Smoking Cessation Leadership Center



University of California San Francisco

One-Hour Power Break webinar -Rather wreck my gums than my lungs: Smokeless tobacco and California rural adolescent males

Benjamin Chaffee, DDS, MPH, PhD

Moderator

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Disclosures

This UCSF CME activity was planned and developed to uphold academic standards to ensure balance, independence, objectivity, and scientific rigor; adhere to requirements to protect health information under the Health Insurance Portability and Accountability Act of 1996 (HIPAA); and include a mechanism to inform learners when unapproved or unlabeled uses of therapeutic products or agents are discussed or referenced.

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Robert Wood Johnson Foundation







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- All participants will be in listen only mode.
- Please make sure your speakers are on and adjust the volume accordingly.
- If you do not have speakers, please request the dial-in via the chat box.
- This webinar is being recorded and will be available on SCLC's website, along with the slides.
- Use the chat box to send questions at any time for the presenters.



CME/CEU Statement

Accreditation:

The University of California, San Francisco (UCSF) School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

UCSF designates this live activity for a maximum of *1.0 AMA PRA Category 1 Credit*TM. Physicians should claim only the credit commensurate with the extent of their participation in the webinar activity.

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Respiratory Therapists: This program has been approved for a maximum of 1.0 contact hour Continuing Respiratory Care Education (CRCE) credit by the American Association for Respiratory Care, 9425 N. MacArthur Blvd. Suite 100 Irving TX 75063, Course # 149246000.





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Rather Wreck My Gums Than My Lungs: Smokeless Tobacco and California Rural Adolescent Males



University of California San Francisco

> Benjamin Chaffee, DDS MPH PhD UCSF School of Dentistry Division of Oral Epidemiology & Dental Public Health UCSF Center for Tobacco Control Research & Education

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Dr. Margaret (Peggy) Walsh



Dr. Walsh was a visionary leader in education and research



Smokeless Tobacco: Adverse Health Effects

Oral conditions

Oral and pharyngeal cancer Mucosal lesions Gingival keratosis Periodontal disease Tooth discoloration Enamel erosion Gingival recession Dental caries

Other conditions

Pancreatic cancer Stomach cancer Hypertension Cardiovascular Disease

Smoking initiation among young users

Conventional Smokeless Tobacco (ST)

Oral moist snuff ("dip")

Finely ground tobacco Typically placed between buccal mucosa and gingiva and held in place

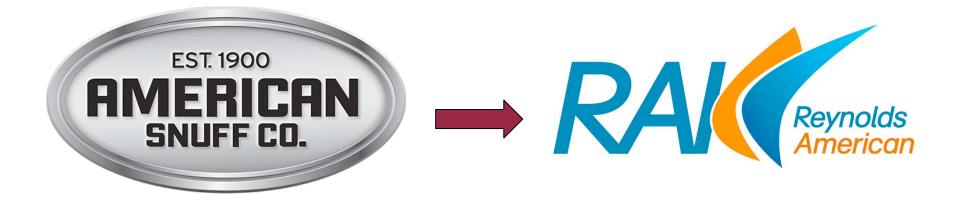


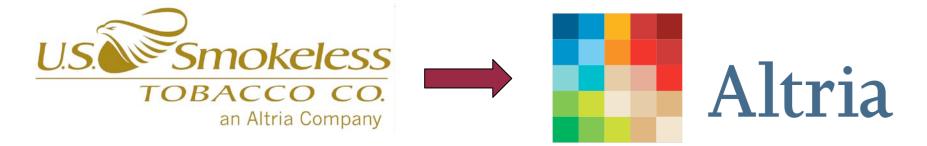
Chewing tobacco ("chew")

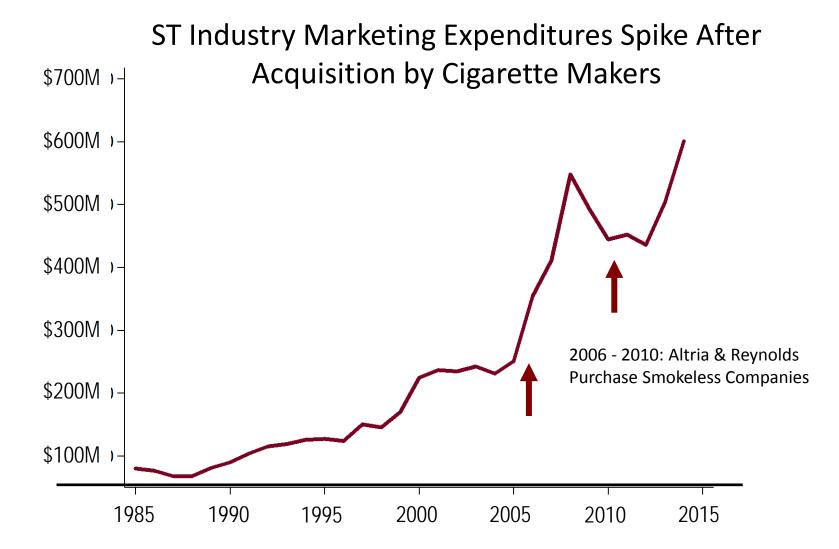
Coarsely shredded tobacco Sold in bricks, twists, or loose-leaf Placed in mouth and chewed



Acquisition of ST manufacturers by major cigarette companies





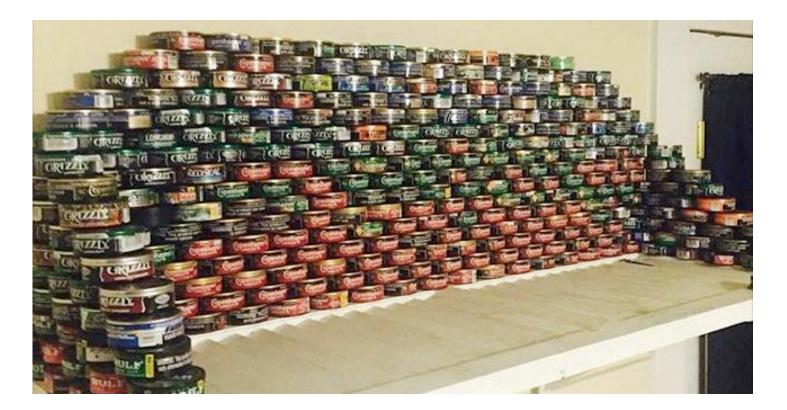


Major growth in marketing expenditures on magazine ads & price discounts





Greater diversity in ST product types and varieties



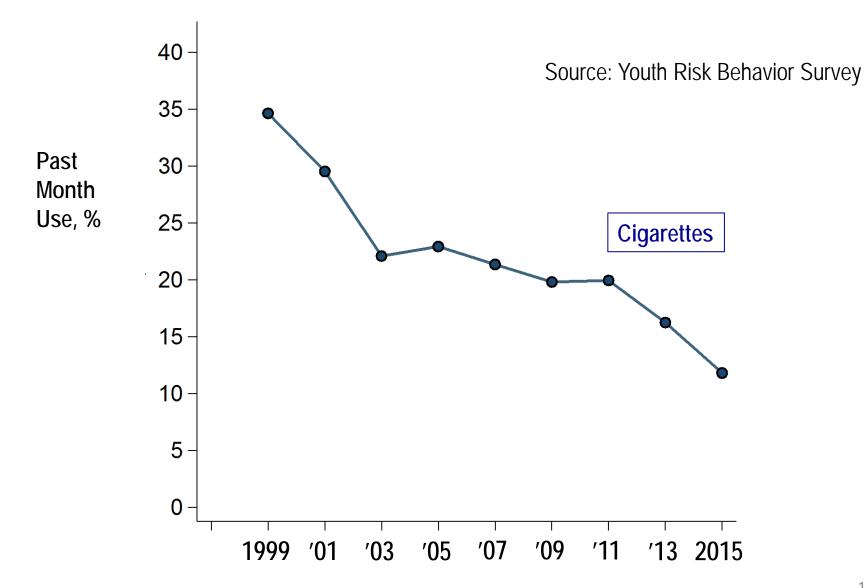
Options in price, flavor, cut & nicotine content may appeal to youth

Rising popularity and normalization of other non-cigarette products (e.g. e-cigarettes, marijuana)

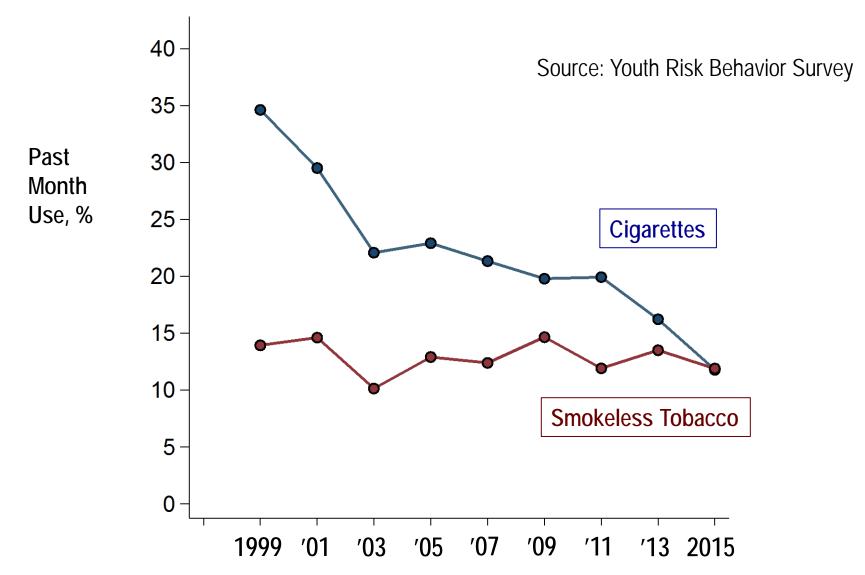




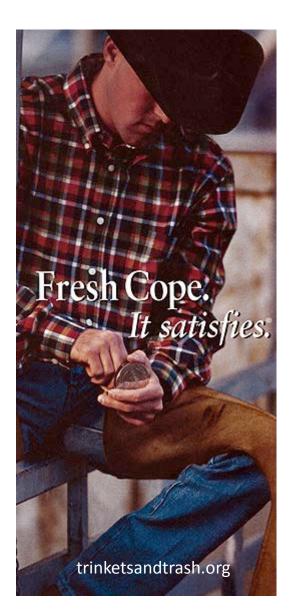
Adolescent Tobacco Use, United States (males, grade 9 -12)



Adolescent Tobacco Use, United States (males, grade 9 - 12)



Populations at risk of smokeless tobacco use



Male Young adult Non-Hispanic White Lower-income & education Rural

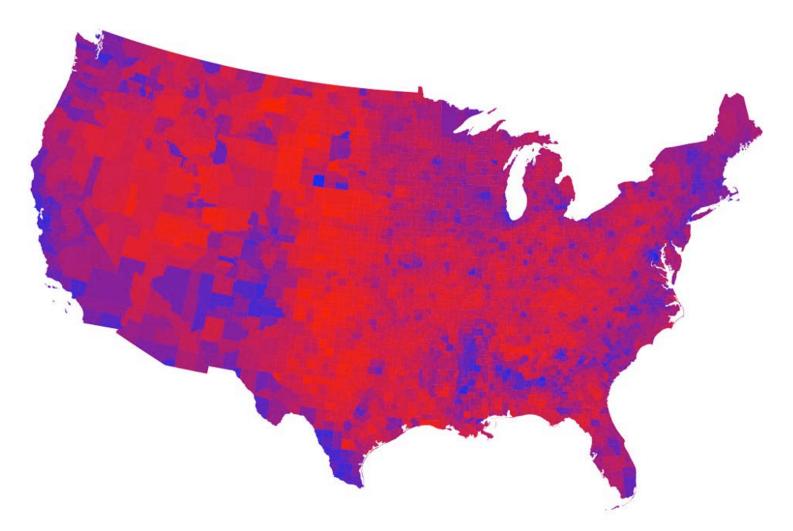
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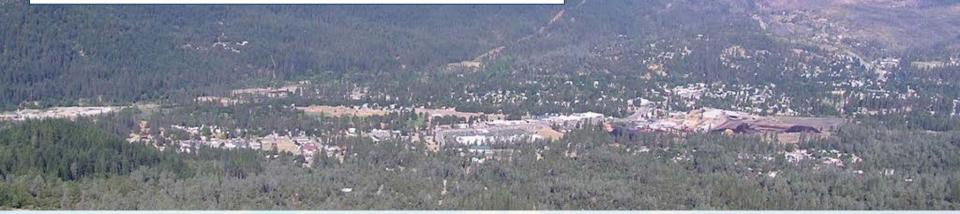
United States 2016 Presidential Election: Voting by County



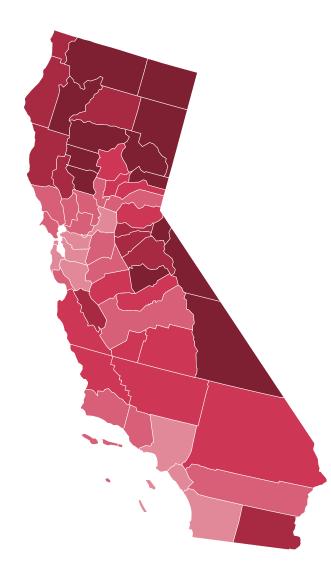
Why Study Smokeless Tobacco Use in California?



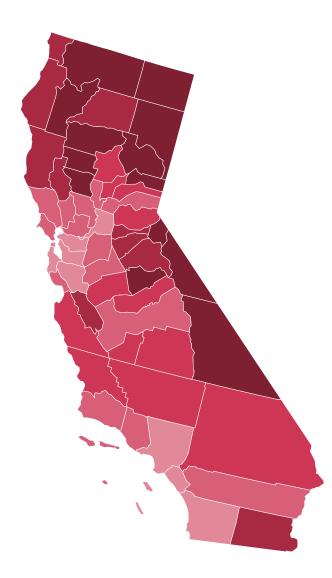
1.9 million Californians live in rural areas

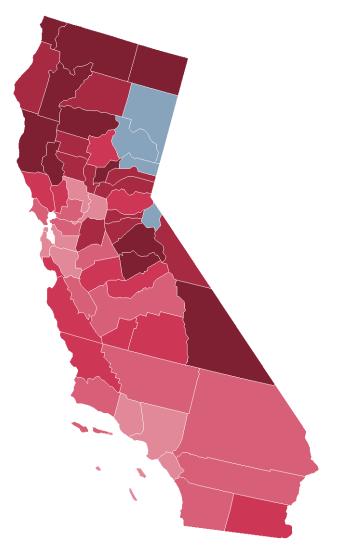


California Counties: Population Density



California Counties: Population Density California Counties: % ST Ever-Use 11th Grade







Smokeless Tobacco Use Among Rural High School Baseball Players in California



Baseball teams at 36 rural California high schools (Recruited: 2014-2016)

<u>Assess</u>:

- ST use patterns
- Risk perceptions
- Decision-making
- Biological markers of nicotine and carcinogen exposure

Something for nothing.

If the best things in life are free, this is one of them. Just fill out the coupon below, send it in and we'll send you a free can of Happy Days moist smokeless tobacco. Just a pinch between your cheek and gum will give you real tobacco pleasure without lighting up. Go Smokeless. It's the only way to go.

Earl Campbell Football Star

Smokeless Tobacco and Sports

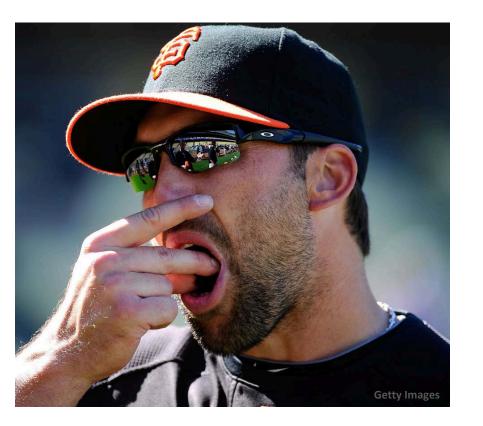
Elevated ST use in baseball, hockey, football, rodeo, wrestling, auto racing



A pinch is all

it takes!

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Smokeless Tobacco and Sports

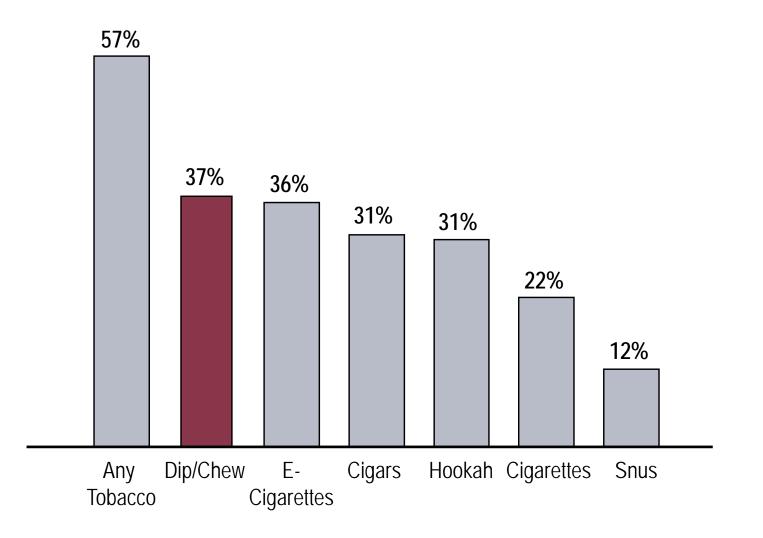
Elevated ST use in baseball, hockey, football, rodeo, wrestling, auto racing

Exceedingly high in organized baseball

Modeled use by admired athletes during widely broadcast games

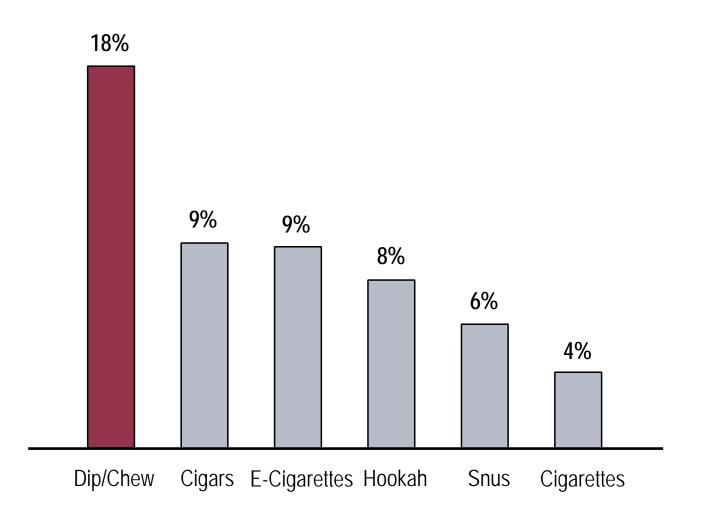
Tobacco marketing infiltrates baseball culture and tradition

Ever tried tobacco products (at least one time)



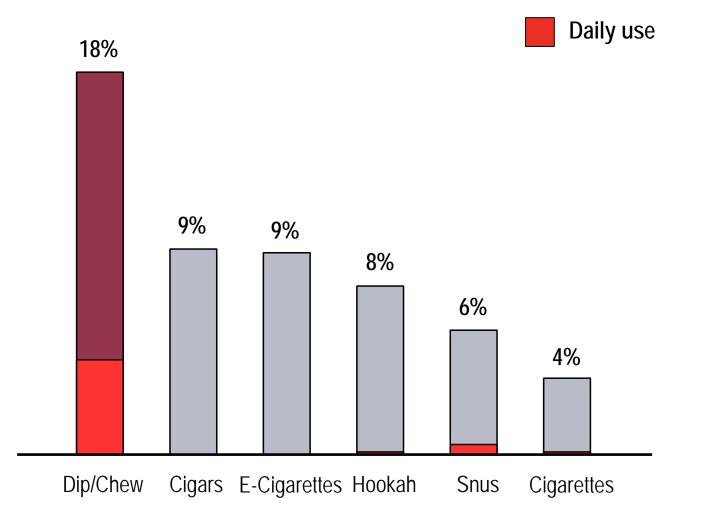
Rural California High School Males (N = 594)

Current (past month) tobacco use



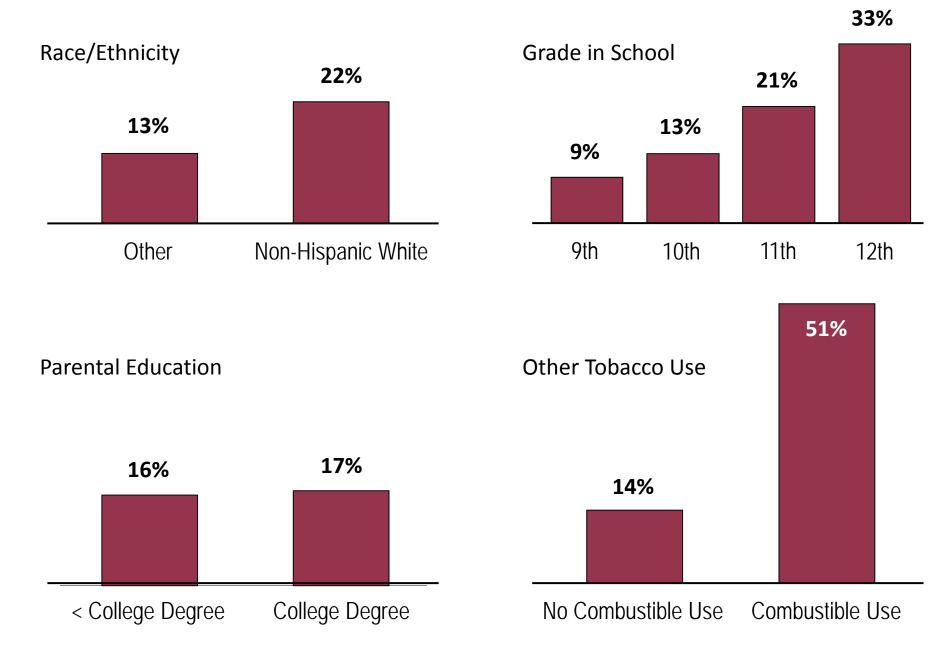
Rural California High School Males (N = 594)

Past month tobacco use & daily use

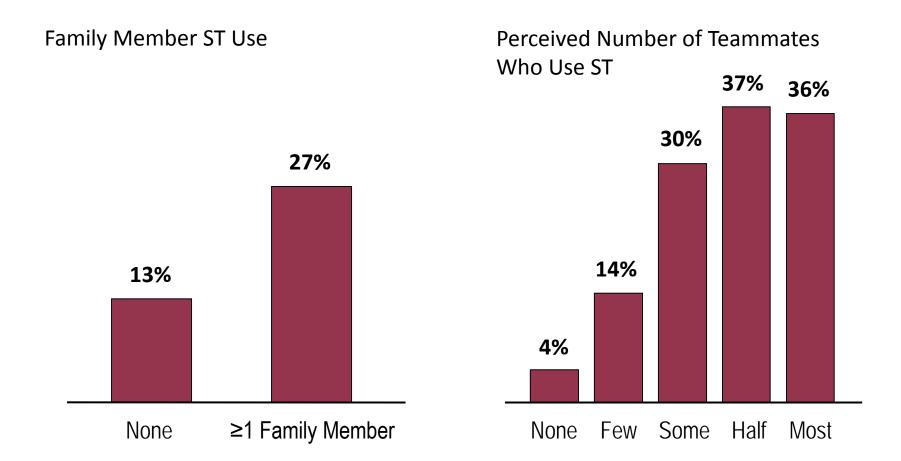


Rural California High School Males (N = 594)

Correlates of Past Month Smokeless Tobacco Use



Correlates of Past Month Smokeless Tobacco Use



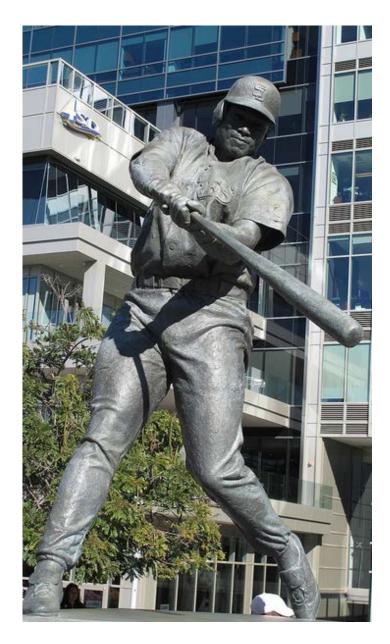


Smokeless Tobacco in Major League Baseball



Smokeless Tobacco in Major League Baseball

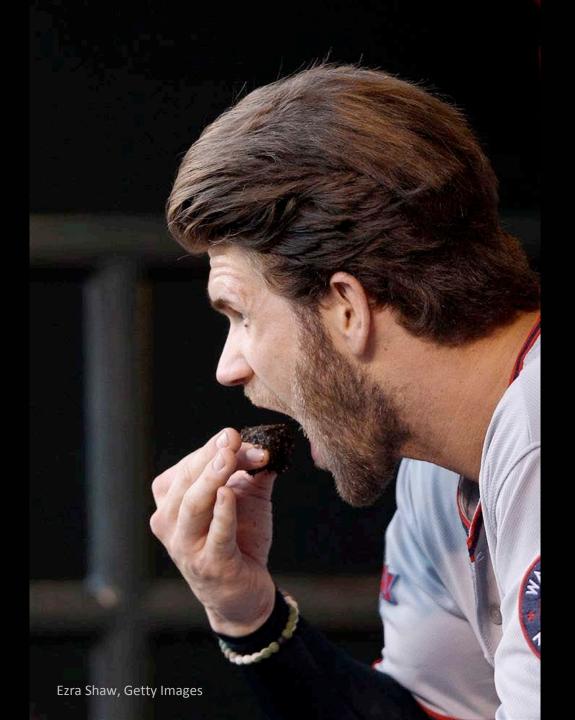
Officially banned in minor leagues (1993) Cannot be carried in uniform (2012) Some cities ban tobacco in ballparks (2015-2016) <u>New</u> major leaguers cannot use in games (2017)



Smokeless Tobacco in Major League Baseball

Officially banned in minor leagues (1993) Cannot be carried in uniform (2012) Some cities ban tobacco in ballparks (2015-2016) <u>New</u> major leaguers cannot use in games (2017)

> Momentum encouraging, but... Rules are patchwork and practically unenforceable



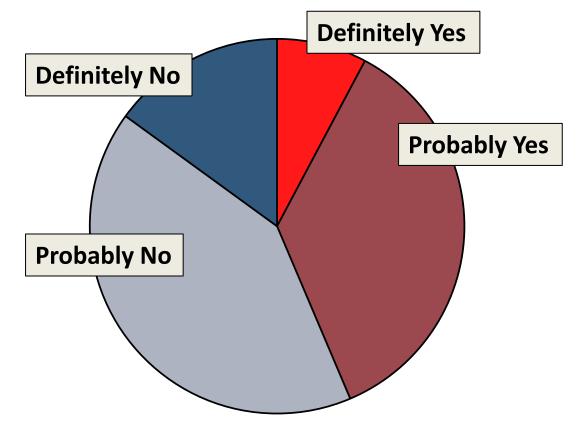
2015 National League Most Valuable Player

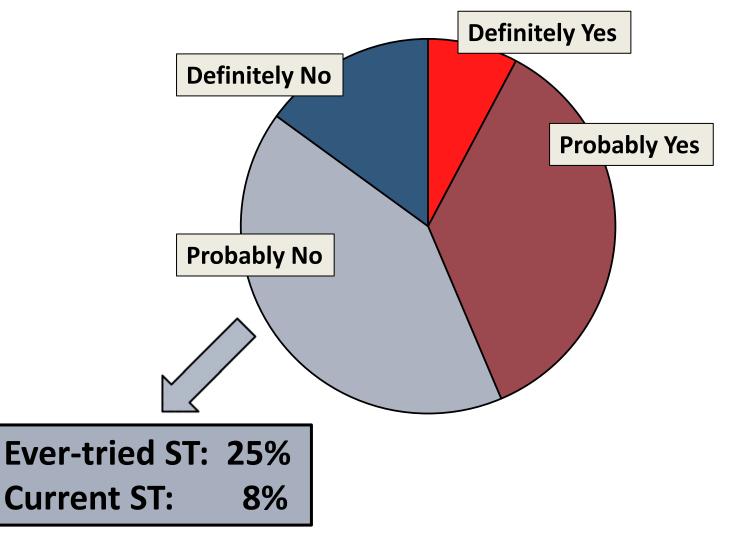


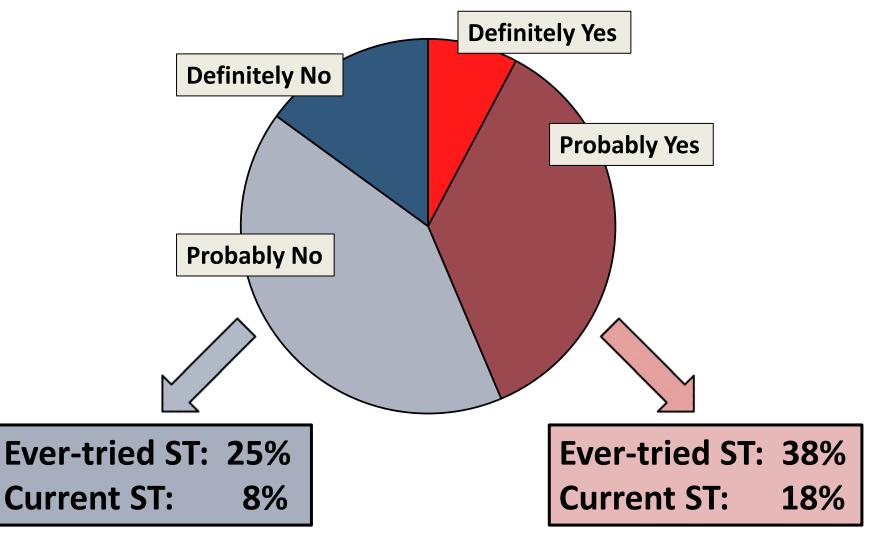
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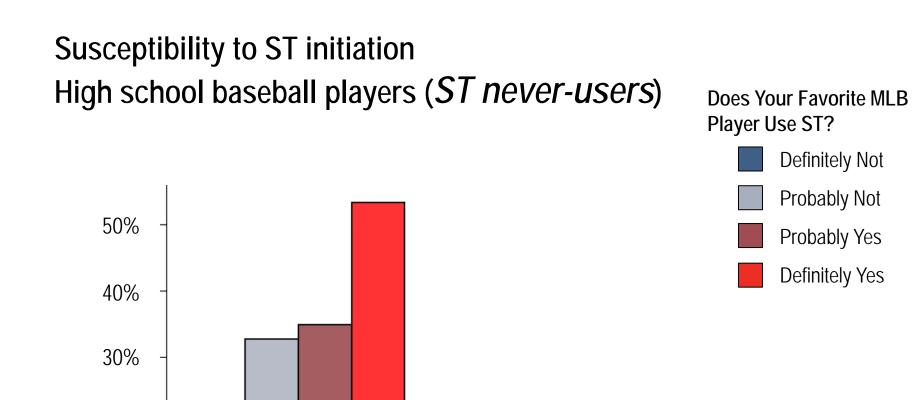


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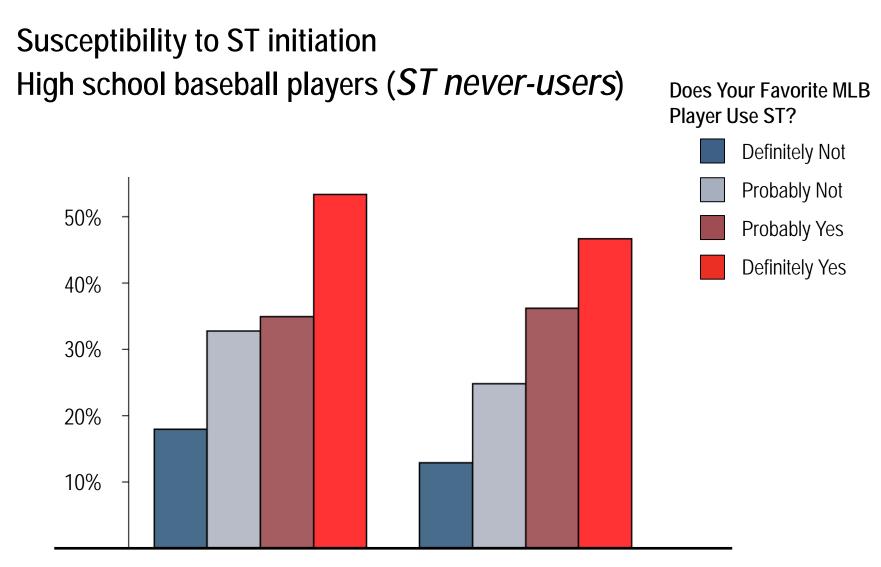




Would Try ST if Best Friend Offered

20%

10%



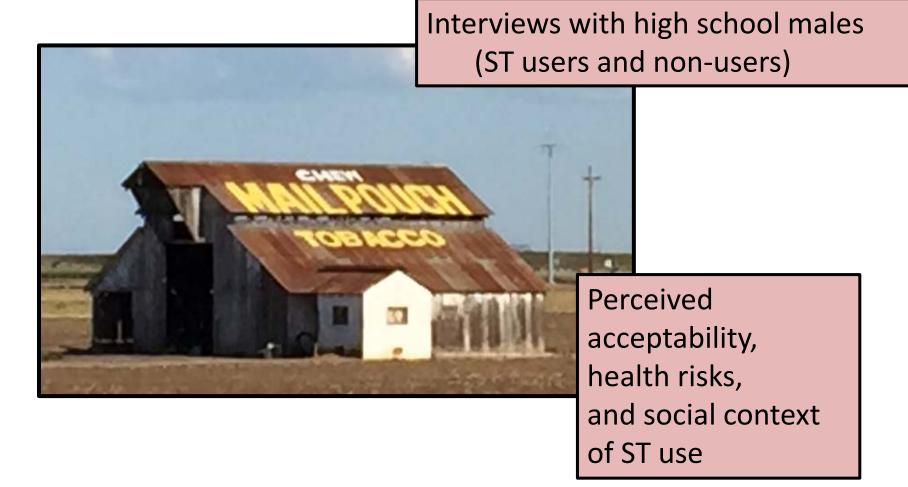
Would Try ST if Best Friend Offered

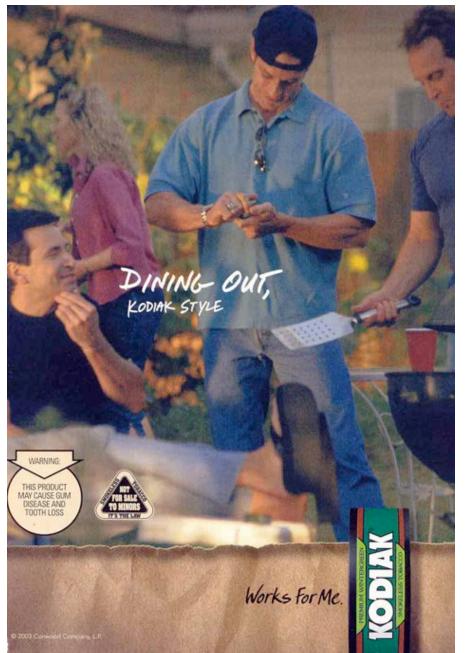
Think You Will Use ST a Year from Now

Qualitative Study of Smokeless Tobacco Decision-Making



Qualitative Study of Smokeless Tobacco Decision-Making

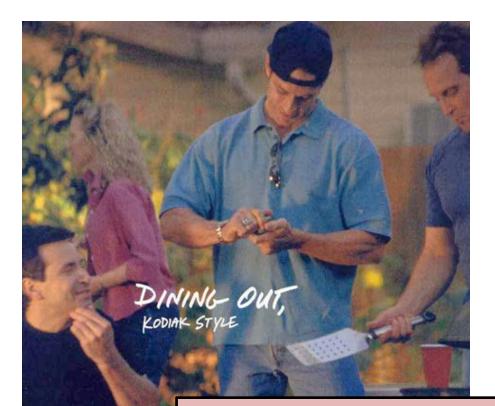




"Country" Culture

ST related to rural or country way of life Part of community tradition and culture

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"Country" Culture

ST related to rural or country way of life Part of community tradition and culture

"The group I hang out with, like boots, blue jeans...they're like cowboys, like country kids – [ST] is really accepted. It's just like a thing that happens. No one even takes a second look at it." (current-user, age 17)

MARMIN

THIS PRODUCT

DISEASE AND

Family Influences

<u>Never-users</u>: Strong anti-tobacco expectations from parents motivated avoidance

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ST Users: Modeling by family members reinforced acceptance

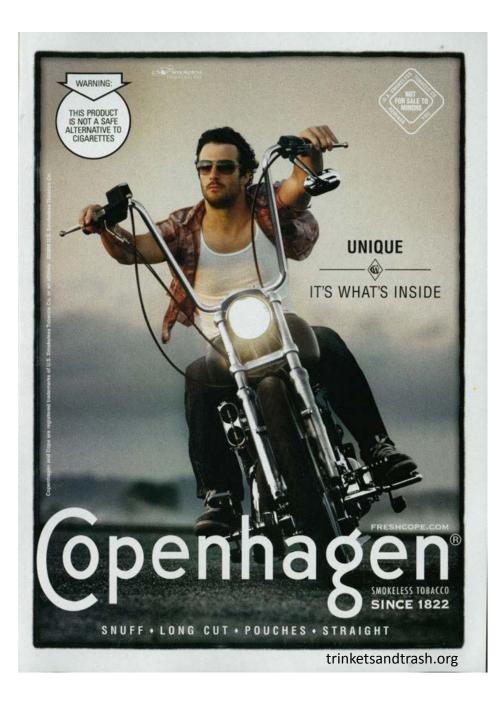
Family Influences

<u>Never-users</u>: Strong anti-tobacco expectations from parents motivated avoidance

ST Users: Modeling by family members reinforced acceptance

<u>ST Users</u>: Parents superficially disapproving yet permissive or reluctantly accepting

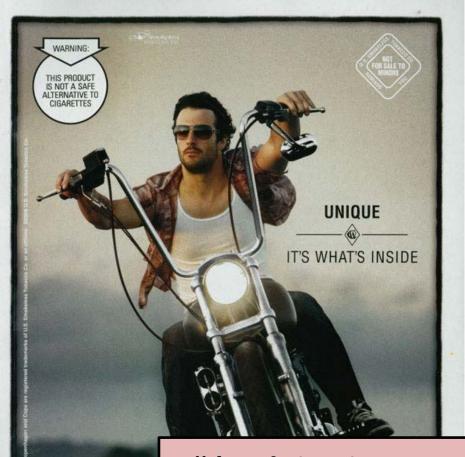
"[My parents] think [ST is] gross, but they also think that I'm old enough to make my own decisions." (current-user, age 17)



Maturity and Independent Choice

ST use a way to express newly earned independence

Chewing in light of health risks signaled reaching an age that required less protection from potential dangers



Maturity and Independent Choice

ST use a way to express newly earned independence

Chewing in light of health risks signaled reaching an age that required less protection from potential dangers

"I'm doing it at my own risk, and it's something I decided to do." (current-user, age 18)

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Perceived Health Risks

High awareness of oral health risks: mouth cancer, tooth loss, and gum disease



Perceived Health Risks

High awareness of oral health risks: mouth cancer, tooth loss, and gum disease



"Your teeth rot away. Makes your breath smell bad. Makes your teeth turn different colors. Gums, you lose your gums. Teeth start to fall out." (experimenter, age 17) **Risks Relative to Cigarettes**

Many users framed ST as an alternative to cigarettes with greatly reduced risk of systemic disease

"Cigarettes, it goes into your body and through your lungs and into everything like that... chewing tobacco just stays in my mouth."

(current-user, age 16)

"Cigarettes, you have lung damage. Makes your skin all wrinkly. Chew, just your gums and teeth. Your lungs are fine still."

Exceptionalism and Avoidable Risk

Many users viewed health risks as distant and avoidable

Risk mitigation strategies: Stay below a threshold of intensity or duration, practice good oral hygiene, not swallow tobacco juices

"I haven't had any health problems with [ST] since I have been chewing... I know that if I did have a health problem, that would probably motivate me to quit." (current-user, age 16)

Tobacco-Specific Nitrosamines (TSNAs):

NNN - oral cancer

NNK - lung and pancreatic cancer

Tobacco-Specific Nitrosamines (TSNAs):

NNN - oral cancer

NNK - lung and pancreatic cancer

Swedish snus is a pasteurized, lownitrosamine moist snuff smokeless tobacco

Standards set the maximum allowable level of TSNAs



Tobacco-Specific Nitrosamines (TSNAs):

NNN - oral cancer

NNK - lung and pancreatic cancer

Smokeless tobacco products sold in the United States, including snus products, contain much higher TSNA levels

Stepanov, et al. (2014) Nicotine Tob Res

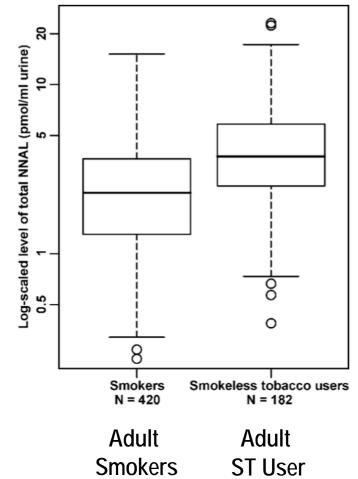
Tobacco-Specific Nitrosamines (TSNAs):

NNN - oral cancer

NNK - lung and pancreatic cancer

Similar (or higher) levels of NNAL (urinary marker of NNK) in adult smokeless users vs. cigarette smokers

Hecht, et al. (2007) Cancer Epidemiol Biomakers







The Daily Journal of the United States Government

Tobacco Product Standard for N-Nitrosonornicotine Level in Finished Smokeless Tobacco Products

A Proposed Rule by the Food and Drug Administration on 01/23/2017

FDA estimates:

12,700 cases of oral cancer prevented2,200 oral cancer deaths preventedin 20 years after implementation

Sign in Sign up

PR Proposed Rule





Tobacco Product Standard for N-Nitrosonornicotine Level in Finished Smokeless Tobacco Products

A Proposed Rule by the Food and Drug Administration on 01/23/2017



Presidential Document

Reducing Regulation and Controlling Regulatory Costs

A Presidential Document by the Executive Office of the President on 02/03/2017

Sign in Sign up

Proposed Rule

(PR)

100

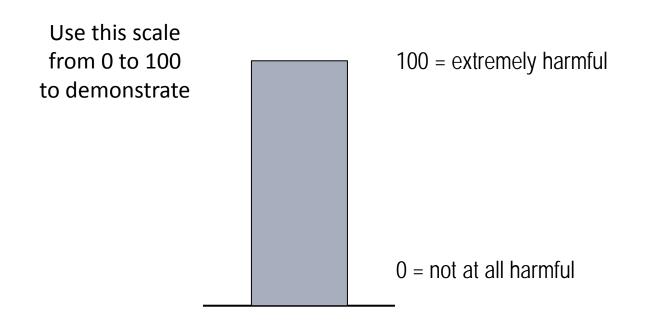
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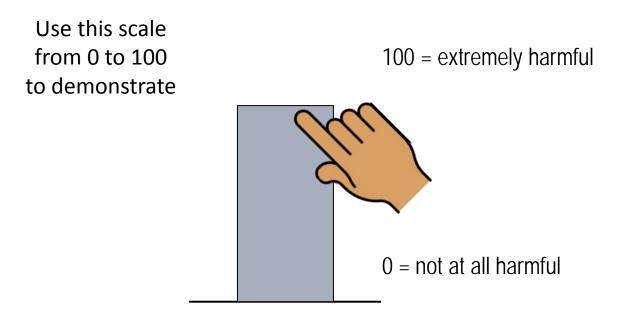
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creative commons image

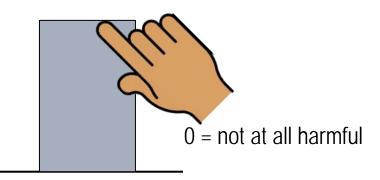


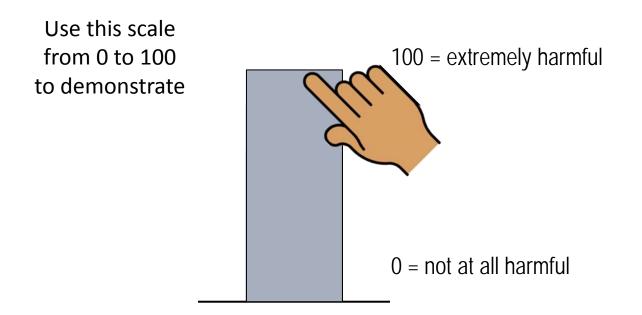


In your opinion, how harmful is using dip or chew to general health?

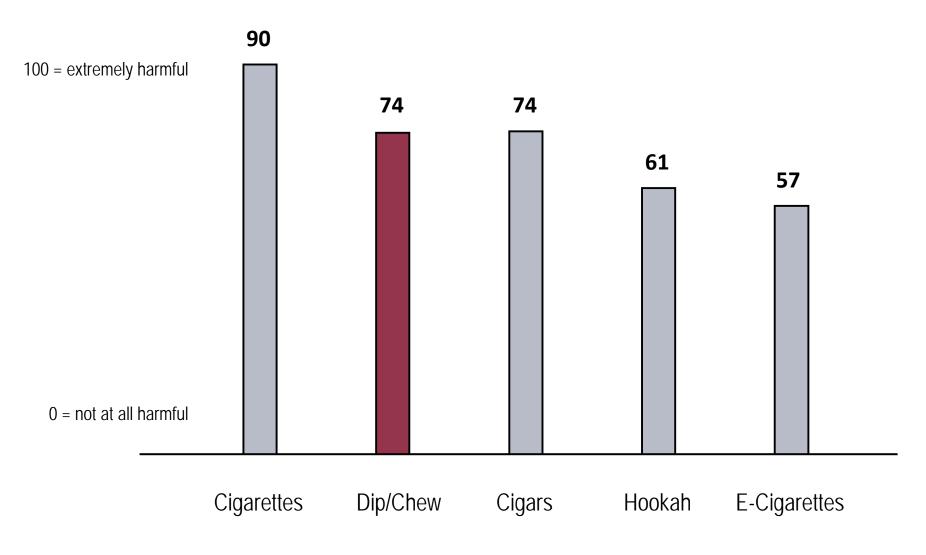
Use this scale from 0 to 100 to demonstrate

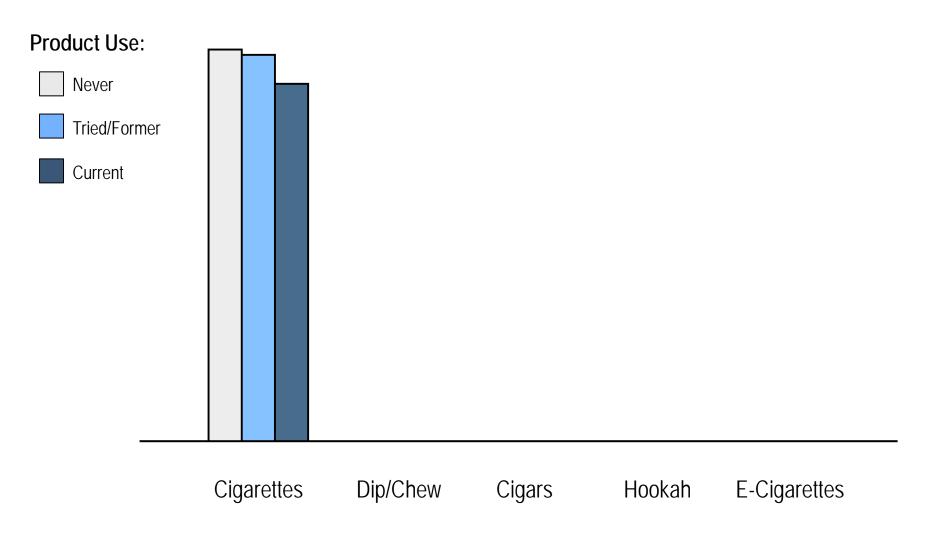
100 = extremely harmful

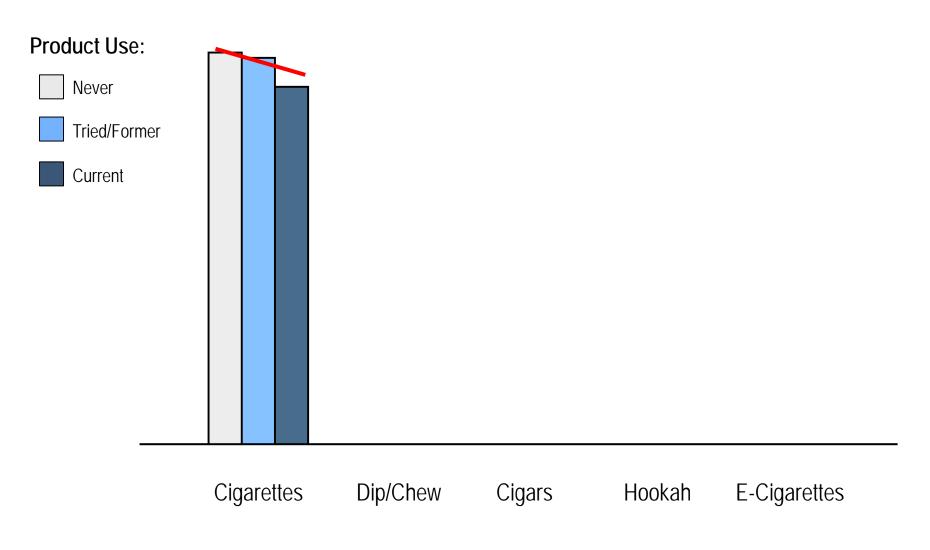


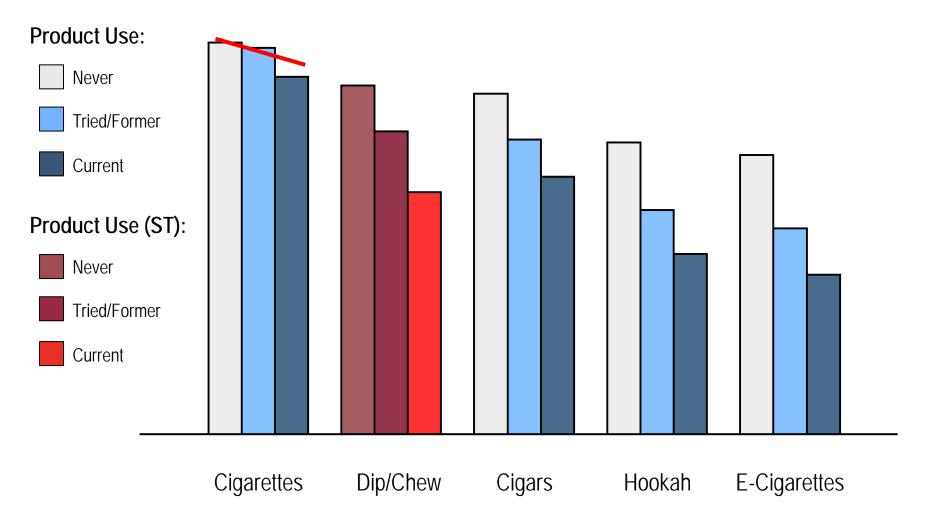


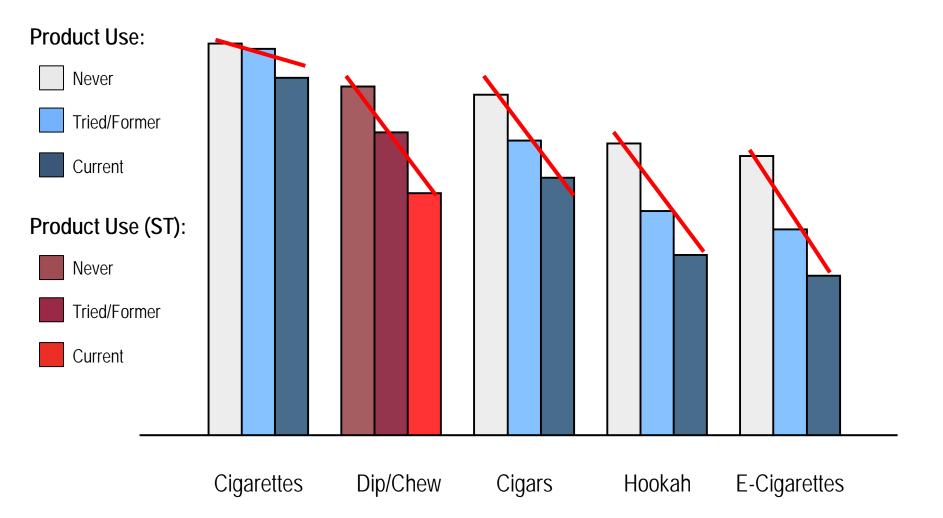
Perceived Harm Differs by Tobacco Product



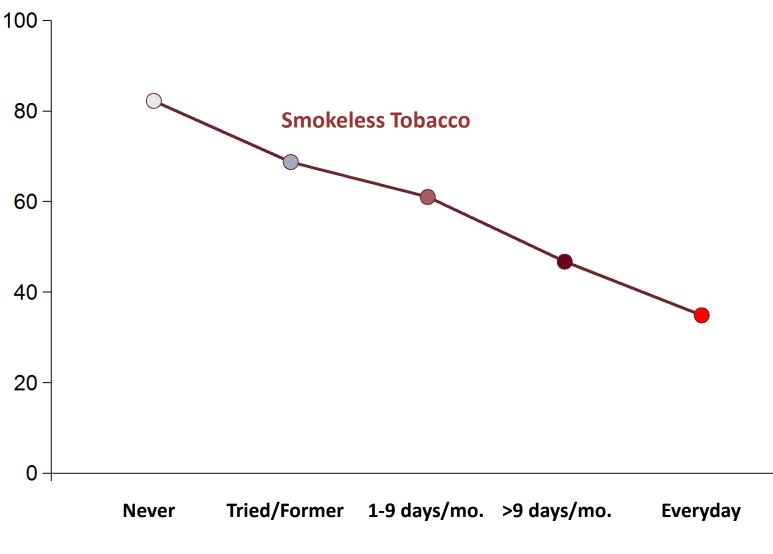




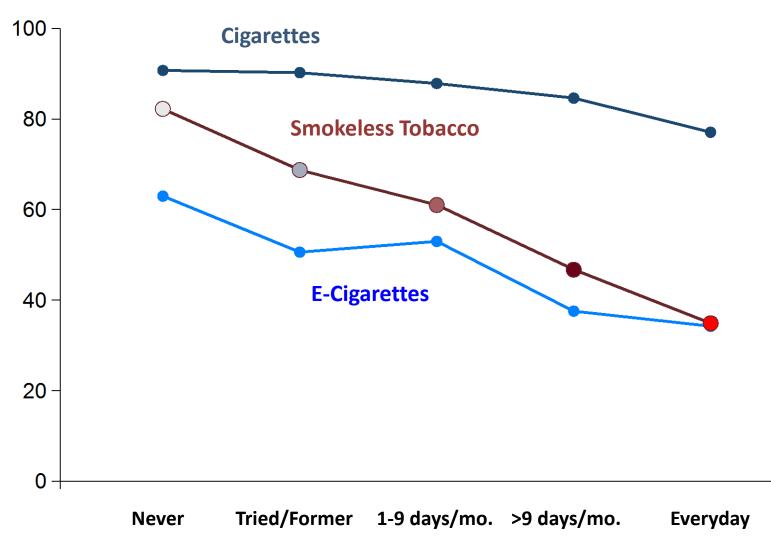




Perceived ST Harm Declines with Use Frequency



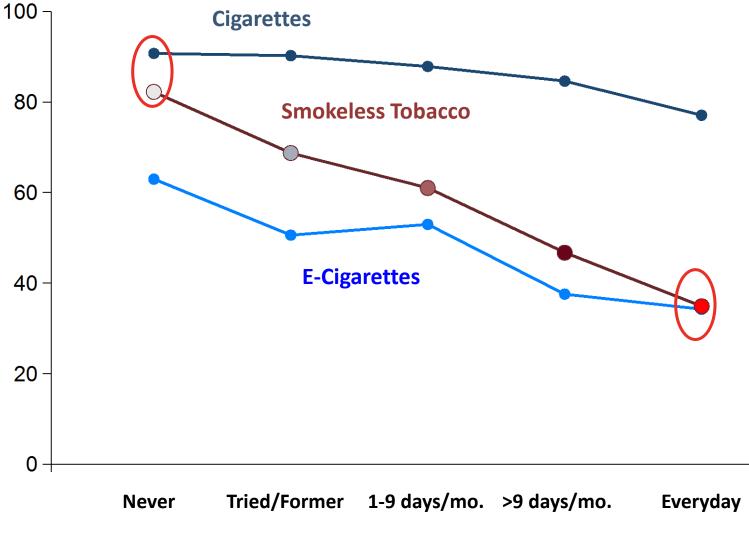
Smokeless Tobacco Use



Perceived ST Harm Declines with Use Frequency

Smokeless Tobacco Use

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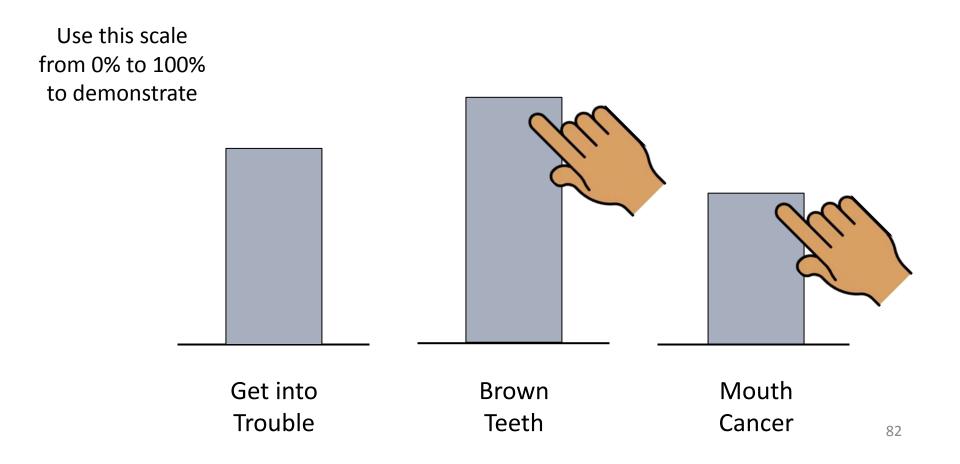


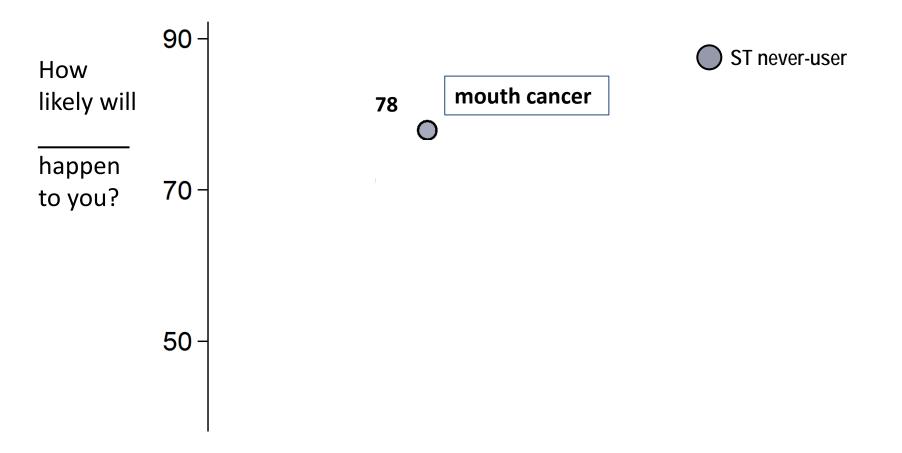
Smokeless Tobacco Use

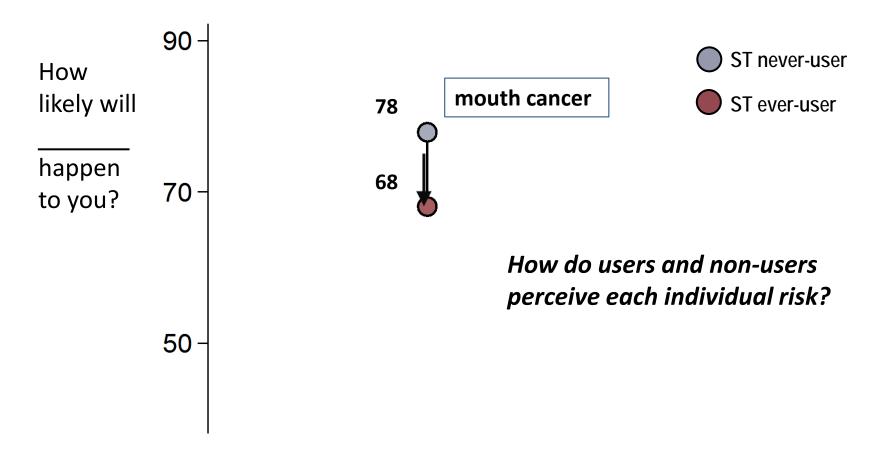
Imagine you used dip/chew.

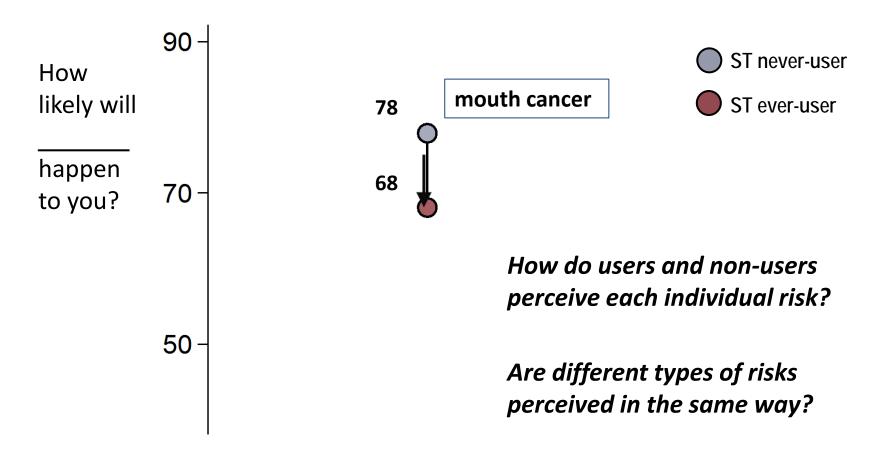
How likely will _____ happen to you?

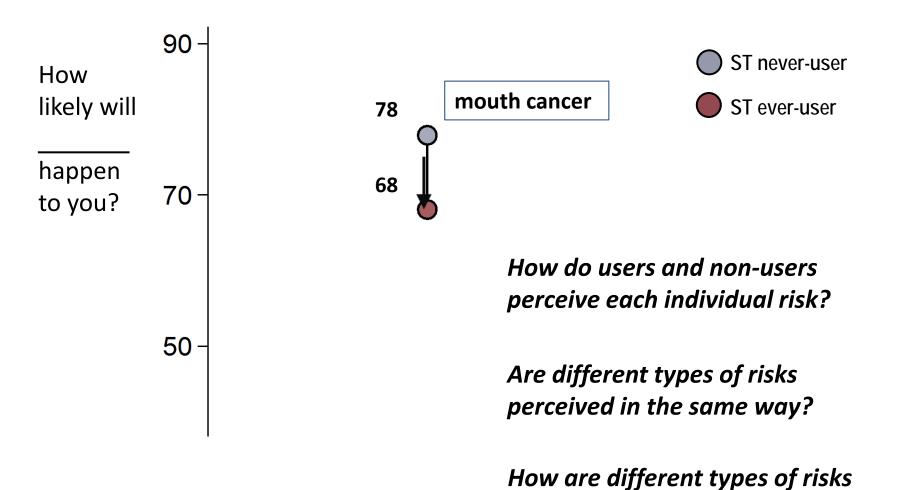
Imagine you used dip/chew. How likely will _____ happen to you?





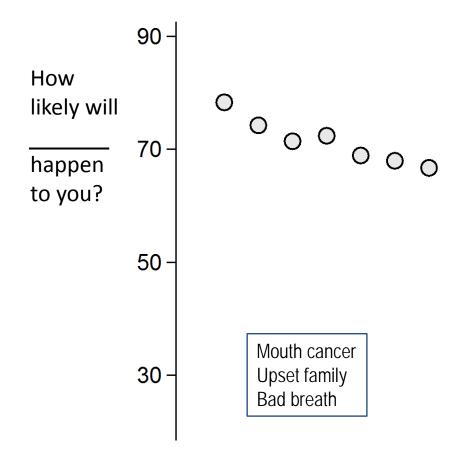




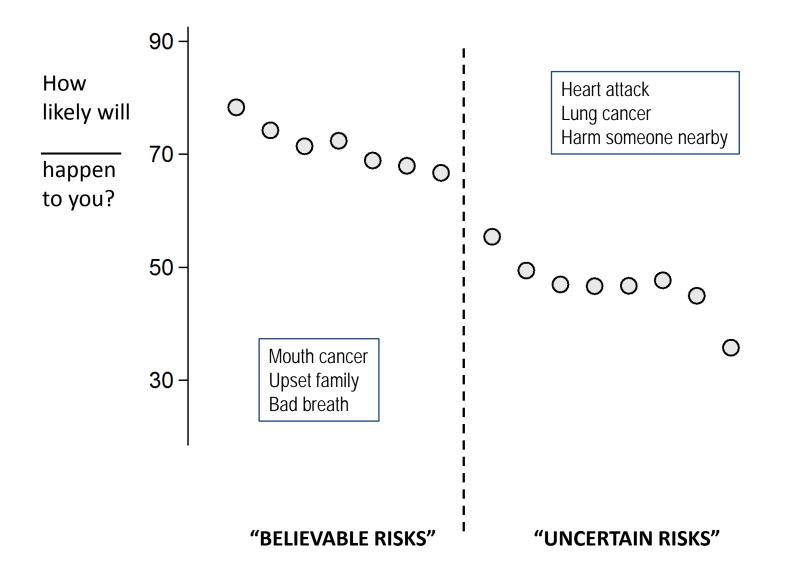


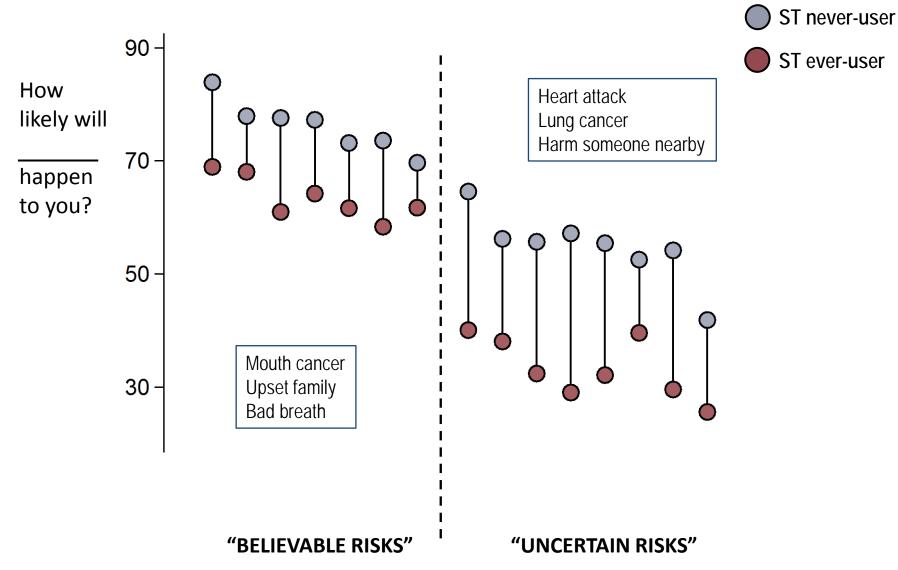
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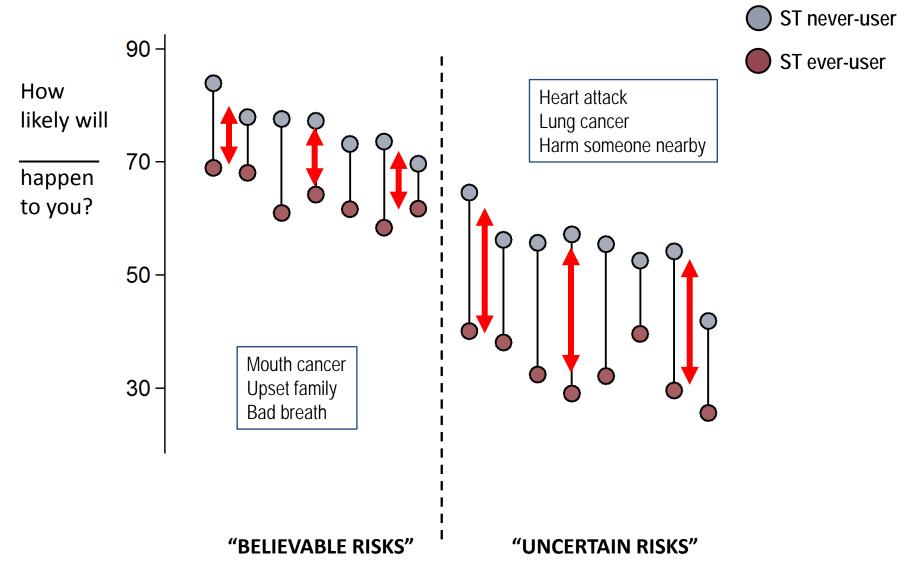
perceived across tobacco products?

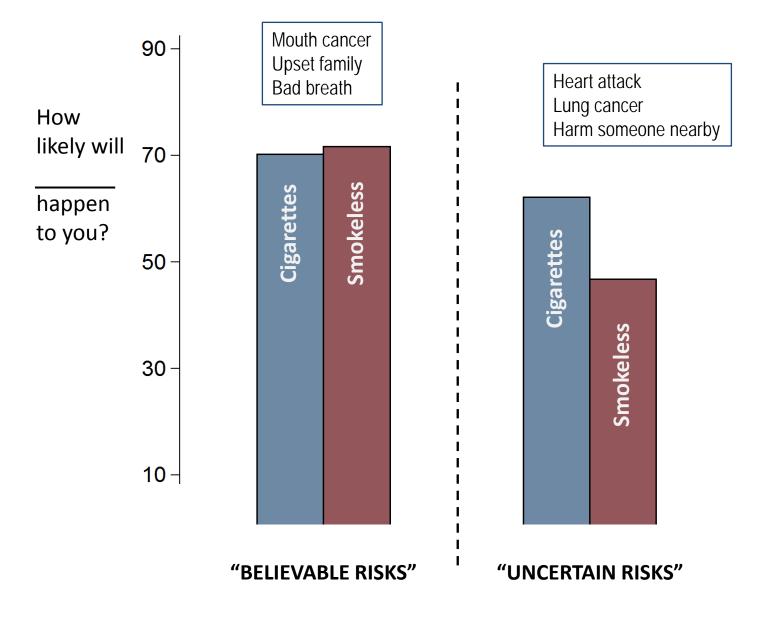


"BELIEVABLE RISKS"









Variation in Smokeless Tobacco Products



Flavor Associations

Flavored ST associated with appealing non-tobacco products: chewing gum, breath mints, fruit, candy, and alcohol

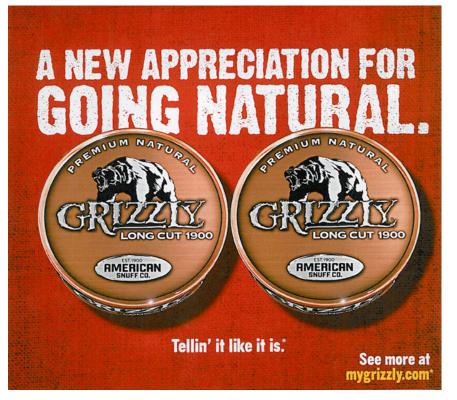


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Flavor Associations

Others had negative perceptions of ST flavors, viewing them as unnatural in comparison to "regular" or "straight" ST



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Flavor Associations

Others had negative perceptions of ST flavors, viewing them as unnatural in comparison to "regular" or "straight" ST



"Flavored [ST]... makes me feel like it's not real....The stuff that I used the most when I was on it a lot was straight, because in my mind it was just straight tobacco. It didn't have all this other stuff in it." (former-user, age 16)

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Product Switching & Special Offers

Users sampled brands, flavors out of curiosity or to "switch things up"

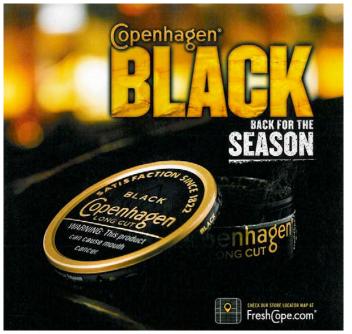
Special or seasonal offers generated buzz and created urgency to purchase. Some followed ST websites to track new products



Outlaw @outlawdipper 2+ Follow

New camo Grizzly cans are out now! Make sure to check ur local baccer stores er gas stations!





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THEY ASKED FOR A BOLDER WINTERGREEN WHO ARE WE TO SAY NO?

Perceived Product Qualities

Users perceived higher "strength" and nicotine content based on brand, type, or flavor

SKOAL Smokeless Tobacco

IT'S NOT JUST BOLD. IT'S ONE MEAN WINTERGREEN. New Skoal Edge is here. Why? Because Skoal dippers don't settle. Ever.

Have your say at SkoalBrotherhood.com

US Smokeless Tobacco Co. Bladenas al US. Brokeless Tobacco Co. oran alivere. (2008 U.S. Snokeless Tobacco)



THEY ASKED FOR A BOLDER WINTERGREEN WHO ARE WE TO SAY NO?

Perceived Product Qualities

Users perceived higher "strength" and nicotine content based on brand, type, or flavor

"Copenhagen Wintergreen will give you a real big head rush. It will make you feel different than Copenhagen Straight."



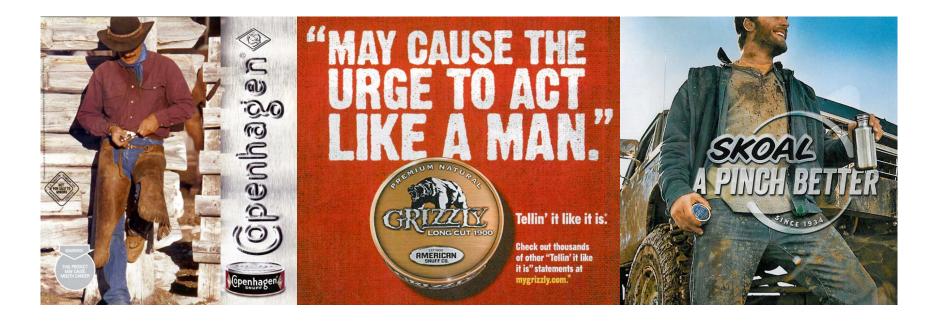
(former-user, age 16)

Have your say at SkoalBrotherhood.com

IS STORACIESS TO bacco Co. (Fluxenes of U.S. Shokeles Tobacco Co. or an ensure 10000 U.S. Shokeless Tobac

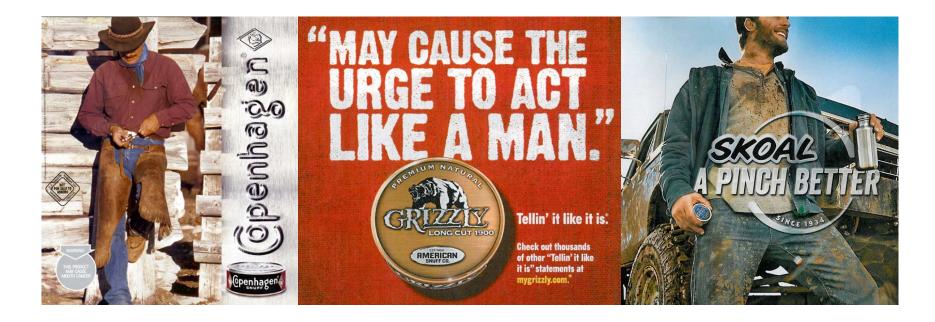
Perceived Brand Qualities

Social pressure was associated with using certain ST products, partly based on perceived product strength (and user toughness)



Perceived Brand Qualities

Social pressure was associated with using certain ST products, partly based on perceived product strength (and user toughness)



"They say if you chew Skoal, you're a little girl."

(current-user, age 17)

Perceived Brand Qualities

Many users also expressed loyalty when discussing their usual brand

"I think Copenhagen just doesn't need to advertise really. They're just like Marlboro is for cigarettes... Like Nike is for shoes. They're just like the top of the top." (current-user, age 17)

100% AMERICAN GROWN

MINTEROMEN

CHO1/SE COPENHAGEN FACTION SINCE 1822

OPennappen

Fresh (ope.com*

SKOALS PINCH BETTER

GRAB A COUPON AND THEN SOME AT SKOAL COM



100% AMERICAN GROWN

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INCH BETTER

GRAB A COUPON AND THEN SOME AT SKOAL COM

Smokeless tobacco is a sizeable, persistent public health problem; even in California Don't overlook rural communities in policy & research

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Today, nearly 1,000 males below age-18 will use ST for the first time



• Submit questions via the chat box





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American Association for Respiratory Care (AARC)



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Save the Date

SCLC's next One-Hour Power Break webinar :

"The Power of Partnerships: Behavioral health and public health working together to combat smoking in Kentucky"

with the National Behavioral Health Network for Tobacco & Cancer Control and the American Lung Association and the State of Kentucky

Tuesday, September 19, 2017 at 1pm EDT

Registration is open now!

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