputation of limbs</td>
<td>29</td>
<td>93.5%</td>
</tr>
<tr>
<td>Smoking causes bladder cancer, which can lead to painful and frequent urination</td>
<td>27</td>
<td>87.1%</td>
</tr>
<tr>
<td>Smoking causes many forms of cancer such as lung, liver, stomach, oral, cervical, pancreatic, kidney, colorectal, bone marrow, blood, and bladder cancer</td>
<td>18</td>
<td>58.1%</td>
</tr>
<tr>
<td>Smoking during pregnancy can lead to deformities in your baby</td>
<td>5</td>
<td>16.1%</td>
</tr>
<tr>
<td>Cigarettes cause cancer</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Smoking during pregnancy can harm your baby</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Smoking during pregnancy can stunt your baby’s growth</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Smoking can kill you</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>List C</strong> (n=38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes diabetes</td>
<td>36</td>
<td>94.7%</td>
</tr>
<tr>
<td>Smoking causes blindness</td>
<td>31</td>
<td>81.6%</td>
</tr>
<tr>
<td>Smoking causes blood vessels to weaken causing severe bleeding and death from ruptured blood vessels</td>
<td>24</td>
<td>63.2%</td>
</tr>
<tr>
<td>Secondhand smoke causes death in nonsmokers</td>
<td>13</td>
<td>34.2%</td>
</tr>
<tr>
<td>Tobacco smoke causes fatal lung disease in nonsmokers</td>
<td>11</td>
<td>28.9%</td>
</tr>
<tr>
<td>Smoking causes heart attacks and strokes by clogging your arteries</td>
<td>10</td>
<td>26.3%</td>
</tr>
<tr>
<td>Cigarettes cause strokes and heart disease</td>
<td>4</td>
<td>10.5%</td>
</tr>
<tr>
<td>Quitting smoking now greatly reduces serious risks to your health</td>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>Quitting smoking now reduces risk of dying from cancer and heart disease</td>
<td>2</td>
<td>5.3%</td>
</tr>
</tbody>
</table>
## Appendix L:
### New Information Worksheet Data—Adolescents

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>List A</strong> <em>(n=18)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes sexual dysfunction in men</td>
<td>15</td>
<td>83.3%</td>
</tr>
<tr>
<td>Smoking causes diabetes</td>
<td>14</td>
<td>77.8%</td>
</tr>
<tr>
<td>Tobacco smoke causes fatal lung disease in nonsmokers</td>
<td>10</td>
<td>55.6%</td>
</tr>
<tr>
<td>Quitting smoking now reduces risk of dying from cancer and heart disease</td>
<td>5</td>
<td>27.8%</td>
</tr>
<tr>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td>4</td>
<td>22.2%</td>
</tr>
<tr>
<td>Quitting smoking now greatly reduces serious risks to your health</td>
<td>3</td>
<td>16.7%</td>
</tr>
<tr>
<td>Smoking permanently damages your airways and lungs</td>
<td>2</td>
<td>11.1%</td>
</tr>
<tr>
<td>Cigarettes cause fatal lung disease</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>List B</strong> <em>(n=21)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes blindness</td>
<td>20</td>
<td>95.2%</td>
</tr>
<tr>
<td>Smoking causes gangrene, Buerger’s disease, and diabetes, which can lead to amputation of limbs.</td>
<td>19</td>
<td>90.5%</td>
</tr>
<tr>
<td>Smoking causes bladder cancer which can lead to painful and frequent urination</td>
<td>17</td>
<td>81.0%</td>
</tr>
<tr>
<td>Smoking causes many forms of cancer such as lung, liver, stomach, oral, cervical, pancreatic, kidney, colorectal, bone marrow, blood, and bladder cancer</td>
<td>16</td>
<td>76.2%</td>
</tr>
<tr>
<td>Smoking causes heart attacks and strokes by clogging your arteries</td>
<td>7</td>
<td>33.3%</td>
</tr>
<tr>
<td>Cigarettes cause strokes and heart disease</td>
<td>3</td>
<td>14.3%</td>
</tr>
<tr>
<td>Secondhand smoke causes death in non-smokers</td>
<td>2</td>
<td>9.5%</td>
</tr>
<tr>
<td>Cigarettes cause cancer</td>
<td>1</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Appendix M: Attention-grabbing Worksheet Data—Adults

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List A</strong> <em>(n = 27)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes sexual dysfunction in men</td>
<td>18</td>
<td>47.4%</td>
</tr>
<tr>
<td>Secondhand smoke causes pneumonia and other lung infections in children</td>
<td>13</td>
<td>34.2%</td>
</tr>
<tr>
<td>Tobacco smoke can harm your children</td>
<td>8</td>
<td>21.1%</td>
</tr>
<tr>
<td>Smoking permanently damages your airways and lungs</td>
<td>7</td>
<td>18.4%</td>
</tr>
<tr>
<td>Secondhand smoke causes respiratory illness in children</td>
<td>7</td>
<td>18.4%</td>
</tr>
<tr>
<td>Cigarettes cause fatal lung disease</td>
<td>6</td>
<td>15.8%</td>
</tr>
<tr>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td>6</td>
<td>15.8%</td>
</tr>
<tr>
<td>Cigarettes are addictive</td>
<td>5</td>
<td>13.2%</td>
</tr>
<tr>
<td>Smoking causes death from lung diseases such as emphysema and chronic bronchitis</td>
<td>4</td>
<td>10.5%</td>
</tr>
<tr>
<td><strong>List B</strong> <em>(n=31)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes gangrene, Buerger’s disease, and diabetes, which can lead to amputation of limbs</td>
<td>22</td>
<td>71.0%</td>
</tr>
<tr>
<td>Smoking causes many forms of cancer such as lung, liver, stomach, oral, cervical, pancreatic, kidney, colorectal, bone marrow, blood, and bladder cancer</td>
<td>21</td>
<td>67.7%</td>
</tr>
<tr>
<td>Smoking causes bladder cancer, which can lead to painful and frequent urination</td>
<td>17</td>
<td>54.8%</td>
</tr>
<tr>
<td>Smoking during pregnancy can lead to deformities in your baby</td>
<td>11</td>
<td>35.5%</td>
</tr>
<tr>
<td>Smoking can kill you</td>
<td>8</td>
<td>25.8%</td>
</tr>
<tr>
<td>Cigarettes cause cancer</td>
<td>4</td>
<td>12.9%</td>
</tr>
<tr>
<td>Smoking during pregnancy can harm your baby</td>
<td>4</td>
<td>12.9%</td>
</tr>
<tr>
<td>Smoking during pregnancy can stunt your baby’s growth</td>
<td>2</td>
<td>6.5%</td>
</tr>
<tr>
<td><strong>List C</strong> <em>(n=38)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes blood vessels to weaken causing severe bleeding and death from ruptured blood vessels</td>
<td>21</td>
<td>55.3%</td>
</tr>
<tr>
<td>Smoking causes diabetes</td>
<td>20</td>
<td>52.6%</td>
</tr>
<tr>
<td>Smoking causes blindness</td>
<td>17</td>
<td>44.7%</td>
</tr>
<tr>
<td>Smoking causes heart attacks and strokes by clogging your arteries</td>
<td>15</td>
<td>39.5%</td>
</tr>
<tr>
<td>Quitting smoking now greatly reduces serious risks to your health</td>
<td>10</td>
<td>26.3%</td>
</tr>
<tr>
<td>Quitting smoking now reduces risk of dying from cancer and heart disease</td>
<td>10</td>
<td>26.3%</td>
</tr>
<tr>
<td>Tobacco smoke causes fatal lung disease in nonsmokers</td>
<td>9</td>
<td>23.7%</td>
</tr>
<tr>
<td>Secondhand smoke causes death in nonsmokers</td>
<td>7</td>
<td>18.4%</td>
</tr>
<tr>
<td>Cigarettes cause strokes and heart disease</td>
<td>5</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

*One group in Portland was not given this worksheet due to lack of time.*
### Appendix N:
Attention-grabbing Worksheet Data—Adolescents

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List A (n=18)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes sexual dysfunction in men</td>
<td>17</td>
<td>94.4%</td>
</tr>
<tr>
<td>Smoking causes diabetes</td>
<td>12</td>
<td>66.7%</td>
</tr>
<tr>
<td>Tobacco smoke causes fatal lung disease in nonsmokers</td>
<td>9</td>
<td>50.0%</td>
</tr>
<tr>
<td>Smoking permanently damages your airways and lungs</td>
<td>7</td>
<td>38.9%</td>
</tr>
<tr>
<td>Smoking causes COPD, a serious lung disease, and permanently scars lung tissue</td>
<td>5</td>
<td>27.8%</td>
</tr>
<tr>
<td>Cigarettes cause fatal lung disease</td>
<td>2</td>
<td>11.1%</td>
</tr>
<tr>
<td>Quitting smoking now greatly reduces serious risks to your health</td>
<td>2</td>
<td>11.1%</td>
</tr>
<tr>
<td>Quitting smoking now reduces risk of dying from cancer and heart disease</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>List B (n=21)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking causes gangrene, Buerger’s disease, and diabetes, which can lead to amputation of limbs.</td>
<td>16</td>
<td>76.2%</td>
</tr>
<tr>
<td>Smoking causes blindness</td>
<td>15</td>
<td>71.4%</td>
</tr>
<tr>
<td>Smoking causes bladder cancer which can lead to painful and frequent urination</td>
<td>14</td>
<td>66.7%</td>
</tr>
<tr>
<td>Smoking causes many forms of cancer such as lung, liver, stomach, oral, cervical, pancreatic, kidney, colorectal, bone marrow, blood, and bladder cancer</td>
<td>11</td>
<td>52.4%</td>
</tr>
<tr>
<td>Secondhand smoke causes death in non-smokers</td>
<td>7</td>
<td>33.3%</td>
</tr>
<tr>
<td>Cigarettes cause strokes and heart disease</td>
<td>3</td>
<td>14.3%</td>
</tr>
<tr>
<td>Smoking causes heart attacks and strokes by clogging your arteries</td>
<td>2</td>
<td>9.5%</td>
</tr>
<tr>
<td>Cigarettes cause cancer</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>