

CHAI CORE

COMMUNICATION FOR HEALTH APPLICATIONS & INTERVENTIONS

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chaicore.com



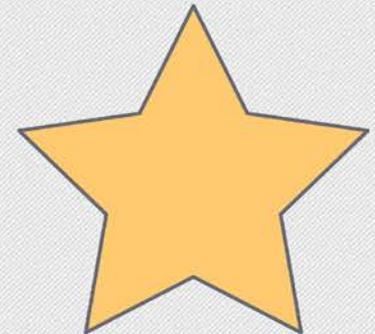
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[@CHAIcore](https://twitter.com/CHAIcore)

CHAI CORE'S MISSION

To apply **state-of-the-art** resources and techniques to the development of high-quality and rigorously-evaluated **behavioral science interventions** aimed at health promotion and disease prevention in populations at risk





THE CORE FILLS A CRITICAL GAP IN EXISTING RESOURCES FOR RESEARCHERS BY...

1 facilitating access to science-based research relevant to communication, health behavior theory, intervention design, and evaluation, and

2 translation of that research into strategies and tools that can produce more effective interventions, with an emphasis on new and emerging technologies

WHO FUNDS CHAI?

**NCI P30
LCCC**

**NIDDK P30
NORC**

Recharge

CHAI CORE

**Grants &
Contracts**

**UCRF
(State Funding)**

CHAI-STER GROWTH



2005

3.75 FTE

2015

9.93 FTE



CHAI YEAR IN REVIEW 2015



Enrichment
Speakers



Qualitative
Trainings



Proposals Assisted



Total Usage Hours



Users



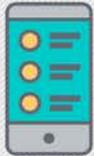
New Clients

TECHNICAL DEVELOPMENT SERVICES



Websites

including intervention and decision aid websites



Mobile/Web-based applications



Back-end databases

for research content delivery and data collection



Tailored web-based message systems



Wearables integration

PROJECT HEART WEB APP

[PI: LAURA WIDMAN, NIH/NICHD FUNDED]

Web-based sexual health program for adolescent girls (16-18 yrs) aimed at increasing girls' communication and decision-making skills around healthy relationships, abstinence, and safer sexual behavior.

CHAI Core...

- Designed website with interactive modules including quizzes, games, and videos that model communication techniques and skill-building tasks.
- Design includes town street scene with clickable animations.

GENESCREEN

[PI: GAIL HENERSON, NHGRI FUNDED]

Website used to introduce potential participants to the GeneScreen study, aid them in making a decision about joining, and allow them to consent and enroll online.

Our health is usually shaped by a combination

CHAI Core...

- Designed a responsive website that gives information about genetic screening, enables online enrollment, and facilitates participation in online surveys.
- Designed logo and recruitment materials

GENESCREEN

(PI: GAIL HENERSON, KAISER PERMANENTE FUNDED)

Existing intervention disseminated through prominent healthcare group.

CHAI Core...

- Modified site with logo and text changes for use by Kaiser Permanente



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL



NW BIOBANK
KAISER PERMANENTE®

CHART [CAROLINA HEALTH ASSESSMENT AND RESOURCE TOOL]

PI: RIBISL/TATE/NOAR/MAYER, UCRF

The online version of CHART was developed by, and for, UNC researchers for use in their studies of behaviors related to cancer risk and other chronic conditions.



CHAI Core...

- Designed and developed the public site and researcher portal
- Built the engine for tailored output
- Conducted usability testing to deliver this superior resource for NORC and LCCC researchers

DESIGN

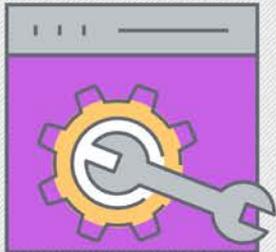


Graphic Design

Logo, Print, Web, Mobile



User Experience



Accessibility

QUALITATIVE SERVICES



Design and implementation
of qualitative research studies to support
intervention development and evaluation



Usability and cognitive testing

TEEN ASTHMA APP

[PI: CARPENTER, AMERICAN LUNG ASSOCIATION FUNDED]

Formative research with adolescents diagnosed with asthma and members of their support network (parents, friends, and health care providers) to determine what ideal components to include in an asthma self-management mobile application.

CHAI Core...

- Developed interview guide
- Conducted in-depth phone interviews with teens, parents, and friends
- Conducted usability testing with teens
- Designed prototype

INTERVENTION CONSULTING

Trained personnel in:

Behavioral theory

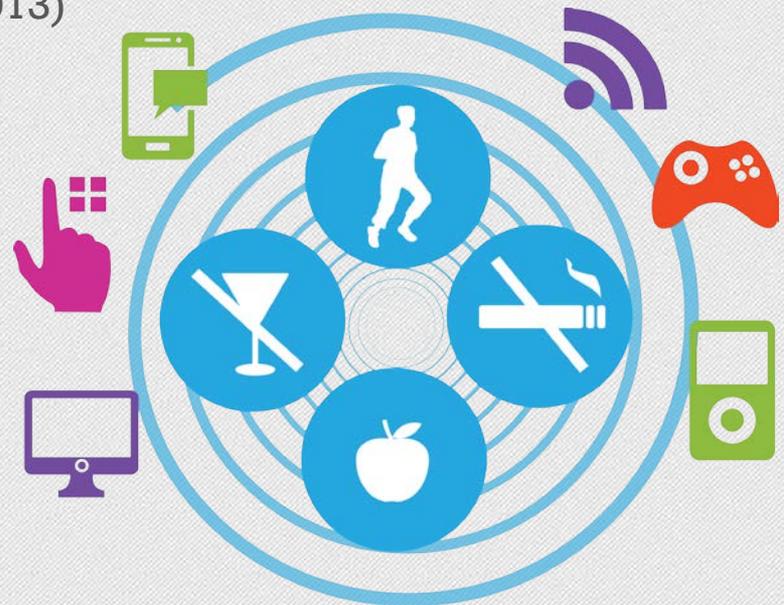
Intervention planning

BCT Taxonomy (v1) coding
establishing inter-rater reliability

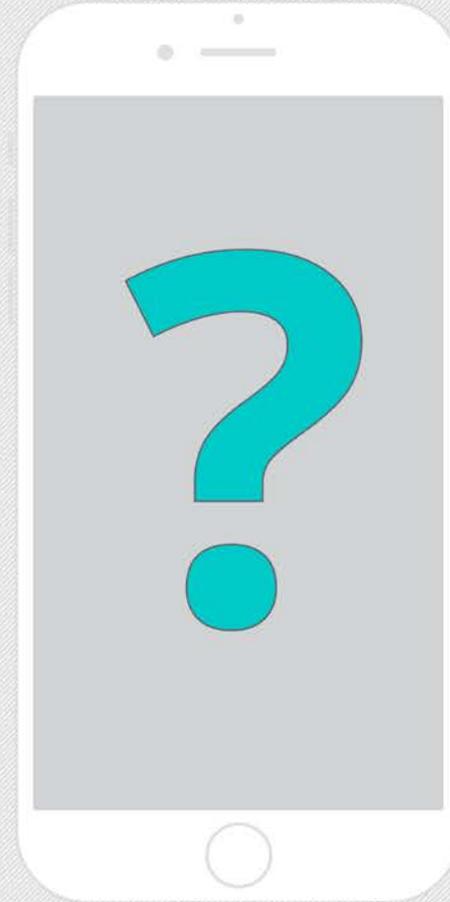
Manuscript support

BEHAVIOR CHANGE TECHNIQUE OVERVIEW

An “**active ingredient**”, or an **observable**, **replicable**, and **irreducible** component of an intervention designed to change or regulate behavior (e.g. feedback, self-monitoring, and reinforcement) - (Michie et al., 2013)



ACTIVE INGREDIENTS FOR BEHAVIOR CHANGE



BCTs DEFINED

1.1 Goal Setting (behavior)

Set or agree on a goal defined in terms of the behavior to be achieved.

1.4 Action Planning

Prompt detailed planning of performance of the behavior (*must include at least one of context, frequency, duration, and intensity*).

WALK 4 HEALTH BCTs



1.1 Goal Setting (behavior)

1.4 Action Planning

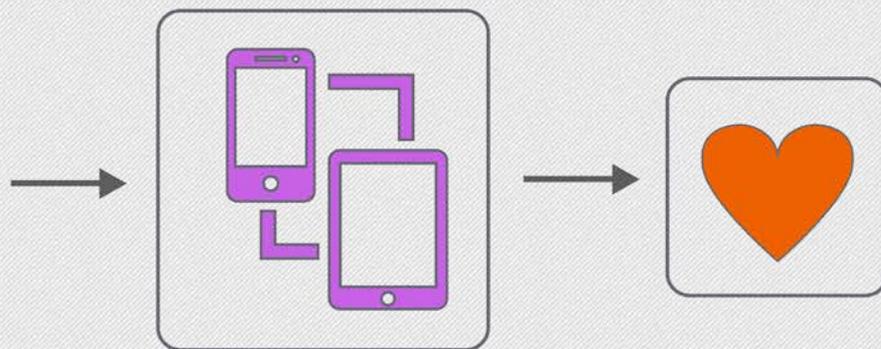
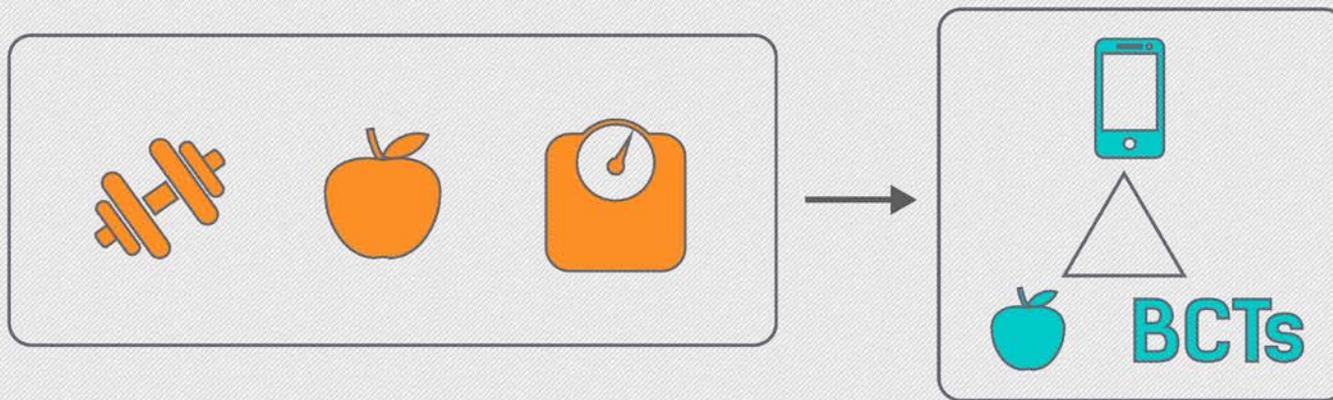
7.1 Prompts/cues

2.3 Self-monitoring (behavior)

2.2 Feedback on behavior

10.4 Social reward

FUNCTIONAL DESIGN PROJECT



Reviews examining what BCTs are most effective in producing change in eInterventions

MULTI INSTITUTION & VENDOR COLLABORATIONS

Work with **Twilio** to provide text messaging services – both send and receive – to study participants

Work with **Validic** to integrate client use of wearable devices like FitBIT

Provide client services to broad spectrum...



UNC
ESHELMAN
SCHOOL OF PHARMACY



UNC
SCHOOL OF MEDIA
AND JOURNALISM



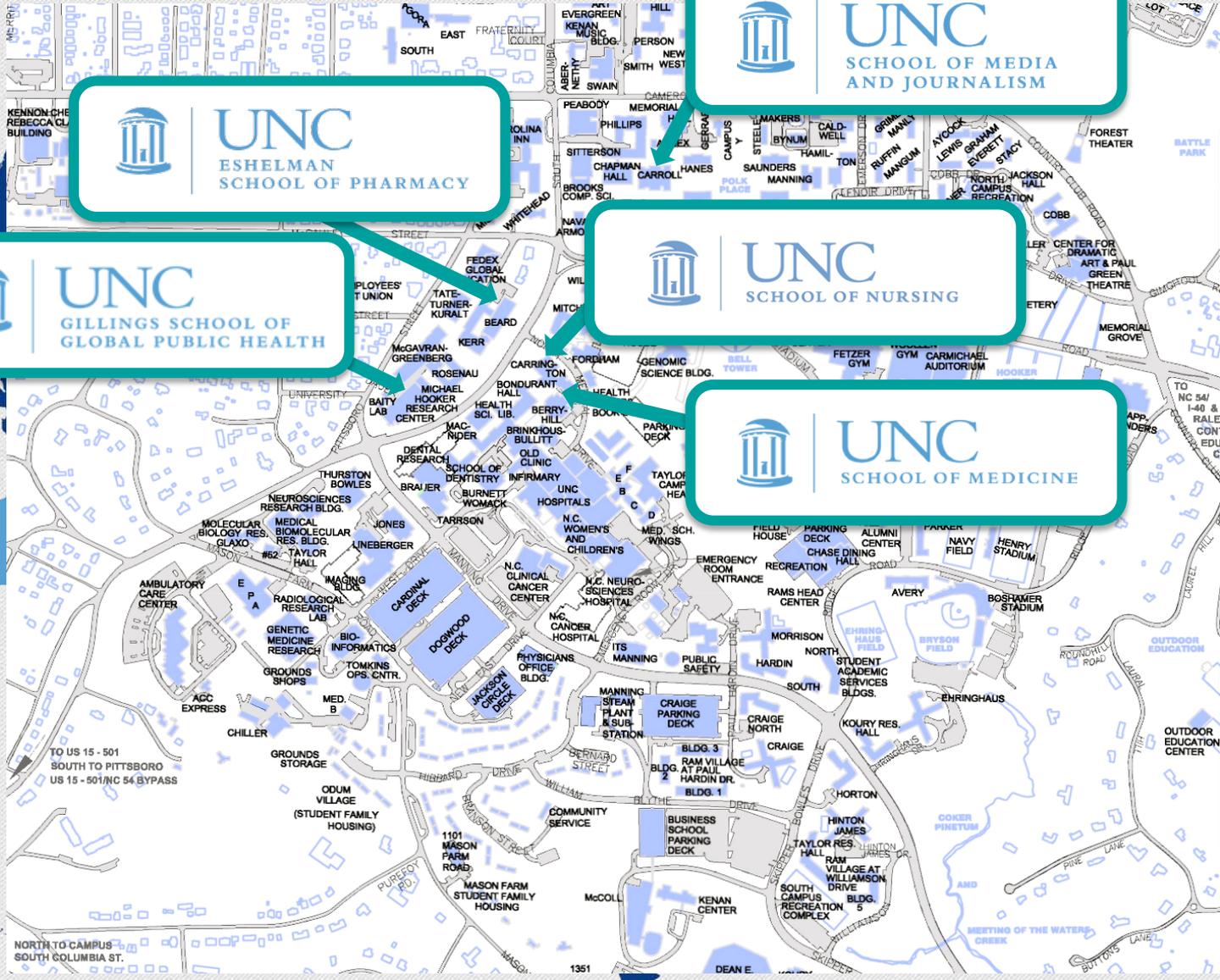
UNC
GILLINGS SCHOOL OF
GLOBAL PUBLIC HEALTH



UNC
SCHOOL OF NURSING



UNC
SCHOOL OF MEDICINE



NORTH TO CAMPUS
SOUTH COLUMBIA ST.

TO US 15 - 501
SOUTH TO PITTSBORO
US 15 - 501/NC 54 BYPASS

ODUM VILLAGE
(STUDENT FAMILY
HOUSING)

1101 MASON
FARM ROAD

MASON FARM
STUDENT FAMILY
HOUSING

EMINENT SCHOLAR SPEAKER SERIES

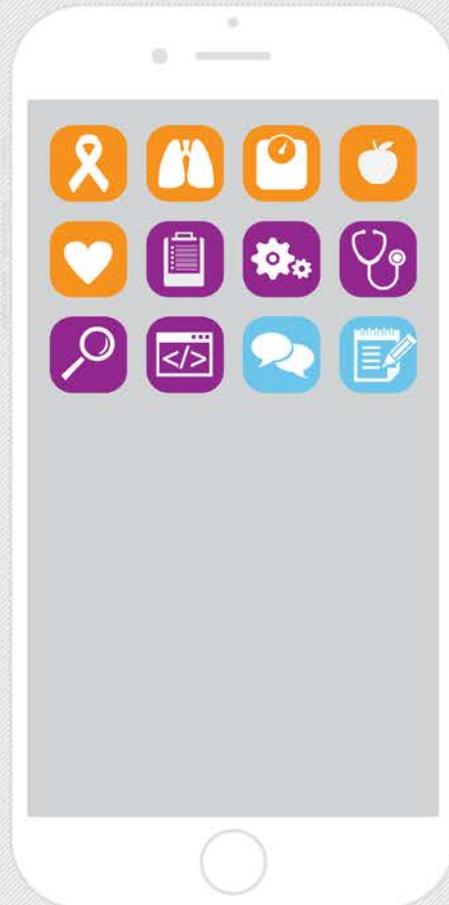


Susan Michie of University College London

Charles Abraham of University of Exeter

Lee Ritterband & Frances Thorndike of University of Virginia

Eric Hekler from Arizona State University



An Interdisciplinary Team Science Approach to mHealth Research

Dynamic workshop will foster creation of interdisciplinary teams to create mhealth research proposal ideas for changing health behavior to effect a clinical outcome. Teams will receive grant submission support and discounted mHealth development services.

Mobile Health topic areas include: cancer, asthma, obesity, diabetes, and cardiovascular disease. Teams will include behavioral scientists, engineers, clinicians, and informatics experts.

The event will culminate with teams submitting a one-page summary of the proposed idea. Teams will be expected to make a submission for external funding by July 31, 2017.



2015 CHAI CORE STRATEGIC PLAN

FOR THE NEXT 1-5 YEARS

Continue to implement **agile development components** to **increase efficiencies** in development, design, and implementation of new applications.

Further refine expertise in **eHealth** to **mobile platforms and responsive web design**.

Conduct literature reviews & prepare **manuscripts synthesizing evidence** on how **technology** is used to **effectively change behavior**. Disseminate via tool on website.



2015 CHAI CORE STRATEGIC PLAN

FOR THE NEXT 1-5 YEARS (CONT.)

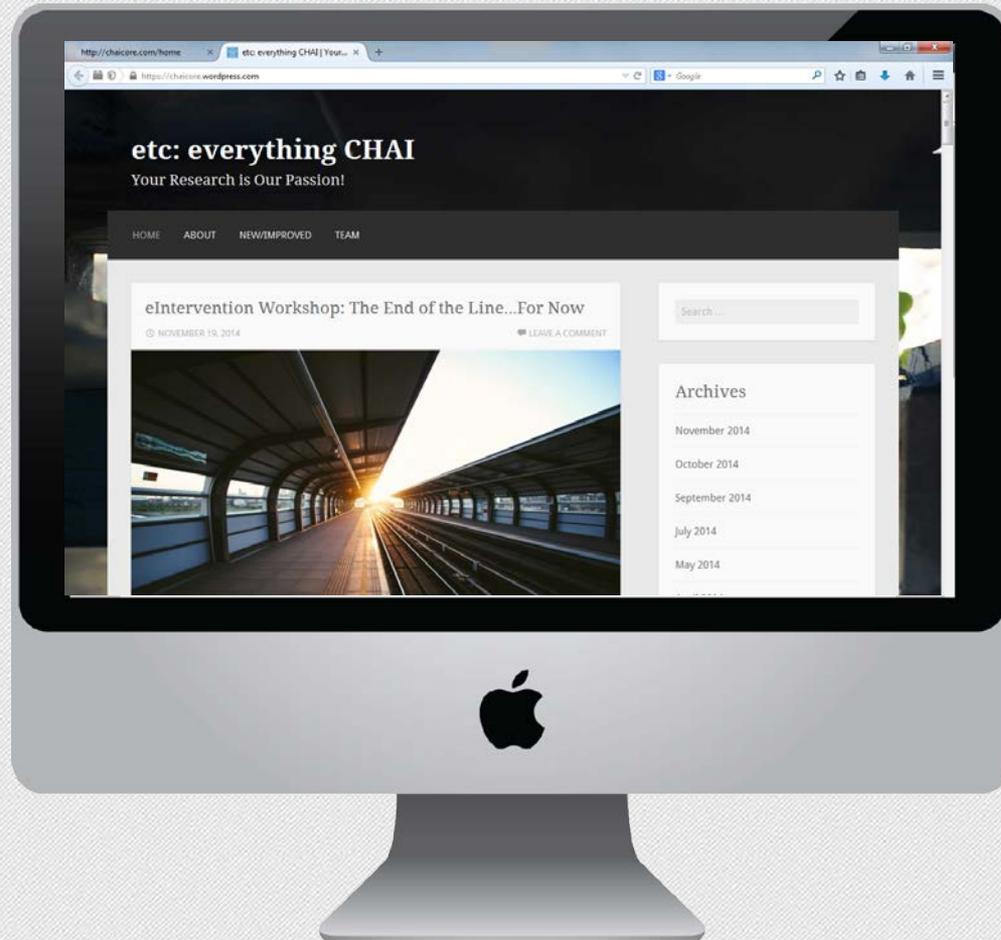
Develop **Just-In-Time-Adaptive-Interventions**— capture real-time data from multiple sources; micro-randomize; deliver more meaningful/time relevant intervention messaging.

Our long term vision is to **gather information on the key technology functionality** and **build an intervention platform** that includes **key techniques for behavior change**.

WEBSITE



BLOG



BI-MONTHLY eHEALTH DIGEST & RESEARCHER SPOTLIGHT



Avatars and Tailoring and Coaches -Oh My!

eHealth Digest

October 2015, Issue 5.0



Exactly one year ago today, CHAI Core was hosting our spooktacular eIntervention Workshop, focused on highlighting the "active ingredients" of technology-based interventions. Using an additive design, [A Randomized Trial of an Avatar-Hosted Multiple Behavior Change Intervention for Young Adult Smokers](#) (2013), An and colleagues were able to examine their own



eHealth Researcher Spotlight

Temitope Erinoso

THRIVE for Health



Taking center stage this month is the wonderful Dr. Temitope Erinoso, Research Assistant Professor of Nutrition at UNC, and her innovative approach to obesity and cancer risk prevention in children from low-income families. Currently, she is developing a family-based life skills intervention (THRIVE for Health) to help low-income parents develop psychosocial skills to better navigate their daily challenges and promote healthy weight behaviors in their

preschool aged children.

Dr. Erinoso has been working with CHAI Core to complete the formative phase of her study, *Understanding concerns, needs, and challenges of low-income parents of preschool children aged 3-5 years old*. CHAI Core conducted and analyzed the results of 10 in-depth interviews and 4 focus groups with low-income parents in rural and urban areas of North Carolina to assess their needs.