# Twenty-first Meeting of the HB 21-1317 Scientific Review Council

August 19, 2025

#### Welcome & Introductions

Dean Cathy Bradley, PhD, MPA & Christopher E. Urbina, MD, MPH

### 2025-2026 CO CERP Project Team

Member	Sub-Team
Cathy J Bradley, PhD	Principal Investigator
Ashley Brooks-Russell, PhD, MPH	Subject Area Expertise
Annie Collier, PhD	Education Campaign, Administration
Zachary Giano, PhD	Education Campaign (Evaluation)
Travis Leiker, MPA	Administration
Louis Leslie, BA	Systematic Review
Tianjing Li, MD, PhD, MHS	Systematic Review
Jean-Pierre Oberste, MPH	Systematic Review
Christi Piper, MLIS	Systematic Review
Daphna Rubin, MPH	Education Campaign, Systematic Review
Neeloofar Soleimanpour, MPH	Administration
Greg Tung, PhD, MPH	Administration, Subject Area Expertise, Education Campaign
Tsz Wing Yim, MPH	Systematic Review

#### **Scientific Review Council Members**

Member	Role on Council	Affiliation(s)
Chris Urbina, MD, MPH (Chair)	Preventive medicine specialist (or preventive medicine public health professional)	Arapahoe Department of Public Health and Environment; Former Director of CDPHE
Gregory Kinney, PhD, MPH	Epidemiologist	Colorado School of Public Health
Kennon Heard, MD	Medical Toxicologist	University of Colorado School of Medicine
Archana Shrestha, MD	Neurologist	University of Colorado School of Medicine
Erica Wymore, MD, MPH	Pediatrician, Neonatal-Perinatal Medicine	University of Colorado, School of Medicine
Paula Riggs, MD	Psychiatrist	University of Colorado, School of Medicine
Susan Calcaterra, MD, MPH	Internal medicine physician (or other specialist in adult medicine)	University of Colorado School of Medicine
Joseph Schacht, PhD	Licensed Substance Abuse Disorder Specialist	University of Colorado School of Medicine
Kent Hutchison, PhD	Neuropsychopharmacologist	University of Colorado School of Medicine
Lesley Brooks, MD	Medical professional (or public health professional) who specializes in racial and health disparities and systemic inequalities in health care and medicine	North Colorado Health Alliance; SummitStone Health Partners

### Review of Agenda

Christopher E. Urbina, MD, MPH Chair, CO CERP Project Scientific Review Council

### Scientific Review Council Meeting Agenda

9:00 AM	Opening Remarks, Introductions and Welcome, Updates on Conflict of Interest	Chris Urbina
9:05 AM	Review of Agenda and Meeting Minutes	Chris Urbina
9:10 AM	Current Status of the School and Project HB 1317	Cathy Bradley
9:25 AM	Review Team Updates • Scoping Review • Mental Health Review	Greg Tung and Tianjing Li
9:35 AM	Education Campaign Updates	Annie Collier
9:50 AM	Updates from Initium	James Corbett
10:05 AM	Progress Report RE: Other Population Engagement	ALL
10:10 AM	Public Comment	ALL
10:30 AM	SRC Discussion, Next Steps & Closing Remarks	Chris Urbina

### Review of Meeting Minutes

Christopher E. Urbina, MD, MPH Chair, CO CERP Project Scientific Review Council

### Prior Reports & Meeting Materials Available



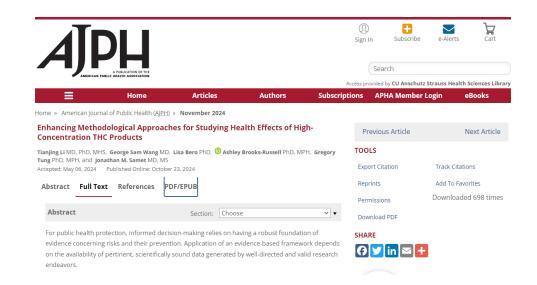


# Current Status of Project & & Legislative Considerations

Cathy J. Bradley, PhD Professor & Dean, Colorado School of Public Health

### **Review Team Updates**

Greg Tung, PhD
Tianjing Li, MD, MHS, PhD





Subscripti Home **Articles Authors** 

Home » American Journal of Public Health (AJPH) » December 2023

#### Health Effects of High-Concentration Cannabis Products: Scoping Review and **Evidence Map**

Lisa Bero PhD, Rosa Lawrence BA, Jean-Pierre Oberste BA, Tianjing Li MD, PhD, MHS, Louis Leslie BA, Thanitsara Rittiphairoj MD, MPH, Christi Piper MLIS, George Sam Wang MD, Ashley Brooks-Russell PhD, MPH, Tsz Wing Yim MPH, Gregory Tung PhD, MPH, and Jonathan M. Samet MD, MS

Accepted: August 14, 2023 Published Online: November 08, 2023

#### American Journal of **EPIDEMIOLOGY**



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#### **Article Contents**

Abstract

JOURNAL ARTICLE ACCEPTED MANUSCRIPT

#### Methodological challenges and actionable recommendations in studying the health effects of high-concentration THC products

Tianjing Li, George Sam Wang, Ashley Brooks-Russell, Gregory Tung, Louis Leslie, Thanitsara Rittiphairoj, Jean-Pierre Oberste, Tsz Wing Yim, Lisa Bero, Jonathan M Samet X

American Journal of Epidemiology, kwae421, https://doi.org/10.1093/aje/kwae421 Published: 29 October 2024 Article history ▼



#### Abstract

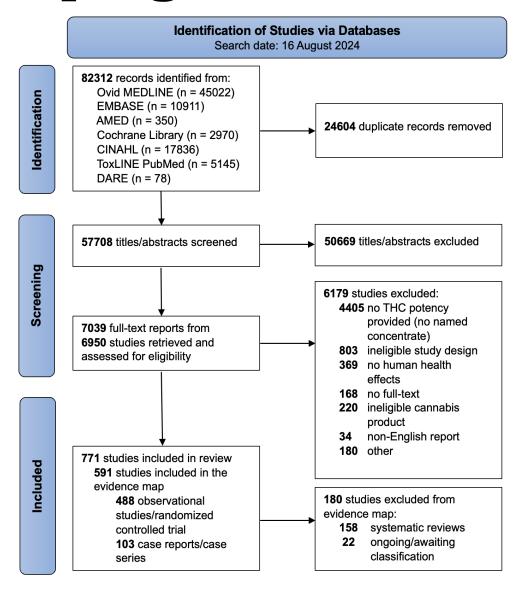
In conducting a scoping review on the health effects of high-concentration cannabis products, we have uncovered pervasive methodological shortcomings within the cannabis literature. This paper begins by defining the 'causal effect' of interest for public health and delineating the desirable features of study design that can address crucial questions pertaining to public health and policy. We

### **Annals of Internal Medicine®**



Journal of Cannabis Research

### **Scoping Review Studies**



#### Search Update: September 2025

### **Education Campaign**

Annie Collier, PhD

### **Topics Covered**

Update on continuing projects from last year (Pregnancy and MI)

Art Exhibition and School-Based Art Curriculum

**Publications and Presentations** 

Events and outreach

### Perinatal and Cannabis Well-being Project

#### In 2024-2025

- Chatbot developed/refined
- Infographics developed: unmanaged perinatal stress; reasons for cannabis use during pregnancy (and health risks); stress management and coping alternatives
- Survey determined interests and needs then beta tested chatbot
- Analyzed CINT survey on pregnant and parenting perceptions; manuscript currently under review by leadership for publication

#### In 2025-2026

Perinatal Well-being Chatbot Feedback integrated, finalizing last round of beta testing

Perinatal Cannabis Provider Training
Ongoing content creation using
evidence-based research and practices
to inform training

Integration of Chatbot and Provider
Training Disseminate chatbot and
training to rural and urban locations in
2026

#### Motivational Interviewing: Navigating Difficult Conversations About Cannabis

#### **Implementation with Initium**

- 5 Modules created
- Materials available on the Tea on THC website and via chatbot
- Use of social influencers to promote concepts and applications
- Creation of short videos for applications
- Offerings available through workshops (prn)

Module 1: What you need to know about high concentration cannabis (HCC)

Module 2: Basic principles to consider when talking to youth

Module 3:
Motivational
Interviewing (MI)
with loved ones

Module 4: When (and how) should you suggest a loved one talks to a professional?

Module 5: Applying what you have learned

### Science-informed Art

#### FY 2024 – 25 Completed

- Created online resources to educate artists asynchronously
- 7 pieces of art purchased for traveling exhibition
- 30 artists applied, 10 selected for training
- Commissioned Shaunie Berry, MPH, to produce an arts-based curriculum for middle and high school students

#### FY 2025-26 Goals

- 2 new exhibitions will be held in Spring 2026: Ft. Collins and Colorado Springs. Locations to be announced.
- 4 final artists (juried) will be commissioned to produce new art for Spring exhibitions from the 10 selected for training
- Artist training resource will launch via a 'sub-website'
- Outstanding youth artists will be selected to participate in the Hear/Say exhibition

### Grow Up Curriculum Shaunie Berry, MPH

- Based on Denver's youth art show Grow Up by Shaunie Berry, and the Tea on THC web-based curriculum for youth, Shaunie created a 6-unit HCC curriculum geared for middle and high school teachers
- Teachers provided with an "off the shelf" curriculum, 3 lessons per unit. Topics emphasize the impact of HCC on youth developing brains and mental health
  - Fun, game approach, e.g., jeopardy, 2 truths and a lie, peer pressure board games
  - Role playing for difficult situations
  - Culminates with a community specific art show, with suggestions to teachers for how to make that happen
- Pre and post knowledge testing to evaluate outcomes
- Curriculum trialed in two schools this Fall, updated, and then disseminated by Winter (via Tea on THC)
- Best student art offered prizes and winners will have pieces in the Hear/Say exhibition this Spring

#### New CINT Data Collection

### New data collected via CINT, a 3<sup>rd</sup> party data collection platform managed by Initium

- 809 participants Colorado residents
- 54% Female; 33% Non-White; 9% Pregnant or have a child <2
- 21.1% HCC users
- 24% of the sample saw the "Tea on THC" campaign; these numbers went up when looking within targeted markets (31% for <25; 28% for pregnant or child <2; 26% for parenting)

#### **Future analyses:**

- Investigate use, knowledge, and behavior of people who saw the campaign as well as by target markets
- Examine trends in HCC use and knowledge compared to CINT round 1 data collection

### **Current Papers**

#### Science-informed art (Hear/Say & Grow Up)

• Community art exhibitions, paired with scientific training for artists, significantly increased knowledge about high-concentration cannabis (HCC) among both artists and patrons.

#### High-concentration cannabis (HCC) demographic study

 Colorado survey found HCC users are younger, more likely male, non-heterosexual, and pregnant compared to traditional cannabis users and non-users, highlighting need for targeted prevention.

#### Pregnancy & cannabis use study

 Survey of Colorado adults showed cannabis use during pregnancy remains common despite potential harms to fetal development, emphasizing importance of tailored health messaging for pregnant and parenting people.

#### Accepted Abstracts

CPHA 2025 Annual Meeting - Public Health in the Rockies - Keystone

"The Tea on THC": A Government-Academic Partnership to Address Harms from High Concentration-Cannabis

Gregory Tung, PhD, Cathy Bradley, PhD, James Corbett, JD, Annie Collier, PhD, Jonathan Samet, MD, Daphna Rubin, MPH

#### APHA 2025 Annual Meeting – Washington DC

Developing & Evaluating Public Education Campaigns on High-Concentration Cannabis

James Corbett, Mdiv, JD<sup>1</sup>, Emnet Sisay, MS<sup>1</sup>, Trisha Lowe, BS<sup>1</sup>, Mya Cappellino, BA<sup>1</sup>, Gregory Tung, PhD<sup>2</sup>, Daphna Rubin, MPH<sup>2</sup>, and Ann Collier, PhD<sup>2</sup>

(1)Initium Health, Denver, CO (2) Colorado School of Public Health, Aurora, CO

### **Community Events and Outreach**

- Events throughout the state Colorado Springs, Denver, Glenwood Springs
- Outreach to diverse populations including LGBTQ+, public health practitioners, researchers, various industry professionals, rural Coloradans & communities of color
- Over 1200 in-person interactions so far



Women's Health Summit

\*\*Colorado Rural Peer Conference

Iune 2025

Sept 2025 **Public Health in the Rockies** 

**National Interdisciplinary** Cannabis Symposium

Oct 2025

**Cannabis Research Conference** 

Nov 2025 **APHA Annual Meeting** 

\*\*Participation in these events is thanks to this year's partnership with the Centers for Health, Work and Environment.

Outside Festival

Pikes Peak Pride Festival Denver Pride Festival

August 2025

**Healthlinks Annual** Meeting\*\*

### **Updates from Initium Health**

James Corbett, MDiv, JD Initium Health

### initium HEALTH

Initium is a public benefit corporation committed to using innovation to improve human health.



**August 19, 2025 The Tea on THC Campaign** 

### Agenda

- 2024–2025
   Campaign Results
- 2. 2025–2026 Priorities



# 2024–2025 Campaign Results

### Campaign Objectives

- Raise awareness of high-concentration cannabis (HCC) and its impacts on health and mental health, especially among youth and pregnant or parenting individuals.
- Equip parents, caregivers, and mentors with tools and messaging to help them have informed, supportive conversations about HCC.
- Support the development of healthy coping skills and encourage the adoption of positive strategies to reduce stress and achieve life goals.



#### Audiences

- Youth (ages 12–26):
  - Middle school youth
  - High school
- Pregnant and Breastfeeding Women
- Parents, Caregivers, and Trusted Adults

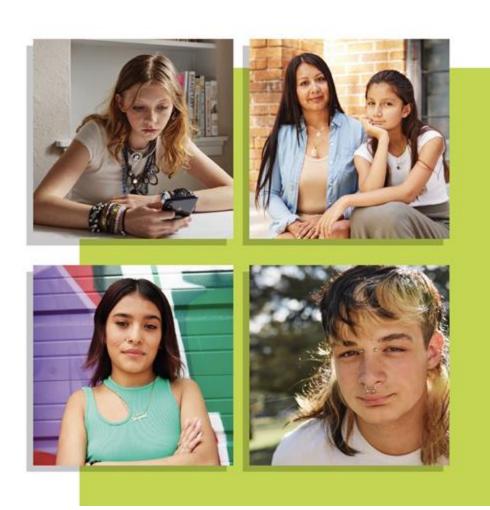






### Content Development

- Grounded by scientific research, national best practices (e.g., Preventing Marijuana Use Among Youth by SAMHSA), and community feedback gathered through focus groups.
- Informed by Health Belief Model and Social Norms Theory.
- Prioritized open, judgment-free dialogue and promoted practical coping strategies.



### Photoshoot





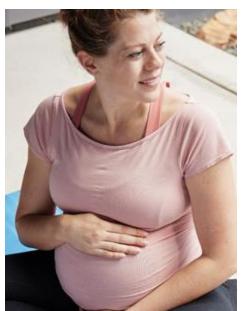
















### Real People & Real Stories

#### Why Real Faces Work in Behavioral Health Impact

- Builds trust: Real people increase message credibility.¹
- Reduces stigma: Authentic visuals foster emotional connection.<sup>1</sup>
- Encourages help-seeking: Peer stories motivate action.<sup>2</sup>
- Improves recall: Human expression boosts retention.<sup>3</sup>



<sup>&</sup>lt;sup>1</sup> Wahl & Lefkowits, Psychiatric Rehabilitation Journal, 2011

<sup>&</sup>lt;sup>2</sup> NAMI, In Our Own Voice Program, nami.org

<sup>&</sup>lt;sup>3</sup> Sundar, Journalism & Mass Communication Quarterly, 2008

#### **Testimonials**



Former NFL Receiver
Brandon Lloyd Catches
Good Health After
Dropping Cannabis



Devastating: Students
Describe the Chaos of
High-Concentration
Cannabis Use



The Breaking Point: A
Life
Lost to THC

#### **Podcast Series**





Brandon Lloyd discusses his NFL career and journey to overcome high-concentration cannabis addiction, highlighting challenges, coping strategies, and a healthier life.



Dr. Annie Collier

Annie Collier, PhD,
MS, Associate
Professor,
ColoradoSPH, blends
art and science in
cannabis education,
promoting positive
coping mechanisms
and meaningful
community
conversations.



**Dr. Gregory Tung** 

Greg Tung, PhD, MS, Associate Professor, ColoradoSPH, highlights the challenges of high-concentration cannabis research and stresses cautious policies to protect youth and pregnant women.



#### Tya Anthony

Tya Anthony, artist and curator, explores how art bridges science and community to spark dialogue on the impact of high-concentration cannabis.



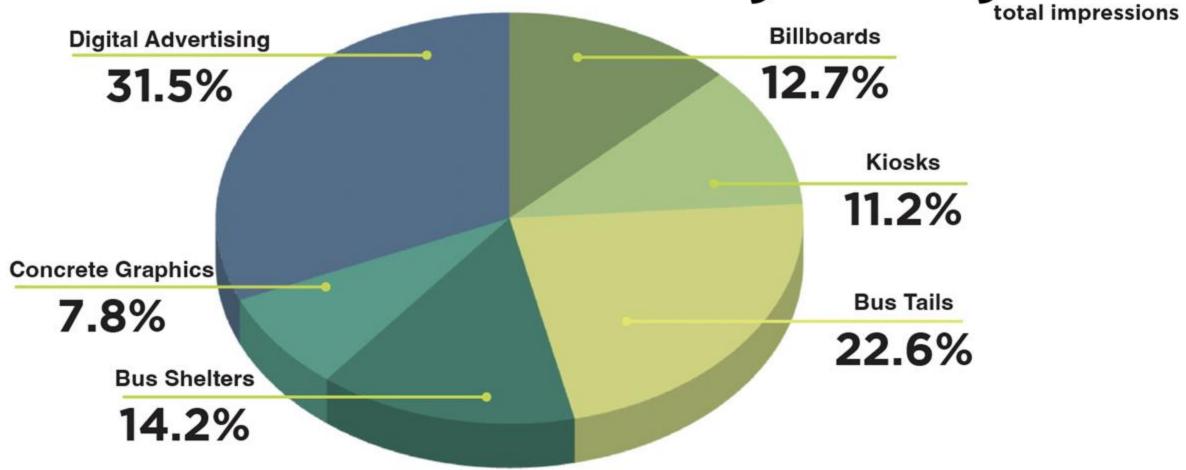
Dr. Jon Samet

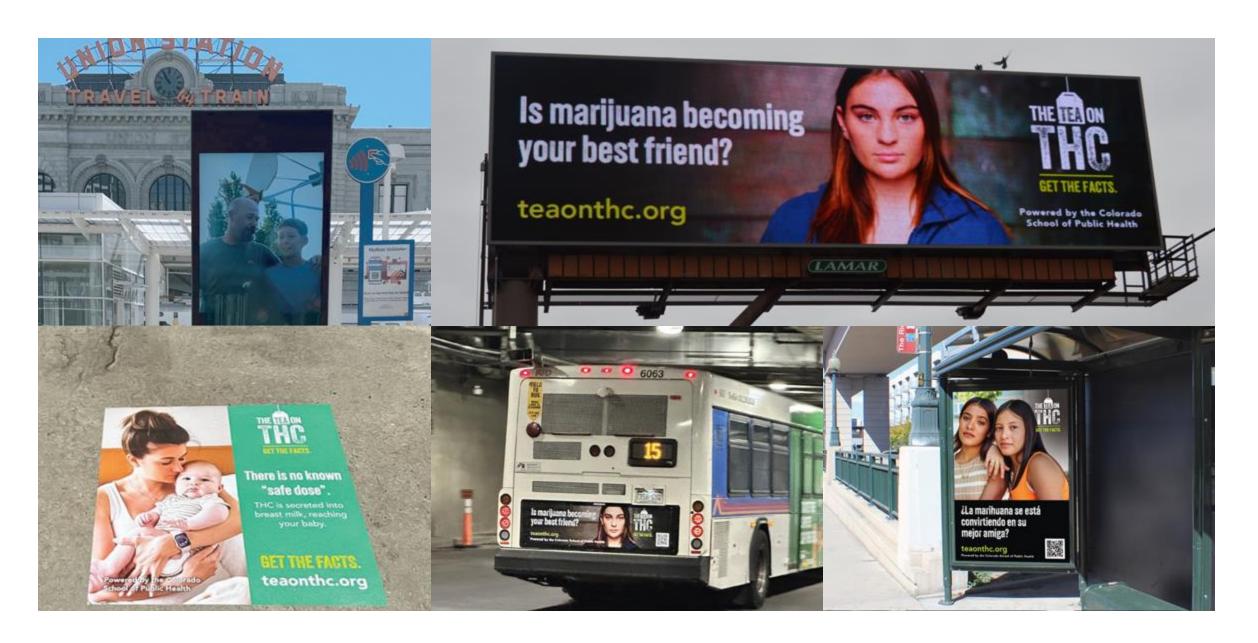
Jon Samet, PhD, MS, Associate Professor, ColoradoSPH, discusses cannabis research challenges, public health impacts, and educating on THC risks.

# Results

### **Total Impressions**

## 36,656,512





# **Comparative Campaigns**

Metric	Tea on THC	Good to Know	Responsibility Grows Here
Campaign Funding	\$950,000	\$4,168,000	\$10,254,102
Reported Years	1 Year	1 Year	3 years
Campaign Duration	FY 2024–25	FY 2016-17	FY 2018–21
Total Impressions	36,656,512	33,100,000	18,224,902
Click-Through-Rate	3.85%	0.34%	1.73%
Digital Ad Impressions	11,553,333	11,300,000	11,000,000

# Website Traffic

Campaign	Monthly Website Visits	Years Running
Truth Initiative	~266,000	26 years
D.A.R.E.	~38,000	42 years
The Tea on THC	~20,123	1 year
YouCanWA	~8,490	4 years
Know This About Cannabis	~3,140	5 years
Wasted on Weed	~545	3 years

# **Engagement Achievements**

Platform	Tea on THC CTR	Benchmark
Meta	2.61%	0.50%
Boosted Meta	3.60%	0.50%
Display Ads	13.98%	0.90%
Search	10.19%	3.78%
TikTok	0.36%	0.27%

# Survey

To help the ColoradoSPH measure changes in knowledge, attitudes, and behaviors related to high-concentration cannabis, we facilitated recruitment for the "HB1317 Master Survey."

Target
500
survey respondents in the baseline (pre-campaign) survey

Achieved
564
survey respondents in the baseline (pre-campaign) survey



## **Earned Media**



























## **Events**





June 2024

Hear/Say Opening Night

July 2024 Hear/Say Scientist Panel

> Oct 2024 MGMA Conference

Dec 2024 Press Conference

> Apr 2025 Fight the Funk

May 2025 Outside Festival

June 2025 Denver Pride Festival June 2024
Grow Up Opening Night
July 2024

**Grow Up Closing Event** 

Nov 2024 CLIO Health Awards

Mar 2025 DC Briefing on Cannabis

May 2025 Women's Health Summit

June 2025 Pikes Peak Pride Festival

# Collateral







## THC is secreted into breast milk, reaching your baby.

- · Worsering of underlying mental health conditions such as mood changes, suicidal thinking, and increased risk of psychosis

- anger intohilly mondiness, suitable

- Persistent neurocognitive impairment, even after consistori, especially il use began before age 17

### teaonthc.org

Powered by the Colorado School of Public Health

Long-term use is associated with: . Carnabia une chaorder

. Breathing problems, same as from smoking total

Increased risk for schizophrenia, depression, as anger, inflability, moodiness, suicide

· Reduced intellectual functioning, poor educatio

Penistent neurocognitive impairment, even after cessation, especially if use began before age 17

Scan the QR code or visit

### The prevalence of cannabis use during pregnancy

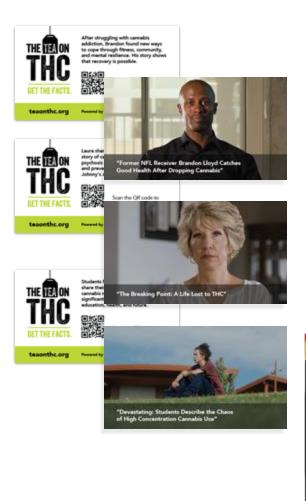
Fact

### Myth

### KNOW THE RISKS.

teaonthc.org











# 2025–2026 Priorities

# Expanded Audiences

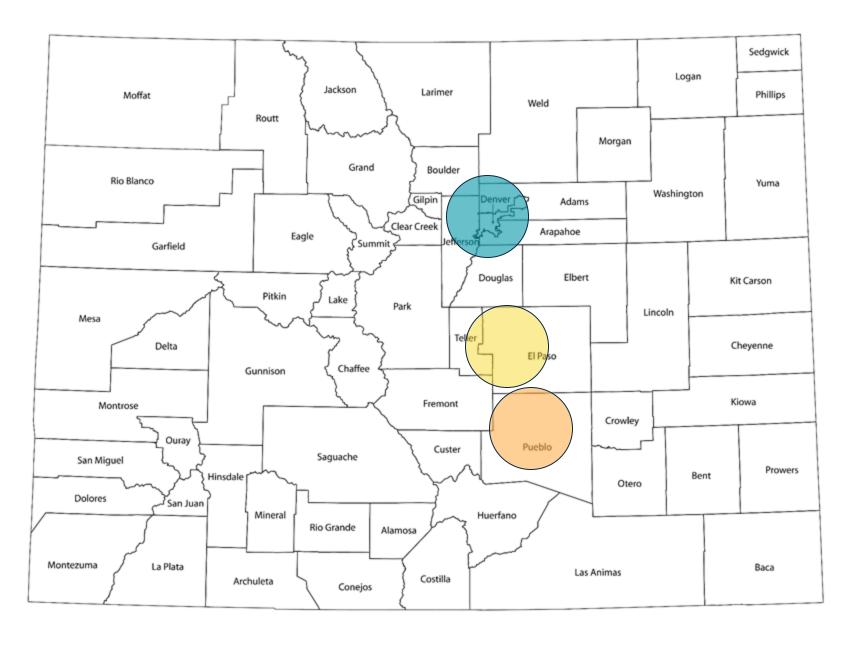
# **Expanded Audiences**





# Increasing Rural Impact

- Colorado Springs, Colorado
- Denver, Colorado
- Pueblo, Colorado



# New Creative & Expanded Media

# New Creative & Expanded Media

- Traditional Broadcast & Local TV Advertising
- Connected TV (CTV) & Overthe-Top (OTT) Advertising
- Radio



# Awareness --> Engagement

# What is Influencer Marketing?

Leveraging campaigns from individuals with a dedicated social following and perceived expertise within their niche.

Why it Works!

Trust with their audience, making their messages a form of social proof.







## Social Proof

Social proof is the psychological phenomenon where people mimic the actions of others in an attempt to reflect correct behavior in a given situation.

## Why it Works!

- Builds Trust Quickly
- Reduces Perceived Risk
- Creates FOMO (Fear of Missing Out)
- Reinforces Brand Credibility







# Types of Influencers



Mega/Celebrity
Influencers: Over 1
million followers; broad
reach but may lack
niche engagement.



Macro Influencers:
Dr. Shannon Clark 500K–
1M followers; significant reach with more targeted audiences.



Micro Influencers:
Nae Noelle
10K–500K followers;
high engagement rates
within specific niches.



Nano Influencers:
Oly Glam
1K–10K followers;
highly engaged, closeknit communities.

## Results



## **Breastfeeding & Stress**

Liz Howe

- 23,331 views
- 263 interactions (likes, comments, shares, saves)
- 4 hours, 3 minutes of total watch time (includes replays)

## Results



## **Tips for Breastfeeding**

Sarah Emmanuel

- 11,088 views
- 327 interactions (likes, comments, shares, saves), notably very positive commentary from the comments section.
- 16 hours, 40 minutes of total watch time (includes replays)

# **Public Comment**

# **SRC Discussion**

Christopher E. Urbina, MD, MPH Chair, CO CERP Project Scientific Review Council

# Next Steps & Adjourn

Christopher E. Urbina, MD, MPH Chair, CO CERP Project Scientific Review Council