



# Research Communication Strategies for Diverse Audiences

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# BRIDGING THE GAP BETWEEN ACADEMIA AND THE REAL WORLD



Source; Edwards D. J. (2015). Dissemination of Research Results: On the Path to Practice Change. *The Canadian journal of hospital pharmacy*, 68(6), 465–469. <https://doi.org/10.4212/cjhp.v68i6.1503>

# Ten steps to innovative dissemination

## 1. Get the basics right

Define your objectives, map your audience(s), target and frame your messages and bring this together into a dissemination plan of what you'll release and when.

## 2. Keep the right profile

Use personal websites, social media accounts, researcher identifiers and academic social networks to make you and your research visible.

## 3. Encourage participation

In the age of Open Science, don't just broadcast, go for multi-directional dissemination. Invite & engage with others to participate & collaborate.

## 4. Open science for impact

Open Access publications and preprints mean more citations. In addition, publishing datasets, software and peer reviews increase your number of citable research outputs.

## 5. Remix traditional outputs

Give traditional outputs like research articles and books an impact-boost with accompanying lay-summaries, press-releases, blogs, and visual/video abstracts.

Do you know  
your audience?





# The Power of an Inclusive Workplace Recognition Project: Highlighting Scientific Workforce Diversity

- The National Institutes of Health (NIH) unveiled new portraits of agency staff on its Bethesda, Maryland campus to better reflect and recognize the diversity of everyone who contributes to its mission.
- Research on portraits displayed in medical institutions indicate that visible artwork **send messages to employees and external audiences about belonging** and can **communicate unconscious biases** related to race/ethnicity and gender. Specifically, viewers of these works interpret the images **as a reflection of an institution's core values** and **ideal leadership**.



The NIH's Power of an Inclusive Workplace Recognition Project lead, Sadhana Jackson, MD, holding her portrait before installation in Building 10, south entrance corridor.

# Highlighting Scientific Workforce Diversity

RUNC: Ava Yurko

Ava Yurko studies capital punishment disparities among states



RUNC: Scott Duxbury

Scott Duxbury uncovers vulnerabilities in online drug markets and the policing tactics to limit them.



photo by Megan Mendelhall

By endeavors  
February 28th, 2024  
Research UNCovered | Society

RUNC: Jasmine King

Jasmine King reprograms cells to treat brain cancer.



photo by Megan Mendelhall

By endeavors  
April 10th, 2024  
Health | Invention | Research UNCovered

Research UNCovered is a biweekly series showcasing the many faces of research at Carolina, from undergraduate students to faculty, across all disciplines.

Source: <https://endeavors.unc.edu/category/runc/>



Use an engaging image.  
*(not always helpful advice)*



## IMAGE RELEVANCE

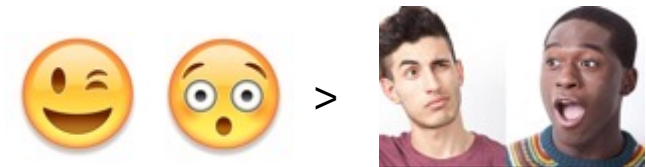
Select images that resonate

Visuals → Attention, Comprehension, Recall

Photos → Visual Evidence



Icons → Amplification through Simplification

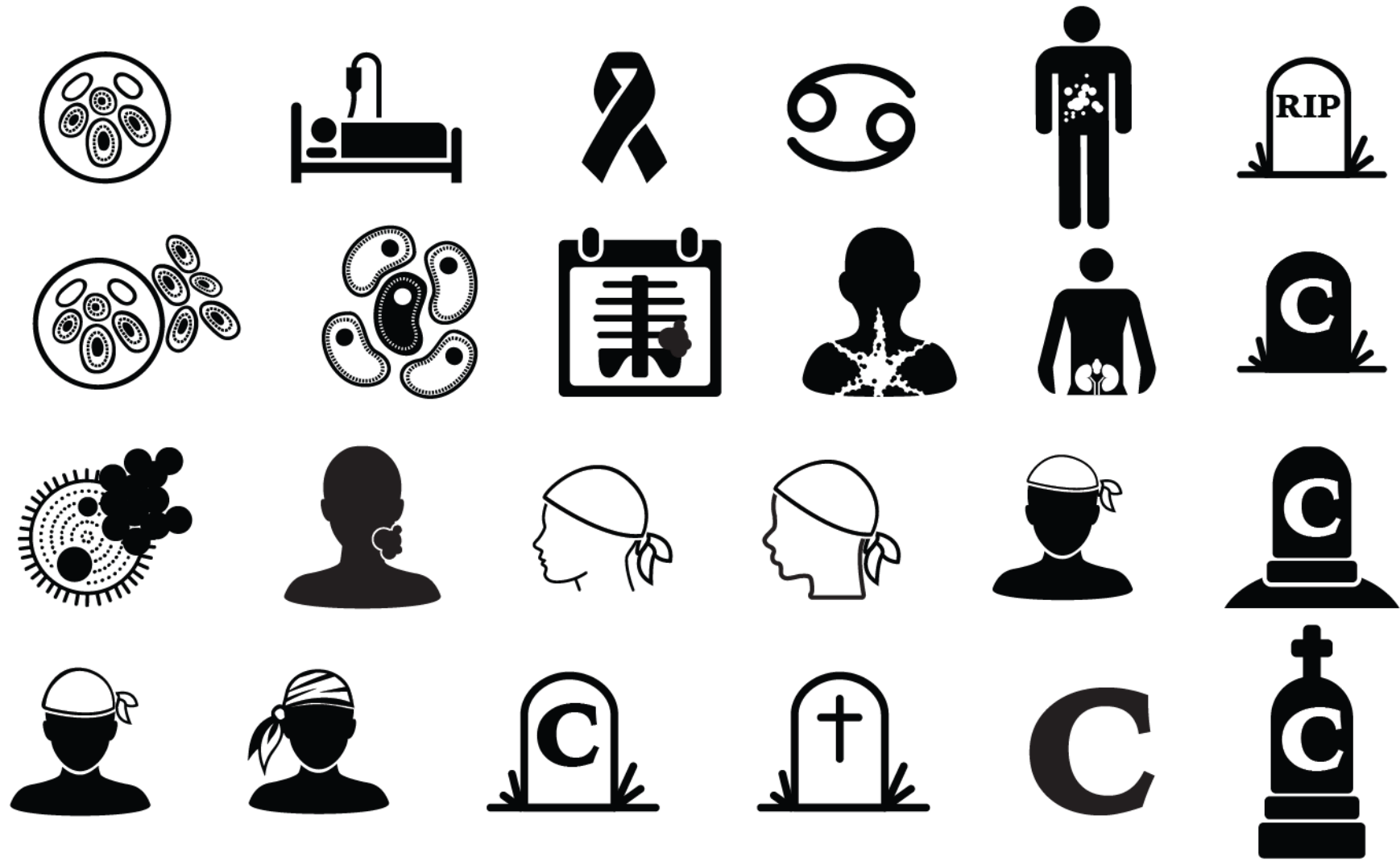


## IMAGE RELEVANCE

Select images that resonate

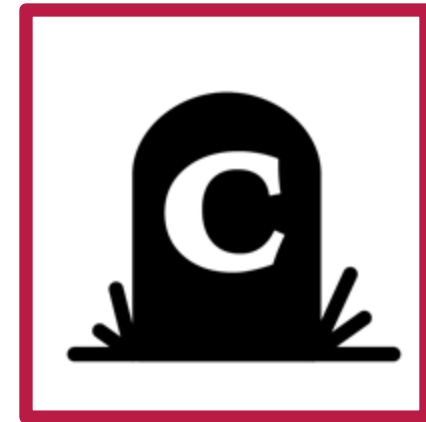
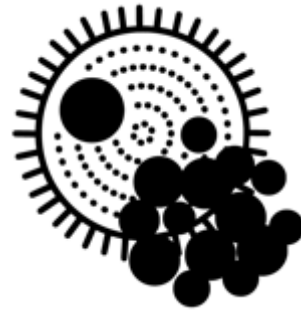
What icon would represent **CANCER** caused by smoking?







# 1<sup>st</sup> A SOCIAL SCIENCE APPROACH



$n = 701$

Representation	2.59	2.99	<b>3.55***</b>
Affect	-.76	-.91	<b>-1.54***</b>
Cognitive elaboration	2.22	2.57	<b>3.81***</b>
Perceived severity	3.65	3.83	<b>4.63***</b>
Perceived effectiveness	2.70	2.91	<b>3.73***</b>

\*\*  $p < .01$ ; \*\*\*  $p < .001$ ; 5- or 6-point response scale

## 2<sup>nd</sup> A SINGLE-ITEM SELECTION

*Single item:* “Choose the icon that best represents **CANCER** caused by smoking.”

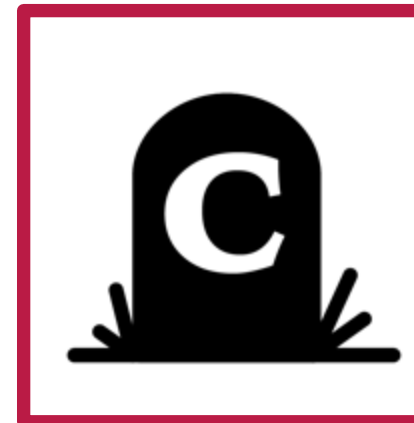
*Response:* Three icons shown side by side (randomized order)



15%



21%



64%

## HEART ATTACK & STROKE



13%

*selected*



78%



8%

## REPRODUCTIVE ORGAN DAMAGE

*selected*



59%




35%



6%

	Iconic (actual object)	Indexical (evidence)	Symbolic (arbitrary)
Cancers			
Addiction			
Heart attack and stroke			
Permanent breathing problems			
Reproductive organ damage			

 indicates icon types with the highest rating.

# Simple choice also works to select images for sugar-sweetened beverage warnings

*n=454, 64% selected*



**WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.**

**WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.**

*2<sup>nd</sup> round, 59% selected  
n=416*



Laurel Coons     
@LaurelCoons



Graphic design has rules, and they work ...  

And you will read this last

**You will read  
this first**

**And then you will read this**

Then this one

# VISUAL HIERARCHY

Guide users' attention

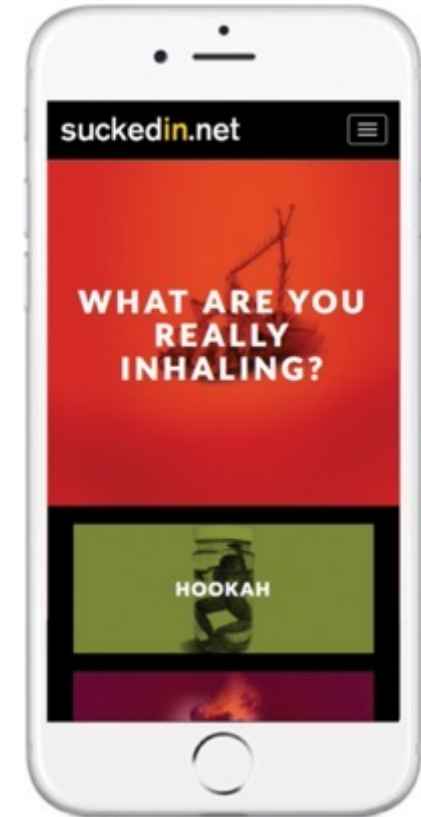
Large font



Redundant visuals



Color shift



(n=55)

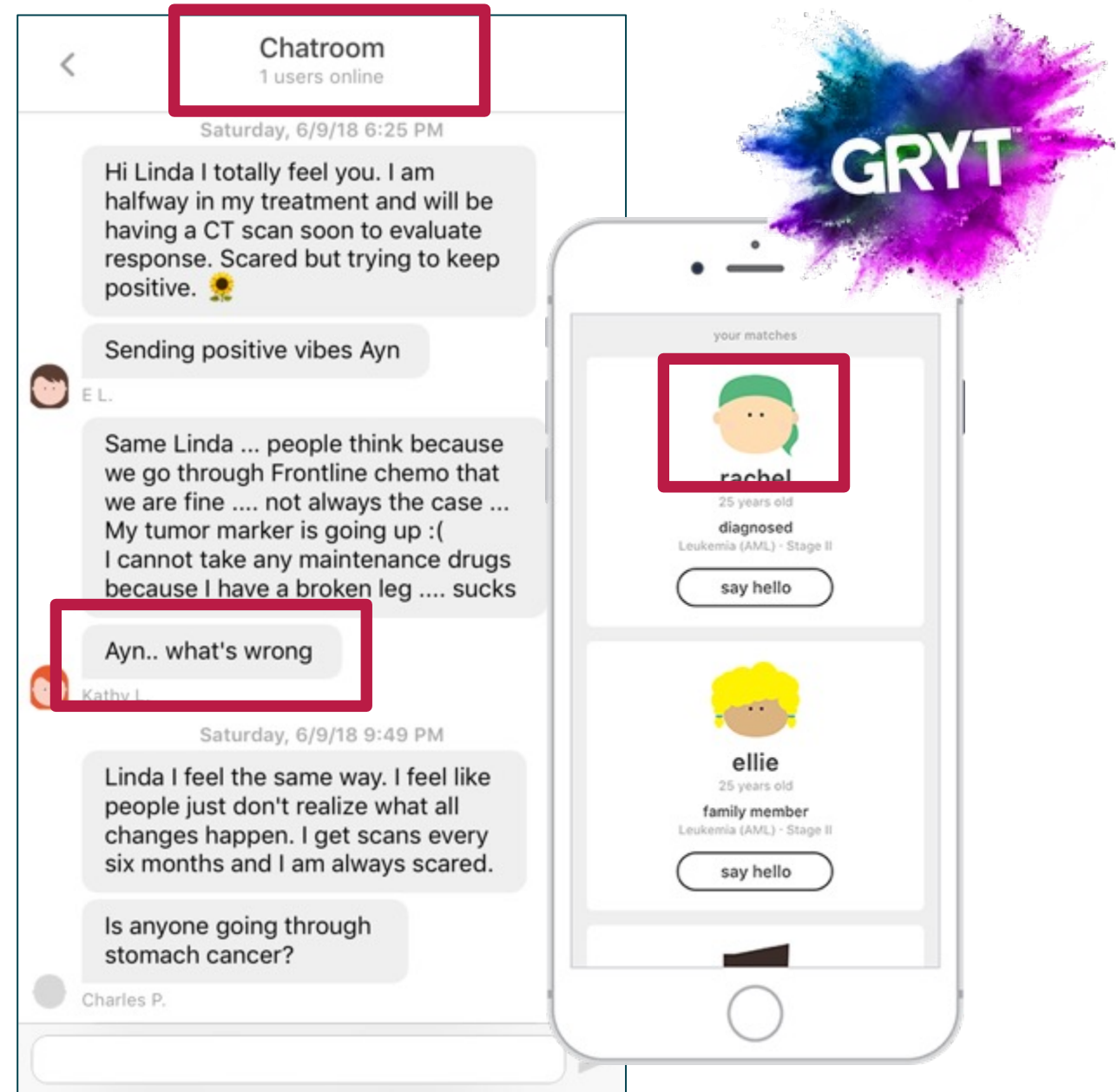
## SOCIAL PRESENCE

Give cues for others

Evidence of activity

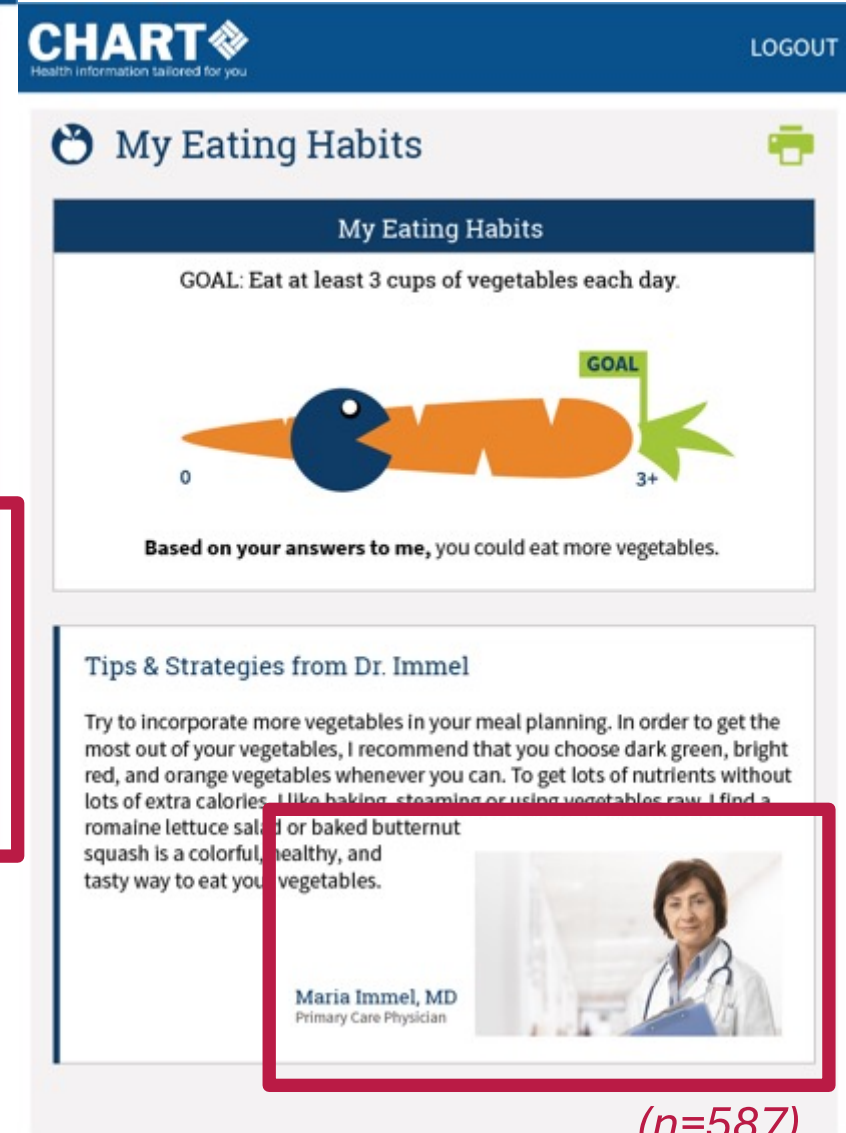
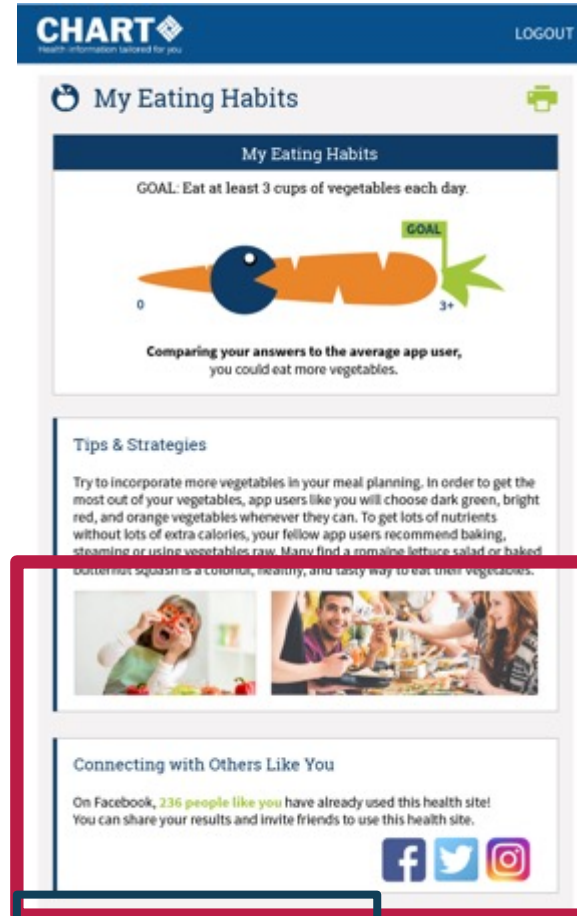
Interpersonal text

Human imagery



# SOCIAL PRESENCE

Give cues for others

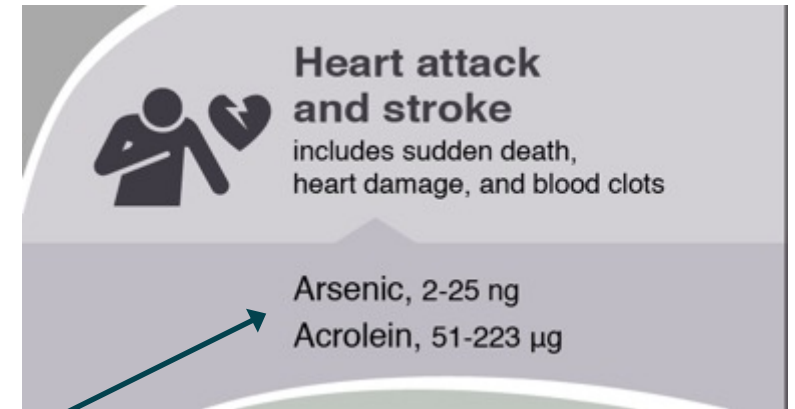
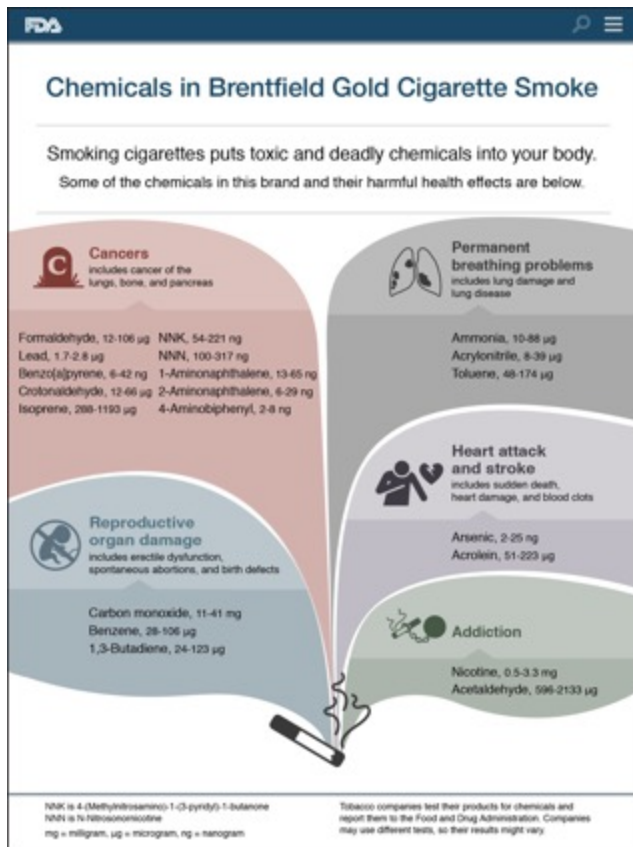


(n=587)

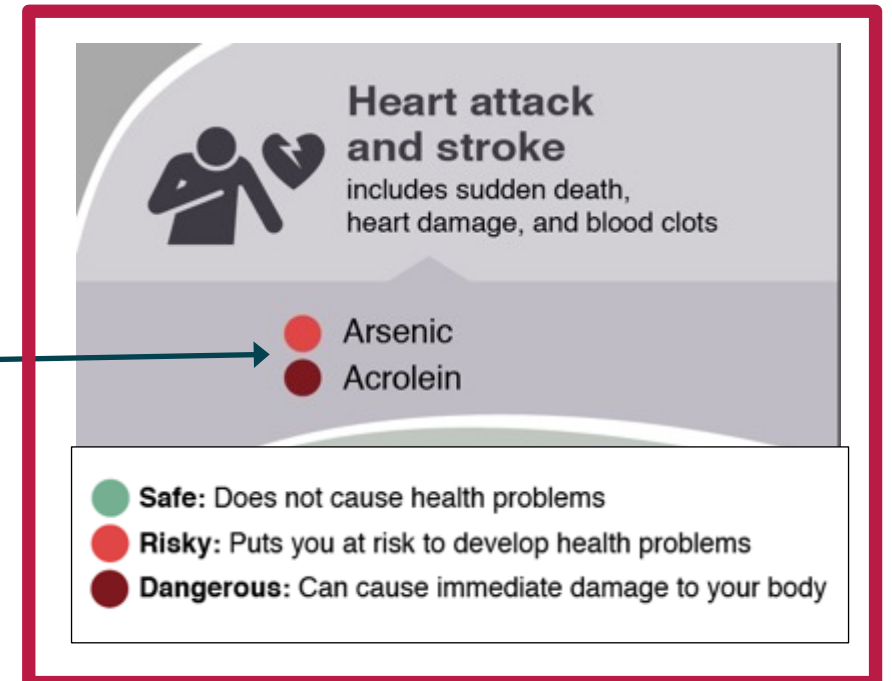


# COMPLEX INFORMATION CUES

Present information so it is interpretable, at a glance

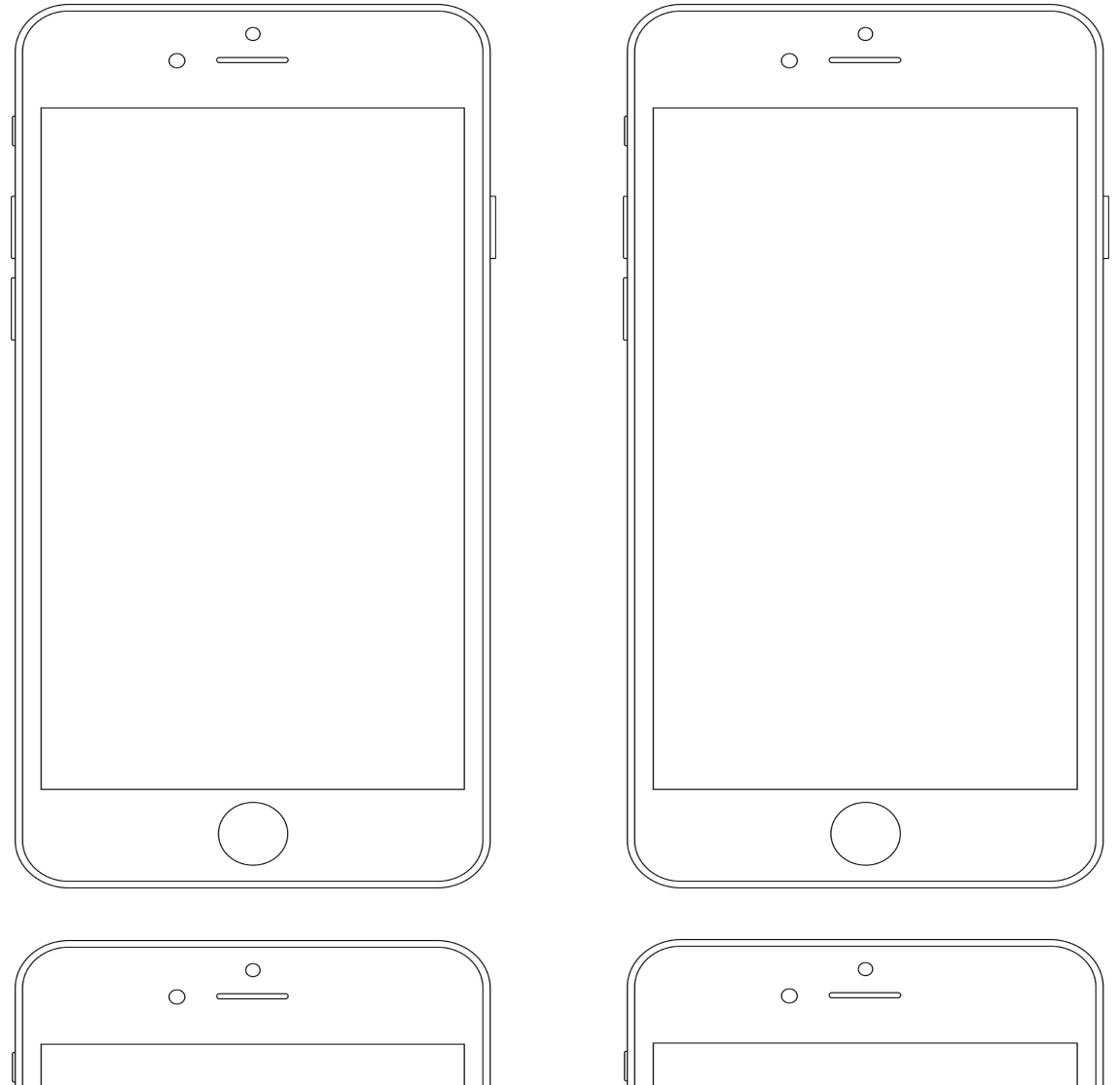


> **USEFULNESS** (n=1,441)



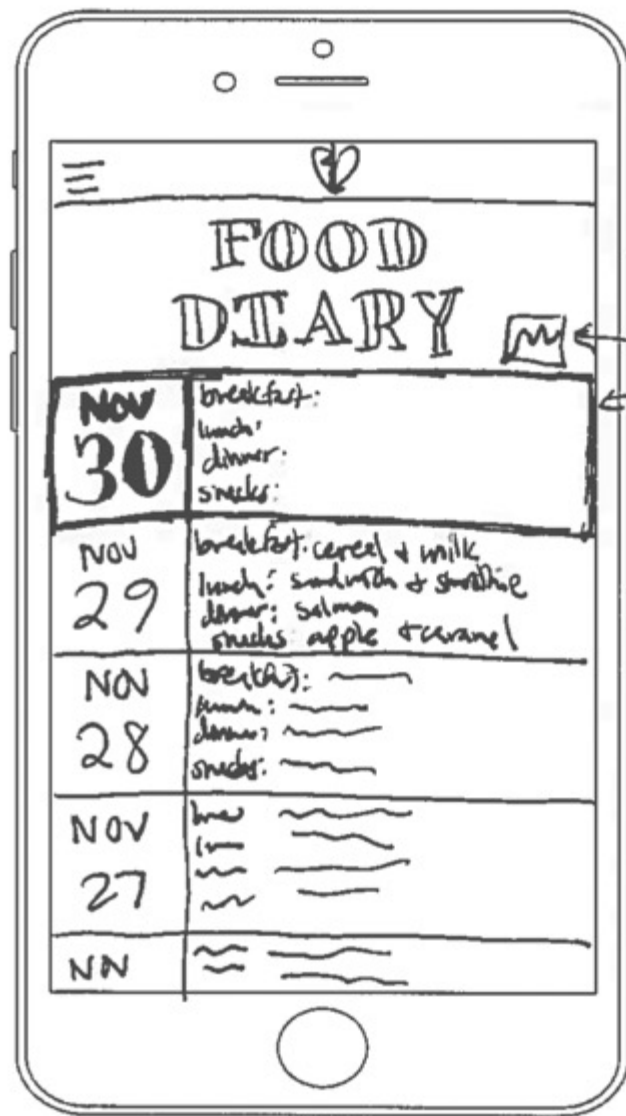
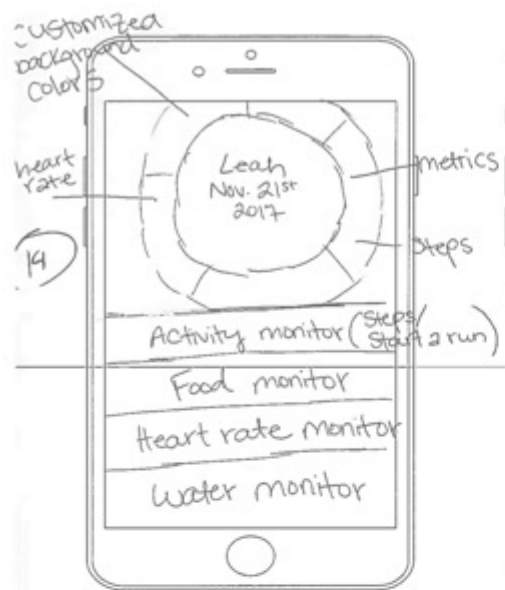
# MENTAL MODELS

Understand to meet expectations



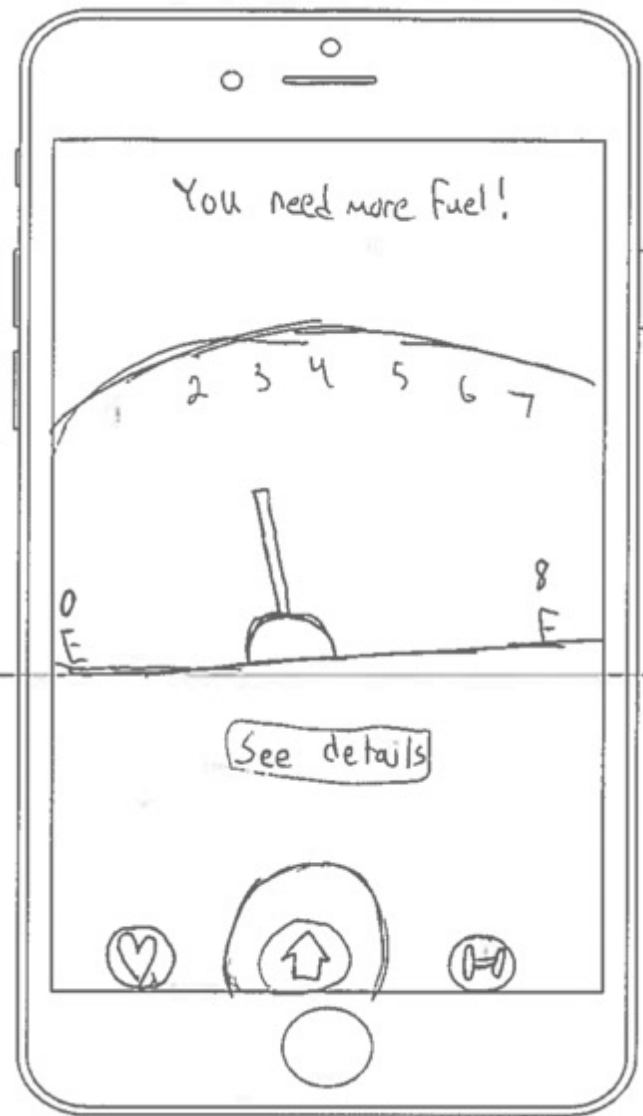
“I like really simple interfaces [that are] clean looking”

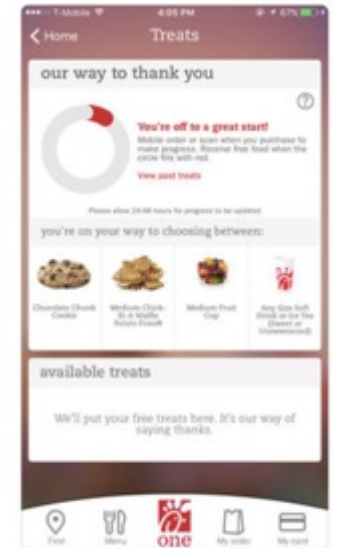
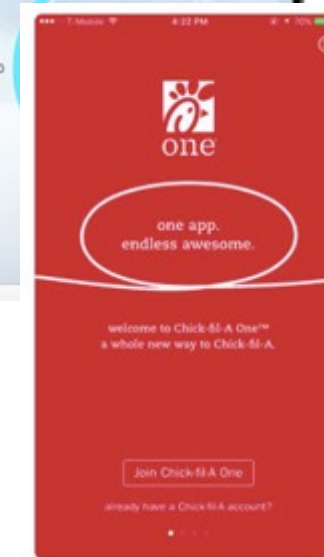
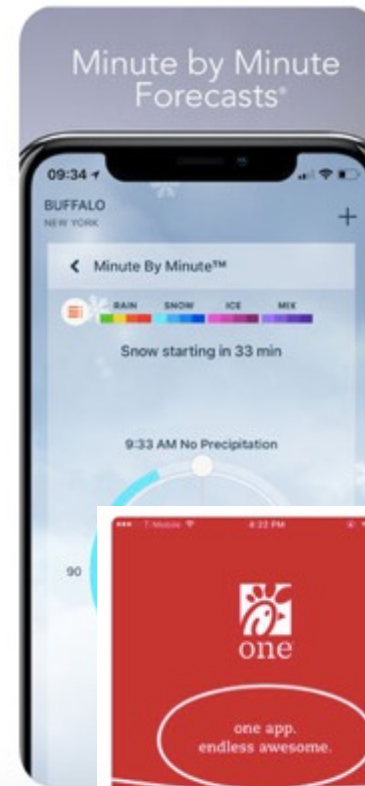
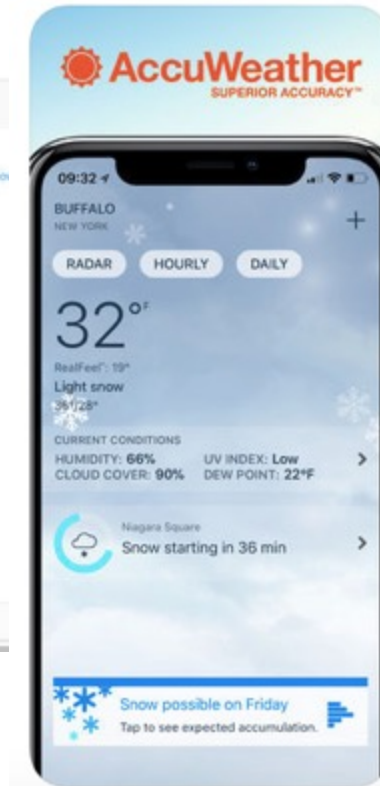
“What I think is most appealing to me—I like apps that have a more minimalist approach, [that are] more simple and quick to navigate”



user input

if they want to record entries it optimal & it can be displayed in graph





Your audience might not think of “health” or other messages the way you do.

## **IMAGE RELEVANCE**

Select images that resonate

## **VISUAL HIERARCHY**

Guide users' attention

## **SOCIAL PRESENCE**

Give cues for others

## **COMPLEX INFORMATION CUES**

Present data so it is interpretable, at a glance

## **MENTAL MODELS**

Understand to meet expectations

**Thank you!**

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