

# Rural Tobacco Use: Research and Interventions

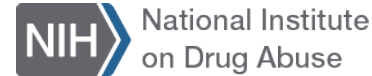




# PATH

Population Assessment  
of Tobacco and Health

*A collaboration between the NIH and FDA*



October 2017 Rural Health Stakeholder Symposium

# Rural Tobacco Use: Research from the Population Assessment of Tobacco and Health (PATH) Study

**Presenter:** Alex Persoskie, PhD, DPHS, Office of Science, CTP, FDA

**Co-Authors:** Lisa Gardner Wasson, PhD, Nicolette Borek, PhD

**On behalf the PATH Study Team**

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# Prevalence of Tobacco Use in the Rural United States

# Rural Prevalence of Tobacco Use

- Prevalence of tobacco use in rural vs. urban locations
  - Behavioral Risk Factor Surveillance System, 2006 and 2008<sup>1</sup>
    - Adults residing in rural areas significantly more likely to smoke cigarettes (22.2% vs. 17.3% suburban and 18.1% urban)
    - Rural adults also significantly more likely to use smokeless tobacco (5.9% vs 3.6% suburban and 2.2% urban)
  - National Survey on Drug Use and Health, 2012-2013<sup>2</sup>
    - Rural prevalence higher than urban for: past 30-day smoking (24.1% vs. 21.0%), chew (2.2% vs. 0.9%), and snuff (5.6% vs. 2.3%)
  - National Youth Tobacco Survey, 2014<sup>3</sup>
    - Greater percentage of rural high school youths used cigarettes only (5.3%) compared with those attending urban schools (2.8%)

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# PATH Study Background

# PATH Study – Background

- The PATH Study is a nationally representative longitudinal study of tobacco use, its determinants, and its impacts
  - Longitudinal Study: Follow the same participants over time
  - Sample Size: ~46,000 participants at Wave 1
  - Nationally representative sample age 12 and older
    - Wave 1 –civilian, non-institutionalized population
- Tobacco Use: current users, former users, and never users of tobacco products

# Tobacco Products Assessed

**Cigarette**



**E-cigarette**



**Cigar, cigarillo, little filtered cigar**



**Pipe**



**Hookah**



**Dissolvable tobacco**



**Smokeless** (snus pouches, chewing tobacco, dip, moist snuff)

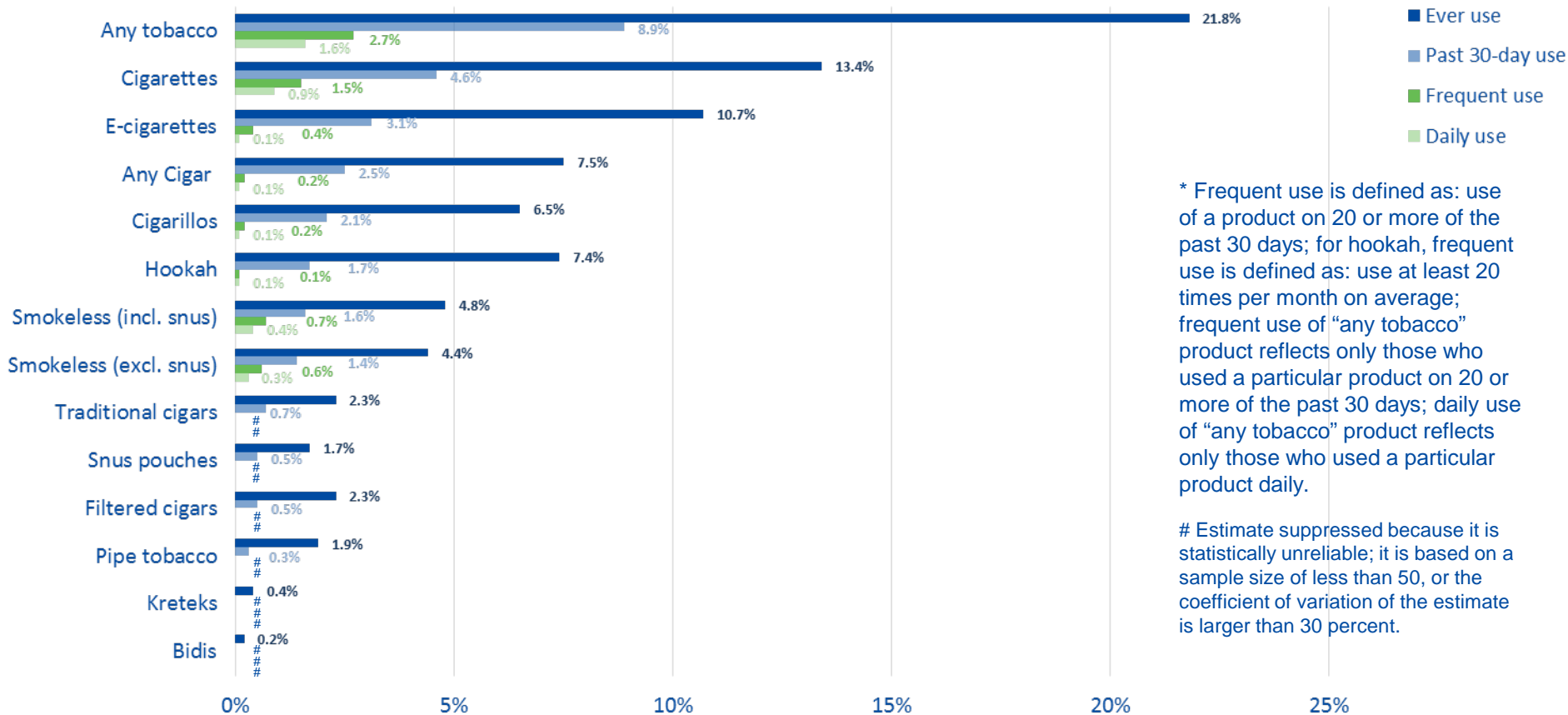


**Bidis and kreteks** (youth)



# The PATH Study Wave 1

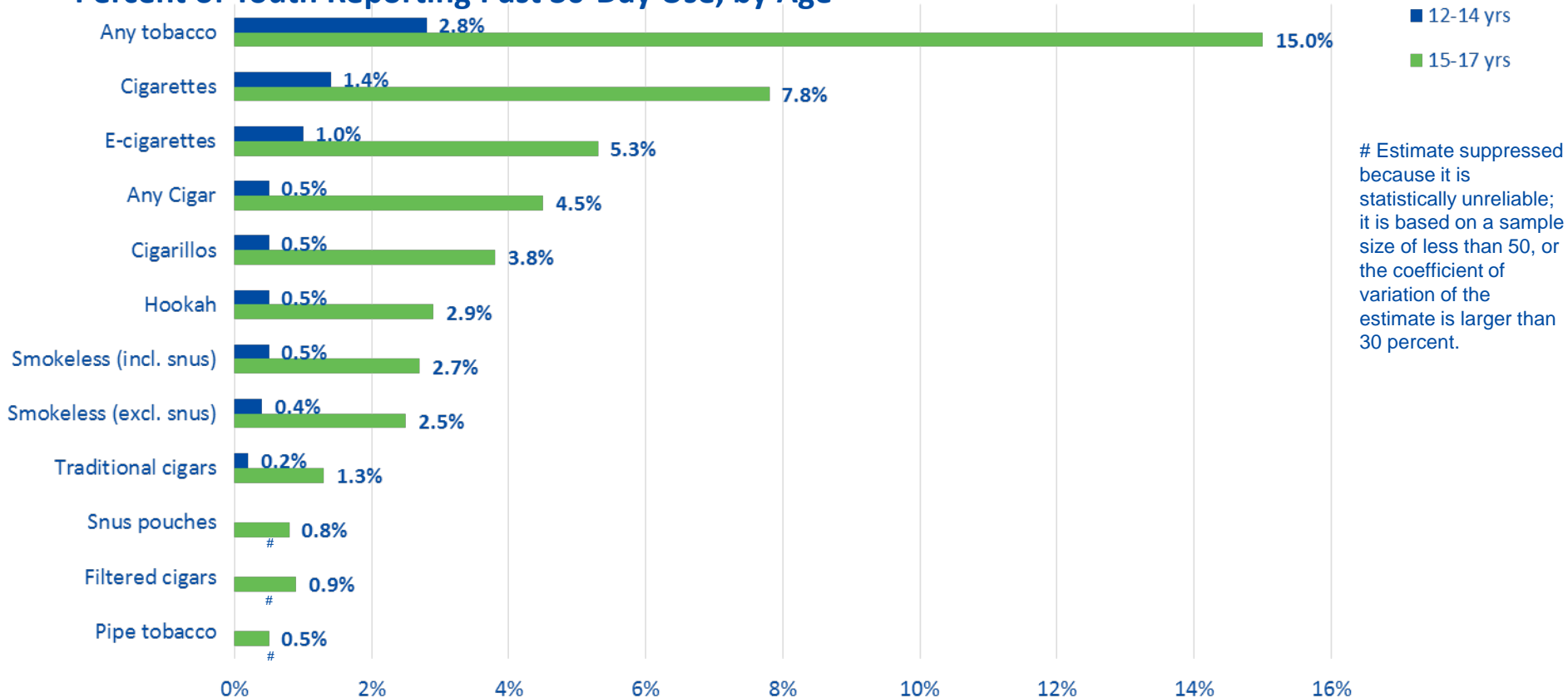
Percent of Youth Reporting Ever, Past 30-Day, Frequent,\* and Daily Use, by Product





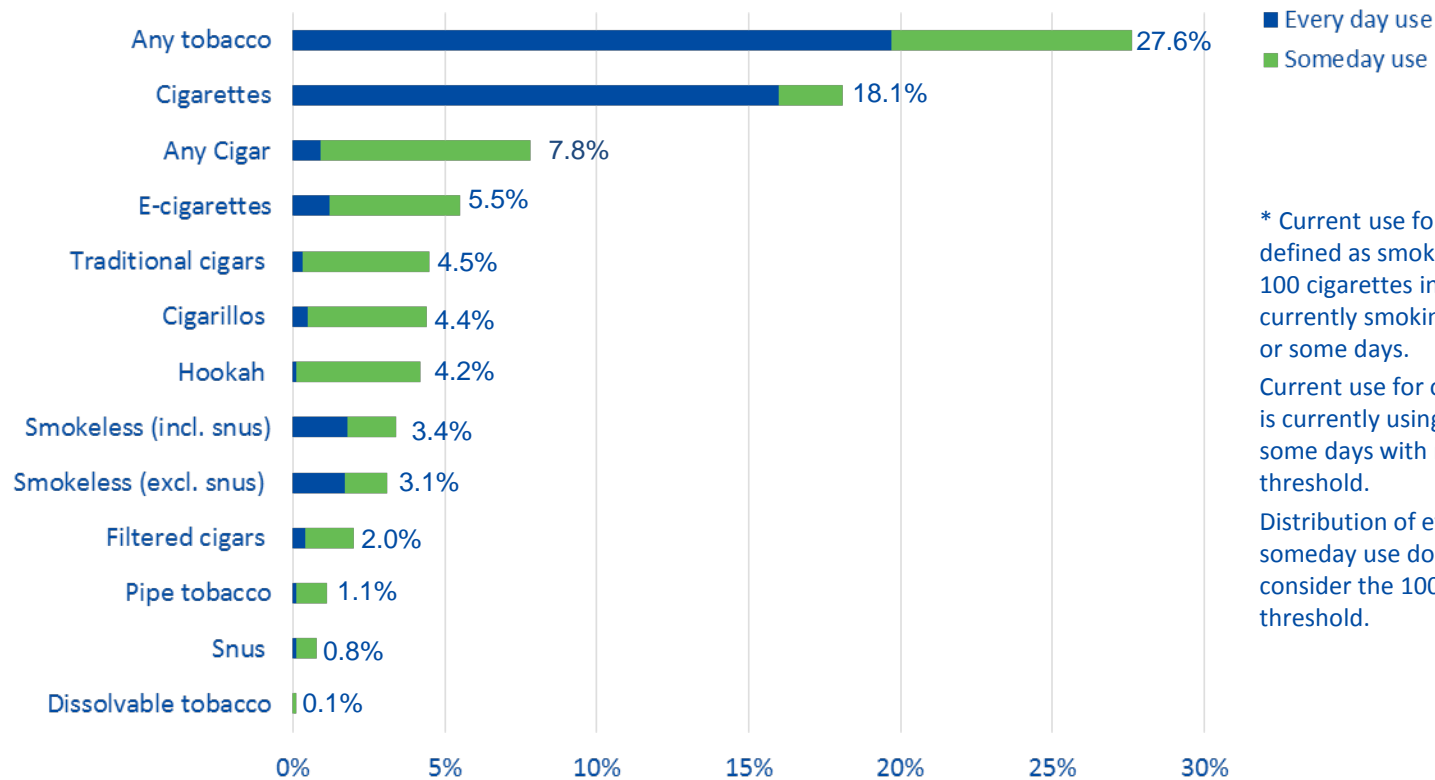
# The PATH Study Wave 1

## Percent of Youth Reporting Past 30-Day Use, by Age



# The PATH Study Wave 1

## Percent of Adults Reporting Current (Every Day and Some Day) Tobacco Product Use\*, by Product



\* Current use for cigarettes is defined as smoking at least 100 cigarettes in lifetime and currently smoking every day or some days.

Current use for other products is currently using every day or some days with no minimum threshold.

Distribution of everyday vs. someday use does not consider the 100 cigarette threshold.

Roberts ME, Doogan NJ, Stanton CA, Quisenberry AJ, Villanti AC, Gaalema DE, Keith DR, Kurti AN, Lopez AA, Redner R, Cepeda-Benito A, Higgins ST.

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## Rural Versus Urban Use of Traditional and Emerging Tobacco Products in the United States, 2013-2014

# Study Design<sup>4</sup>

- Wave 1 adult data on tobacco use (2013-2014)
  - Traditional: Cigarettes, smokeless tobacco, pipes, cigars
  - Emerging: E-cigarettes, hookah, cigarillos
  - Dual and poly-tobacco use
    - Traditional, emerging, or mixed
- Outcomes
  - Daily cigarette use
  - Past 30-day use for cigarettes and all other products

# Study Design<sup>4</sup>

- Urban-rural classification
  - Urban-rural differences in prevalence of tobacco use
    - By gender, poverty level (below vs. at or above), and region (Northeast, South, Midwest, or West)
  - 21% of sample classified as rural

# Urban-Rural Differences in Prevalence<sup>4</sup>

- Rural prevalence significantly higher for:
  - Daily and past-30 day cigarettes (daily = 18.3% vs. 13.4% urban)
  - Smokeless tobacco (6.3% vs. 2.1% urban)
  - Traditional dual or poly-tobacco use (2.2% vs. 1.2% urban)
- Urban prevalence significantly higher for:
  - Hookah (2.5% vs. 0.9% rural)
  - Cigarillos (4.6% vs. 3.8% rural)
  - Emerging dual or poly-tobacco use (0.4% vs. 0.2% rural)
- No significant urban–rural differences in:
  - Menthol cigarettes, e-cigarettes, non-cigarillo cigars, or pipes, or mixed dual or poly-tobacco use
  - Most common dual or poly-tobacco use combination (cigarettes + e-cigarettes)

# Urban-Rural Differences in Prevalence<sup>4</sup>

- Urban-rural differences in tobacco use persisted after controlling for age, gender, poverty level, and region
  - Prevalence of any current cigarette use (daily and past 30-day), smokeless tobacco use, and traditional dual or poly-tobacco use significantly higher in rural compared with urban areas
  - Prevalence of hookah use significantly higher in urban areas
  - Prevalence of cigarillo and emerging dual or poly-tobacco use no longer significantly different between urban and rural
- Results suggest that other factors besides age, gender, poverty level, and region are driving urban-rural differences in tobacco use

Cheng Y-C, Rostron BL, Day HR, Stanton CA, Hull LC, Persoskie A, Travers MJ, Taylor K, Conway KP, Ambrose BK, Borek N.

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## Patterns of Use of Smokeless Tobacco in US Adults, 2013-2014



# Study Design<sup>5</sup>

- Wave 1 adult data on smokeless tobacco (SLT) use (2013-2014)
  - Low youth prevalence of SLT (1.6%)
- SLT categories (single and dual-use):
  - Pouched snus
  - Other SLT, included loose snus, moist snuff, dip, spit, and chewing tobacco
- Definition of SLT user groups
  - Established or experimental
  - Poly-use with other tobacco products, including cigarettes
- Urban vs. non-urban classification

# Characteristics of SLT Use<sup>5</sup>

- 16.5% of US adults reported ever use of any SLT type
  - 2.9% of US adults reported current established use:
    - 0.4% for pouched snus and 2.7% for other SLT
  - Among single-product users (n = 9,450)<sup>6</sup>
    - 0.5% used pouched snus and 8.7% used other SLT
  - Among multi-product users (n = 6,238)<sup>6</sup>
    - 6.3% used pouched snus and 17.0% used other SLT
- Current established use of any SLT most common in:
  - **Younger (18-24 and 25-34 years) (4.0%)** vs. older (≥50 years) adults (1.6%)
  - **Men (5.7%)** vs. women (0.2%)
  - **Non-Hispanic Whites (3.9%)** vs. other racial and ethnic groups (0.9%)
  - **GED diploma (5.0%)** vs. no high school diploma (2.9%)
  - **Non-urban (8.1%)** vs. urban (2.5%) residence

# Characteristics of SLT Use<sup>5</sup>

- Users of pouched snus only (vs. other SLT only):
  - Less likely to use product daily (41.6% vs. 66.9% other SLT only)
  - More likely to use other tobacco products (64.0% vs. 44.7% other SLT only)
- Non-daily SLT users more likely to be current established cigarette smokers than daily SLT users (57.9% vs. 20.2%)
  - Among current established cigarette smokers, those who use SLT some days rather than every day are more likely to smoke cigarettes every day (82.9% vs. 56.0%), and they report higher median number of cigarettes per day (19.2 vs. 13.5)

# Reasons for Use<sup>5</sup>

- Most common reasons for SLT use:\*
  - “I can use at times when/in places where smoking cigarette is not allowed” (pouched snus: 85.0%; other SLT: 79.5%)
  - “Come[s] in flavors I like” (pouched snus: 82.9%; other SLT: 66.9%)
  - “Less harmful to people around me than cigarettes” (pouched snus: 60.1%; other SLT: 60.5%)
  - “Affordable” (pouched snus: 56.2%; other SLT: 50.4%)
- Other reasons for SLT use\*

# Reasons for Use<sup>5</sup>

Characteristics <sup>1</sup>	Current Established Users of Pouched Snus <sup>2</sup> (n=253)			Current Established Users of Loose Snus, Moist Snuff, Dip, Spit, and Chewing Tobacco <sup>3</sup> (n=1420)		
	n	Weighted %	95% CI	n	Weighted %	95% CI
Affordable	146	56.2	49.0-63.4	741	50.4	47.7-53.1
People in the media/other public figures use/used	21	8.5	4.8-12.1	153	10.7	9.1-12.3
Smokeless/snus pouches come in flavors I like	215	82.9	77.6-88.2	959	66.9	64.0-69.7
Smokeless/snus pouches don't smell	122	47.5	40.6-54.5	548	38.9	36.2-41.6
More acceptable to non-tobacco users	130	51.1	43.8-58.5	508	36.0	33.0-38.9
People who are important to me use	37	13.3	9.3-17.2	220	14.7	12.9-16.5
The advertising appeals to me	85	31.2	25.6-36.8	125	8.6	7.2-10.0
I can use at times when/in places where smoking cigarette is not allowed	218	85.0	80.1-90.0	1138	79.5	76.8-82.1
Less harmful to me than cigarettes	103	41.8	35.4-48.3	512	37.0	34.0-39.9
Less harmful to people around me than cigarettes	154	60.1	53.7-66.5	863	60.5	57.5-63.4
Help people to quit smoking cigarettes	96	39.7	32.6-46.7	410	29.6	26.8-32.3
Alternative to quitting tobacco altogether	74	31.0	23.7-38.2	318	22.1	19.8-24.3
The sensations are stronger or more pleasurable than cigarettes	18	6.7	3.4-9.9	-	-	-
No one can tell when I am using a snus pouch	173	67.2	61.0-73.5	-	-	-

# Summary and Conclusions

- The PATH Study is a resource for understanding tobacco use patterns and their health effects over time.
- Rural areas of the US have elevated rates of SLT use, cigarette smoking, and poly-use of traditional tobacco products.
- In terms of likelihood of poly-use, not all SLT products and use patterns are equal: Pouched snus is less likely than other SLT to be used daily and more likely to be poly-used with cigarettes and other tobacco; people who use SLT daily, rather than non-daily, are less likely to also smoke cigarettes.
- Subsequent waves of the PATH Study will provide information on the trajectories in SLT and other product use over time.

**QUESTIONS ?**

**Thank you.**

- **End of Presentation**





# *THE REAL COST SMOKELESS: THE FIRST NATIONAL SMOKELESS TOBACCO PREVENTION CAMPAIGN*



**FDA**

CENTER FOR  
TOBACCO  
PRODUCTS

Matthew W. Walker, DrPH, MPH  
U.S. Food and Drug Administration  
Center for Tobacco Products

October 26, 2017

*Disclaimer: This information is not a formal dissemination of information by the FDA and does not represent Agency position or policy*

*The Real Cost Smokeless* campaign launched in April 2016 with the following key goals:

- Reduce smokeless tobacco (SLT) initiation rates among youth
- Reduce the number of youth already experimenting with SLT and stop the progression to regular use

# THE REAL COST STRATEGY FOR ENGAGEMENT

Make teens *hyperconscious* of the real cost of every cigarette or dip through breakthrough, fresh portrayals of the health and addiction risks of tobacco use

Focus on health effects that



matter to teens...  
...**cosmetic effects**

Disrupt their beliefs about addiction by stressing **loss of control**



Give them **new information** to break through their “cost-free” mentality



# CAMPAIGN DEVELOPMENT PROCESS



- Perform extensive literature review
- Conduct early strategic research to identify salient message themes
- Consult experts in tobacco public health education and the rural community



- Use focus groups to identify promising creative concepts
- Consult experts in tobacco public health education and the rural community



- Conduct copy testing of final rough cut ads to measure perceived effectiveness, level of engagement, and message comprehension

# MESSAGE DEVELOPMENT - FOUNDATIONAL RESEARCH

Literature review, SME consultation, and observational research provided:

- **Target audience** – Those most at risk for initiation with smokeless tobacco: rural, white, non-Hispanic males, 12-17
- **Definition of rural** – Consolidation of several data sets to most efficiently find our target audience and align with media markets
- **Target audience insights** – An understanding of the target audience culture, as well as insights into their perceptions about smokeless tobacco products

## Cultural Insights

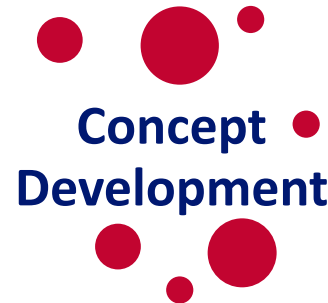
- Strong community ties, everyone knows everyone else
- Pride in being self-reliant
- Care deeply about independence, freedom and manliness
- Strong intertwined religious and political beliefs
- Vast outdoor playground
- Athletics play an important role, both watching and participating



## Perceptions about Dip

- Dip use is socially accepted in these communities
- Using dip is a right of passage to manliness
- Health consequences of dip use are not clearly understood
- Trial and usage starts early
- Target audience belief that girls don't like boys who dip

# CAMPAIGN DEVELOPMENT PROCESS



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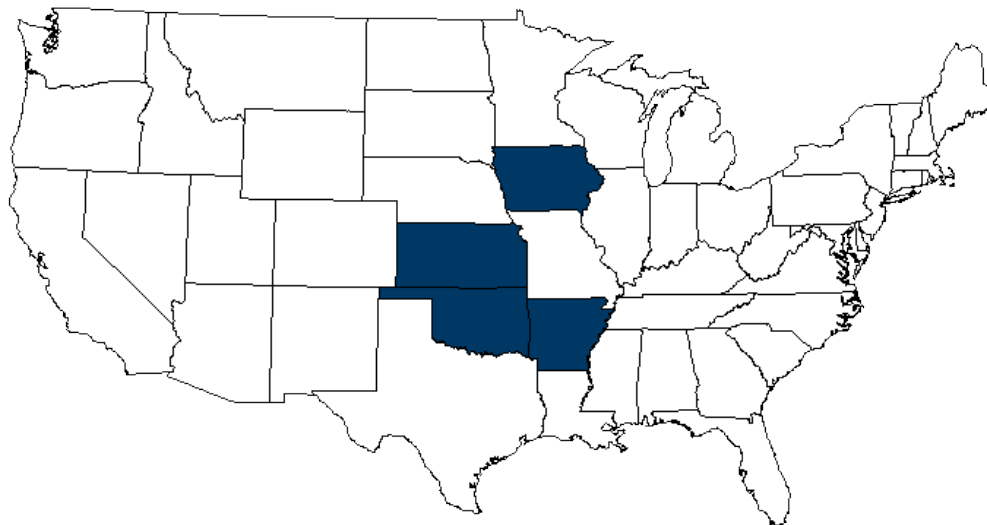
- Conduct copy testing of final rough cut ads to measure perceived effectiveness, level of engagement, and message comprehension



# MESSAGE DEVELOPMENT - STRATEGIC CONCEPTS

**Goal:** to understand how at-risk males would react to various strategic concepts intended to prevent youth smokeless tobacco initiation and use

- 15 focus groups (n=106)
- White (non-Hispanic) males between the ages of 12 and 17 who were either at-risk for smokeless tobacco initiation or who had ever tried smokeless tobacco
- 4 Locations



# STRATEGIC CONCEPTS

## No Big Deal



Some kids act like using dip is no big deal, but they're not talking about the lesions in their mouth, bad breath, or cavities. Is the truth about dip uglier than you think?

## A Real Man



A real man knows how to stand-up for himself and others who need his help. If a man isn't supposed to rely on anything but himself, why is he relying on chew?

## Freedom



You have a lot in common with your group of friends, but that doesn't mean you agree on everything. Are you really free to make up your own mind about chew?

## Hometown



There is a lot to like about living in a small town. People stick together and care about one another. You might know people who dip. Their choice doesn't need to be your choice.

## Girls



In every guys life there is always that one girl. You want her to notice you but you don't want to blow your big chance. One thing that might turn her off is chew. Is it worth the risk?

# STRATEGIC CONCEPTS – GLOBAL FINDINGS

1. **Authenticity – (Savvy media consumers)**
  - a. Small town (over the top)
  - b. Stereotyping (not a homogenous group)
2. **Kids love facts**
  - a. Health consequences
  - b. Comparative harm/harm reduction vs cigarettes
  - c. Progression of health effects
3. **Straightforward messaging**
  - a. Sarcasm, double meanings
  - b. Over exaggeration
  - c. Girls

# STRATEGIC CONCEPTS – SOME SPECIFIC FINDINGS



**At first these look like small white patches, but almost every tobacco-related oral cancer begins with a phase of these patches.**

**Linking the white patches youth are aware of a staged progression of more serious consequences, including cancer**

“I have heard [of] white patches before and thought ‘no big deal.’ Knowing it’s the first step to cancer makes me think twice.”<sup>4</sup>

**Even after the chew is removed, nicotine continues to be absorbed and stays in your blood longer than if you were smoking.**

**The fact that nicotine stays in the brain longer was new information for most groups.** However, some participants indicated this could be seen as a benefit and others explained that they didn’t understand the tangible consequence that would come from this (i.e., does that mean it’s more addictive?).

**At least 28 cancer-producing chemicals have been identified in smokeless tobacco, including cadmium, chromium, formaldehyde, lead, nickel, and uranium.**

**Several chemicals grabbed participants’ attention – specifically, uranium and formaldehyde.** However, youth pointed out that the number of chemicals (28) in smokeless tobacco could be seen as very low compared with the number of chemicals in cigarettes.

# CAMPAIGN DEVELOPMENT PROCESS



- Perform extensive literature review
- Conduct early strategic research to identify salient message themes
- Consult experts in tobacco public health education and the rural community

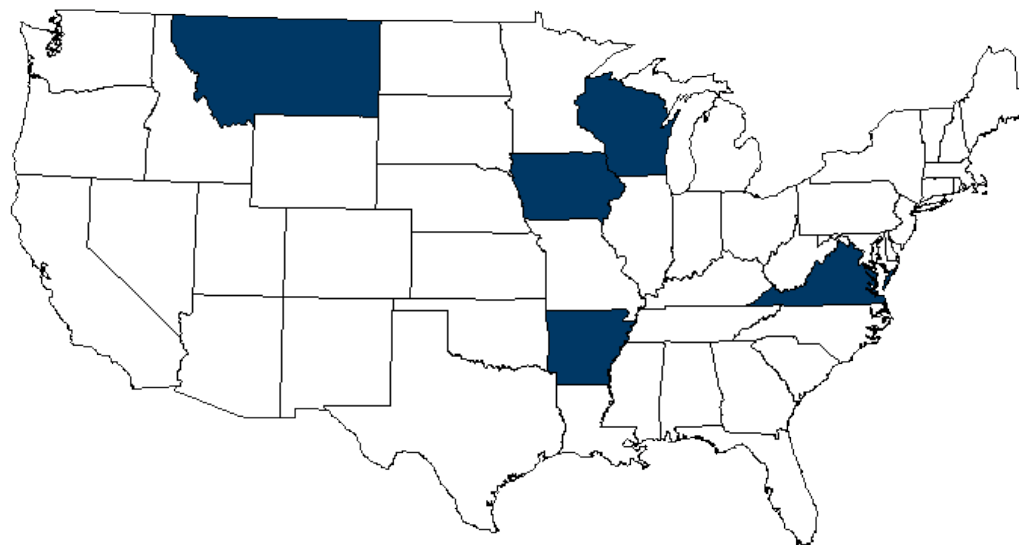
- Use focus groups to identify promising creative concepts
- Consult experts in tobacco public health education and the Rural community

- Conduct copy testing of final rough cut ads to measure perceived effectiveness, level of engagement, and message comprehension

# CONCEPT DEVELOPMENT - CREATIVE CONCEPTS

**Goal:** to obtain feedback on ads presented as animatics, validate previous insights on what resonates, and confirm alignment with TRC brand

- 26 focus groups (n=146)
- White (non-Hispanic) males between the ages of 12 and 17 who were either at-risk for smokeless tobacco initiation or who had ever tried smokeless tobacco
- 5 Locations



# CREATIVE CONCEPTS



# EXAMPLE ANIMATIC





# CREATIVE CONCEPTS LEARNINGS

**Language:** The target population commonly used the terms “dip,” “chew,” and “snuff” to describe SLT products. Other terms included colloquialisms (e.g., “worm dirt”), brands (e.g., Skoal), and descriptors (e.g., “pouches”).



# CREATIVE CONCEPT REFINEMENT



**Authentic Casting and Locations:** Settings, scenes, hairstyles and clothing that were unfamiliar or unrealistic distracted from understanding the message of the ad

**Emotional Connection:** Message comprehension and retention improved when the boys could identify with the main character

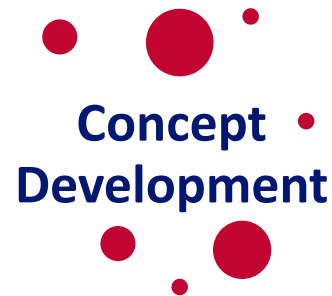
**Incorporate Facts:** Facts about what dip can do to the body, and the ingredients in dip were requested

**Brand Equity:** The Real Cost is a familiar and trusted source for tobacco information

# CAMPAIGN DEVELOPMENT PROCESS



- Perform extensive literature review
- Conduct early strategic research to identify salient message themes
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- Use focus groups to identify promising creative concepts
- Consult experts in tobacco public health education and the Rural community

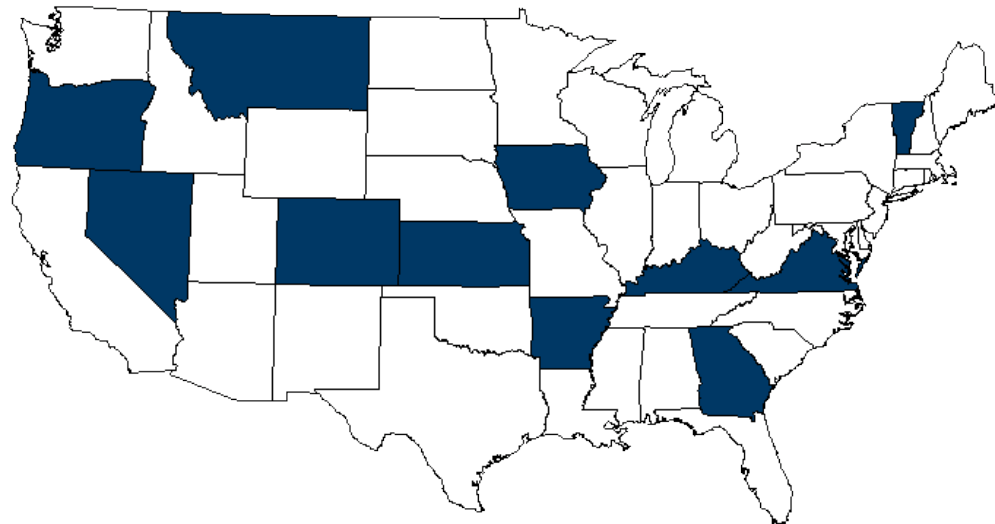


- Conduct copy testing of final rough cut ads to measure perceived effectiveness, level of engagement, and message comprehension

# COPY TESTING METHODOLOGY

**Goal:** to obtain feedback on 5 ads presented as rough-cut television ads, validate previous insights on what resonates, and confirm alignment with TRC brand

- School surveying (n=800, youth were randomly assigned to view two of the five ads, with 578 viewing ads and 222 not viewing an ad)
- White (non-Hispanic) males between the ages of 12 and 17 who were either at-risk for smokeless tobacco initiation or who had ever tried smokeless tobacco
- 11 Locations



## **Quantitative copy testing of ads was conducted to assess:**

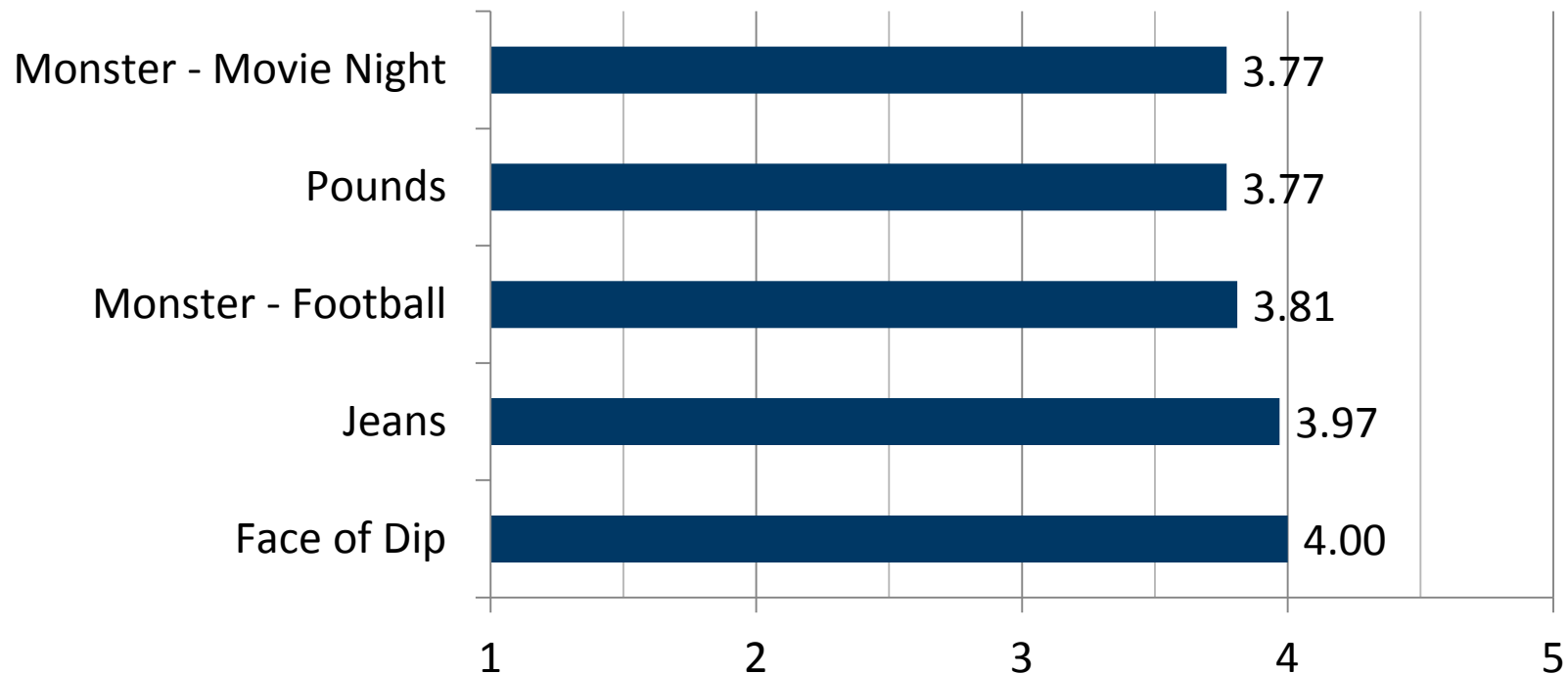
- Overall level of ad performance – assessed from perceived effectiveness, level of engagement and message comprehension
- Potential for any unintended consequences – assessed from responses to health, behavioral, and attitudinal statements

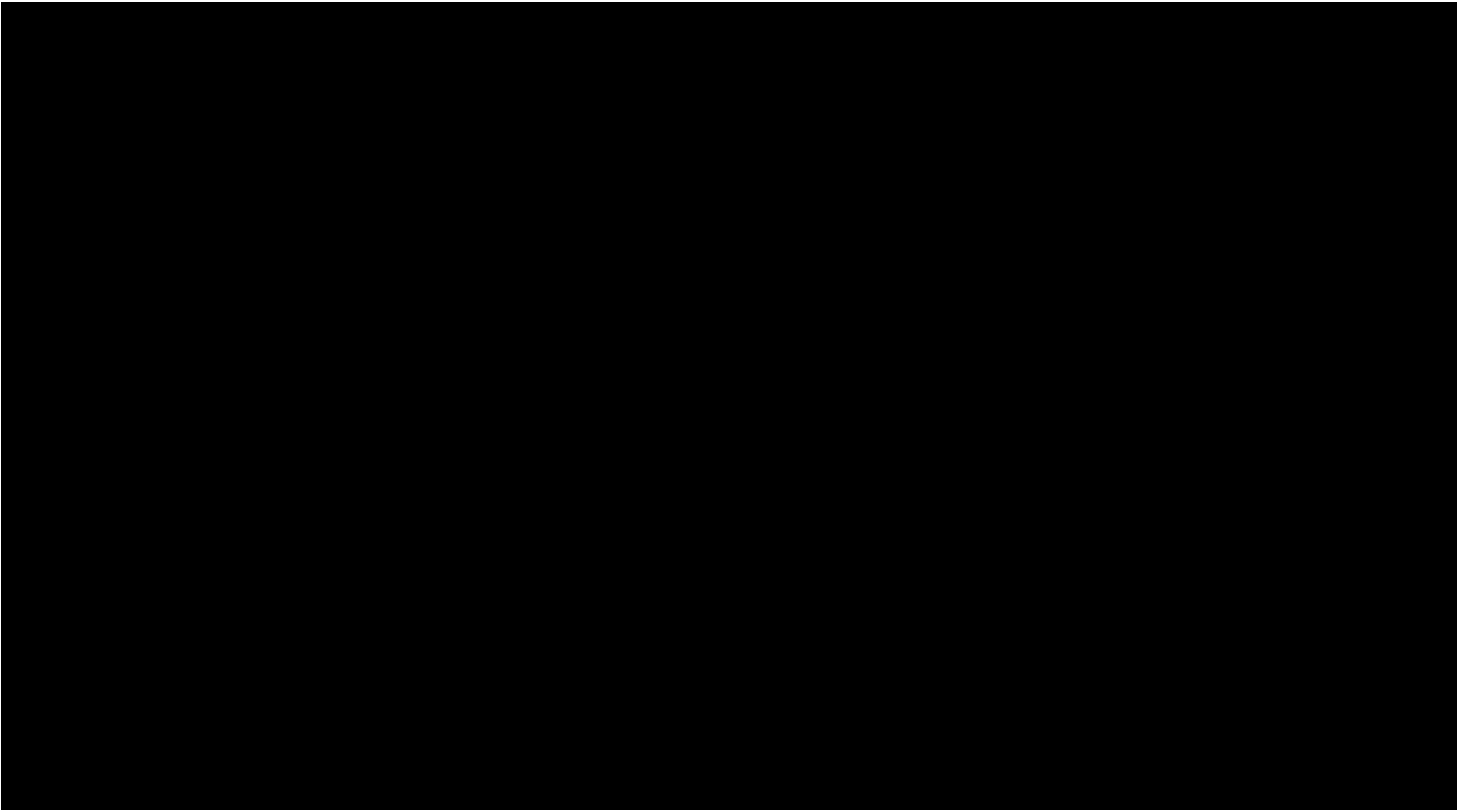
## **Perceived effectiveness (PE) is a primary component for assessing overall level of ad performance:**

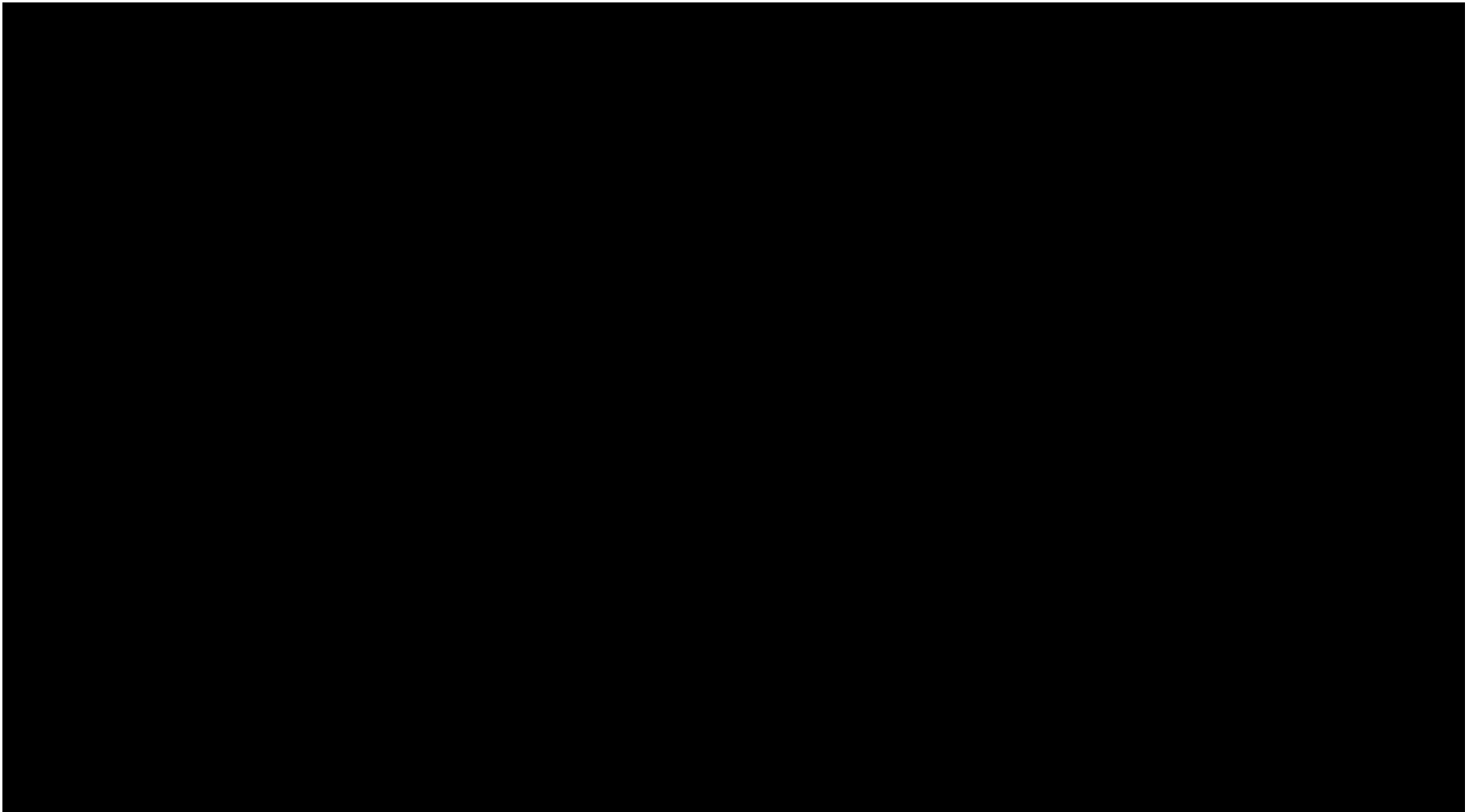
- Validated measure that is predictive of potential for attitude & behavior change
- Comprised of six items: (1) This ad is worth remembering, (2) This ad grabbed my attention, (3) This ad is powerful, (4) This ad is informative, (5) This ad is meaningful, (6) This ad is convincing

# SUMMARY OF COPY TESTING RESULTS

- All ads received high PE scores
- All ads clearly presented the intended message
- Results support a tailored approach to campaign messaging
- No indications that the ads would result in unintended consequences

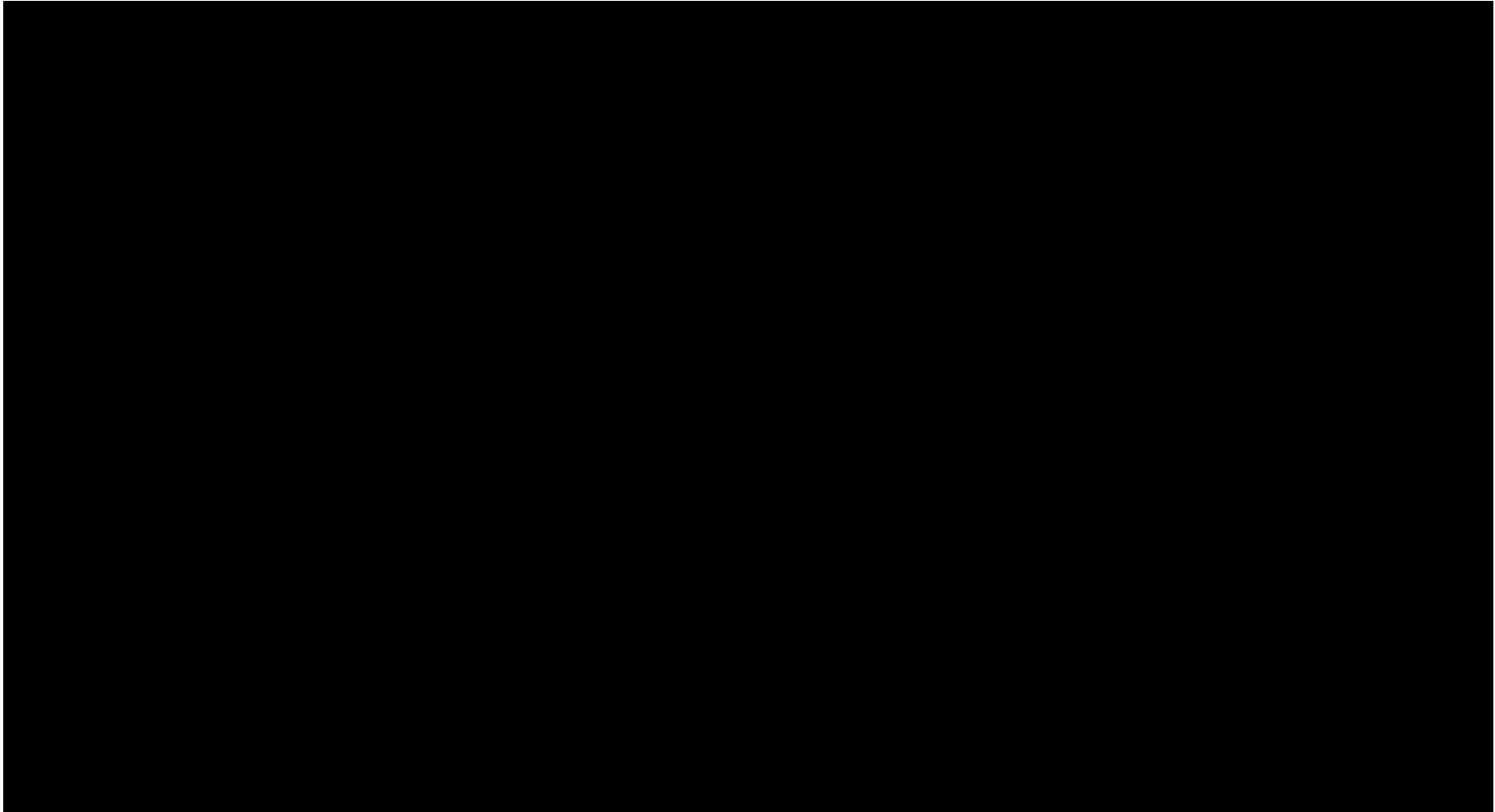








# MONSTER – MOVIE NIGHT



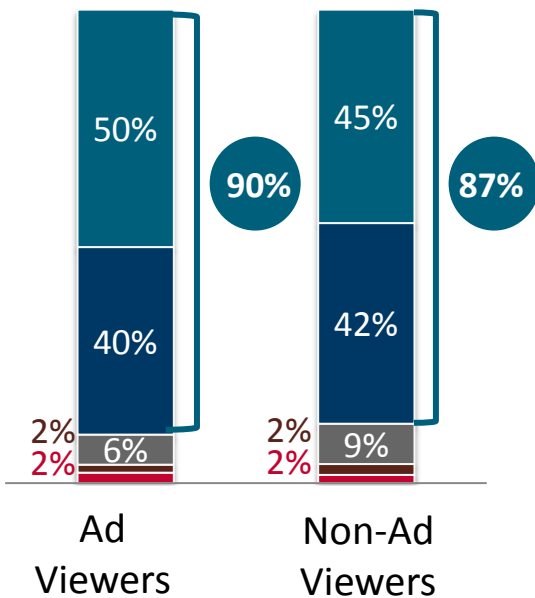


DEEPER DIVE

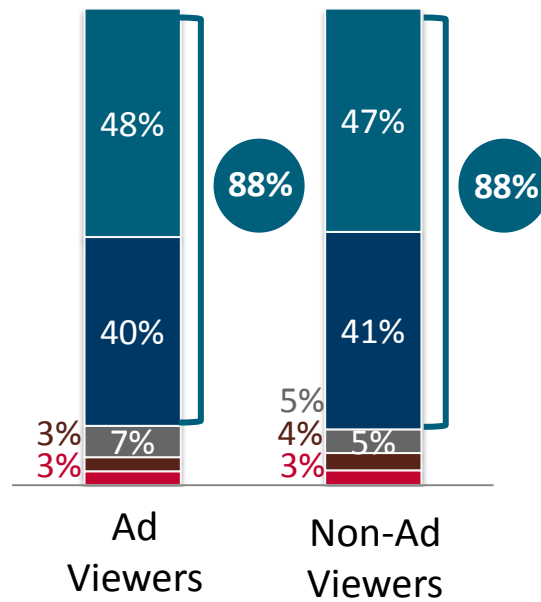
# UNINTENDED CONSEQUENCES: HEALTH STATEMENTS

If I use smokeless tobacco, I will...

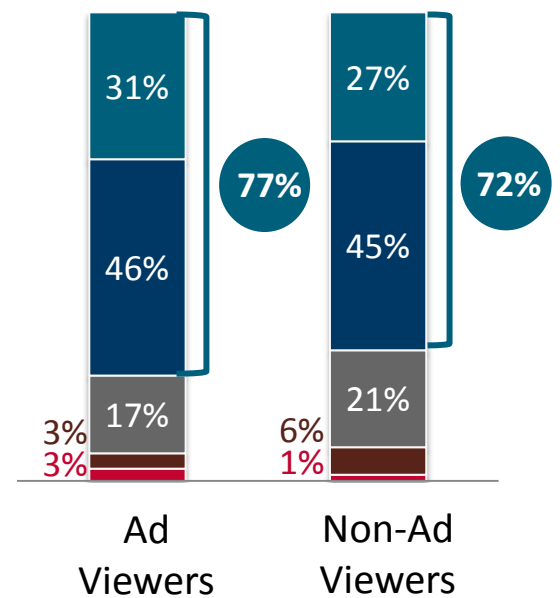
## Damage My Body



## Consume Harmful Chemicals



## Develop Cancer\*



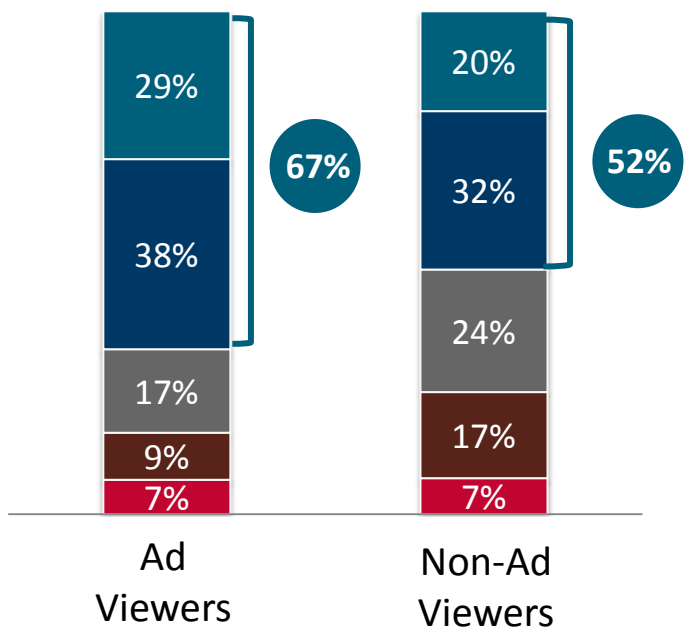
■ Strongly Agree   
 ■ Agree   
 ■ Neither Agree or Disagree   
 ■ Disagree   
 ■ Strongly Disagree

\* Indicates statistically significant difference in averages from non-ad viewers in expected direction

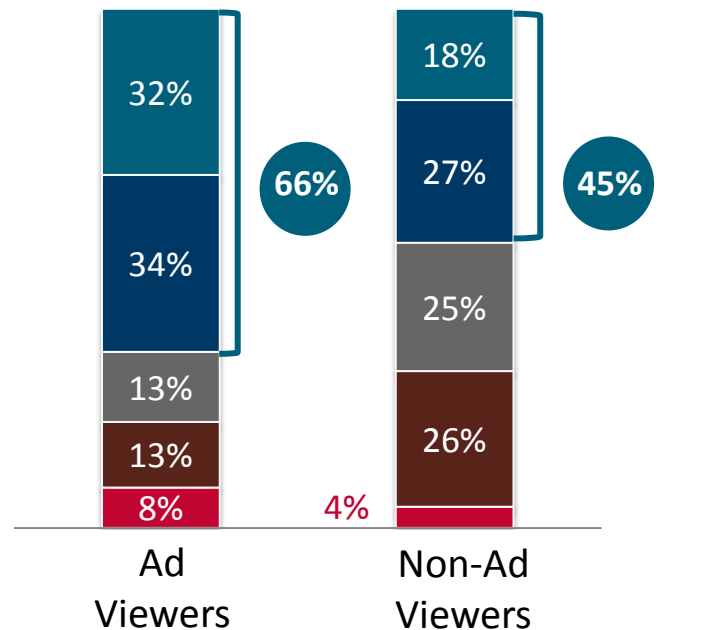
# UNINTENDED CONSEQUENCES: BEHAVIORAL STATEMENTS

If I use smokeless tobacco, I will...

## Be Controlled by Smokeless Tobacco\*



## Miss Out on Activities I Enjoy\*

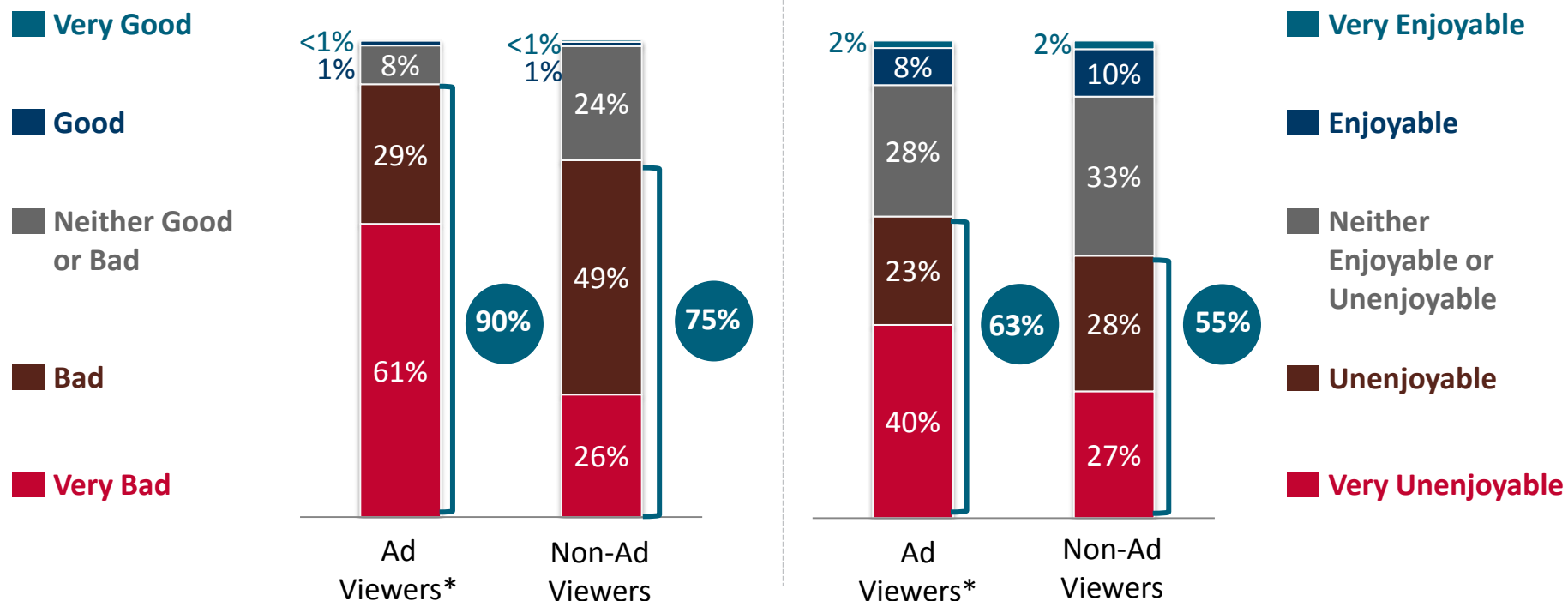


■ Strongly Agree   
 ■ Agree   
 ■ Neither Agree or Disagree   
 ■ Disagree   
 ■ Strongly Disagree

\* Indicates statistically significant difference in averages from non-ad viewers in expected direction

# UNINTENDED CONSEQUENCES: ATTITUDINAL STATEMENTS

## Using smokeless tobacco is...



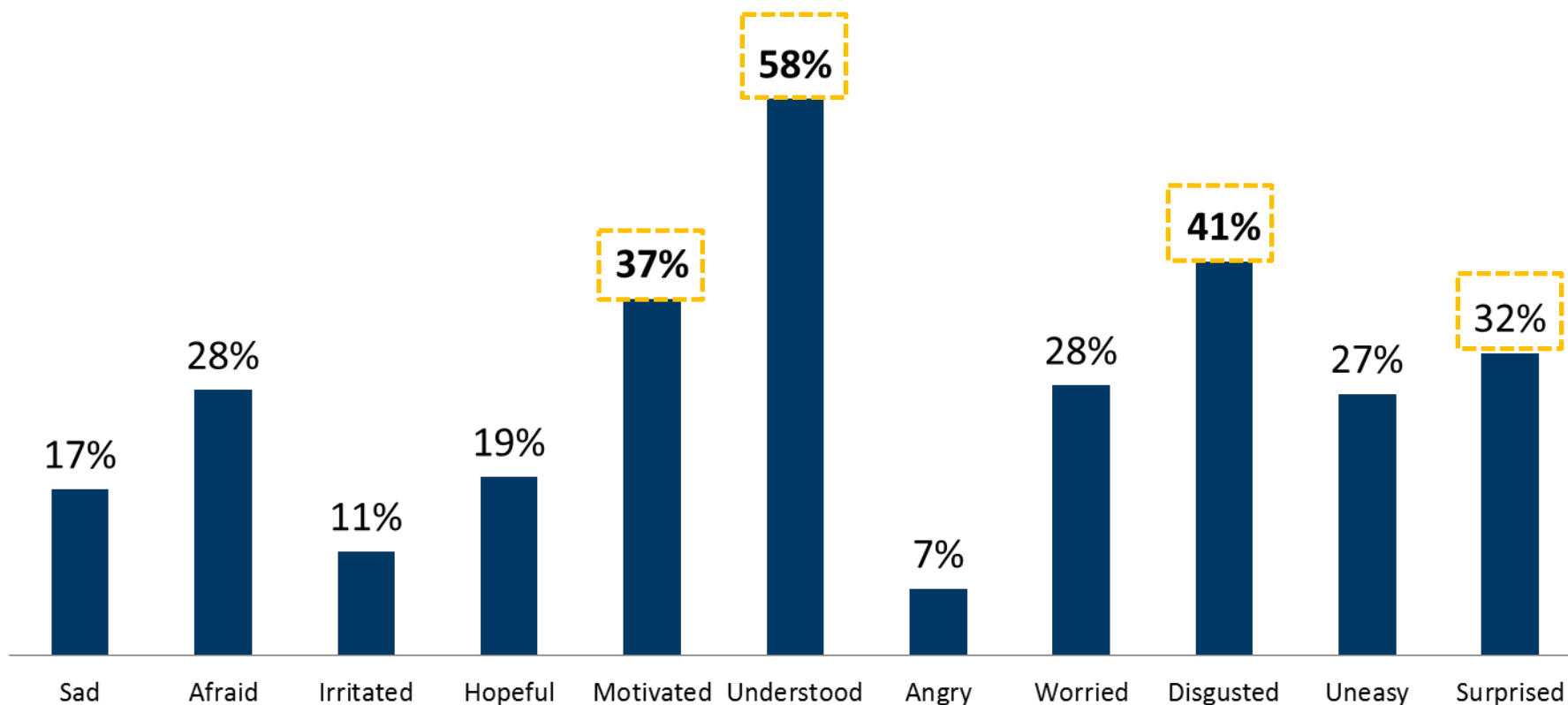
\* Indicates statistically significant difference in averages from non-ad viewers in expected direction

# SUMMARY OF *FACE OF DIP* – EMOTIONAL ENGAGEMENT



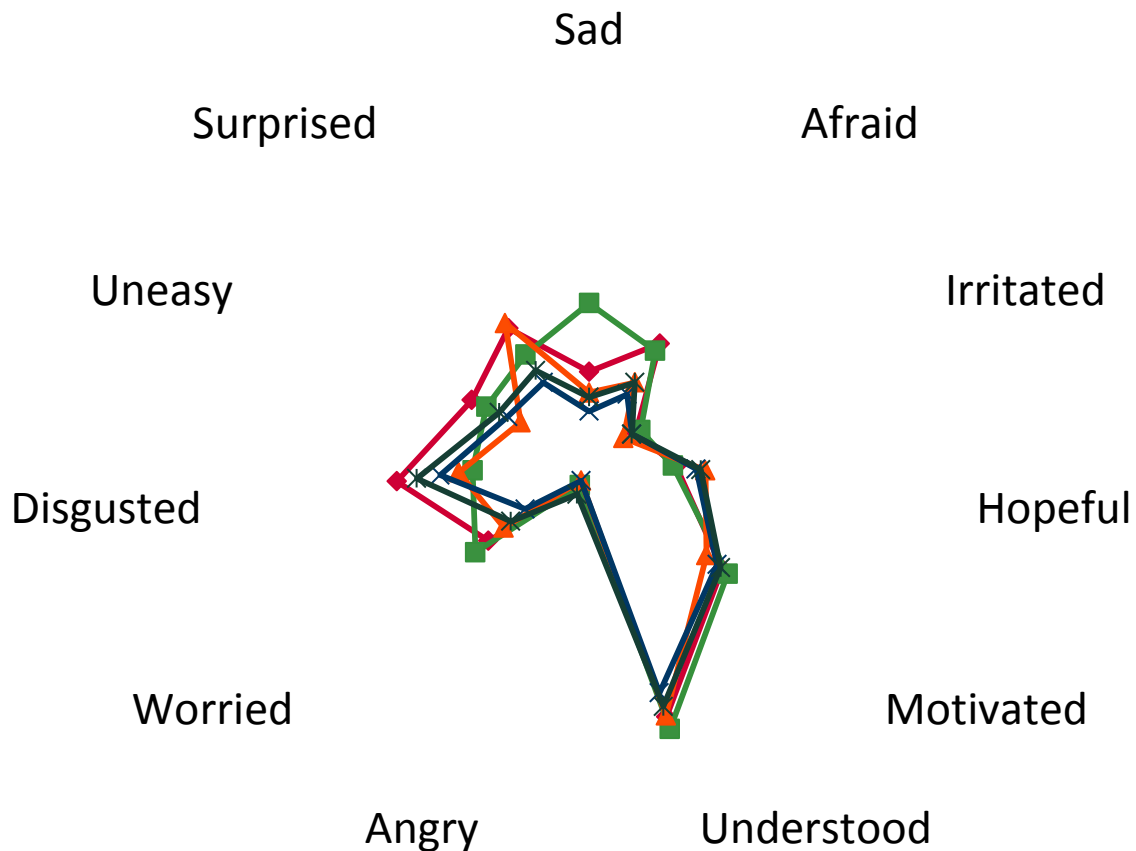
Please indicate how much this ad made you feel...

*% 4/5 Very*



# EMOTIONAL REACTIONS – REAL COST SMOKELESS

Please indicate how much this ad made you feel... (% 4/5 Very)

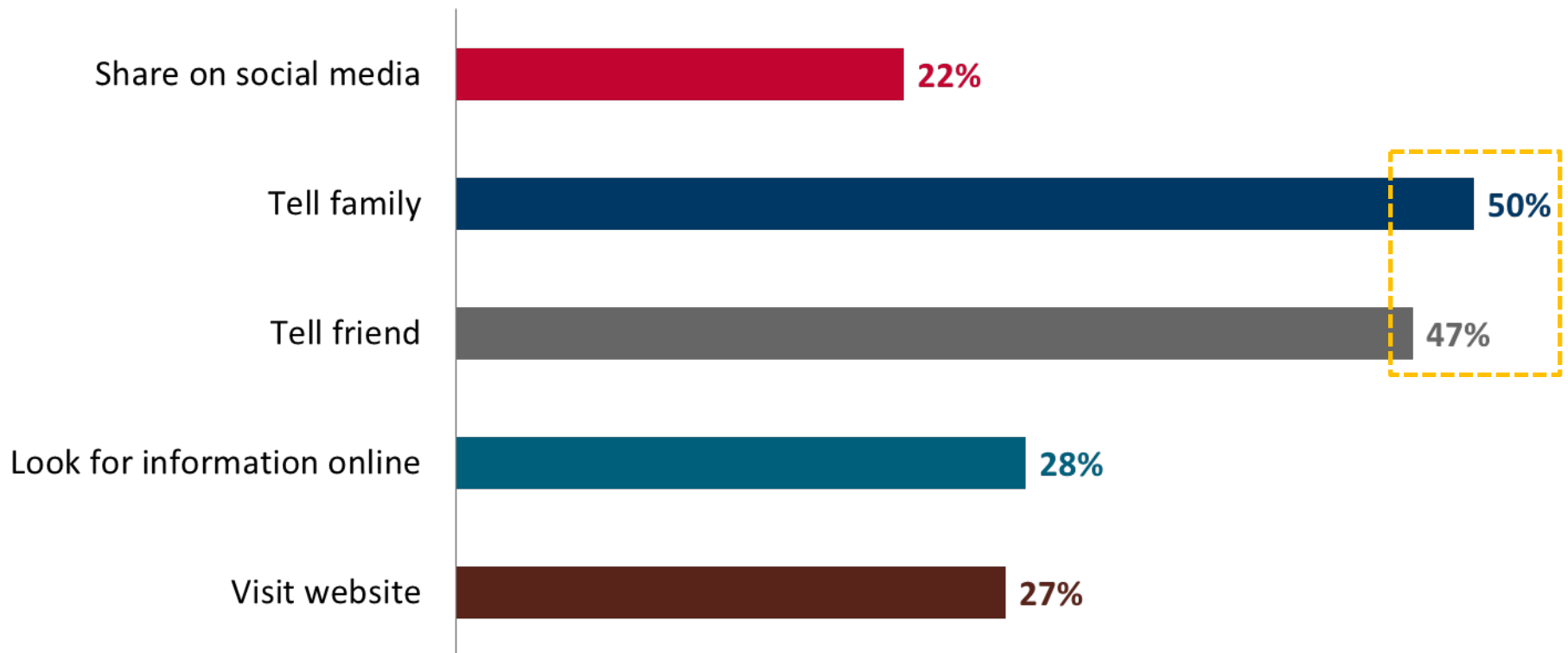


# FACE OF DIP- SHAREABILITY AND INFORMATION SEEKING



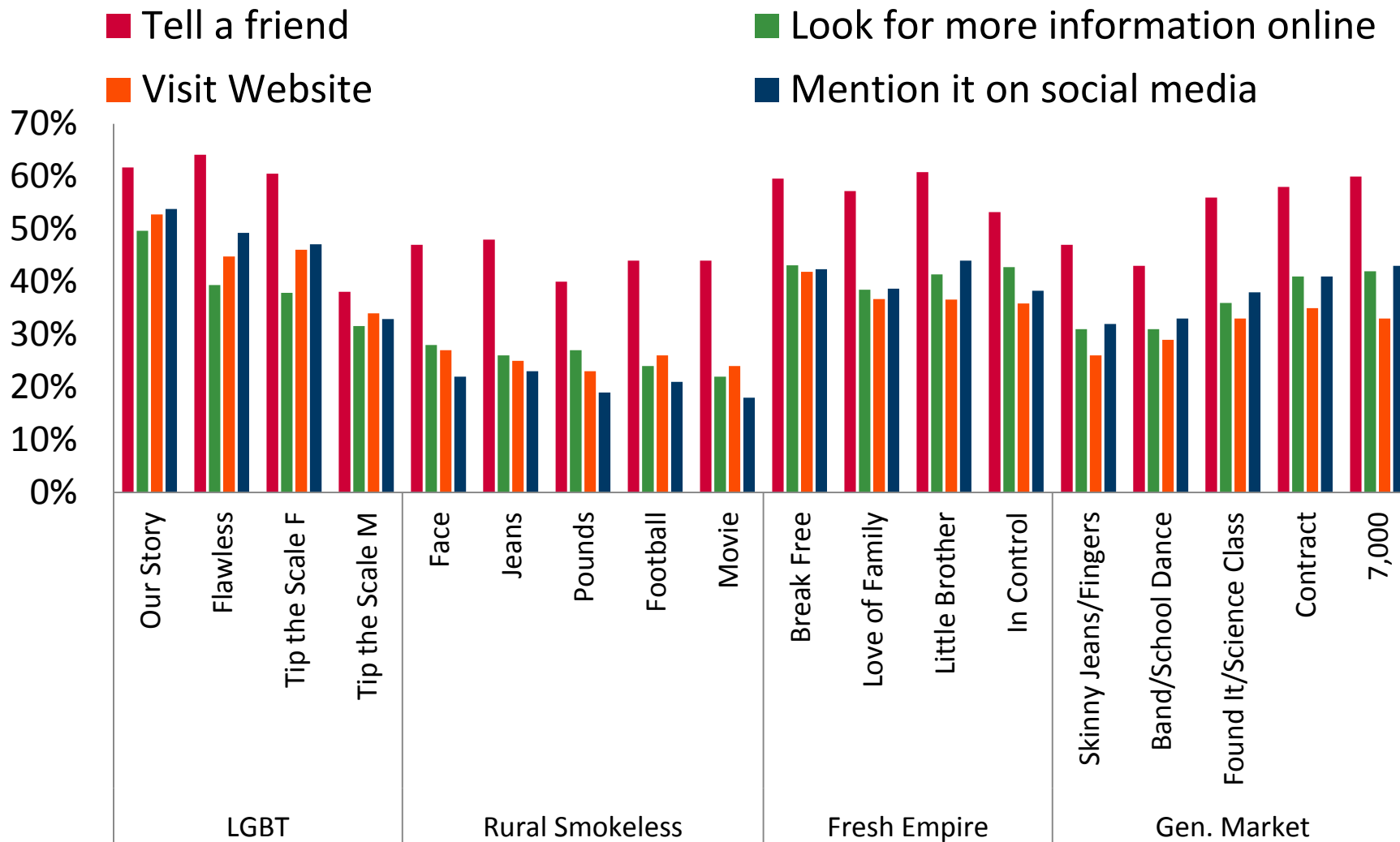
If you saw this advertisement, how likely would you be to do each of the following?

*% Likely/Very Likely*





# SHAREABILITY AND INFORMATION SEEKING



QUESTIONS?



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PRODUCTS

- **End of Presentation**



# RURAL SMOKELESS TOBACCO EDUCATION CAMPAIGN (RUSTEC) EVALUATION

*Presented by*  
*Alexandria Smith*  
*Social Scientist*  
*Office of Health and Education*  
*Research and Evaluation*

October 26, 2017

CENTER FOR TOBACCO PRODUCTS

**This information is not a formal dissemination of information by FDA/CTP and does not represent Agency position or policy.**

**Target population:** Rural 12- to 17-year-old males who are at risk for smokeless tobacco use or already experimenting

**Main Message:** Smokeless Doesn't Mean Harmless



- In-person and online data collection in 30 media markets across the country randomized to either campaign (N=15) or comparison (N=15)
- Recruited males aged 11-16 from 30 selected markets using address-based sampling of households
- Addresses are clustered into Census block groups within media markets

- We began data collection by sending a paper and pencil household screening survey to identify potentially eligible households
- We then sent field interviewers to households with age eligible boys to recruit them into the study
- Once successfully recruited, parents completed a self-administered survey on a tablet and youth completed a survey on a laptop.
- Youth received \$20 in cash for completing the baseline survey

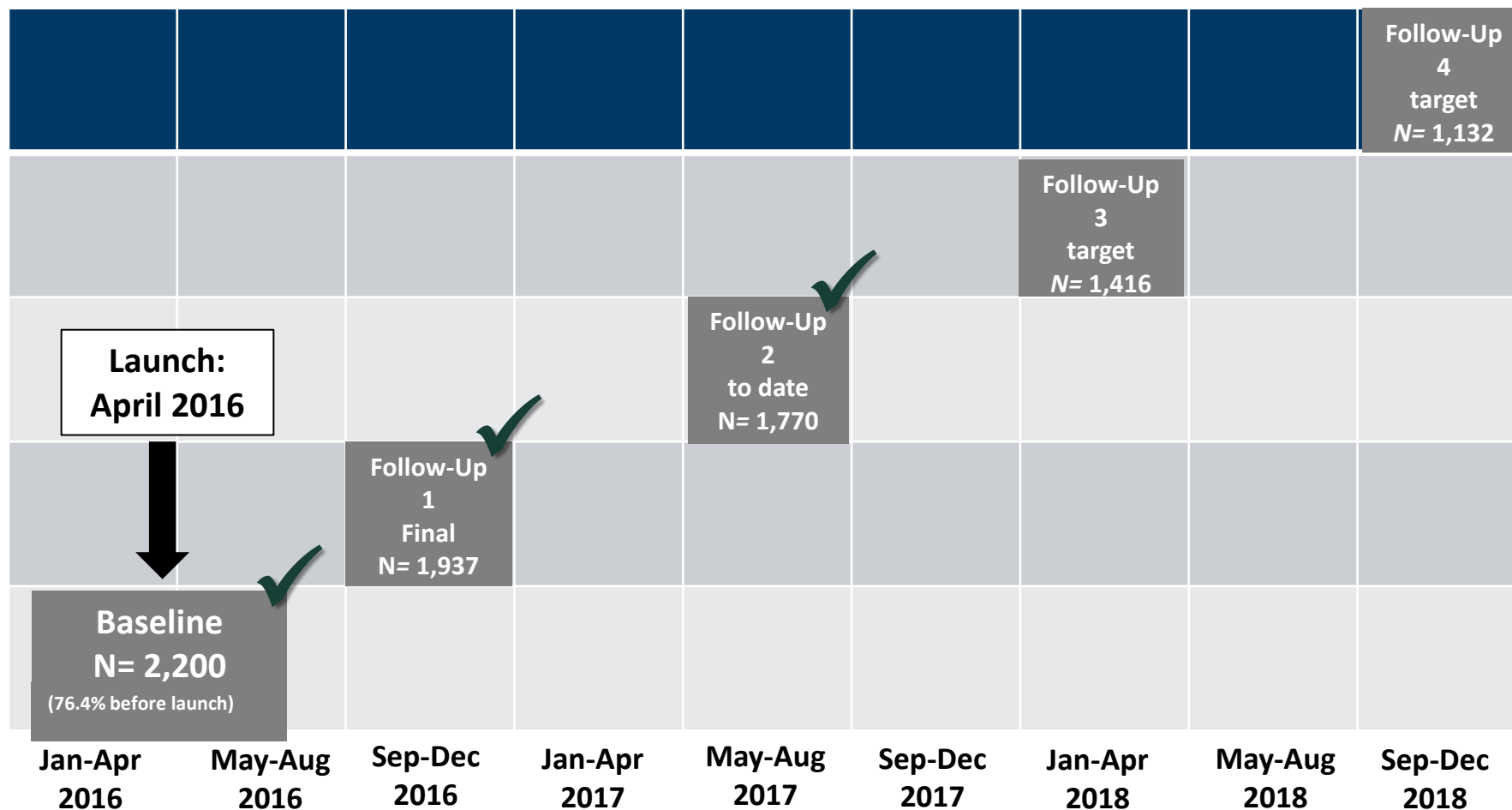


# FOLLOW-UP DATA COLLECTION PROCEDURES

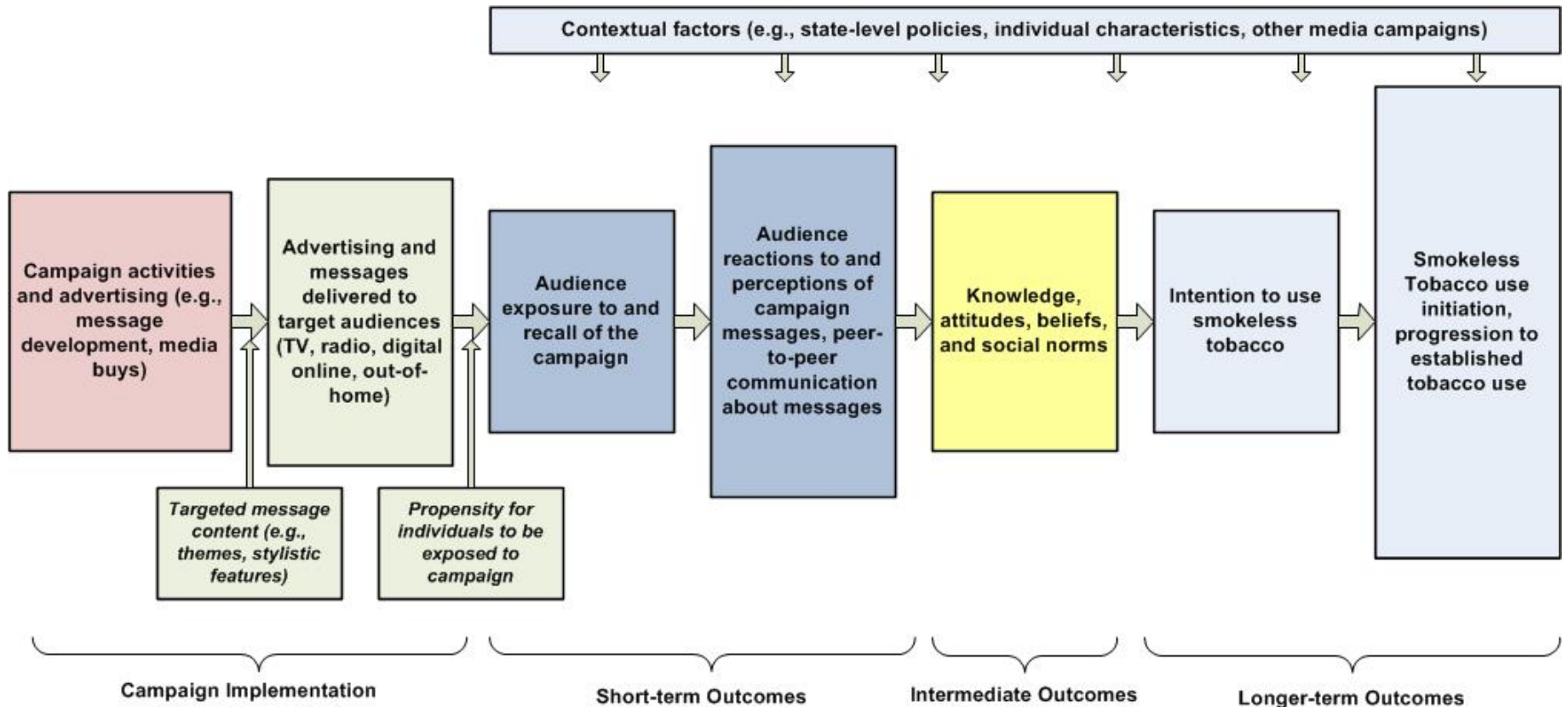


- Follow-up 1 – Follow-up 4 conducted in-person and online
- Participants who complete the survey within ~1 month of launch receive a \$5 early-bird incentive in addition to the standard \$20 incentive
- Online participants receive an incentive by a check in the mail
- In-person participants receive \$20 cash
- Longitudinal cohort will age out at 20 years old
- 70% completion online for follow-ups

# TIMELINE FOR DATA COLLECTION



# EVALUATION LOGIC MODEL



## Follow-up 1

- Short-Term Outcome: Achieve 75% youth recall of *The Real Cost Smokeless* campaign ads

## Follow-up 2

- Short-Term Outcome: Maintain 75% youth recall of *The Real Cost Smokeless* campaign ads

## Follow-up 3

- Intermediate Outcome: Achieve significant change in beliefs and attitudes targeted by *The Real Cost Smokeless* campaign ads

## Follow-up 4

- Intermediate Outcome: Maintain significant change in beliefs and attitudes targeted by *The Real Cost Smokeless* campaign ads

# CAMPAIGN SCREENER AND MEASURES

Household data collected from baseline screeners on parents and youth include:

- Number of eligible youth
- Relationship status
- Education
- Household income
- Employment status
- Tobacco use

## Baseline and Follow-Up Surveys

- Smokeless tobacco use
- Knowledge, attitudes, and beliefs (KABs)

## Follow-Up Surveys

- Campaign media awareness
- Brand awareness
- Perceived effectiveness

# KNOWLEDGE, ATTITUDES, AND BELIEFS AT BASELINE



# SMOKELESS TOBACCO RELATED KABs



Ad	Item
	<b>If I use smokeless tobacco I will...</b>
Face of Dip, Jeans	Damage my body
Jeans	Shorten my life
Pounds	Consume harmful chemicals
Pounds, Face of Dip, Jeans	Develop cancer of the lip, mouth, tongue or throat
Face of Dip, Jeans	Develop red or white patches in the mouth
Face of Dip	Lose my teeth
Football Monster, Movie Monster	Be controlled by smokeless tobacco
Football Monster, Movie Monster	Be unable to stop when I want to
Movie Monster	Gross out people I want to date
Movie Monster	Miss out on things I enjoy doing

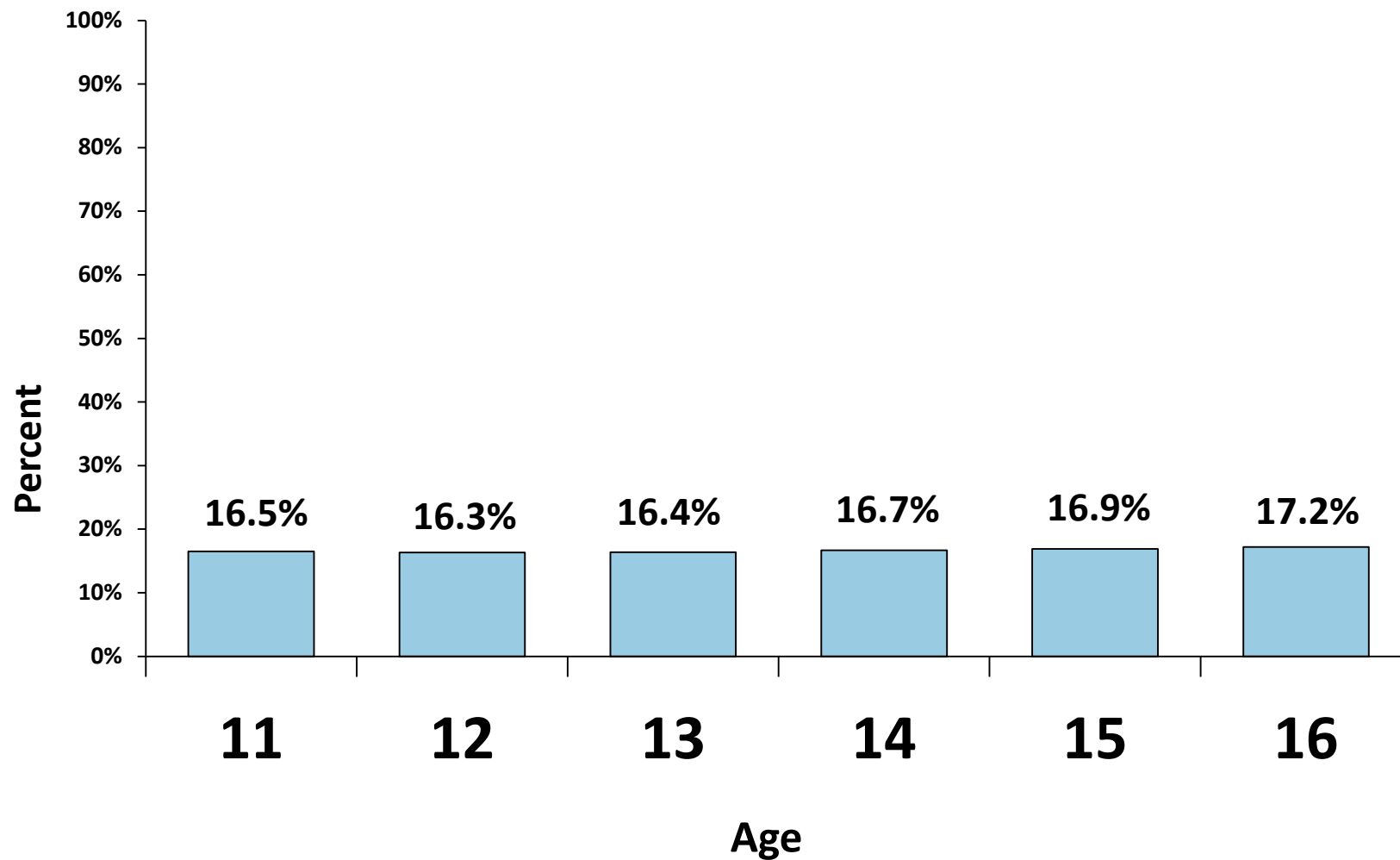
# SMOKELESS TOBACCO RELATED KABS



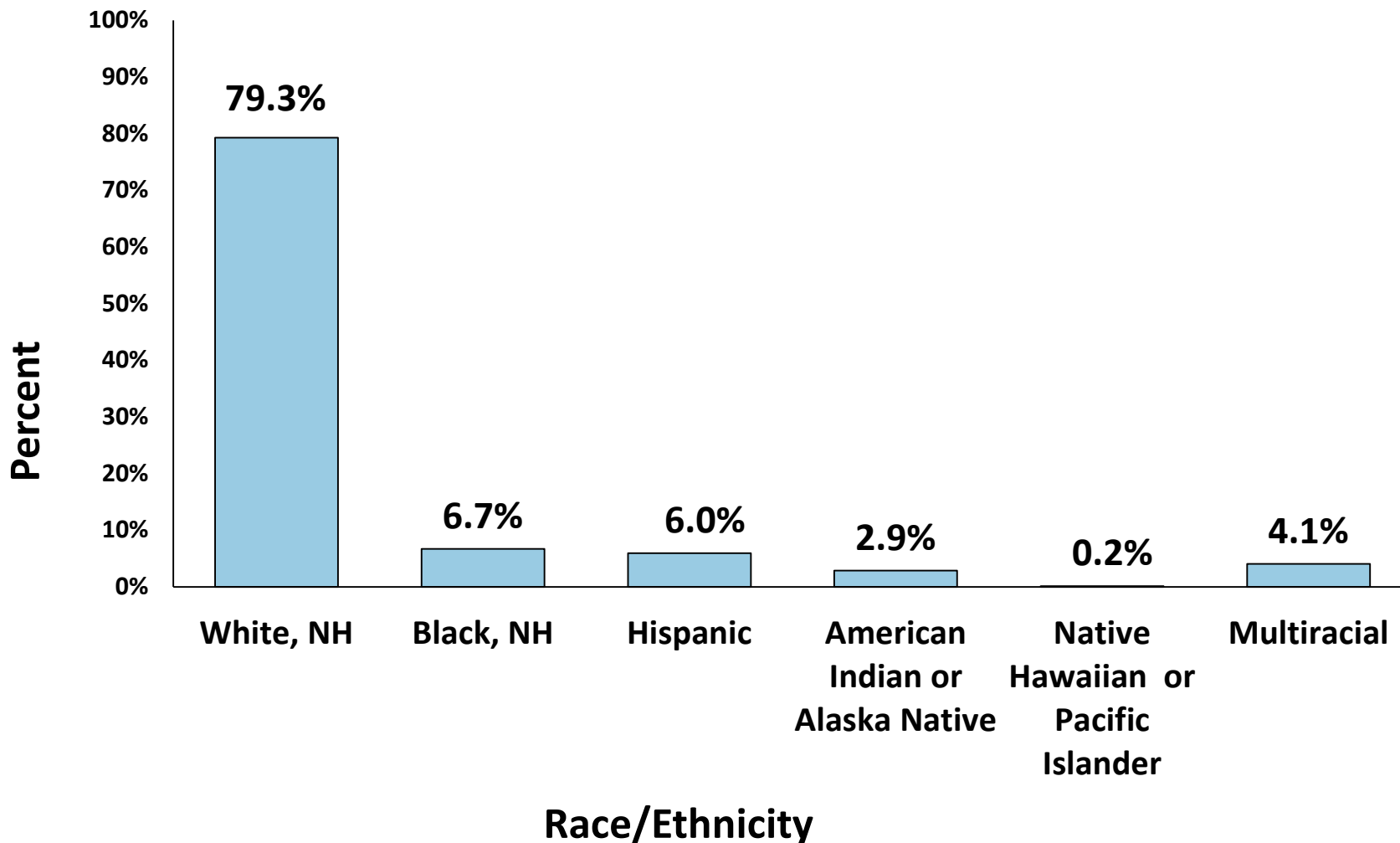
Ad	Item
	<b>Using smokeless tobacco...</b>
Jeans, Face of Dip	Can cause immediate damage to my body
Football Monster, Movie Monster	Is safe if used for only a year or two
Football Monster, Movie Monster	Occasionally will not cause addiction

# RUSTEC BASELINE SAMPLE

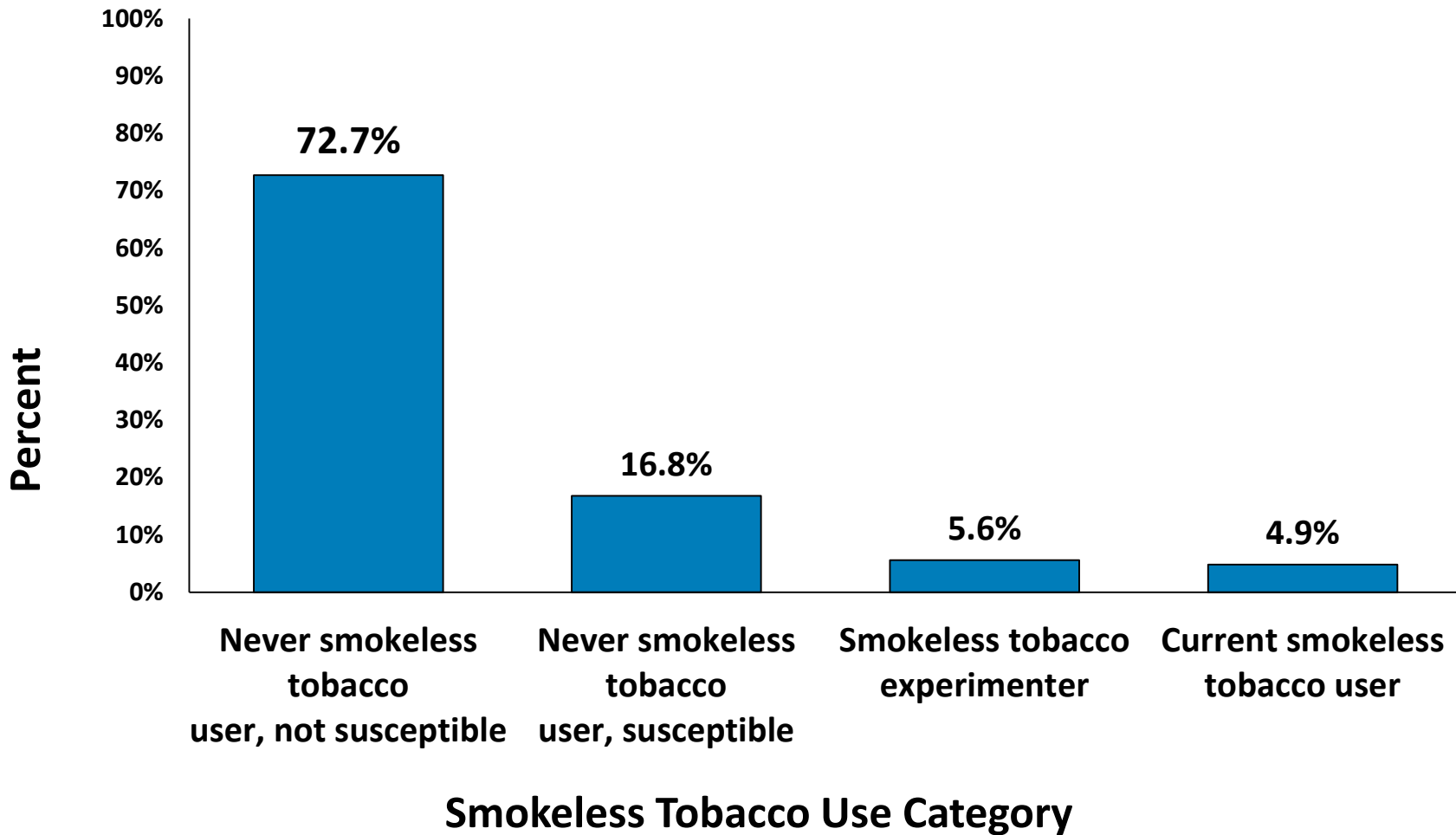
# RUSTEC BASELINE SAMPLE AGE



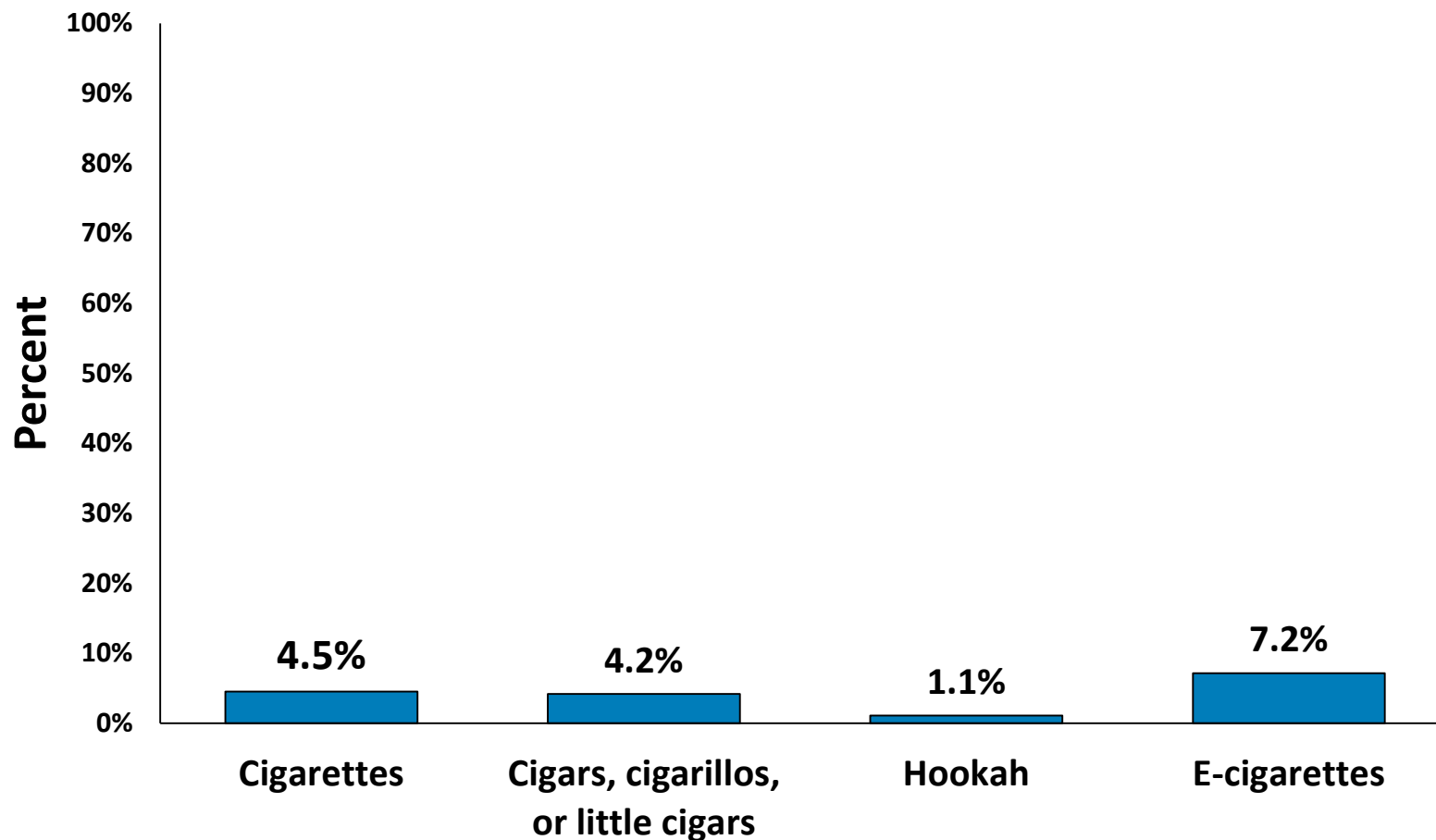
# RUSTEC BASELINE SAMPLE RACE/ETHNICITY



# RUSTEC BASELINE SMOKELESS SUSCEPTIBILITY AND USE

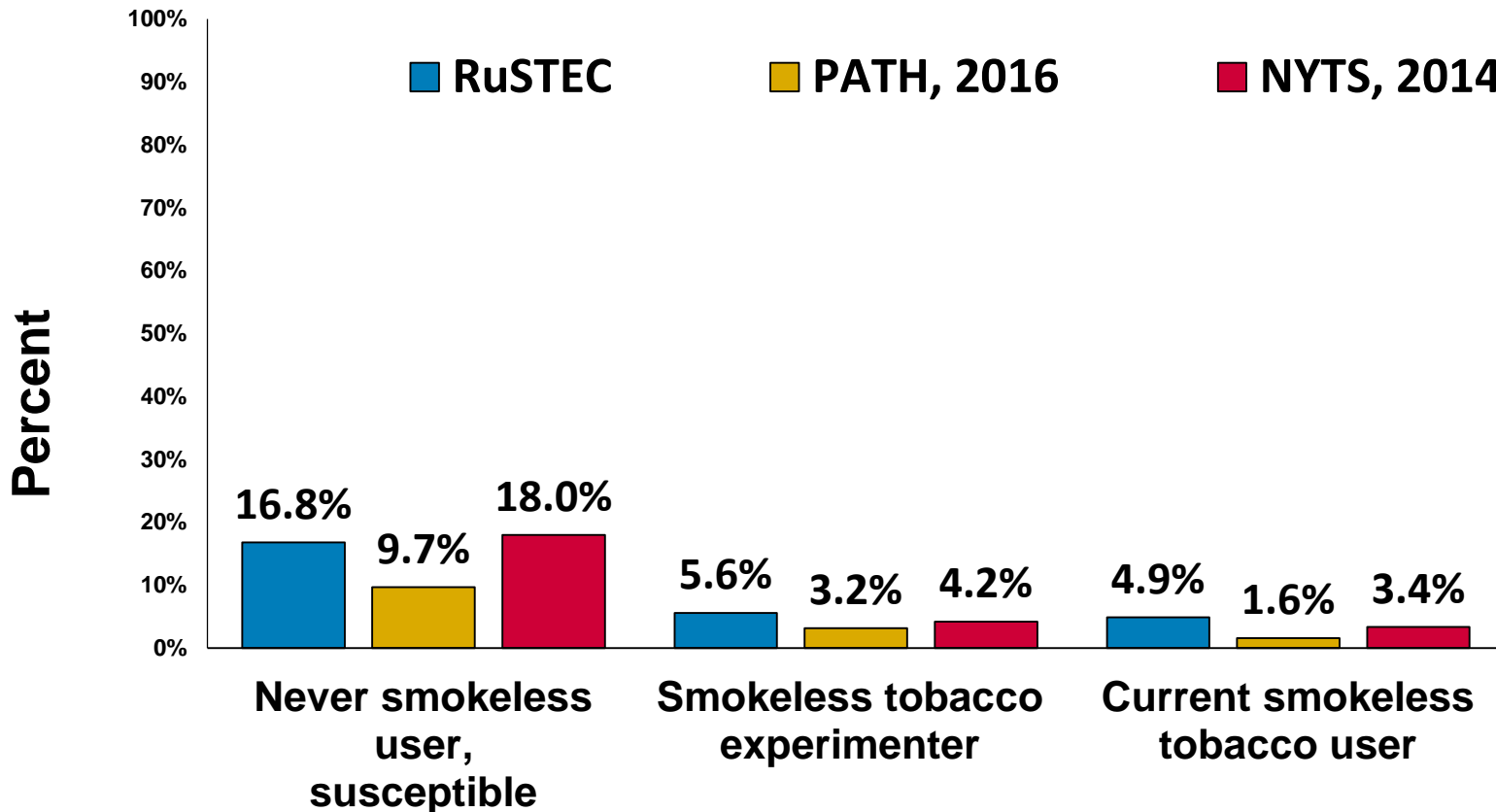


# RUSTEC BASELINE OTHER CURRENT TOBACCO USE



**Current Other Tobacco Use**

# SMOKELESS TOBACCO USE: RUSTEC vs PATH vs NYTS



## Smokeless Susceptibility and Use



# CONCLUSIONS

- Successfully recruited rural male youth for an online longitudinal cohort
- High percentages of online completion for follow-ups
- Relative higher susceptibility and smokeless tobacco use among this sample than national samples
- Follow-up surveys will examine changes in campaign-targeted KABs

## A Big Thank You to the team!

### FDA/CTP

- Janine Delahanty
- Pamela Rao
- Xiaoquan Zhao

### RTI International

- Matthew Farrelly
- Nate Taylor
- Jane Allen
- Melissa Helton
- Patty LeBaron

- **End of Presentation**

