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Smoking Cessation  
Leadership Center



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University of California  
San Francisco

# One-Hour Power Break Webinar:

*Innovations in Tobacco Cessation Delivery:  
Digital Platforms*

Erik M. Augustson, PhD, MPH

3/28/18

# Moderator

**Christine Cheng**

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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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**Erik M. Augustson, PhD, MPH, Christine Cheng, Brian Clark, Jennifer Matekuare, Roxana Said, MPH, Catherine Saucedo, and Steven A. Schroeder, MD**

# Thank you to our funders



Robert Wood Johnson Foundation



# Housekeeping

- 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

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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 # 150847000.

# Presenter

**Erik M. Augustson, PhD, MPH**

Program Director; Lead Smokefree.gov Initiative

Tobacco Control Research Branch; Behavioral  
Research Program

Division of Cancer Control & Population  
Sciences, National Cancer Institute, NIH



# Innovations in Tobacco Cessation Delivery: Digital Platforms

*Erik Augustson, PhD, MPH*

*Program Director; Lead Smokefree.gov Initiative*

*Tobacco Control Research Branch; Behavioral Research Program*

*Division of Cancer Control & Population Sciences, National Cancer  
Institute*



# Outline

- Background & challenges
- mHealth potential
- mHealth example
  - Smokefree.gov Initiative

# Core Phases of Behavioral Interventions

- Reach
- Initial Engage
- Sustain Engagement
- Re-engage
  - High drop out rates
  - Common across all treatment modalities

# Challenges for Traditional Face-to-Face Intervention Sustainability

- Cannot match need
- Lack of infrastructure
- Expense
- Realities of healthcare system clinical work flows
- Long gaps in communication between contact
- \*Consumers don't use them

# How to Address?

- Population-based Approaches
  - Quitlines
  - **Mobile health (mHealth)**



# mHealth

# MOBILE HEALTH (MHEALTH)

- The use of technology to remotely monitor, track, respond and/or deliver an intervention for health related events.
- Examples of common technology used: mobile-optimized websites, text messaging, Smartphone applications (Apps), and remote sensors.

# Why mHealth Platforms?

- Available communication technologies
- Strong uptake in target populations (Pew Research Center)
  - Cell ownership: 95% Americans
  - Smartphone: 77% Americans
  - High across all demographic categories
- Platform functionality consistent with treatment delivery
- User engagement in the technology matches treatment needs
- **Can be independent or integrated into other services**

# Cellphone Penetration in America

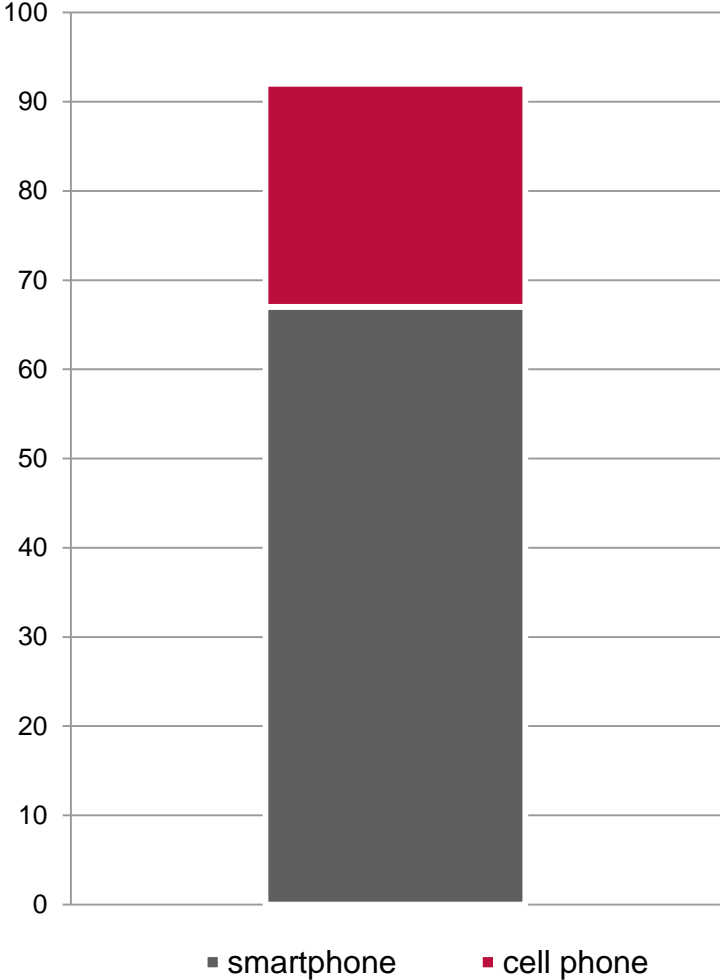
(Pew Research Institute, 2017)

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- 2011
  - Cell Ownership 83%
    - Smartphone Ownership 35%
- 2016
  - Cell ownership: 95%
    - Smartphone: 77%
  - <30 years old 100%
  - <High School 92%
  - <\$30k/year 92%
  - Rural 94%
  - Black 94%
  - Hispanic 98%



# Cellphone use in the US



45%

Of people rarely turn off their phones

31%

Never turn off their phones

# Key mHealth Potential Intervention Benefits

- Reach
  - Large audiences
  - Underserved audiences
- Reduces cost burden on healthcare system
- Engagement with intervention platforms
  - Increase access to intervention
  - Decrease space/time gap between treatment & behavior
  - Seamlessly integrate user interaction with treatment within their daily life
  - Interactive functionality & improved “dose”

# mHealth Challenges

- “Lighter touch” intervention
- Type of device
- Consistency of cell phone access
- Multiple users per device
- Fee structures and cost
- Role of mHealth interventions with in larger public health infrastructure
  - **Integration with existing cessation and clinical services**

# mHealth Integration Strategy Examples

- Extender to clinic-based programs
- Quitlines
- Cross promotion via multiple mHealth platforms
- Electronic Health Records
  - Closed-loop electronic referral
  - NCI-University of WI- EPIC pilot project

# Common mHealth Platforms

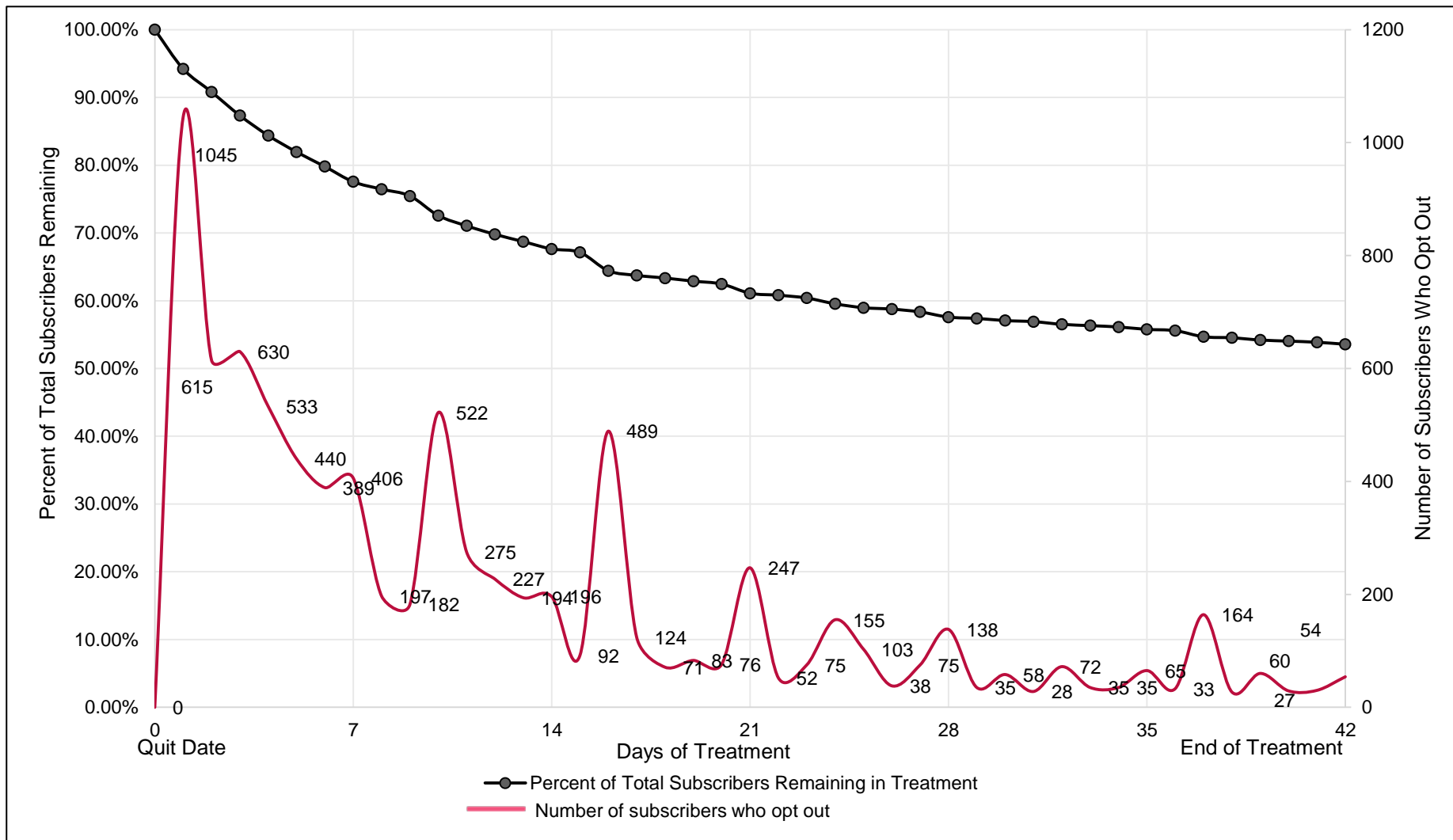
- Mobile optimized, interactive websites
  - Sufficient evidence to support use
- Text-based interventions
  - Sufficient evidence to support use
- Smartphone Applications (Apps)
  - Insufficient evidence to support use
  - Growing research base
- Social media platforms
  - Insufficient evidence to support use
  - Growing research base

## Integration into EHR Pilot Project

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- Epic EHR Vendor & Univ of Wisconsin
- Closed-loop electronic referral
  - Clinician identifies smoker & assesses interest
  - Patient selects program
  - Information passed to SFTXT
    - Cell #, basic demographics
  - Confirmation text is sent to patient from SFTXT
- At program completion (6-weeks)
  - SFTXT passes information to EHR/Clinician
  - Patient outcome:
    - Completed program (Y/N)
    - Smoking status (Y/N/Unknown)

# Core Challenge: SmokefreeTXT Engagement Patterns



# Smokefree.gov

*Examples of mHealth Resources*



# SFG POPULATION-LEVEL CESSATION SERVICES

- Largest Federal mHealth behavior change intervention program
- 12.5 million smokers in last 5 years (conservative estimate)

# Smokefree.gov Initiative (SFGI)

- Largest Federal mHealth behavioral change intervention program
- Empirically-informed
- Reach & engage multiple populations
- Multiple health risk behaviors
- Multi-platform
  - 7 Mobile optimized websites
  - 15 Text-based intervention programs
  - 2 Smartphone Apps
  - 6 Social media platforms
  - Chatbot (Public facing in Build Phase)
- Population scale
  - 3,000,000-6,000,000 users/year
- Efficacy 10-30%



# SFG Web Topic Areas: Broadening the Behavioral Targets

- Veteran's Health
- Smoking and Smokeless Tobacco Cessation
- Healthy Lifestyle: Diet, Physical Activity, Weight Management
- Depression & Anxiety Management
- Stress Management
- Pre & Post Natal Health
- Parenting and Relationships
- LGBT Topics
- Symptom management in Cancer Survivors

# SmokefreeTXT Overview

- Text messaging smoking cessation intervention
- Users opt-in via web or mobile phone
- Select a quit date up to 14 days into the future
  - Receive unidirectional clinical intervention messages up to 2 weeks before and 6 weeks after quit date
  - Frequency of messages peak around to quit date
- Bidirectional: assesses user's mood, craving, & smoking status
- Bidirectional: Users can text keywords

# SmokefreeVET TEXT Keywords, Continued

- CRISIS: You're having feelings of distress, crisis, or of harming yourself or others. Call the Veterans Crisis Line immediately. This keyword will give you the contact information for the Veterans Crisis Line.
  - You have many options for help if you're in distress or having suicidal thoughts:
    - Call the Veterans Crisis Line 1-800-273-8255 and press 1
    - Send a text to 838255
    - [Chat with a qualified VA responder\(link is external\)](#)

# SFG MOBILE APPLICATIONS

- Two apps
  - QuitGuide
  - quitSTART
- Real time resources
  - Information/tips
  - Tracking/monitoring
  - **Ecological Monetary Assessment (EMA)**
  - **User Geolocation/Time-tagged Messaging**
  - Mood management
  - Distractions
  - Promote resource utilization
    - **Use of Push Notifications**
- Meta-tagged to allow tracking of user behavior



# Take Home Messages

- Healthcare providers have a key role in smoking cessation
- Traditional face-to-face treatments are effective, and have significant limitations
- There are options which can be valuable to you and your patients
- mHealth
  - <https://smokefree.gov>
  - Multiple platforms are available for use
  - Potential for modification



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[www.cancer.gov/espanol](http://www.cancer.gov/espanol)



# Q&A

- Submit questions via the **chat box**



# Post Webinar Information

- You will receive the webinar recording, presentation slides, information on certificates of attendance, and other resources, in our follow-up email. All of this information will be posted to our website.
- CME/CEUs of up to 1.0 credit is available to all attendees of this live session. Instructions will be emailed after the webinar.

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# American Association for Respiratory Care (AARC)



- Free Continuing Respiratory Care Education credit (CRCEs) are available to Respiratory Therapists who attend this live webinar
- Instructions on how to claim credit will be included in our post-webinar email

# Save the Date

SCLC's next live webinar will be on:

- **DATE: Wednesday, April 18 at 1pm EDT**
- **TOPIC: Tobacco use among Veterans and the support of the VA**
- **SPEAKERS:**
  - Kim W. Hamlett-Berry, PhD, VA
  - Brian S. Armour, PhD, OSH
  - Michael A. Tynan, OSH

Registration will open soon!

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- Visit us online at [smokingcessationleadership.ucsf.edu](https://smokingcessationleadership.ucsf.edu)
- Call us toll-free at **877-509-3786**
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