Scientific and Strategic Communication for Public Health

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Greetings form the University of Texas
Center for Health Communication

Center Kickoff Meeting – September 3, 2014

Communication for Healthier People in a Connected World

Improve the health of people in Texas, the US, and globally through leadership and excellence in health communication research, teaching, programs, and partnerships.

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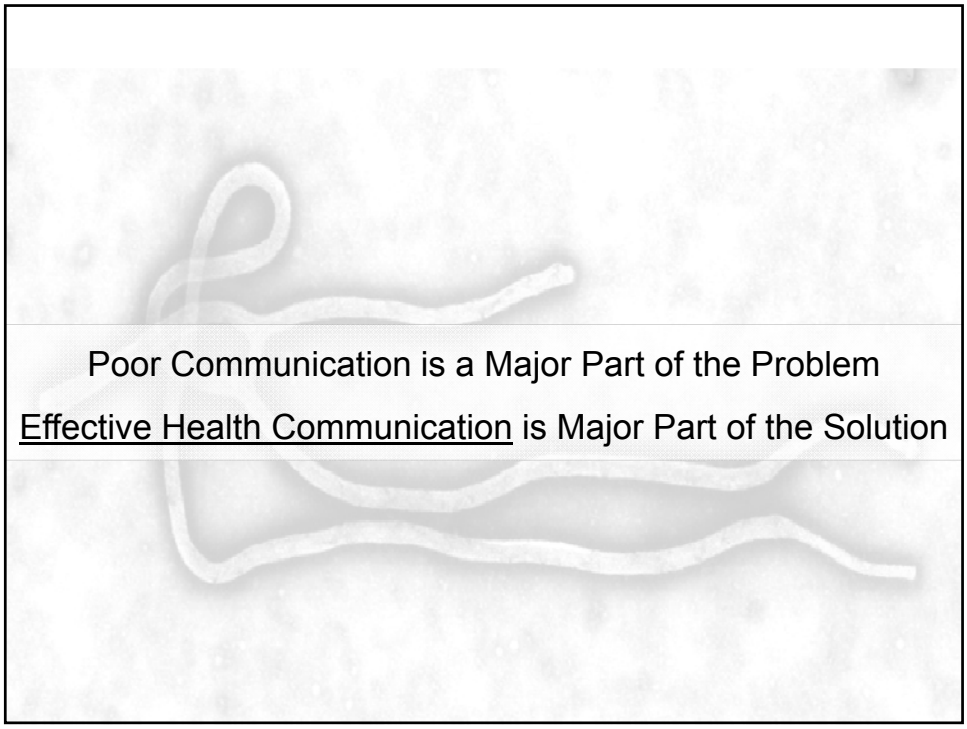

What is Health Communication?

"The study and use of communication strategies to inform and influence individual decisions that enhance health." -US CDC & NCI

"The art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues." -US DHHS

What is Health Communication?

"Health Communication is a multidisciplinary field of study and practice that integrates science, theory, strategy, and creativity to enhance health through messages and data that inform knowledge, attitudes, and behaviors at all ecological levels of influence."

-Bernhardt, in development

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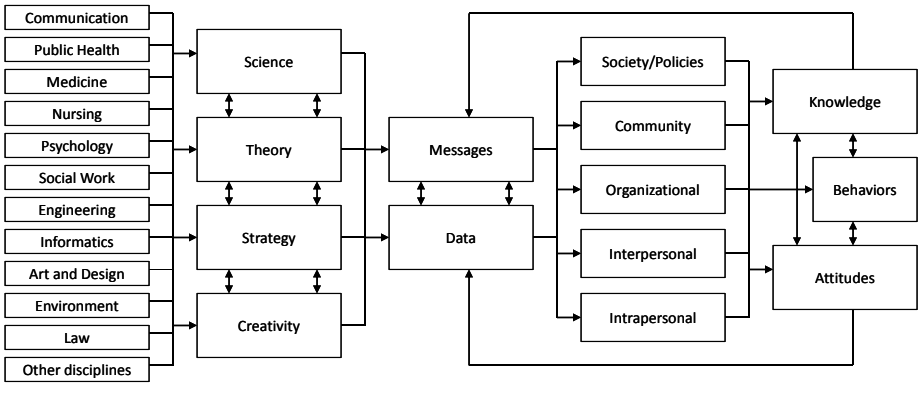
What is Health Communication?



-Bernhardt, in development

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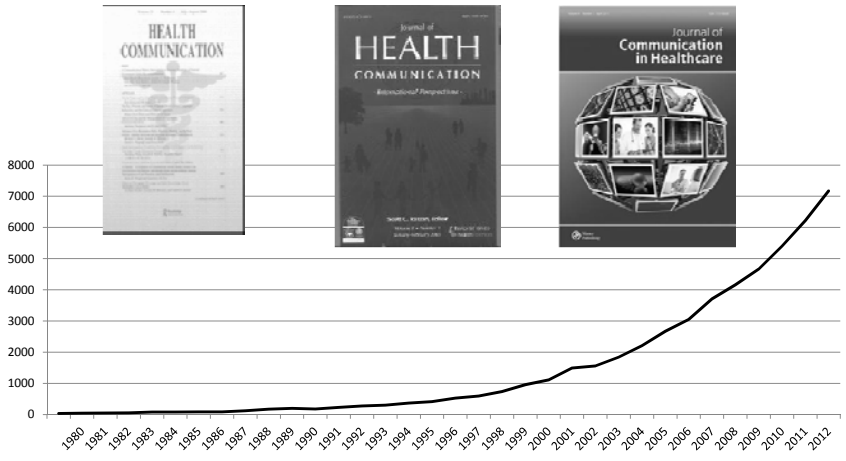
Health Communication Research



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

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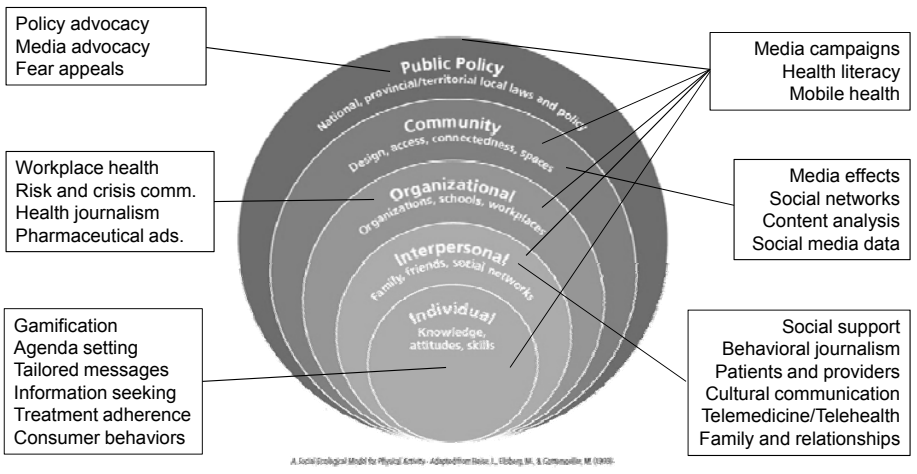
Ecological Model of Health Communication



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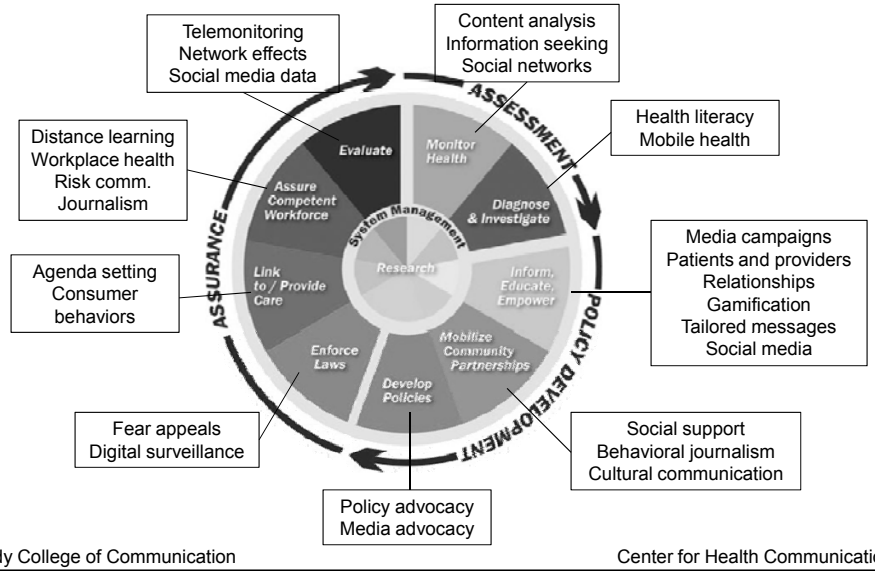
Essential Services and Health Communication



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Variations on “Communication” appear 188 times!

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US Health Communication Priorities

Health Communication and Health Information Technology Section

- **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

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Deeper Dive #1

HEALTH COMMUNICATION MEDIA CAMPAIGNS

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Media Campaigns: What Do We Know?

- Meta-analysis of 60 health comm. studies (n≈22,500)
  - Examined 22 tactics (e.g., fear, framing) and 6 individual characteristics (e.g., age, involvement) on health intentions
  - Examined when tactics and characteristics interact
- Finding: Message tactics have significant influence on intentions when controlling for individual differences
  - Strong effects of case information, social consequences, other referencing, female communicators, detection behaviors
  - Untailored framing and emotional appeals are “not advisable”

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

Media Campaigns: What Do We Know?

- A systematic review was conducted to evaluate the effectiveness of health communication campaigns that use multiple channels, including mass media, and distribute health-related products
  - Search period, January 1980–December 2009
  - 22 that met Community Guide quality criteria were analyzed in 2010
  - Most studies showed favorable behavior change effects on health-related product use (a median increase of 8.4 percentage points)
  - By product category, median increases in desired behaviors ranged from 4.0% (condoms) to 10.0% (smoking cessation)
- Health communication campaigns that combine mass media with distribution of free or reduced-price health-related products are effective in improving healthy behaviors

Mass Media Health Communication Campaigns Combined with Health-Related Product Distribution: A Community Guide Systematic Review

What is Social Marketing?

- Social Marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviors that benefit individuals and communities for the greater social good.
- Social Marketing seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and segmented social change programs that are effective, efficient, equitable and sustainable.
- 4 P's: Product, Price, Place, Promotion

International Social Marketing Association, European Social Marketing Association, and the Australian Association of Social Marketing

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Media Campaigns: What Can Health Comm Do?

1. Define the campaign goal effectively:
- Identify the goal and objectives
- Determine role of communication

2. Define the intended audiences:
- Identify the target audience and subgroups and segments
- Learn as much about them as possible

3. Create messages effectively:
- Brainstorm messages that fit the goal and audiences
- Identify channels and sources
- Plan appropriate delivery
- Plan for desired campaign exposure

4. Pretest and revise messages:
- Pretest messages and materials with intended audiences
- Revise messages and materials based on findings

5. Implement the campaign:
- Maintain campaign fidelity and stakeholder engagement
- Evaluate all campaign aspects and communicate findings to stakeholders

The NCI Pink Book

cdc.gov/healthcommworks

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Media Campaigns: What Can Health Comm Do?

- Campaign Goals:
  - Build public awareness of health damage from smoking
  - Encourage smokers to quit
- Target Audiences:
  - Smokers 18-54 and their loved ones
- Key Message:
  - Smoking causes immediate damage to your body (loss frame)
- Findings to Date:
  - Through 2012, 1.6 million smokers motivated to make a quit attempt.
  - >100,000 U.S. smokers remain quit
  - 6 million nonsmokers talked with friends and family about the dangers of smoking.

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Deeper Dive #2

HEALTH LITERACY AND COMMUNICATION

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What is Health Literacy?

- According to the US *Affordable Care Act (ACA):*
  - "The degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions"
- *Healthy People 2020 and the National Assessment of Adult Literacy (NAAL) use similar definitions of health literacy*

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Health Literacy: What Do We Know?

Health Lit. Level	Task Examples	% of Adults	# in US
Proficient	Use a table, calculate an employee's share of annual health costs	12%	25M
Intermediate	Read/interpret prescription drug instructions	53%	114M
Basic	Read/interpret a pamphlet about a disease	21%	47M
Below Basic	Read a set of short instructions, identify what is permissible to drink before a medical test	14%	30M

Source: 2003 NAAL survey of > 19,000 U.S. adults age 16+

http://health.gov/communication/literacy/issuebrief

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Health Literacy: What Do We Know?

- Lower knowledge and comprehension
- Negative outcomes
  - Taking medications inappropriately
  - Misinterpreting labels and health messages
  - Seniors' reduced health status and quality of life
  - Increased mortality
- Health services utilization
  - Increased hospitalization
  - Increased emergency care visit
  - Reduced flu immunization
  - $30-73 billion in unnecessary costs

Baur, CDC, 2011; Berkman et al., 2011, Natl Academy on Aging Society, 1999

Health Literacy: What Can Health Comm Do?

- Systematic review of health literacy interventions emphasizes the following:
  - Present essential information by itself
  - Present essential information first
  - Present numerical data (e.g., health plan quality) such that the higher number indicates more positive values
  - Use the same denominators to present baseline risk and treatment benefit
  - Add icon arrays to numerical presentations of risk/benefit
  - Add video to verbal narratives

Berkman et al. (2011) Low Health Literacy and Health Outcomes: An Updated Systematic Review. An*nals of Internal Medicine*

US Natl. Action Plan to Improve Health Lit.

1. Develop and disseminate health and safety information that is accurate, accessible, and actionable
2. Promote changes in the health care system that improve health information, communication, informed decision making, and access to health services
3. Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in childcare and education through the university level
4. Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community
5. Build partnerships, develop guidance, and change policies
6. Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy
7. Increase the dissemination and use of evidence-based health literacy practices and interventions
   - Resources: cdc.gov/healthliteracy and ahrq.gov/shareddecisionmaking

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Deeper Dive #3

MOBILE HEALTH COMMUNICATION

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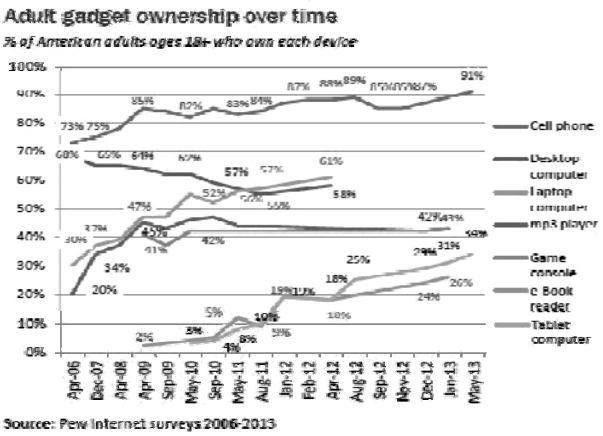
mHealth Communication: What Do We Know?



http://www.pewinternet.org/Trend-Data-(Adults)/Device-Ownership.aspx

mHealth Communication: What Do We Know?

	Mean	Median
All text messaging users	41.5	10
Gender		
Men	40.0	10
Women	42.0	15
Age		
18-29	87.7	40
30-49	27.0	10
50-64	11.4	8
65+	4.7	2
Race/Ethnicity		
White, non-Hispanic	31.2	10
Black, non-Hispanic	70.1	20
Hispanic	48.0	20
Household Income		
Less than $30,000	58.7	20
$30,000-$49,999	40.2	15
$50,000-$74,999	25.0	10
$75,000+	31.9	10
Education level		
Less than high school	69.4	20
High School diploma	45.4	15
Some College	53.0	15
College+	23.8	10

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. The survey includes interviews with adults ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

- Almost 10 trillion SMS messages sent in 2012
  - 80% of all US cell phone owners text
  - 92% of US smart phone owners text
  - US SMS users average 35 texts per day
  - Texting apps are growing (Kik, WhatsApp, etc)
- 99% of received SMS are opened and 90% read within 3 minutes of being received

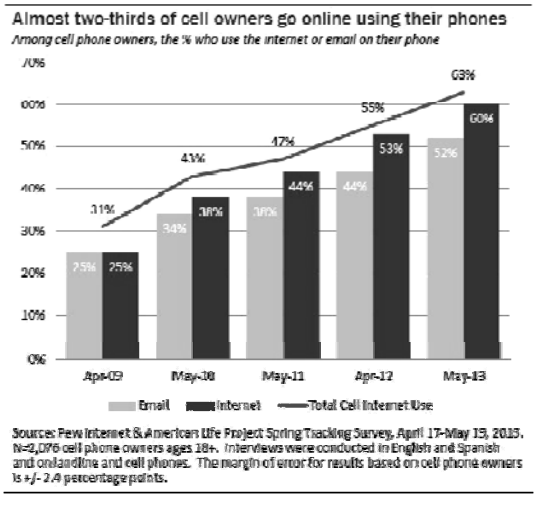
http://www.factbrowser.com/tags/sms
http://www.tatango.com/blog/sms-open-rates-exceed-99/

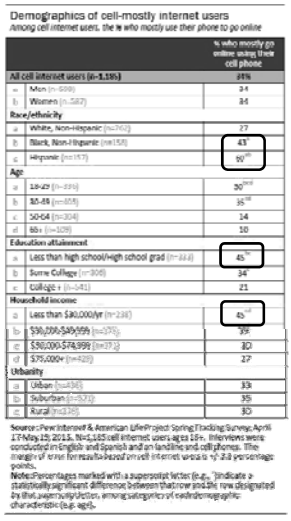
mHealth Communication: What Do We Know?

- Reviewed 15 systematic reviews and meta-analyses
  - Explored 89 individual studies using SMS for public health
  - SMS-based interventions were effective for diabetes self-management, weight loss and physical activity, smoking cessation, medication adherence for antiretroviral therapy
  - Limited consistent evidence across the studies and reviews to inform recommended intervention characteristics.
  - Additional research needed to establish longer-term intervention effects, identify recommended intervention characteristics, and explore issues of cost-effectiveness.

Hall, A.K., Cole-Lewis, H. & Bernhardt, J.M. (in press). Mobile Text Messaging for Health: A Systematic Review of Reviews. *Annual Review of Public Health, 2015.*

mHealth Communication: What Do We Know?





Smartphone ownership by demographic group—gender, age, race/ethnicity

% within each group who own a smartphone

		Own a smartphone
All adults (n=2,252)		56%
Gender		
a	Men (n=1,029)	59[b]
b	Women (n=1,223)	53
Age		
a	18-24 (n=243)	79[cdef]
b	25-34 (n=284)	81[cdef]
c	35-44 (n=297)	69[def]
d	45-54 (n=377)	60[ef]
e	55-64 (n=476)	39[f]
f	65+ (n=570)	18
Race/ethnicity		
a	White, Non-Hispanic (n=1,571)	53
b	Black, Non-Hispanic (n=252)	64[a]
c	Hispanic (n=249)	60

Source: Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., "b") indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

Smartphone ownership by demographic group—education, household income, geography

% within each group who own a smartphone

		Own a smartphone
All adults (n=2,252)		56%
Education attainment		
a	Less than high school (n=168)	36
b	High school grad (n=630)	46[a]
c	Some College (n=588)	60[ab]
d	College + (n=834)	70[abc]
Household income		
a	Less than $30,000/yr (n=581)	43
b	$30,000-$49,999 (n=374)	52[a]
c	$50,000-$74,999 (n=298)	61[a]
d	$75,000+ (n=587)	78[abc]
Urbanity		
a	Urban (n=763)	59[c]
b	Suburban (n=1,037)	59[c]
c	Rural (n=450)	49

Source: Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., "b") indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

mHealth Communication: What Do We Know?

- Mobile web is a great way to reach underserved communities
- Few health sites have a mobile optimized websites
- Use "responsive design" and or create a mobile layer of critical content, plus S.E.O.

mHealth Communication: What Do We Know?

http://mobihealthnews.com/13368/report-13k-iphone-consumer-health-apps-in-2012/

Very few apps are evaluated and very few app studies have been published in the literature

mHealth Communication: What Do We Know?

Wearables/Quantified Self

Games for Health/Gamification

Resources: mobihealthnews.com and mhealthnews.com

Why Invest in Health Communication?

- Health communication improves the effectiveness of every major public health practice area
- Health communication is more than a service or skill
  - Science + Theory + Strategy + Creativity
- Health Policies + Access to Care and Services + Communication = Big Measurable Outcomes
  - *Rules or access without communication has small effects*
- Health Communication = Return on Investment (ROI)

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Health Communication is (part of) the Cure!

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MERCI BEAUCOUP

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