

Facebook Intervention to Connect Alaska Native People to Resources and Support to Quit Smoking: CAN Quit Study

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Alaska Area IRB # 2017-12-054-21

*Funding NIH NIDA and NIAAA
R34DA046008
R34DA046008-S1*

RESEARCH TEAM

Alaska Native Tribal Health Consortium

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- Crystal Meade
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- Zoe Merritt, MBA & Clara McConnell
Intervention moderators

Mayo Clinic

- Christi Patten, PhD, PI
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Stanford University

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Consultant

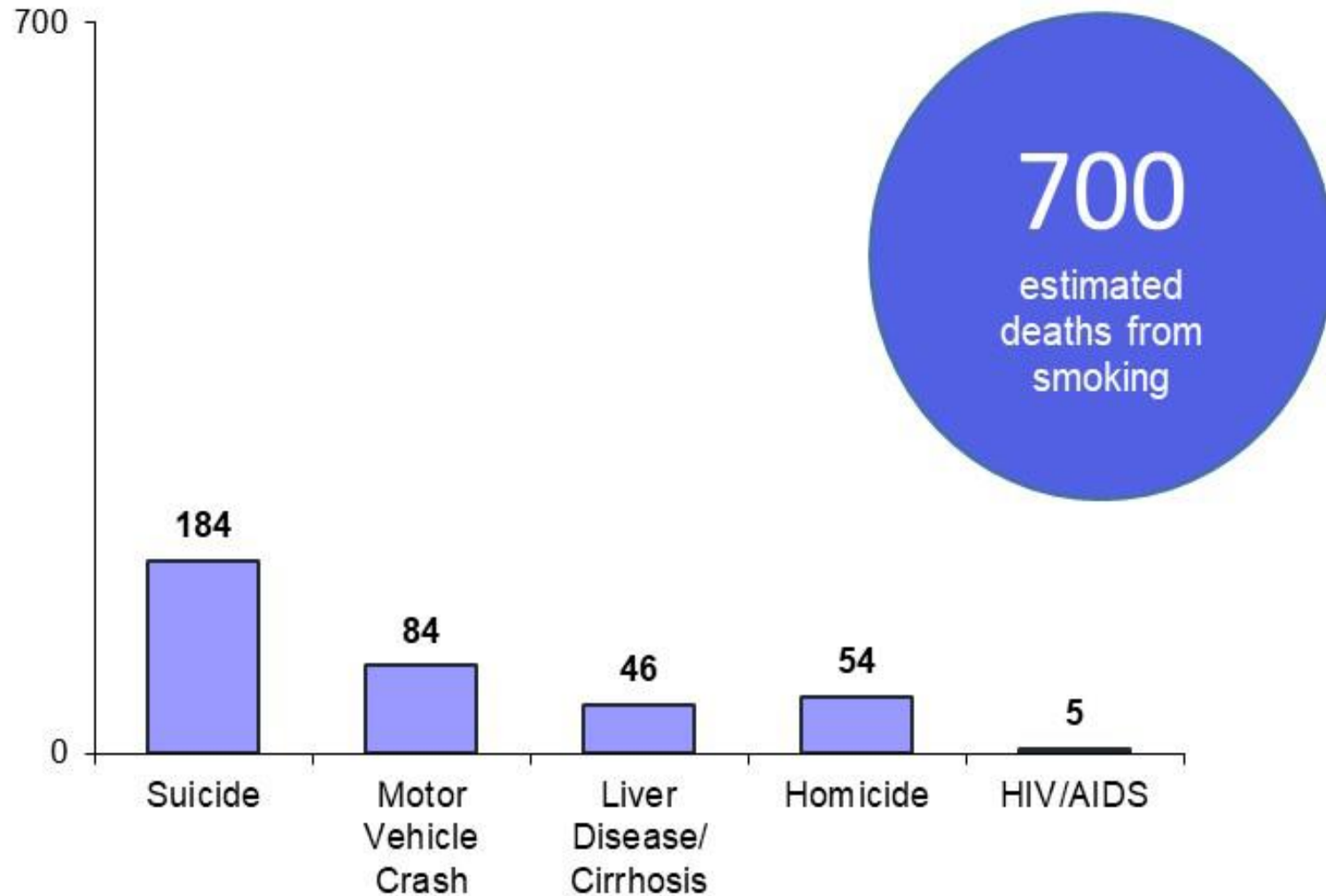
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- Colleen Young
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CDC health communications branch

- Technical assistance

NEED FOR TOBACCO RESEARCH

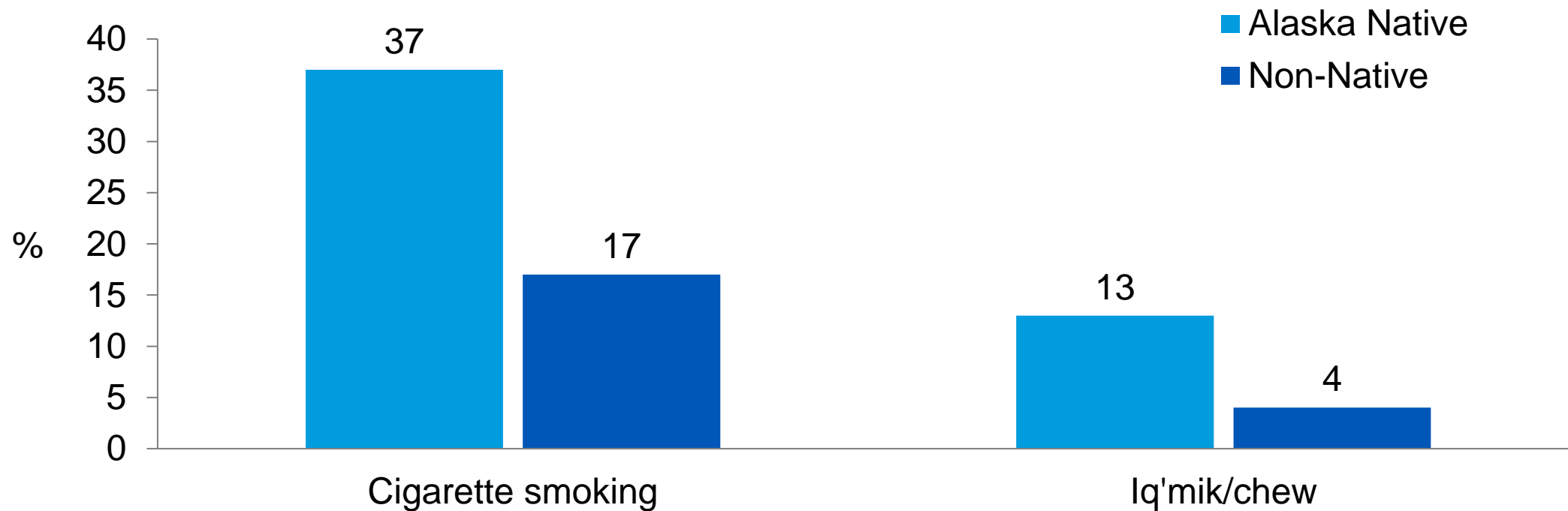


Alaska Tobacco Facts & Figures, 2021

COSTS OF SMOKING

- Annual cost of smoking to Alaska \$575 million in direct medical expenditures
- \$261 million in lost productivity due to smoking-related deaths
- Each smoker is estimated to cost the medical system over \$3000 a year

TOBACCO USE IN ALASKA



OUR PARTNERSHIP

- Mayo Clinic, the Alaska Native Tribal Health Consortium, and YKHC have a longstanding partnership to develop interventions for Alaska Native (AN) people who use tobacco
- Our goal is to promote AN health by reducing tobacco-related diseases and death.



WHY SOCIAL MEDIA?



Widely adopted globally including among AN people



Overcomes access barriers: geography, weather, and pandemic



Online links to treatment resources



Asynchronous peer support, 24 hours day/7 days per week



Moderated, private groups on some platforms



Recruitment options increase (no in-person visits)

ARE SOCIAL MEDIA INTERVENTIONS EFFECTIVE FOR SMOKING CESSATION?

- Review of the literature (12 studies, 2015-2018) *Thrul J, Tormohlen KN, Meacham MC. 2019. Social media for tobacco smoking cessation intervention: a review of the literature. Curr Addict Rep, 6(2):126-138.*
 - Three randomized controlled trials
 - Ramo et al., 2019, Facebook vs. smokefree.gov online resources
 - Pechmann et al., 2017, Twitter vs. smokefree.gov online resources
 - Cheung et al., 2015, Facebook vs. WhatsApp vs. website control
 - Social media is promising but additional trials are needed
- One trial compared two active Facebook interventions (Meacham et al., 2021)
 - Tobacco only vs. tobacco + alcohol use
- No studies were conducted among Indigenous people

SOCIAL DIGITAL INTERVENTION



- Social media formed networks for quitting smoking are consistent with the AN cultural value of interdependence
 - Relationship oriented and collaborative

WHY FACEBOOK?



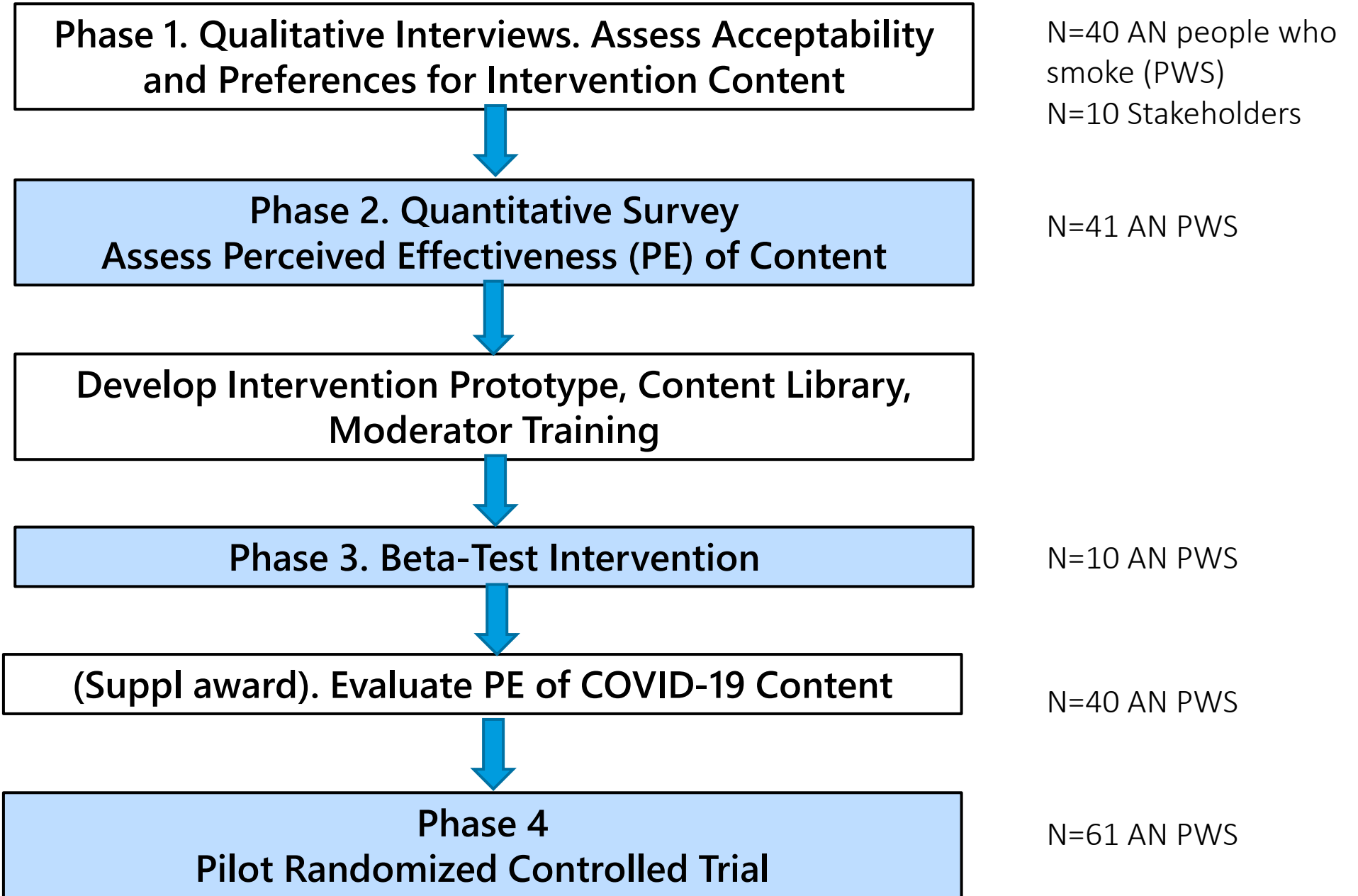
- Dominant social media platform (69%)
 - Consistent use across all age groups except for lower use among those ≥ 65 years
 - Women greater use than men (77% vs. 61%)
- Create private, hidden, moderated groups
- Moderators post videos, text, pictures
- Obtain Facebook analytics on engagement

SPECIFIC AIMS

- Aim 1: To develop a culturally relevant, 3-month, closed, hidden, moderated Facebook group intervention to promote smoking treatment utilization and cessation among AN adult smokers.
- Aim 2: To conduct a randomized pilot trial to evaluate the feasibility, uptake, consumer response, and potential efficacy of the Facebook intervention compared with a control condition at 3 and 6 months after enrolling in the study
 - Smoking abstinence
 - Use of evidence-based cessation treatment (EBCT)



CAN QUIT STUDY OVERVIEW



COMMUNITY- BASED PARTICIPATORY RESEARCH

- 2 years to develop the concept with community input
- ANTHC Research Consultation Committee
- Formative work
- Alaska Native and American Indian researchers and intervention moderators
- Sharing of results

Dillard DA, Caindec K, Dirks LG, Hiratsuka VY. Challenges in Engaging and Disseminating Health Research Results Among Alaska Native and American Indian People in Southcentral Alaska. Am Indian Alsk Native Ment Health Res. 2018;25(1):3-18. doi: 10.5820/aian.2501.2018.3.

INTERVENTION CONTENT

- Approach used in the effective CDC *Tips* from Former Smokers mass media campaign
 - Factual, graphic, emotional true stories
 - Call to action to use EBCT
- Cultural tailoring of content (moderator postings)





Jessica: son has asthma and is susceptible to secondhand smoke. (CDC Tips, 30 sec)



Aubrey: started smoking in college and quit for family (ANTHC, 1.57 min)



Edith : she is an Elder and shares how addictive tobacco is and that it is the number one killer of the people of Alaska. (ANTHC, 2.33 min)



Caroline: addicted to chewing at young age then quit because she was scared of the damage to her mouth. (ANTHC, 2.25 min)



Michael: he is an AN person who used to smoke and now has COPD. (CDC Tips, 1.20 min)



Bill: has diabetes and quit smoking after his leg was amputated. (CDC Tips, 1.18 min)



Marie: started smoking because everyone was doing it, but quit when her son begged her to quit. (ANTHC, 2.21 min)



Casandra: diagnosed with asthma from second-hand smoke and her father was diagnosed with cancer. (ANTHC, 1.59 min)



Terrie: lost her life from complications of smoking at the age of 53. (CDC Tips, 30 sec)



Tania: quit smoking for her children. (ANTHC, 1.40 min)

**EVIDENCE-BASED
CESSATION
TREATMENT
RESOURCE &
REFERRAL
INFORMATION**



Smokefree.gov



Alaska's Tobacco Quitline



Regional Tribal Tobacco
Treatment Programs



Looking for Alaska Native people who smoke to join a research study. Receive up to \$175 for participating. For more information, call toll free: (833) 874-2522 or click below.



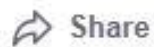
[HTTP://WWW.MAYO.EDU/RESEARCH/CAN-QUIT-STUDY](http://www.mayo.edu/research/can-quit-study)

Research to Connect Alaska Native People to Quit Smoking

Click here to learn more about this study.

94

33 Comments 56 Shares



STATEWIDE FACEBOOK RECRUITMENT

- Identifies as Alaska Native or American Indian person
- Resides in Alaska
- Both men and women
- Aged ≥ 19 years
- Smoked ≥ 1 cigarette/day past 7 days
- Cigarettes main tobacco product used
- Willing to make a quit attempt
- Access to broadband (high speed) internet
- Facebook account or willing to set one up
- Not enrolled in a cessation program or using cessation pharmacotherapy in the last 3 months

PHASE 1: QUALITATIVE

- Participants evaluated content (moderator postings) based on
 - story strength
 - relevance and relatability
 - favorite video
- Participants favored videos and postings that
 - featured AN people and activities
 - were relatable
 - told a compelling story and was emotional
 - had relevance to AN cultural values of family, relationships, and connection



PHASE 2: QUANTITATIVE, MEASURE OF PERCEIVED EFFECTIVENESS*

How much do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
This was worth remembering.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This grabbed my attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This was powerful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This was informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This was meaningful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This was convincing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This fits with my culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<< BACK

NEXT >>

*Davis, K. C., Duke, J., Shafer P, Patel D, Rodes R & Beistle D. (2017) Perceived Effectiveness of Antismoking Ads and Association with Quit Attempts among Smokers: Evidence from the Tips From Former Smokers Campaign, *Health Communication*, 32:8, 931-938.

A TIP FROM A
**FORMER
SMOKER**

**I quit so I could be around
for my daughter.**

For free help to quit smoking, CALL 1-800-QUIT-NOW.

#CDCTips

 CDC.gov/tips

Modifications:
 Include AN
 people, include
 AN activities,
 include family as
 an inspiration

**I quit
smoking,**

SO I COULD SPEND MORE TIME
FISHING WITH MY SON.

For more information
call 1-800-QUIT-NOW
or visit www.1-800-QUIT-NOW.gov

QUITLINE

A TIP FROM A
FORMER
SMOKER

Quitting isn't about what you give up.
It's about what you get back.

Rebecca, age 57, Florida



Quitting isn't about what you
give up.
**IT'S ABOUT WHAT YOU
GET BACK.**

You can quit. For free help, call
1-800-QUIT-NOW
or click the link in the post above.

ALASKA'S
TOBACCO
QUIT LINE
IT'S FREE, IT'S CONFIDENTIAL, AND IT WORKS.



aska
oking



CAN Quit: Connecting Alaska Native People to Quit Smoking

🔒 Private group · 33 members



INTERVENTION MODERATORS

- Content library
 - 60 text/image and video postings
 - Customizable text to accompany postings
 - Moderators post every 2-3 days for three months
- Moderators: 2 Alaska Native Tobacco Treatment Specialists
- Moderator exchange: bidirectional sharing of knowledge
 - Experiential and scenario-based with feedback: about 20 hours
 - Theories of behavior change and tailored communications
 - Applications of MI techniques for social media interventions
 - Cultural adaptation of smoking cessation messages
 - Online community-management skills





How can
you prepare
yourself or a
friend
to quit
smoking?

You can quit. For free help,
call 1-800-QUIT-NOW or
click the link in the post
above.



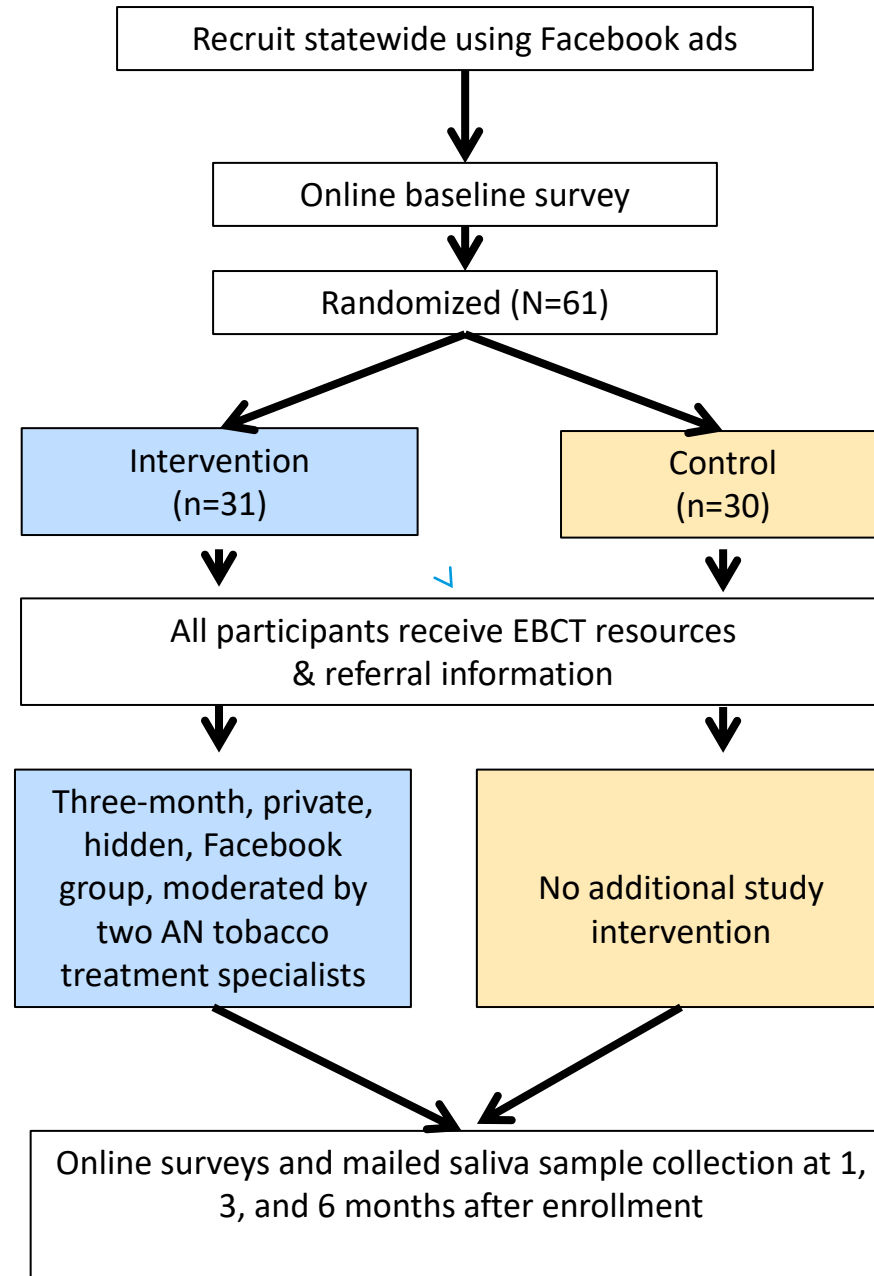
PHASE 3: 30-DAY BETA-TESTING

- 10 AN people who smoke: 9 women, 7 rural dwelling, age 23-52 yrs
- Engagement: 130 comments generated across the posts, with 58% coming from moderators and 42% from users
 - # comments per person ranged from 1-24 (median 5)
 - no technical issues experienced
- Feedback/refinements
 - added more welcome posts to clarify the group's purpose
 - added more rural photos, polls
 - additional moderator training to promote participant interactions and support conversations
 - sought to bolster recruitment of Alaska Native men

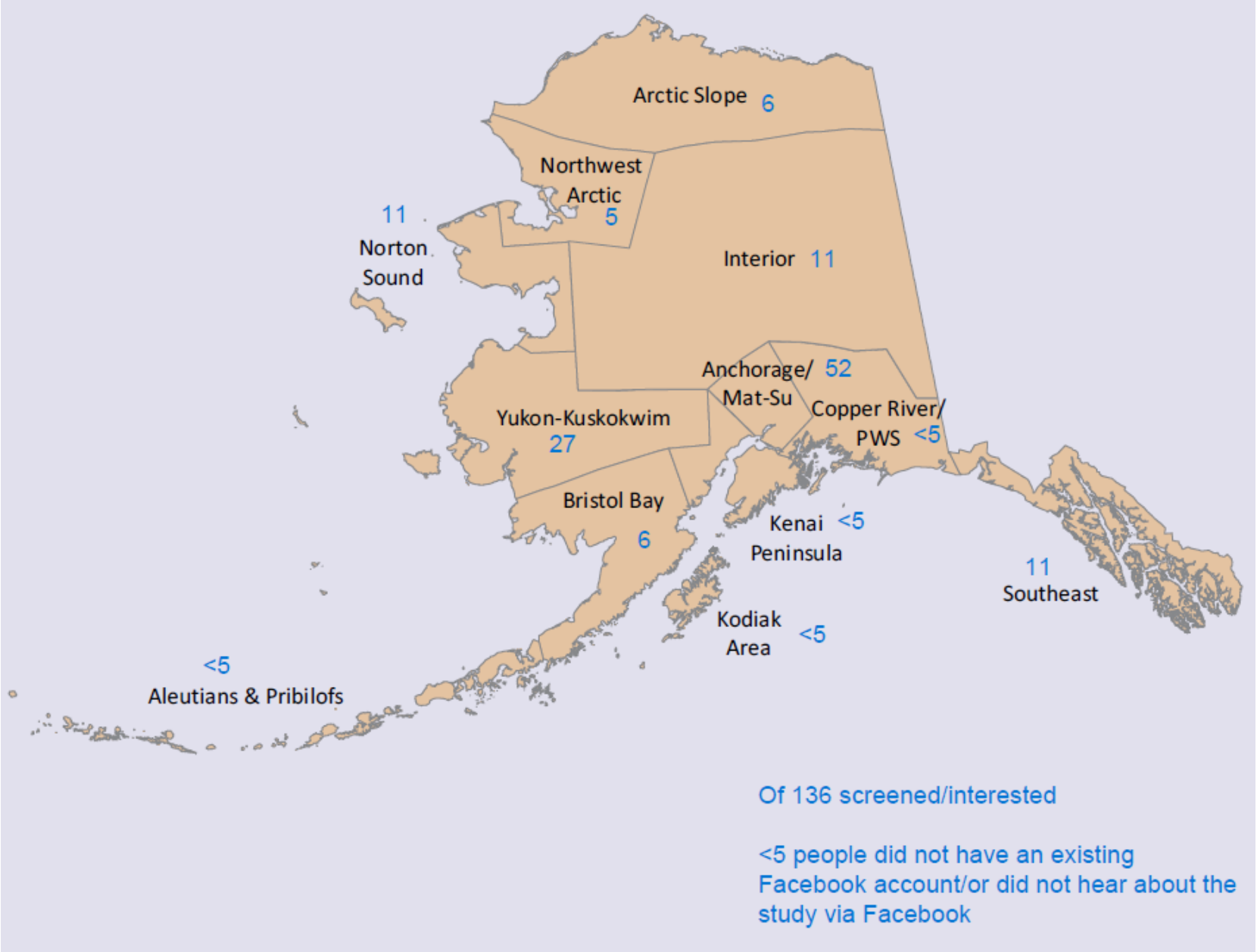
PHASE 4 PILOT RCT

Outcomes

- *Feasibility*
- *Smoking abstinence*
- *Use of treatment*



CAN Quit Study: Statewide Recruitment Reach



BASELINE CHARACTERISTICS (N=61)

Characteristic	Intervention (n=31)	Control (n=30)
Rural dwelling	61%	67%
Women	61%	63%
Age, mean (SD) Range	41.2 (12.9) 22-76	39.5 (11.0) 24-60
High school education or less	41%	48%
Cigarettes per day, mean (SD) Range	11.2 (12.7) 2-72	11.2 (10.3) 1-60

SURVEY COMPLETION

1 month
69%

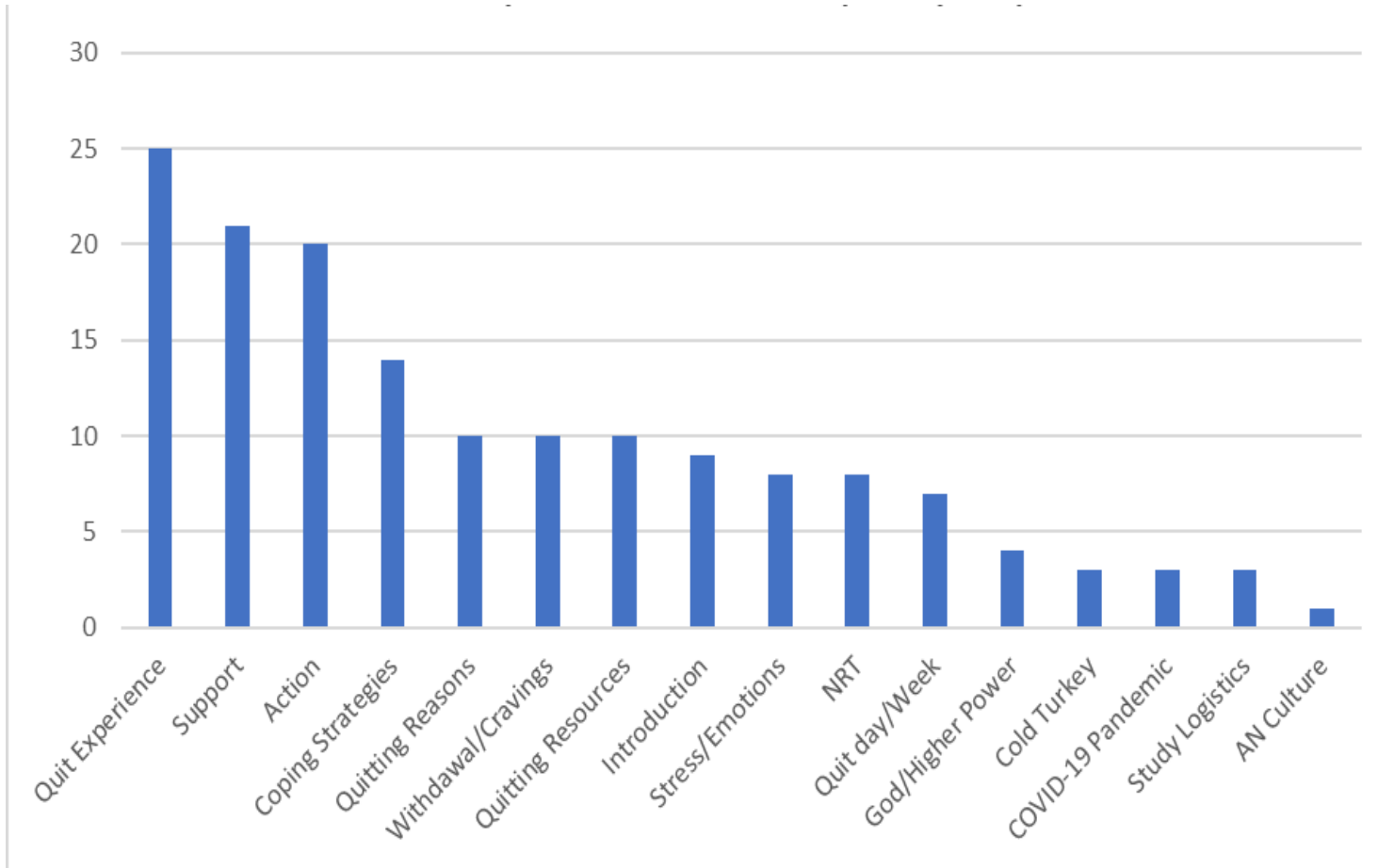
3 months
69%

6 months
57%

INTERVENTION ENGAGEMENT (N=31)

- Number of comments
 - Median 3, range 0-129
 - 94% commented at least once
- Total engagement count: sum of four categories of comments, reactions, posts initiated, & response to polls
 - Overall, median= 9.5
 - Gender
 - Men = 4
 - Women = 16
 - Age
 - <40 years = 6
 - 40+ years = 12





TOPICS DISCUSSED IN PARTICIPANT-INITIATED POSTINGS

TREATMENT SATISFACTION

- Social Media Usability Scale
 - Helpfulness, ease of use, recommend to another AN person who smokes
 - Average score 4.0 of possible 5.0
- 71% indicated a willingness to serve as a lay moderator for a future Facebook group
- Recommendations to include
 - more stories
 - engaging activities such as contests
 - Facebook live events (e.g., frequent motivational speakers on smoking cessation)



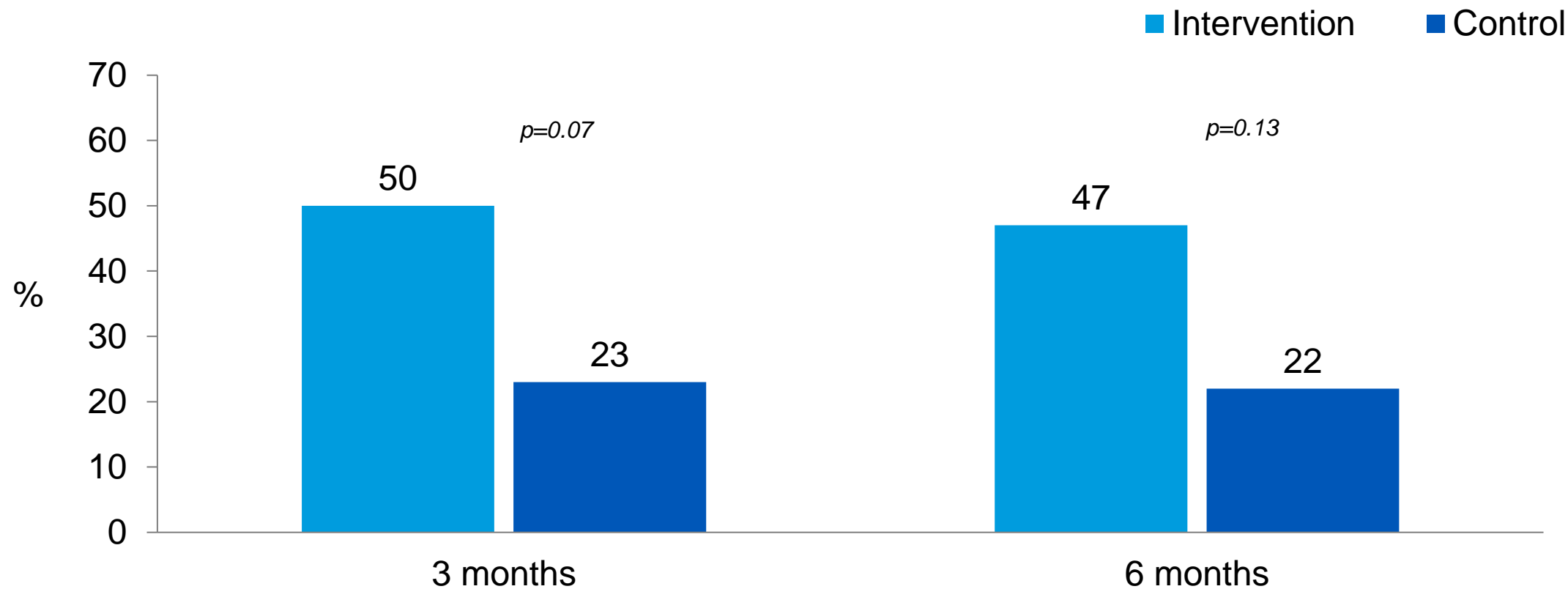
BIOCHEMICALLY VERIFIED SMOKING ABSTINENCE

INTENT TO TREAT

Assessment	Intervention group (n=31)	Control group (n=30)	p
3 months	6.5%	0.0%	0.16
6 months	6.4%	6.7%	0.97

Ramo et al., 2019: treatment effect at three months (5.6% vs. 2.4%) but not at six (4.0% vs. 4.4%) or 12 months (4.4% vs. 6.8%)

SELF-REPORTED USE OF ANY EVIDENCE-BASED CESSATION TREATMENT



RESEARCH AND CLINICAL IMPLICATIONS

- Social media advertising was effective for recruiting Alaska Native people statewide into studies.
- Signal for intervention efficacy on the uptake of cessation treatment and short-term smoking abstinence.
- Social media has promise as a scalable intervention strategy to promote engagement in cessation treatment among Alaska Native people, especially those living in rural, remote, off-road communities.
- Social media platforms could complement current care models by connecting Alaska Native individuals and others living in hard-to-reach communities to cessation treatment resources.
 - Tribal cessation programs, state quitline, healthcare providers



DISCUSSION

FUTURE RESEARCH DIRECTIONS

- Boosting smoking cessation
 - Facebook live events with Native Elder speakers, cessation counselors or healthcare providers to motivate and guide cessation
 - Alaska Native peer moderators to regularly post and support members bolstering intra-group support and ultimately the sustainability of the intervention
- Delivering the intervention content on other social media platforms – i.e., Instagram groups
- Women-only or gender-specific groups
- Methods
 - Recruitment using other social media platforms
 - Engagement levels: dose-response
 - Remote assessment of biochemical verification of smoking abstinence

REFERENCES

Study Protocol

Sinicrope PS, Koller KR, Prochaska JJ, Hughes CA, Bock MJ, Decker PA, Flanagan CA, Merritt ZT, Meade CD, Willetto AL, Resnicow K, Thomas TK, Patten CA. 2019. Social Media Intervention to Promote Smoking Treatment Utilization and Cessation Among Alaska Native People Who Smoke: Protocol for the Connecting Alaska Native People to Quit Smoking (CAN Quit) Pilot Study. JMIR Res Protoc. 8(11):e15155.

Phases 1 & 2

Zoe T Mercurieff, MBA, Kathryn R Koller, PhD, Pamela S Sinicrope, DrPH, Christine A Hughes, BS, Martha J Bock, BS, Paul A Decker, MS, Kenneth Resnicow, PhD, Christie A Flanagan, MPH, Crystal D Meade, BS, Clara R McConnell, BA, Judith J Prochaska, PhD, MPH, Timothy K Thomas, MD, Christi A Patten, PhD. 2021. Developing a Social Media Intervention to Connect Alaska Native People Who Smoke with Resources and Support to Quit Smoking: The Connecting Alaska Native Quit Study, Nicotine & Tobacco Research, 23 (6), <https://doi.org/10.1093/ntr/ntaa253>

Phase 3

Sinicrope PS, Young C, Resnicow K, Merritt ZT, McConnell CR, Hughes CA, Koller KR, Bock MJ, Decker PA, Flanagan CA, Meade CD, Thomas TK, Prochaska JJ, Patten CA. 2022. Sharing Lessons Learned from Beta-Testing the CAN Quit Facebook Group Prototype to Promote Smoking Treatment Utilization among Alaska Native People. JMIR, 24(2):e28704.

Phase 4 pilot study and COVID-19 content development papers
(under review)

THANK YOU!

