

TURNING THE TIDE- APRIL 27, 2018



The University of Texas at Austin
Moody College of Communication

RIDING THE HEALTH COMMUNICATION WAVE: IS IT A TSUNAMI OR LOW TIDE?

Jay M. Bernhardt, Ph.D., MPH





Is this health communication?



The Great Wave off Kanagawa - Katsushika Hokusai



Or is this health communication?





National Health Communication Priorities

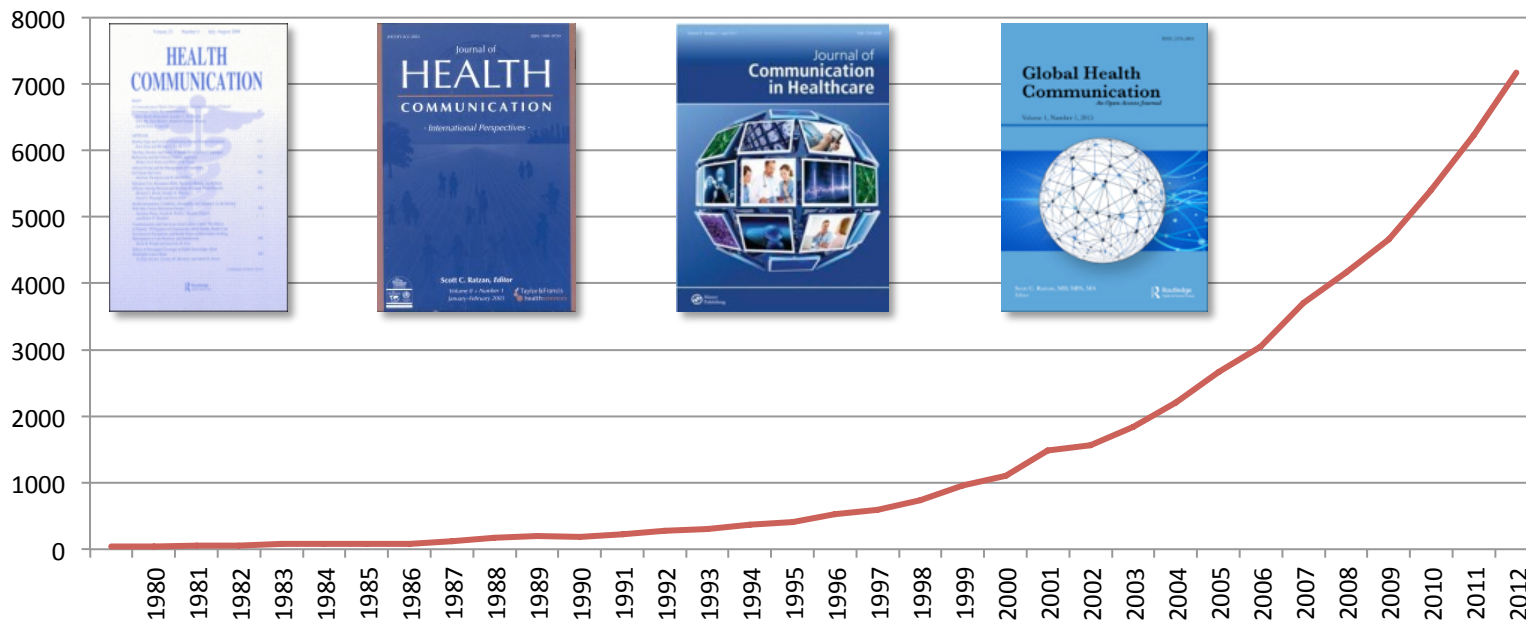


Health Communication and Health Information Technology

- **HC/HIT-1:** Improve the health literacy of the population
- **HC/HIT-2:** Increase the proportion of persons who report that their health care providers have satisfactory communication skills
- **HC/HIT-5:** Increase the proportion of persons who use electronic personal health management tools
- **HC/HIT-9:** Increase the proportion of online health information seekers who report easily accessing health information
- **HC/HIT-12:** Increase the proportion of crisis and emergency risk messages intended to protect the public's health that demonstrate the use of best practices



Health Communication Scholarship is Growing



Publications per year with "health communication" in title or abstract per Google Scholar



New Definitions of Health Communication

Health communication is the science and art of using communication to advance the health and well-being of people and populations (SHC, 2017)

New Definitions of Health Communication

Health communication is a multidisciplinary field of study and practice that applies communication evidence, strategy, theory, and creativity to promote behaviors, policies, and practices that advance the health and well-being of people and populations (SHC, 2017)



What kills people in the US?

Leading Causes of Death*
United States, 2000



Actual Causes of Death†
United States, 2000



If health communication can reduce morbidity and mortality, why isn't it more accepted and utilized in healthcare and public health?

Because it often isn't very effective!

* Miniño AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. National Vital Statistics Reports 2002; 50(15):1-120.

† Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238-1246.



Most “health campaigns” are not designed to be “behavior change” campaigns



A Meta-Analysis of the Effect of Mediated Health Communication Campaigns on Behavior Change in the United States (Snyder et al., J Hlth Com, 2004)

- Reviewed 48 campaigns, total $n=168,362$
- Mediated health campaigns have small short-term effects
 - The average media campaign effect on behavior was $r = .09$, with a 95% confidence interval of .07 to .10.
 - Effects ranged from $r = .04$ for sexual behaviors to $r = .09$ for alcohol use reduction to $r = .15$ for seat belt use
- Campaigns with an enforcement component were more effective
- Conclusion: Given the small campaign effect sizes of previous campaigns, planners should set modest goals for future campaigns



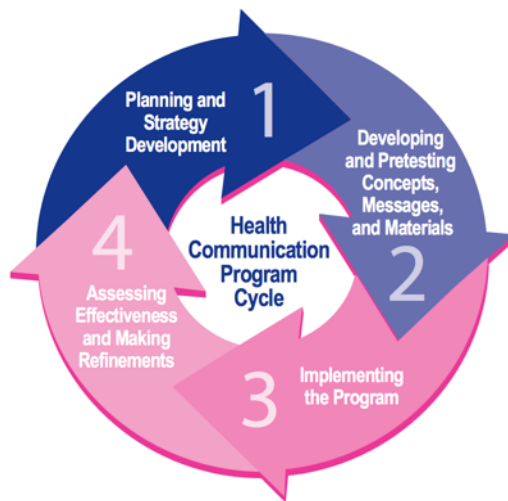
Designing Effective Health Communications: A Meta-Analysis (Keller & Lehmann, JPPM, 2008)

- A meta-analysis of 60 health comm studies involving nearly 22,500 participants
 - Examined the influence of 22 tactics (e.g., fear, framing) and 6 individual characteristics (e.g., age, involvement) on intentions to comply with health recommendations
 - Examined when message tactics interact with individual characteristics to determine intentions
- Found that message tactics have a significant influence on health behavior intentions even after controlling for individual differences
 - Strong effects of case information, social consequences, other referencing, female communicators, detection behaviors
 - Untailored framing and exclusively-emotional appeals are “not advisable”



What Makes an Effective Health Campaign?

- Goals and objectives
- Audience analysis
- Theory and models
- Creative development
- Distribution strategy
- Extensive pretesting
- Implementation
- Analytics and analysis
- Evaluation and revisions





Effect of the first federally-funded US antismoking national media campaign (McAfee *et al.*, Lancet, 2013)

- “Tips from Former Smokers” contained hard-hitting emotionally evocative TV ads
- 3-month campaign cost \$54M
- Quit attempts rose 12% over baseline
- \approx 1.64M smokers made quit attempts
- \approx 220K remained abstinent at follow up
- \approx \$200 per year of life saved!



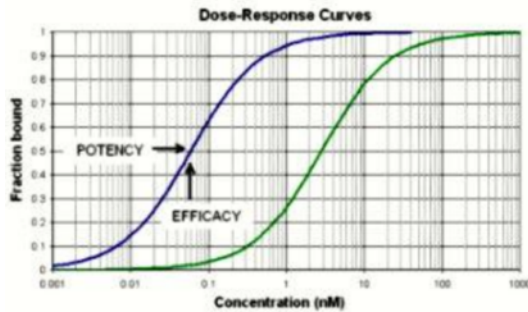


Health Communication Campaigns

- Campaigns require sufficient time, resources, and especially expertise to implement correctly and effectively.
- Campaigns that fail to follow the full health communication planning model are more public relations (awareness) than public health (behavior and/or policy change)
- Under-resourced and ineffective health campaigns actually undermine the perceived value of health communication



Health communication interventions and messages have a dose-response effect



- An ideal level of potency is required to achieve efficacy
- Under-dosed or over-dosed treatments have consequences
- Principle applies to individual and population level interventions



How complex are these behaviors?



BAD THINGS



GOOD THINGS

What “dose” of intervention is needed to have an impact?



What Determines the Required Level of Health Communication Dose? (for Individuals and Populations)

- Exposure level
- Message receptivity
- Message intensity
- Message interactivity
- Habits and/or addictions
- Environmental context





A Meta-Analysis of US Health Campaign Effects on Behavior (Snyder & Hamilton, 2002)

- Exposure had a strong positive correlation with average effect size ($r=.47$, $k=41$, $n=119,580$)
- Therefore, exposure is a necessary but not sufficient condition for change in the target population
- Low exposure leads to low or no effects, and most campaigns (48 reviewed) had very low exposure



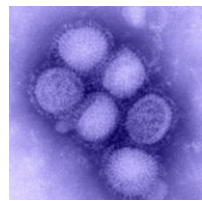
Health Communication Dose-Response

- Every health communication intervention and campaign ever conducted to date was probably under-dosed
- Insufficiently dosed campaigns and interventions are a waste of time, money, energy, and effort and are ethically questionable in a time of limited resources
- Insufficiently dosed campaigns actually undermine the perceived value of health communication



Visit **FLU.GOV** Fight flu with facts!
Call 800-232-4636 • Text FLU to 87000

YouTube video player showing a CDC spokesperson speaking.



the **Flu I.Q.**
Think you know all there is to know about the flu? Answer ten easy questions, then share the Flu IQ!



Mobile phone interface showing time 08:22 and CDC logo.

4 CDC Info
LEARN MORE

H1N1 (Swine Flu) Health Tip
Wash hands with soap and water
Get more tips: Learn more about H1N1 Influenza (Swine Flu)

Flu Shot please
Illustration of a girl thinking about getting a flu shot.

CDCemergency
Follow CDC experts on WebMD's Flu Blog

CDC WebMD
Follow CDC Experts on WebMD's **Flu Blog**
Visit Now

Cover it!
www.cdc.gov/h1n1flu »



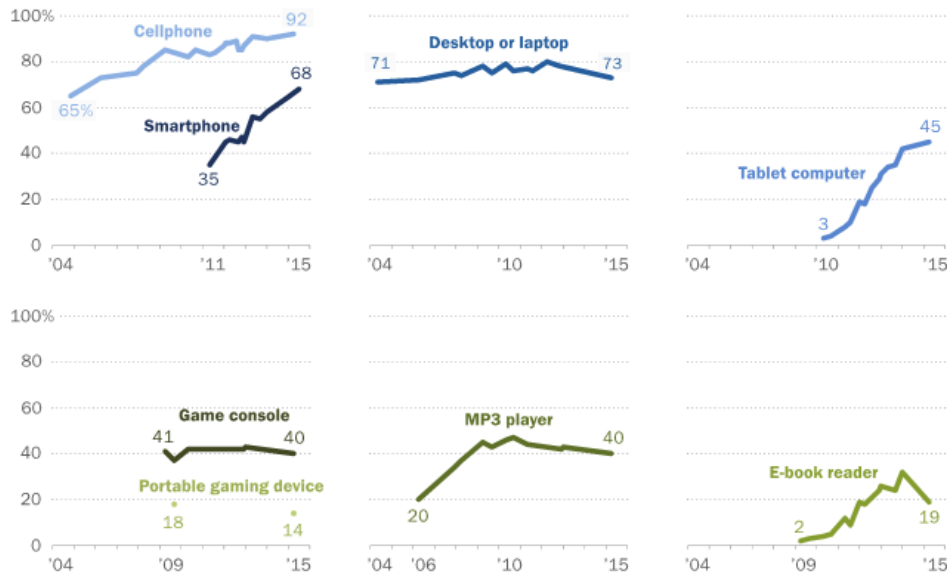
Are digital, social, and mobile media the “game changer” we have been seeking?



Device Ownership (2004-2015)

Smartphones, Tablets Grew in Recent Years; Other Devices Declined or Stayed Flat

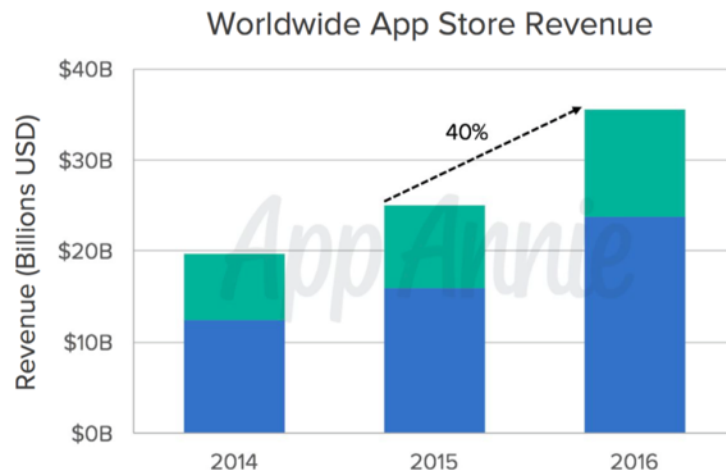
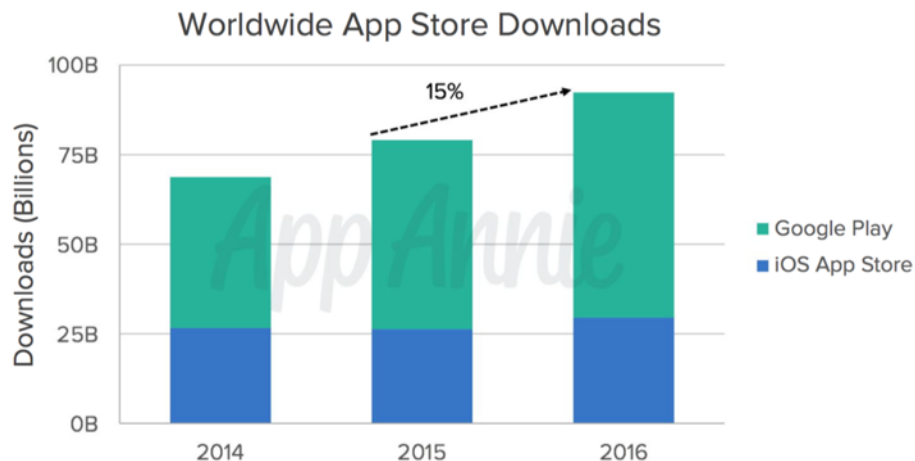
% of U.S. adults who own the following devices



Source: Pew Research Center survey conducted March 17-April 12, 2015. Smartphone data based on Pew Research survey conducted June 10-July 12, 2015. Trend data are from previous Pew Research surveys.



App Downloads and Revenue

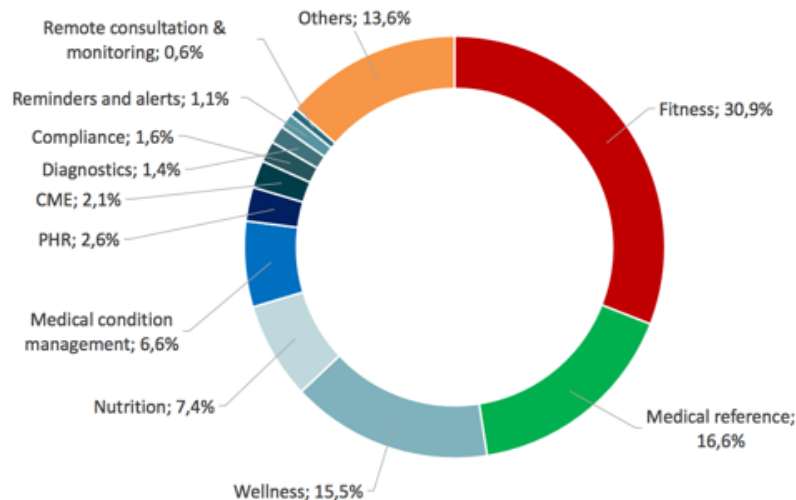


<https://techcrunch.com/2017/01/17/app-downloads-up-15-percent-in-2016-revenue-up-40-percent-thanks-to-china/>



Mobile-Based Healthcare (mHealth)

mHealth app category share



Source: research2guidance, 808 apps from Apple App Store, Google Play, BlackBerry App World and Windows Phone Store (March 2014)

- > 165,000 health-related apps
- Potential for growth
- Almost no evidence for efficacy to date



Head, K.J., et al. (2013) Efficacy of text messaging-based interventions for health promotion: A meta-analysis, *SSM*.

- Overall weighted mean effect size was $d = .329$ ($p < .001$): “small to medium magnitude”
- Smoking cessation and physical activity most effective
- Tailoring and personalization improved outcomes
- Individualized or decreasing message frequency worked better than using a fixed message frequency



Hall, A. K., Cole-Lewis, H. & Bernhardt, J. M. (2015). Mobile text messaging for health: A systematic review of reviews. *ARPH*.

- Reviewed 15 systematic reviews and meta-analyses
 - Explored 89 individual studies using SMS for public health
 - SMS-based interventions were effective for: diabetes, weight loss, physical activity, smoking cessation, medication adherence for ART
 - Limited consistent evidence across studies and reviews to inform recommended intervention characteristics
 - Additional research needed to establish: longer-term intervention effects, best intervention characteristics, cost-effectiveness



Digital and Mobile Health Communication

- More research and evaluation needed, especially on social media and reducing health disparities
- Instead of apps, focus on responsive web design and mobile messaging, especially tailored SMS
- Simplify complex interventions (e.g., tailoring) so effective methods can easily be brought to scale



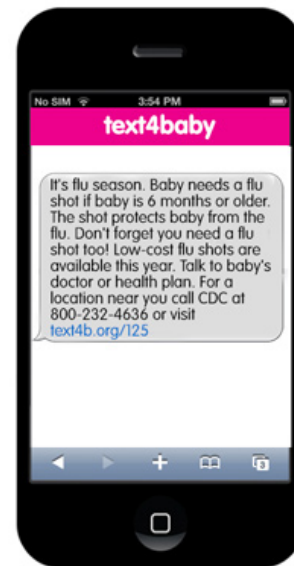
High Quality SMS-based mHealth Programs



 **smokefree**TXT



BEDSIDER



A free service of the National Health, Maternity, and Baby Action Center



Turning the Tide for Health Communication

- If we focus more on (a) best-practice fidelity, (b) intervention dose, and (c) scaling up what works, we can ride the health communication wave far into the future and improve health.
- If not, the tide will go out and support for the field will dry up.





THANK YOU

jay.bernhardt@austin.utexas.edu



2nd Annual Health Communication Summit

- May 22, 2018 Bethesda, MD
- <http://HCSociety.org>