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## “The Packaging is Very Inviting and Makes Smokers Feel Like They’re More Safe:” The meanings of Natural American Spirit cigarette pack design to adult smokers

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### Abstract

**Background/Aims**—The aim of this investigation was to identify which design elements on Natural American Spirit packs are salient to (i.e., noticed by) U.S. adult smokers and what meanings smokers derive from these elements.

**Methods**—We conducted a secondary analysis of qualitative data from a study of cigarette packaging design. U.S. adult smokers (n=33) from all nine census regions participated in six telephone-based focus groups in March 2017. We used constant comparison analysis to identify key themes.

**Results**—Four themes were identified, two focused on salient design elements and two focused on design element meanings. The themes of “bright and flashy color” and “the American Indian logo” were identified as key design elements, while the themes of “healthy and safer” and “targeting at-risk smokers” were identified as meanings smokers derived from design elements.

**Conclusions**—Pack design elements influence smokers’ perceptions about reduced health risk of Natural American Spirit cigarettes and may be especially dangerous to vulnerable populations, including young adults and American Indians. Findings from this study suggest that the banning of text descriptors may not be enough to address misconceptions about “healthier” cigarettes.

### Keywords

marketing; perceptions; smoking

### Introduction

Although the prevalence of cigarette smoking in the U.S. has declined over the past few decades, there are still approximately 36 million smokers (Jamal et al., 2018). In an effort to

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decrease negative perceptions of cigarettes, some tobacco companies market their cigarettes as a “natural,” “organic,” or more “environmentally friendly” alternative to other brands (McDaniel & Malone, 2007). A popular brand that relies on these marketing tactics is Natural American Spirit™ (NAS), produced by Santa Fe Natural Tobacco Company (SFNTC). SFNTC is owned by Reynolds American, a subsidiary of British American Tobacco.

With its national market share increasing and a higher cost compared to leading brands (Sharma et al., 2016), NAS uses images and the text “natural” and “organic” to create a “health halo” effect (Epperson, Prochaska, & Henriksen, 2017). Researchers have found that even when NAS advertisements were accompanied by mandatory health warning statements, both adolescent and adult nonsmokers, as well as smokers were more likely to report beliefs that NAS was “healthier” than brand alternatives (Byron et al., 2016). Industry documents confirm that the tobacco industry has found similar results in their own research on cigarettes marketed as “natural” (McDaniel & Malone, 2007). In the Population Assessment of Tobacco and Health (PATH) Study, smokers overwhelmingly reported that they believed NAS cigarettes were less harmful to their health compared to other brands (Pearson et al., 2017). However, research has shown that NAS or other cigarettes marketed as natural are not less harmful to health compared to other brands; rather, NAS cigarettes fare worse than other mainstream brands on some indicators of toxicity (Pappas et al., 2015).

The Family Smoking Prevention and Tobacco Control Act of 2009 (FSPTCA) banned misleading descriptor terms, specifically “light”, “mild”, and “low” in 2010 (U.S. Food and Drug Administration [FDA], 2009). More recently, an agreement between the FDA and three tobacco companies, including SFNTC, resulted in the removal of the terms “additive-free” and “natural” from product labels and advertising (Truth Initiative, 2017). However, this does not apply to the word “Natural” in the NAS trademarked brand name that appears prominently on the pack. Previous studies have examined the impact of NAS cigarette pack design elements on health and brand perceptions (Kelly & Manning, 2014; Pearson et al., 2016; Leas et al., 2017). Two of these studies focused mainly on the impact of text descriptors that might convey reduced harm, such as “natural”, “100% additive-free”, and “organic”. After exposure to images of NAS packs with and without the terms “natural” and “100% additive-free,” high school aged youth were more likely to report decreased beliefs that these cigarettes cause disease compared to Camels (Kelly & Manning, 2014). Pearson and colleagues (2016) found that adults, regardless of smoking status, rated NAS packs with or without modified text descriptors as significantly less harmful compared to Marlboro Reds. Only one study to date has examined the impact of the visual features of NAS pack design, where the current design of NAS packs was compared to plain packaging and packaging with warning imagery used in Australia (image of a gangrenous foot). Leas and colleagues (2017) found that both plain packaging and packaging with a graphic warning reduced the perception that NAS cigarettes are safer. However, the study did not examine which specific attributes might contribute to perceptions of reduced harm. Taken together, these studies indicate that NAS cigarette packs, especially text descriptors, communicate reduced health risk of these cigarettes compared to other brands. Less is known about other NAS pack design elements such as color and imagery. More research is needed to inform regulation of the visual design of NAS cigarette packs beyond text descriptors.

The FSPTCA granted the FDA authority to require prior approval of label statements, including written, printed, or *graphic* matter encompassing the visual design of the tobacco product, to ensure that labels are not false or otherwise misleading, and to comply with other provisions of the Act. Exercise of this authority has been limited, but evidence regarding the impact of visual design of cigarette packaging can inform future FDA regulation. The FDA has requested additional research on how tobacco products can imply reduced health risks through their labeling (Ashley, Backinger, van Bommel, & Neveleff, 2014).

There is a strong theoretical basis for how the visual design of products and their packaging impacts consumers' responses. Specifically, we utilize the Context of Consumption Framework (CCF; Crilly, Moultrie, & Clarkson, 2004), which states that consumer responses fall into three areas: cognitive, affective, and behavioral. The CCF further divides cognitive responses into three different areas: aesthetic impression (i.e., sensation from perception of whether product is pleasing or not pleasing visually), semantic interpretation (i.e., how a product is perceived to function or be used based on design and packaging), and symbolic association (i.e., how use of the product links to the identity of the user). The CCF divides consumer affective responses into five categories (instrumental, aesthetic, social, surprise, and interest) and behavioral into two response types, approach or avoidance of the product. Previous research provides evidence that this theoretical framework is appropriate for use with tobacco products as the CCF has been shown to align with how smokers report perceptions of the visual design of cigarette packs (Lee, Averett, Blanchflower, & Gregory, 2018).

The CCF is further supported by tobacco document research and surveys that have shown evidence of how design elements in product packaging can influence consumers' perceptions about the product, including leading consumers to erroneous beliefs about the product's health consequences (Bansal-Travers et al., 2011; Borland et al., 2013; Dewhirst, 2017; Kotnowski & Hammond, 2013). However, very little research has examined how visual pack design might communicate reduced health risk of specific cigarette brands. It is vital to understand if and how design elements of brands marketed as "natural," "organic," and "pro-environment" (e.g., NAS) shape consumers' perceptions and, ultimately, their choices.

Smokers' perceptions of how packaging design elements (e.g., color, shape, typeface, logos, descriptors, iconography, images) convey information could inform regulation of future design changes to cigarette products. Thus, as a secondary analysis of data from a qualitative study of features of cigarette packaging design (Lee, Averett, Blanchflower, Landi, & Gregory, 2017), we sought to investigate which design elements of NAS cigarette packs influence smokers' perceptions. The aim of the current study was to examine two questions: 1) What design elements on NAS packs are salient to (i.e., noticed by) adult U.S. smokers?, and 2) What meaning do these smokers perceive from these design elements?

## Methods

We conducted six focus groups in March 2017 with adult smokers across the U.S. using panelists from NORC at the University of Chicago's AmeriSpeak® Panel. AmeriSpeak® is

a probability-based panel designed to be representative of the U.S. household population. Panelists were screened and selected for geographic, racial/ethnic, gender, sexual orientation, and age diversity. Of the six panels, two consisted solely of participants with fewer than four years of post-secondary education, two consisted of lesbian, gay, bisexual, and transgender (LGBT) participants, one consisted of a mix of LGBT and straight participants, and one was a general population of adult participants. We purposefully included participants with lower formal education or LGBT identities as both these demographic groups are associated with greater likelihood of smoking.

The focus groups were conducted by telephone with a trained moderator, recorded, and transcribed professionally using a smooth verbatim protocol, thereby eliminating stutters and “ums”. Participants were not provided with visual cues. It is important to note that tobacco companies and marketing firms spend much of their efforts on designing packs that consumers can “recall” and align with a manufactured brand image (Wakefield, Morley, Horan, Cummings, 2002). In turn, we did not use visual cues, as we wanted participants to “recall” their perceptions of pack designs from everyday exposure to these latent marketing messages and designs of cigarette packs. While phone-based interviews have limitations, such as the inability to directly control participants’ environments and eliminate distraction, they allow for a much broader geographic reach. We believed that geographic diversity and inclusion of people who might find travel to be a barrier to participation outweighed the disadvantages of a phone-based group for this study (Ross et al., 2006). Focus groups lasted one to one and a half hours. Participants completing the focus groups received AmeriSpeak® “points,” which could be redeemed for gift cards or other prizes through AmeriSpeak®. Two authors attended every focus group, and data saturation was confirmed using a two-step approach. First, the authors reviewed focus group data during and after data collection to ensure initial data saturation. Second, data saturation was further confirmed during coding, achieving coding saturation, which is the repetition (i.e., reuse) of codes.

A focus group guide, which was informed by the domains of the CCF, is available online (Lee, Averett, Blanchflower, Landi, & Gregory, 2017). We specifically prompted the discussion of four brands (Marlboro, NAS, Newport, and Pall Mall). These brands were specifically chosen based on their dominance in the market, and contrast in visual pack designs. It is important to note that no visual stimuli were used in this study. Rather than presenting visual stimuli and asking for responses, participants were asked to discuss and describe what was salient to them about cigarette pack design recalled from personal experiences. Participants were asked questions such as, “Tell me about a time at any point in your life that ‘your brand’ changed its packaging; how did it make you feel?” These questions added to the richness of the discussion, as one participant might ask another participant for a description of the pack they were describing (Lee, Averett, Blanchflower, Landi, & Gregory, 2017).

Thirty-three smokers participated in the six focus groups, and all but four completed the entire group. Reasons for leaving were unrelated to the content of the groups (e.g., having an appointment). The 33 participants were from all nine Census divisions, and identified as White (49%), Black (24%), Hispanic (9%), American Indian (3%), and multi-racial (15%). Sixty-four percent were female, 49% had fewer than four years of higher education, 18%

had no Internet access at home, and the average age was 45 (SD=11.5, range 22–62). Two participants reported NAS as their preferred cigarette brand.

The East Carolina University and Medical Center Institutional Review Board approved the study protocol (#16–001200).

## Analysis

We first identified all discussions referencing the NAS brand. Using a constant comparison analysis method (Strauss & Corbin, 1998), coding was conducted in three phases: open coding, axial coding, and selective coding. First, open coding involved sorting the data into initial themes. These themes were then discussed among the authors and revised based on consensus. Second, in axial coding, the initial themes were collapsed into larger themes based on overlap and connection. The team focused on relevancy and salience. Third, in selective coding, the team further grouped the data and interpreted it for larger meanings. One author led the coding (PEA). The team repeatedly discussed findings, provided feedback to one another, and did so until we reached agreement, which resulted in the identification of the four following themes: 1) Bright and Flashy Color, (2) American Indian (AI) Logo, (3) Healthy and Safer, and (4) Targeting At-Risk Smokers.

## Results

### Salient Design Elements of NAS Packs

The design elements of NAS cigarette packs that emerged as the most salient to participants fell into one of two subthemes *Bright and Flashy Color* and *AI Logo*.

**Bright and Flashy Color.**—Overwhelmingly, participants commented on the colors used in the NAS packaging, describing the colors as unique, bright, and eye catching. The following quotes demonstrate the impact colors used in NAS cigarette packaging had on participants:

“The colors of their packs are so freaking bright you can’t miss them. It’s almost like it, draws your attention to them for a minute. I mean, where my cigarettes are, the brand, I buy, is put on the left-hand side up towards the top [of the display] when I’m looking at mine, and my eyes still get drawn down to those American Spirits. I’m like geez, what the hell brand is that?” (Group 1, LGBT)

Along the same lines, another participant shared:

“They’re just really bright and eccentric looking. They do pop at your eyes.”  
(Group 2, Low Education)

Typically, participants first brought up NAS and the colors of the packaging when asked a question about which cigarette packs stood out to them. In addition, participants then discussed the role of color when asked directly about their thoughts of NAS packs.

**American Indian (AI) Logo.**—The participants also noted the AI logo on the package as a design element that stood out to them, as seen in the following quotes:

“Something I’ve never seen, cigarettes really in a yellow pack with a colorful Indian head on it.” (Group 4, LGBT Mix)

“It has a red circle with an Indian on it, and they come in a rainbow of colors.”  
(Group 6, General Population)

While the AI logo on the pack stood out to participants, it was typically discussed in connection to the NAS package and logo color. The close association of the logo image with package and logo coloring underscores the importance of color as a defining design element of the NAS package.

### Meanings Derived from NAS Packs

The second research question explored how participants interpreted NAS pack design elements. Here we identified the themes of *Healthier and Safer* and *Targeting At-risk Smokers*.

**Healthier and Safer.**—The participants expressed the sentiment that NAS cigarettes were, in general, healthier and safer in comparison to other brands. Participants specifically connected this particular idea to their perception of the NAS package design. The following collection of passages captures these shared perceptions.

“It’s considered like the healthier of all the cigarettes because of the less ingredients and what not and the packaging reflects all that.” (Group 2, Low Education)

“Happy and safer, it’s because of the colors I think in the design. It just has a happy look about it.” (Group 6, General Population)

“Right. I researched them because I was smoking them and I wanted to make sure they were natural and I came up with some nasty things. But the packaging is very inviting and it does make the smoker feel like they’re more safe...” (Group 6, General Population)

“I’ve been having a hard time quitting smoking as a seventeen year smoker now and I’ve really got allergies so it’s been affecting my health really bad but I just can’t just quit and they’re like okay, so quit smoking your Marlboros and go to American Spirit. When I bought them, I actually felt kind of like a little bit better because I was like oh, these look all fancy and cool, better than the Marlboro Reds with the red and white boring pack that I’ve seen my whole life. You know what I mean?” (Group 2, Low Education)

**Targeting At-Risk Smokers.**—Participants also expressed that NAS package design and overall brand style targeted smokers from vulnerable or at-risk populations, including young adults. Our participants were clear that NAS packaging was attempting to target AIs as consumers and that the packaging design and style clearly communicated such targeting efforts.

“It doesn’t look like a typical pack of cigarettes, as far as the package. I mean, it’s packaged in a typical cigarette box, but the decoration of the box is not typical of a

regular cigarette. And from what I gather just from looking at the box, I would think it was something from the American Indian community.” (Group 1, LGBT)

Another participant noted:

“The packaging is a kick, as far as I’m concerned, but I agree with the woman that was just speaking and to me it’s a misrepresentation. It’s supposed to be like if you’re an Indian, this is what you need to smoke, and it shouldn’t be that way.” (Group 3, LGBT)

One participant, who self-identified as AI, spoke to this, connecting it to the “healthier” option theme, and expressing offense at both aspects of the packaging:

“As a Native American, I don’t like that brand of cigarettes because they’re using an Indian head as their brand. I think they’re trying to represent themselves as something that it’s native and it’s wholesome and it’s natural, and it’s just not.” (Group 3, LGBT)

However, not all participants aligned with this interpretation. One participant shared that in her experience many AIs were drawn to the brand for its packaging and its implications of being natural.

“[A] lot of my Native American friends they smoke them because they say it’s a lot more natural and then a lot of like the people, a lot of my friends who are more into natural type stuff. They smoke them because they say they’re more natural. I guess the people who want something more natural to smoke. I suppose they get that image from the packaging and they say they taste better because they’re more natural I guess.” (Group 5, Low Education)

Participants also discussed that NAS likely targets another at-risk population – young adults/new smokers. They associated NAS efforts to reach young adults and new smokers through their packaging and branding.

“If they’re organic or they’re additive free or all-natural it is of course to especially draw the eyes of nonsmokers that now are like oh my gosh, there’s this option for an organic cigarette.” (Group 2, Low Education)

Another participant shared:

“I mean, to me those -- I don’t know if they’re geared towards the younger generation, but I mean, they’re extremely flashy.” (Group 1, LGBT)

## Discussion

### Principal Findings

We found that NAS pack design elements communicate a reduced harm message that builds on the broader marketing messages of NAS products. The data suggest that this is achieved by implementing culturally-assigned objects that are symbolic of being natural or healthy (i.e., AI in headdress) on the physical NAS pack. Moreover, these symbols on the pack further reinforce the “halo effect” of NAS as “natural.” When asked to identify which design elements of NAS packs stood out, smokers in this study commented on the salience of the



package colors, describing the colors as “bright” and “flashy.” Along these lines, participants also commented on the AI-themed branding. Participants were able to easily identify the logo on the front of the pack as AI and were able to recall specific logo details. When questioned about the meanings of the design elements of the pack, participants reported that these elements communicated that the brand was healthier and safer. The use of bright colors and text labels, such as “organic”, were believed to be more appealing to young adults and health conscious new smokers or nonsmokers among our participants. The AI logo as part of NAS pack design evoked associations with the natural environment and AI or Native American culture among our participants. Participants believed that the logo was used to target vulnerable populations, such as young adult/new smokers and AIs. Given the above mentioned findings, this study demonstrates that product package designs and logos have a considerable impact on smokers’ perceptions of NAS and lead to misconceptions about the relative “healthiness” of this particular brand.

### Study Findings in Context

Our findings, which explore the visual design of NAS packs, add to previously documented concerns about NAS marketing increasing perceptions of reduced harm to health. Prior research has focused on the impact of “health-oriented” text descriptors, finding these can change perceptions of harm (Kelly & Manning, 2014; Pearson et al., 2016). Additionally, Leas and colleagues (2017) tested plain packaging and graphic warning labels on NAS packs, finding these policy options, which are not currently available in the U.S., can reduce consumer misperceptions of reduced harm. Similarly, our findings align with and extend previous studies that examined the impact of NAS imagery in print advertisements (Byron et al., 2016; Gratale et al., 2017; Moran et al., 2018). This study supports the existing literature on perceptions of NAS marketing by exploring pack design elements (e.g., color and imagery) and the meanings of these elements specific to a brand that continues to promote its “natural” qualities via its trademark.

Our findings also support broader consumer behavior and literature on marketing tactics used to influence consumer behavior. For instance, our study found that NAS pack design conveys reduced harm to health, which is in line with previous studies that have found that lighter and more white colors convey less health risk (Agaku et al., 2015; Lempert & Glantz, 2017). In our study, participants also reported that the NAS visual imagery of the packs made them feel happy and safer. This study also revealed a belief among smokers that NAS may appeal more to young adult populations. Along the same lines, previous studies have found that use of “additive-free,” “organic,” and “premium” descriptors on the pack can enhance the appeal of cigarettes for adolescents (Czoli & Hammond, 2014). From a marketing perspective, the selection of a light background and bright imagery captured smokers’ attention, influencing consumers’ perceptions that NAS “reduced” harm to health..

Regulations of cigarette packs limit the use of modified risk descriptors such as “light” and “mild”, and a 2017 Agreement with the FDA has removed the descriptors of “natural” and “100% additive-free” from NAS packs and advertising (this study happened before the Agreement with SFNTC; Campaign for Tobacco Free Kids, 2017). NAS has now replaced the banned terms with the phrase “Tobacco Ingredients: Tobacco and Water,” and continues

to prominently display “natural” in “*Natural* American Spirit” as an exception due to their brand trademark name. The agreement also does not prohibit NAS from continuing to use the term “organic”, another term considered potentially misleading. Color is already used to evade bans on modified risk text descriptors (Yong et al., 2011).

Of considerable concern is the identification of the AI imagery by participants. The tobacco industry has a long history of appropriating AI imagery and symbols for use in marketing cigarettes (D’Silva, O’Gara, & Villaluz, 2018; Lempert & Glantz, 2018), but very little research has focused on the use of AI-imagery in tobacco marketing. The findings from this study suggest that use of AI-related imagery may influence appeal of this brand generally and more specifically for AIs, the group with the highest smoking prevalence rate in the U.S. (Jamal et al., 2018). The tobacco industry has used strategies in the past to market their products specifically to AIs, by the way of sponsorship of local pow-wows (festivals), donations to tribal colleges, and higher education funds (Henderson et al., 2009).

Finally, our findings are consistent with the broader theoretical literature on the role of visual design in influencing consumers’ cognitive, affective, and behavioral choices (Crilly et al., 2004). The existing literature and our study highlight the interplay between marketing, including print advertisements, and pack design. This study was the first to qualitatively explore how smokers interpret visual design elements of NAS cigarette packs, extending prior work on advertisements (Byron et al., 2016), to an important area of potential FDA regulation by focusing on what design elements were salient enough to be recalled without visual stimuli.

### **Strengths and Limitations**

Given the qualitative approach and our purposeful sampling, this study may not generalize to the U.S. population, to non-smokers, or to youth. One strength of the study was the use of telephone-based focus groups, as it allowed for the participation of people unable to travel and for those that did not have Internet access. However, telephone focus groups prevent the ability to see facial expressions, limit the ability to control distractions, and make it easier to drop out of the call. Participants were not provided with visual cues, which could have limited the findings. Focus group participation and discussion was not specific to one’s brand of choice, and we did not specifically recruit NAS smokers. Rather, our discussion was focused on cigarette packaging and its interpretation by participants. Our study cannot quantify the differences between the influence of packaging versus marketing campaigns that inform how packaging is interpreted. However, it is important to note that the CCF posits that there is synergy between the actual package and referenced symbols and marketing campaigns. Lastly, the analyses reported here focused only on one brand that has marketed itself as healthy through text descriptors. Other brands with similar design elements and health-oriented marketing campaigns need to be examined.

### **Public Health Implications**

Cigarette package design has the potential to impact population health, as package changes can serve to create the impression of new products, segment products, and recruit new young smokers. Our findings underscore the importance of product packaging regulation. This

research provides a more complete picture of how NAS communicates reduced health harm and may appeal to young adults and the AI population through non-text formats. Furthermore, these findings have the potential to impact the field of tobacco-related disparities and policy research by shedding light on possible mechanisms associated with higher smoking rates among these priority populations and lower cessation rates among current smokers.

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## References

- Ashley DL, Backinger CL, van Bommel DM, & Neveleff DJ (2014). Tobacco regulatory science: research to inform regulatory action at the Food and Drug Administration's Center for Tobacco Products. *Nicotine and Tobacco Research*, 16(8), 1045–1049. doi:10.1093/ntr/ntu038 [PubMed: 24638850]
- Agaku IT, Omaduvie UT, Filippidis FT, & Vardavas CI (2015). Cigarette design and marketing features are associated with increased smoking susceptibility and perception of reduced harm among smokers in 27 EU countries. *Tobacco Control*, 24, 233–240. [PubMed: 24415730]
- Bansal-Travers M, O'Connor R, Fix BV, & Cummings KM (2011). What do cigarette pack colors communicate to smokers in the U.S.? *American Journal of Preventive Medicine*, 40, 683–689. [PubMed: 21565662]
- Borland R, Savvas S, Sharkie F, & Moore K (2013). The impact of structural packaging design on young adult smokers' perceptions of tobacco products. *Tobacco Control*, 22, 97–102. [PubMed: 22166265]
- Byron MJ, Baig SA, Moracco KE, & Brewer NT (2016). Adolescents' and adults' perceptions of 'natural', 'organic', and 'additive-free' cigarettes, and the required disclaimers. *Tobacco Control*, 25, 517–520. doi:10.1136/tobaccocontrol-2015-052560 [PubMed: 26628496]
- Campaign for Tobacco Free Kids. (2017). FDA/Santa Fe Natural Tobacco Agreement Fails to Protect the Public from Misleading Claims and Imagery on Natural American Spirit Cigarettes. Retrieved from [https://www.tobaccofreekids.org/press-releases/2017\\_03\\_02\\_fda](https://www.tobaccofreekids.org/press-releases/2017_03_02_fda)
- Crilly N, Moultrie J, & Clarkson PJ (2004). Seeing things: Consumer response to the visual domain in product design. *Design Studies*, 25, 547–577.
- Czoli CD, & Hammond D (2014). Cigarette Packaging: Youth Perceptions of "Natural" Cigarettes, Filter References, and Contraband Tobacco. *Journal of Adolescent Health*, 54, 33–39. [PubMed: 24012064]
- D'Silva J, O'Gara E, & Villaluz NT (2018). Tobacco industry misappropriation of American Indian culture and traditional tobacco. *Tobacco Control*. Epub ahead of print: March 1, 2018. doi:10.1136/tobaccocontrol-2017-053950
- Dewhirst T (2017). Into the black: Marlboro brand architecture, packaging and marketing communication of relative harm. *Tobacco Control*. Published Online First: 21 April 2017. doi: 10.1136/tobaccocontrol-2016-053547

- Epperson AE, Prochaska JJ, & Henriksen L (2017). Natural American Spirit Brand Marketing Casts Health Halo Around Smoking. *American Journal of Public Health*, 107(5), 668–670. [PubMed: 28398789]
- Food and Drug Administration. (2009). Family Smoking Prevention and Tobacco Control Act. U.S.C. 21 Sec 911. <https://www.fda.gov/tobaccoproducts/labeling/rulesregulationsguidance/ucm237092.htm>
- Gratale SK, Maloney EK, Sangalang A, & Cappella JN (2017). Influence of Natural American Spirit advertising on current and former smokers' perceptions and intentions. *Tobacco Control*. Published Online First: 21 October 2017. doi: 10.1136/tobaccocontrol-2017-053881
- Henderson PN, Kanekar S, Wen Y, Buchwald D, Goldberg J,...Henderson JA (2009). Patterns of Cigarette Smoking Initiation in Two Culturally Distinct American Indian Tribes. *American Journal of Public Health*, 99, 2020–2025. doi:10.2105/AJPH.2008.155473 [PubMed: 19820215]
- Jamal A, Phillips E, Gentzke AS, Homa DM, Babb SD, King BA, & Neff LJ (2018). Current cigarette smoking among adults—United States, 2016. *MMWR Morbidity and Mortality Weekly Report*, 67, 53–59. [PubMed: 29346338]
- Kelly KJ., & Manning K (2014). The Effects of Natural Cigarette Claims on Adolescents' Brand-Related Beliefs, Attitudes, and Intentions. *Journal of Health Communication*, 19, 1064–1075. doi: 10.1080/10810730.2013.872720 [PubMed: 24628465]
- Kotnowski K, & Hammond D (2013). The impact of cigarette pack shape, size and opening: evidence from tobacco company documents. *Addiction*, 108, 1658–1668. [PubMed: 23600674]
- Leas EC, Pierce JP, Dimofte CV, Trinidad DR, & Strong DR. (2018). Standardised cigarette packaging may reduce the implied safety of Natural American Spirit cigarettes. *Tobacco Control*, 27(e2), e118–e123. doi:10.1136/tobaccocontrol-2017-053940 [PubMed: 29255011]
- Lee JGL, Averett PE, Blanchflower T, Landi N, & Gregory KR (2017). “Their Packaging Has Always Been Like a Power”: A Qualitative Study of U.S. Smokers' Perceptions of Cigarette Pack Visual Design Features to Inform Product Regulation. *International Journal of Environmental Research and Public Health*, 14(10), 1234. doi:10.3390/ijerph14101234
- Lee JGL, Averett PE, Blanchflower T, & Gregory KR (2018). Qualitative assessment of a Context of Consumption Framework to inform regulation of cigarette pack design in the U.S. *Tobacco Induced Diseases*, 16(3). doi:10.18332/tid/82925
- Lempert LK, & Glantz S (2017). Packaging colour research by tobacco companies: the pack as a product characteristic. *Tobacco Control*, 26, 307–315. [PubMed: 27255118]
- Lempert LK, & Glantz S (2018). Tobacco Industry Promotional Strategies Targeting American Indians/Alaska Natives and Exploiting Tribal Sovereignty. *Nicotine and Tobacco Research*. Epub ahead of print: March 12, 2018. doi: 10.1093/ntr/nty048
- McDaniel PA, & Malone RE (2007). “I always thought they were all pure tobacco”: American smokers' perceptions of “natural” cigarettes and tobacco industry advertising strategies. *Tobacco Control*, 16, e7. [PubMed: 18048597]
- Moran MB, Brown J, Lindblom E, Kennedy R, Cohn AM, Lagasse L, & Pierce JP (2018). Beyond ‘Natural’: Cigarette Ad Tactics that Mislead about Relative Risk. *Tobacco Regulatory Science*, 4, 3–19. doi: 10.18001/TRS.4.5.1 [PubMed: 30746427]
- Pappas RS, Fresquez MR, Martone N, & Watson CH (2015). Toxic metal concentrations in mainstream smoke from cigarettes available in the USA. *Journal of Analytical Toxicology*, 38, 204–211. doi:10.1093/jat/bku013
- Pearson JL, Richardson A, Feirman SP, Villanti AC, Cantrell J, Cohn A,..., Kirchner TR (2016). American Spirit Pack Descriptors and Perceptions of Harm: A Crowdsourced Comparison of Modified Packs. *Nicotine and Tobacco Research*, 18(8), 1749–1756. [PubMed: 27170707]
- Pearson JL, Johnson A, Villanti A, Glasser AM, Collins L, Cohn A,..., Stanton CA (2017). Misperceptions of harm among Natural American Spirit smokers: results from wave 1 of the Population Assessment of Tobacco and Health (PATH) study (2013–2014). *Tobacco Control*, 26, e61–e67. [PubMed: 27924008]
- Ross LE, Stroud LA, Rose SW, & Jorgensen CM (2006). Using telephone focus groups methodology to examine the prostate cancer screening practices of African-American primary care physicians. *Journal of the National Medical Association*, 98(8), 1296–1299. [PubMed: 16916127]

- Sharma A, Fix BV, Delnevo C, Cummings M, & O'Connor RJ (2016). Trends in market share of leading cigarette brands in the USA: national survey on drug use and health 2002–2013. *BMJ Open*, 6, e008813. doi:10.1136/bmjopen-2015-008813
- Strauss A, & Corbin J (1998). *Basics of qualitative research: Procedures and techniques for developing grounded theory*. Thousand Oaks, CA: Sage.
- Truth Initiative. (2017). Agreement on American Spirit Cigarettes fails to protect public from misleading claims. Accessed on November 11, 2017 at <https://truthinitiative.org/news/agreement-american-spirit-cigarettes-fails-protect-public-misleading-claims>
- Wakefield M, Morley C, Horan JK, & Cummings KM (2002). The cigarette pack as image: new evidence from tobacco industry documents. *Tobacco Control*, 11, 173–80. [PubMed: 11893817]
- Yong HH, Borland R, Cummings KM, Hammond D, O'Connor RJ, Hastings G, & King B (2011). Impact of the removal of misleading terms on cigarette pack on smokers' beliefs about 'light/mild' cigarettes: cross-country comparisons. *Addiction*, 106, 2204–2213. doi:10.1111/j.1360-0443.2011.03533.x [PubMed: 21658140]