The Role of Health Communication in Cancer Prevention and Control: New Directions, Opportunities, and Challenges

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ARNOLD SCHOOL OF PUBLIC HEALTH UNIVERSITY OF SOUTH CAROLINA

CANCER PREVENTION & CONTROL PROGRAM
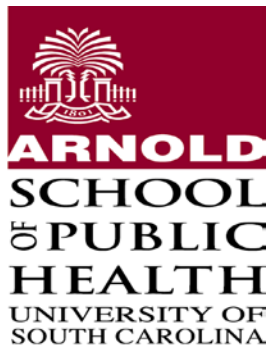
Science and Health Communication Research Group
THE UNIVERSITY OF SOUTH CAROLINA

Email: dbfriedman@sc.edu

First and foremost –
Dylan Will Dojc's mom

© Yuri Dojc
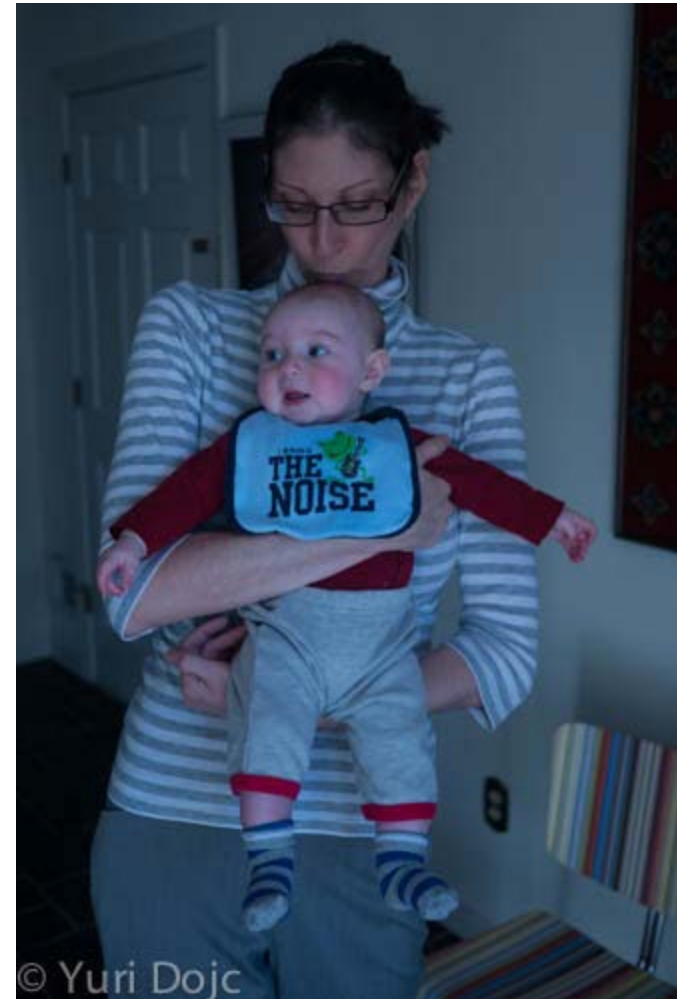
Research Focus & Hobbies

Research Focus:

- Health Communication with Diverse Communities

- Role of Social Context & Mass Media in Health Communication Interventions

- Healthy Aging and Gerontology; Cognitive Health Promotion

- Health Literacy Measurement

Hobbies:
In my nanoseconds of spare time, I like to…

- Miniature Golf
- Festival hop
- Write letters to family/friends
  - "For the Love of Letters"
- Read forensic science / mystery novels
- Do crossword puzzles/jumbles
- Listen to the radio with family
  - Classical, jazz, trivia shows
- Play piano and violin
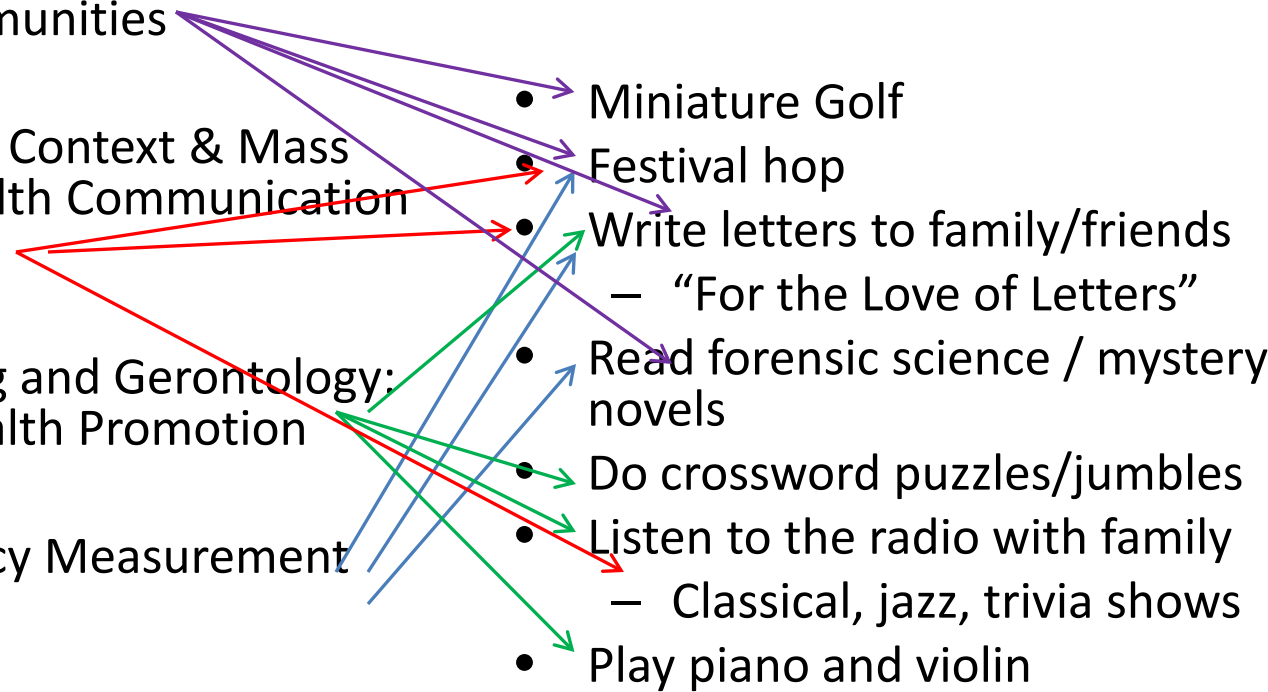
Focus on Healthy Aging

At one time, the accepted stereotype was that "old dogs can't learn new tricks." Science proved *this dictum must be discarded*.

What is Health Communication?

- "study and use of communication strategies to inform and influence individual and community decisions that enhance health" (Healthy People)
- Way we seek, process, and share health information
- Crucial element in disease prevention and in health promotion campaigns
- **"Where good health promotion and good communication practice meet."**
  - From: Rootman, I., & Hershfield, L. (1994). "Health Communication Research: Broadening the Scope" *Health Communication, 6(1),* 69-72.

Current Trends / Issues

- Demographic changes
- Patient empowerment
- Technology
- Global health
- Prevention
- Etc., Etc.

"Historical" Highlights

- 1990s
  - CDC Office of Communication
  - NCI Health Communication Branch
  - Health communication journals
  - MPH health communication courses
  - MS/PhD programs, specialization in health communication

"Historical" Highlights

- 2000s
  - Health Communication/Health Informatics streams/concentrations added to MPH programs
  - Health Communication Units (University of Toronto, Health Communication Research Laboratory at the Saint Louis University School of Public Health, etc.)
  - National Cancer Institute-funded Centers of Excellence in Health Communication (e.g., U Mich, U Penn, Wash U, U Wisc, Kaiser Permanente)

Health Communication as Core Competency of Public Health

- Center for Health and Risk Communication (CHRC), Emory University School of Public Health [Maibach et al., 1994]
  - Working group of 15 experts (health, risk, science communication, public health) formed list of competencies (October 1992)

A public health practitioner is able to…

- Communicate clearly
- Listen to others in an unbiased manner, respect points of view of other and promote expression of diverse opinions and perspectives
- Provide health status, demographic, statistical, programmatic, and scientific information tailored to BOTH professional and lay audiences
- Understand social marketing principles and consumer behavior
- Use mass media, advanced technologies, and community networks to receive and communicate information
- Advocate for public health programs and resources
- Consider health communication as a process!

-Association of Schools of Public Health competencies

Communication Approaches

Communication Levels Approach

- – Intrapersonal

- – Interpersonal

- – Small group

- – Organizational

- – Mass media

- – Policy

Operational Levels Approach

- Context of communication

  - – Cassata (1980): "the study of communication parameters (levels, functions, and methodologies) applied in health situations/contexts"

- Topic of communication (directly and indirectly affecting health).

Health Literacy Framework-
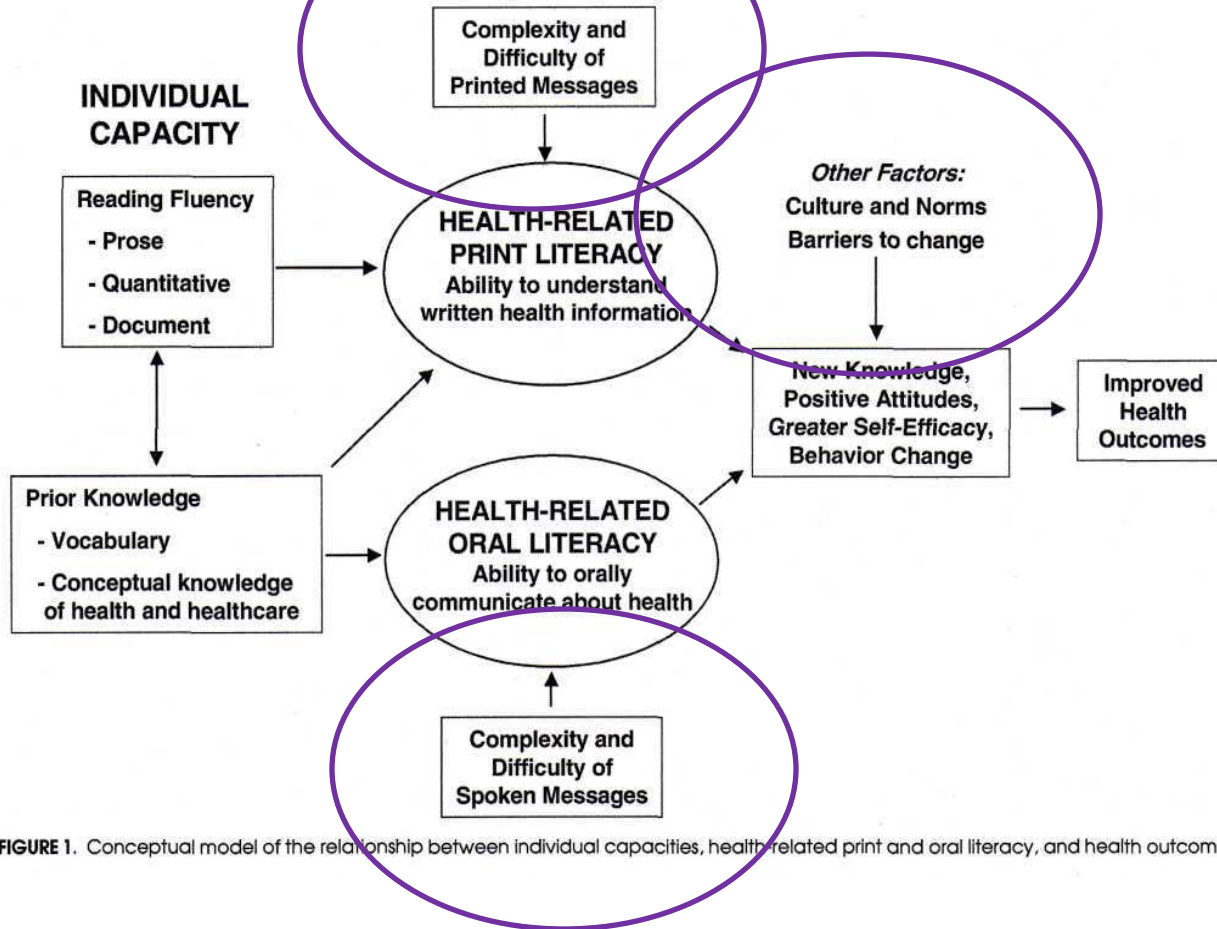# Why Context is Important?
(Baker, 2006)

Complexity and Difficulty of Printed Messages

INDIVIDUAL CAPACITY

Reading Fluency
- Prose
- Quantitative
- Document

HEALTH-RELATED PRINT LITERACY
Ability to understand written health information

Other Factors:
Culture and Norms
Barriers to change

New Knowledge, Positive Attitudes, Greater Self-Efficacy, Behavior Change

Improved Health Outcomes

Prior Knowledge
- Vocabulary
- Conceptual knowledge of health and healthcare

HEALTH-RELATED ORAL LITERACY
Ability to orally communicate about health

Complexity and Difficulty of Spoken Messages

FIGURE 1. Conceptual model of the relationship between individual capacities, health-related print and oral literacy, and health outcomes.

Word of mouth counts in politics

Study finds some silver tongues in Congress — but does verbose speech mean they're smarter?

By JAMES ROSEN
McClatchy Newspapers

WASHINGTON — When he speaks on the floor of the House of Representatives, Rep. Mick Mulvaney talks at just below an eighth-grade level, lower than any of his 534 congressional peers. Rep. Dan Lungren, by contrast, has spoken this congressional term at a "20th grade" level, the highest level in Congress and roughly like a Ph.D. candidate defending a dissertation.

Does that make Lungren brilliant and Mulvaney dumb?

Mulvaney, a freshman Republican from South Carolina, laughs at the suggestion. "Folks back home think I'm an effective speaker and an effective writer," Mulvaney told McClatchy. "I try to write and speak in a conversational style. I have people thank me every week for at least making an ef-

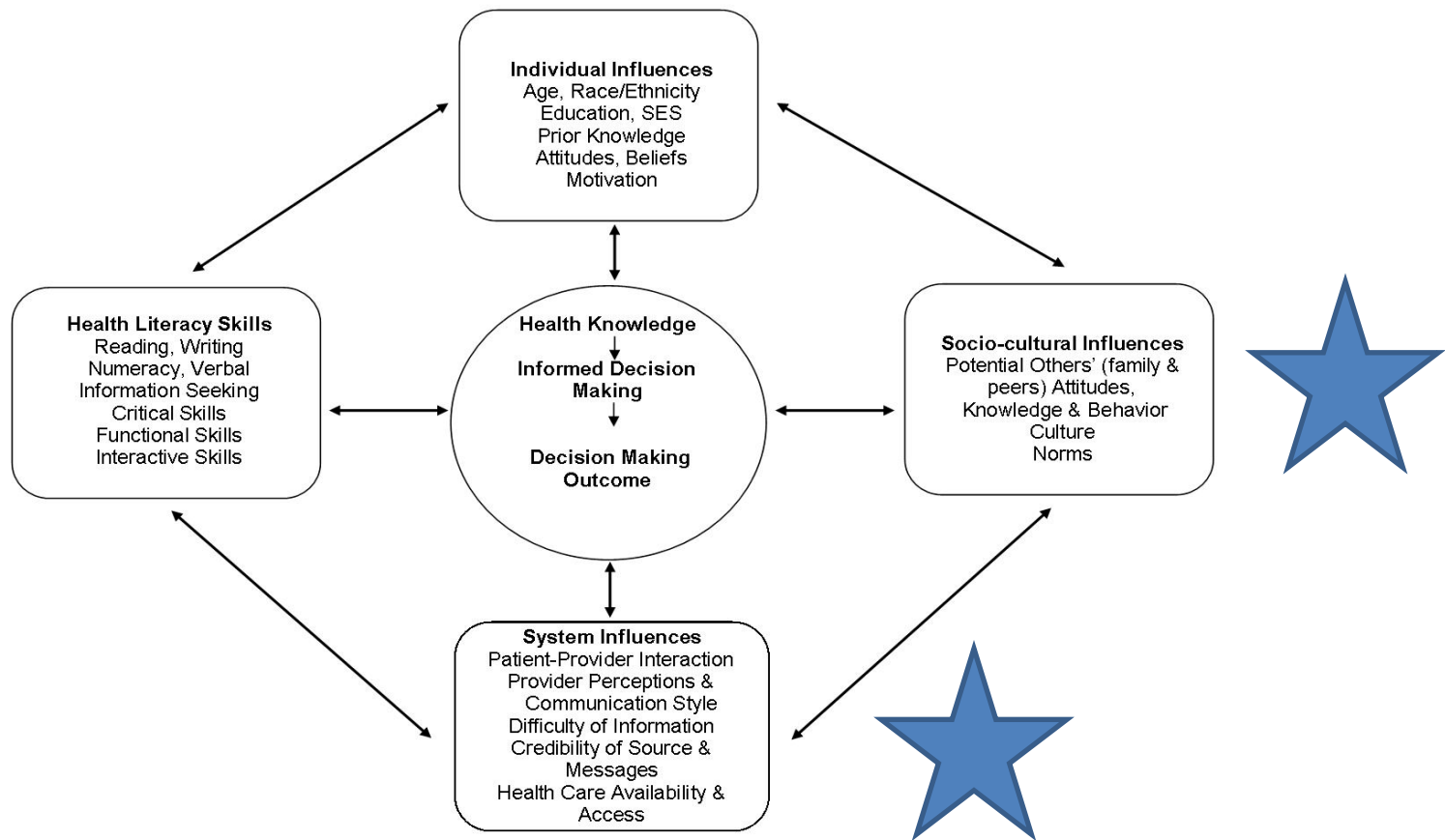**Mulvaney**

Social Practices Framework

Figure 1. Health Literacy and Decision Making Framework

Friedman & Tanner, 2007

New Interdisciplinary Seminar for Graduate and Honors College Students

CATASTROPHE

Risk, Communication, and Ethics

Fall 2007 - Wednesdays 1:25 - 3:20pm

Catastrophic events—both natural (e.g., tsunamis, avian flu, asteroid collision), and human-made (e.g., nuclear fallout, terrorism, prolonged power outages)—can threaten the welfare of individuals, the functioning of civilization, and perhaps even the existence of the human species.

This interdisciplinary, team-taught seminar will examine practical and theoretical issues that arise in thinking about what to do when catastrophe strikes and what should be done to avoid catastrophe. Among the topics to be explored are: the factors underlying how people deal with risk and uncertainty, including the role of prior attitudes and beliefs and the use of potentially misleading mental shortcuts; the role of public officials and the media in communicating risk-relevant information; the ways individuals behave and seek information during catastrophic events; the strengths and weaknesses of various communication channels and strategies for reaching diverse populations with emergency information; and the ethical and political issues that arise in the preparation for, and response to, catastrophes. The course is aimed at upper-level undergraduates in the Honors College and graduate students from across the University. Extensive in-class participation will be required of all students in the course.

The teaching team for the course is:
John Besley, School of Journalism and Mass Communications
Daniela Friedman, Dept. of Health Promotion, Education, and Behavior, Arnold School of Public Health
Justin Weinberg, Dept. of Philosophy, College of Arts and Sciences

Honors College Students: register for course SCCC 459D.
Graduate Students: contact one of the professors for information on how to register.

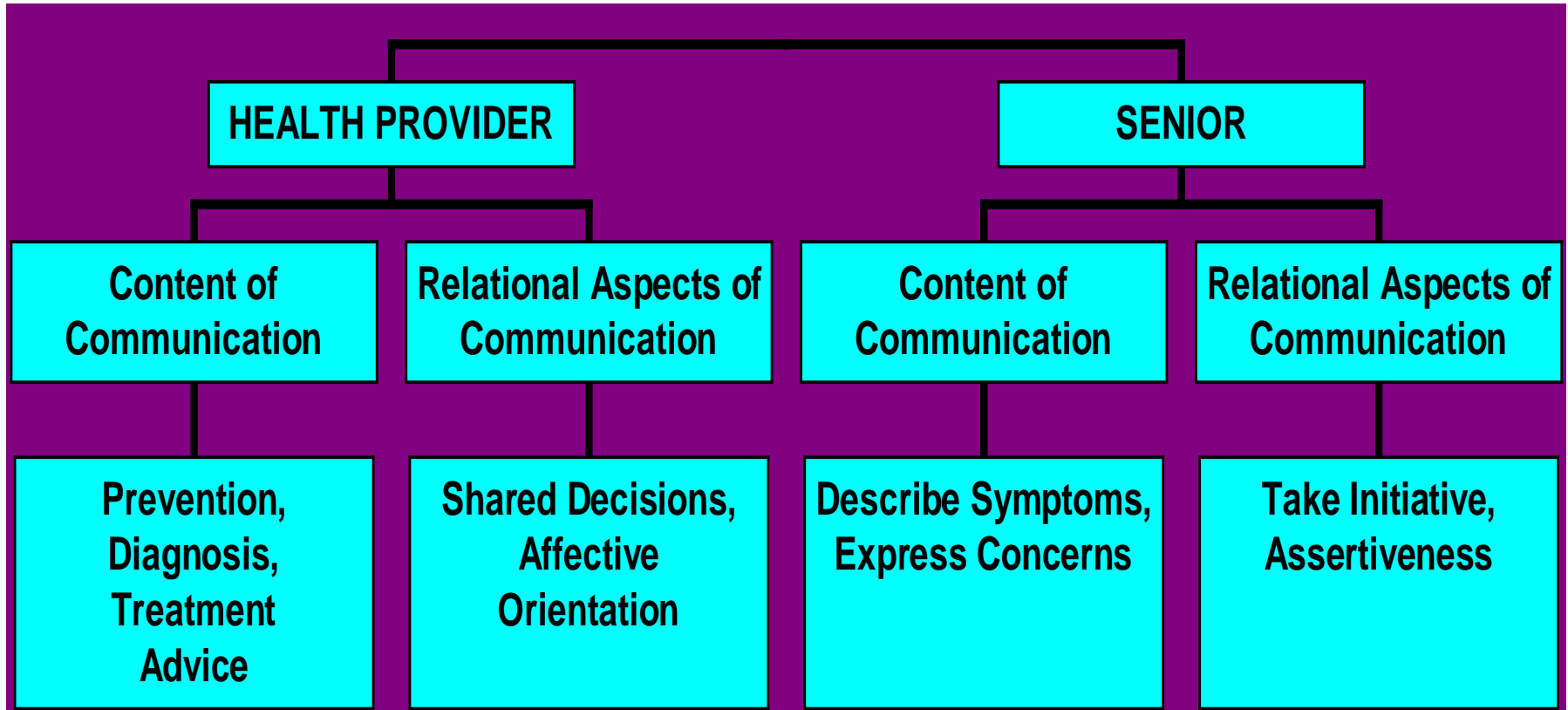# *Where it all began: Interpersonal Communication*

- "Honey, I've been through 2 World Wars, the Great Depression, taught 3,297 children, administered 4 elementary schools, and outlived every one of the pastors I worked with. I'm 89 years old and you're telling me it's bedtime?"
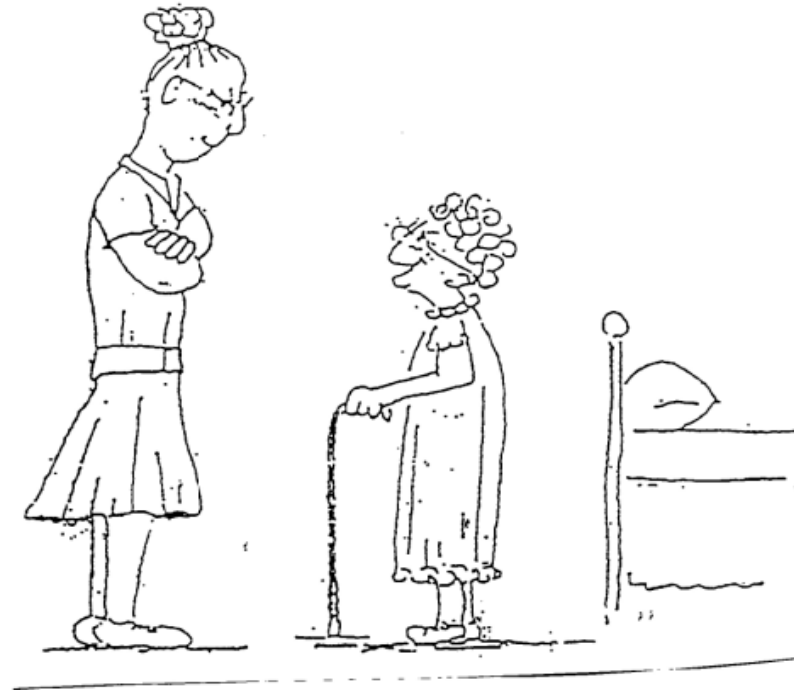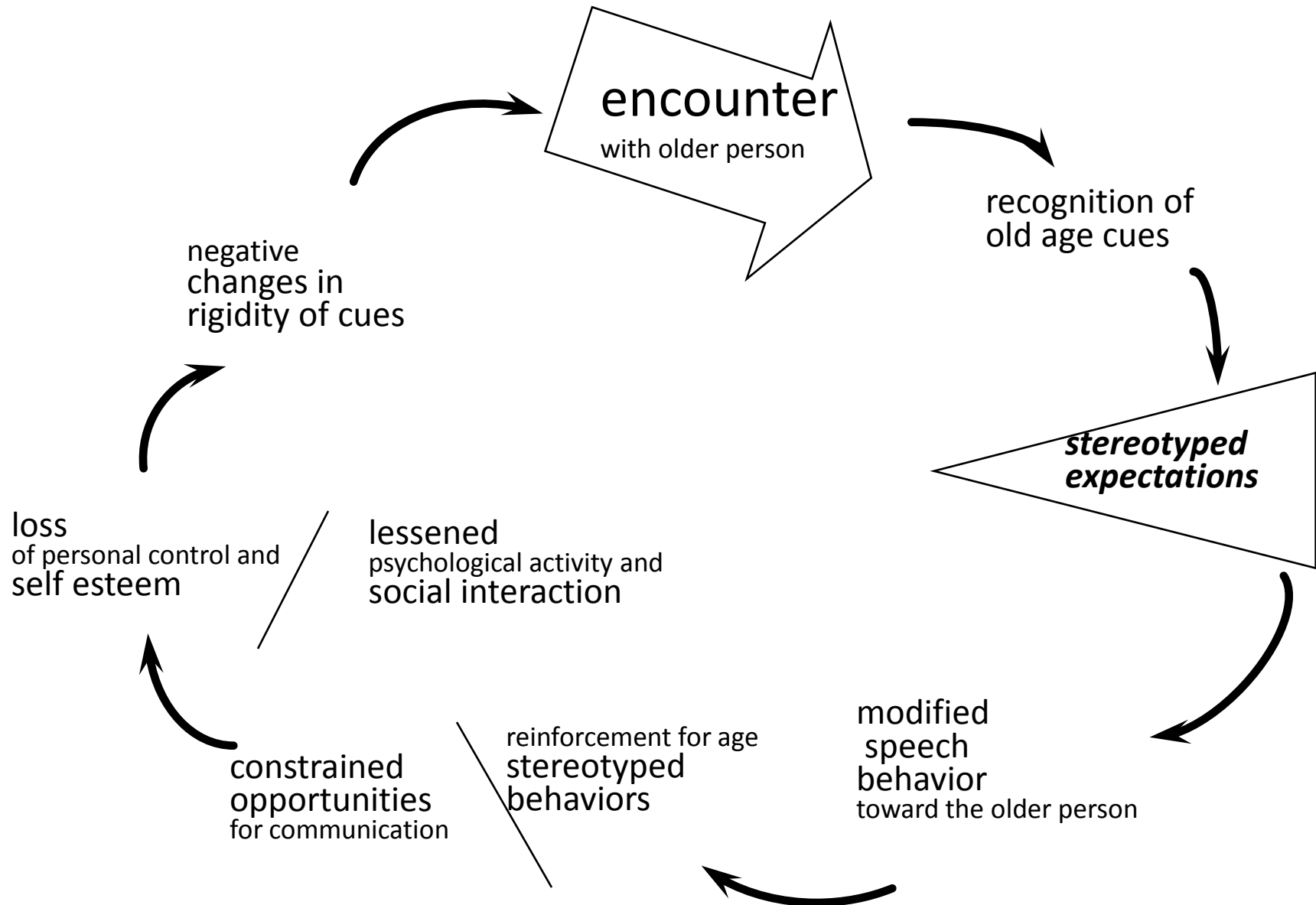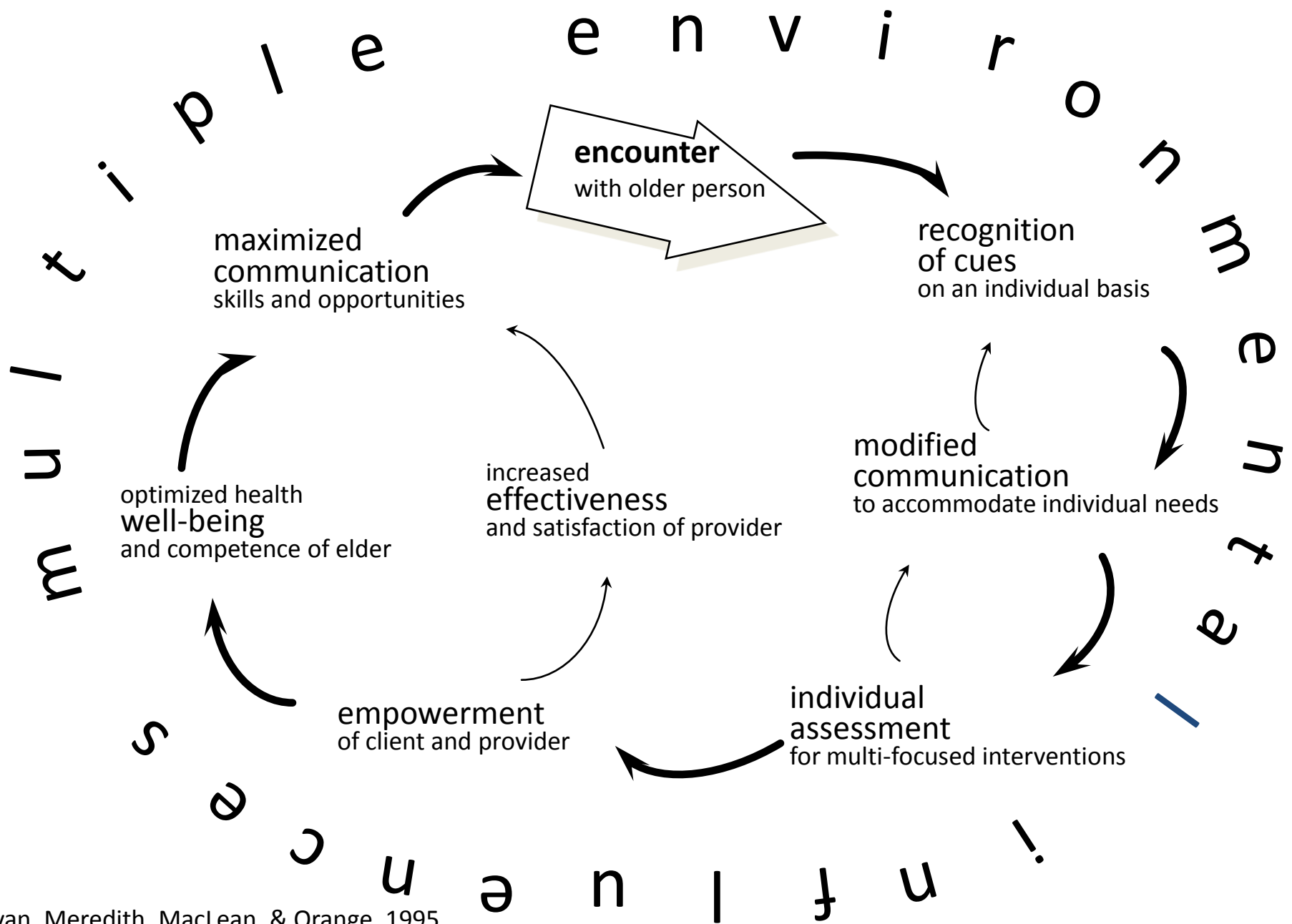
Patient-Provider Encounter

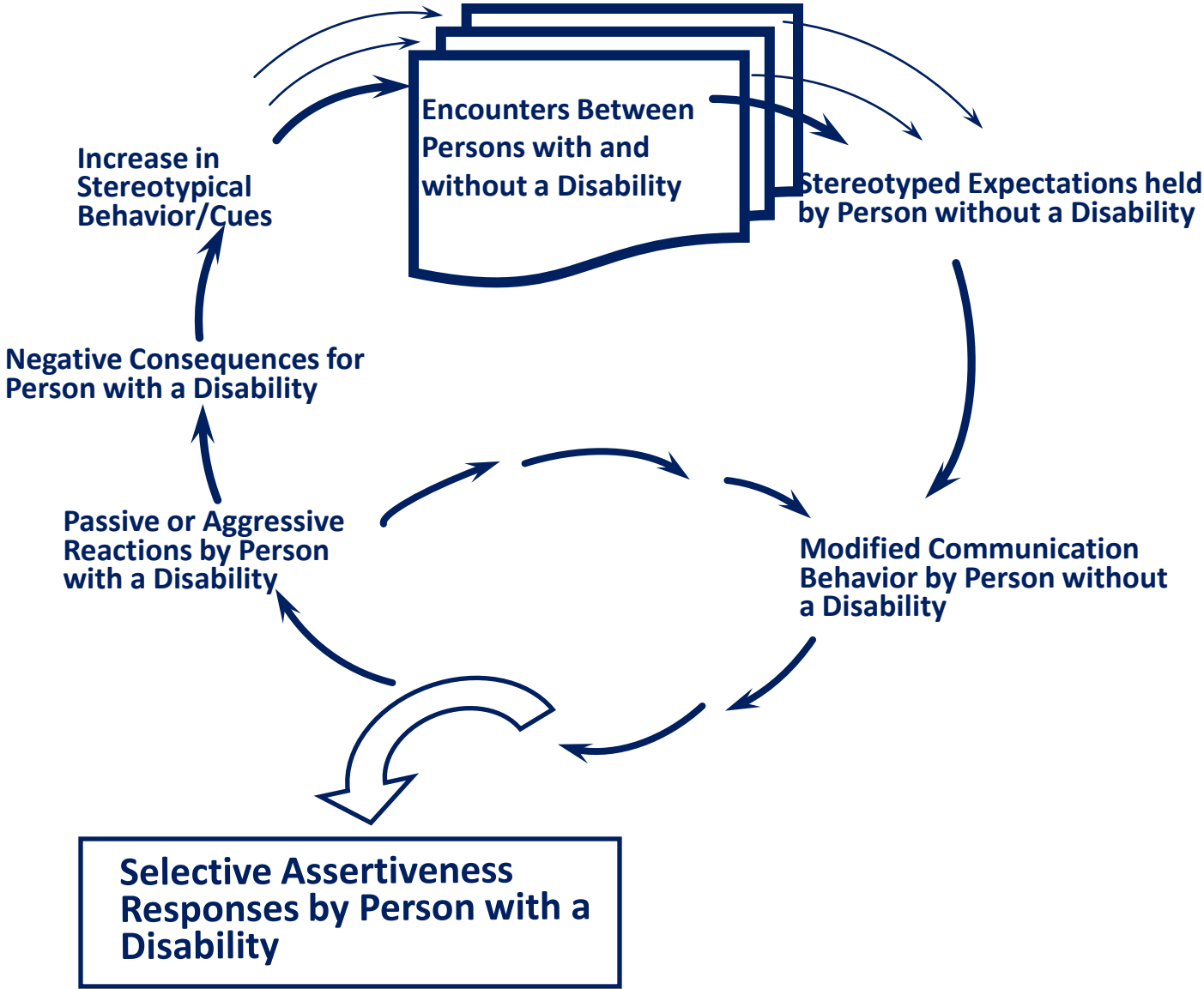# Health Care Partnership Model of Communication

Kahana & Kahana, 2003

Communication Predicament Model

encounter
with older person

recognition of
old age cues

negative
changes in
rigidity of cues

***stereotyped
expectations***

loss
of personal control and
self esteem

lessened
psychological activity and
social interaction

modified
speech
behavior
toward the older person

constrained
opportunities
for communication

reinforcement for age
stereotyped
behaviors

Ryan, Giles, Bartolucci, & Henwood, 1986

Communication Enhancement Model

multiple environmental influences

encounter with older person

recognition of cues on an individual basis

modified communication to accommodate individual needs

individual assessment for multi-focused interventions

empowerment of client and provider

increased **effectiveness** and satisfaction of provider

optimized health **well-being** and competence of elder

maximized communication skills and opportunities

Ryan, Meredith, MacLean, & Orange, 1995

Interrupting the Communication Predicament Cycle with SELECTIVE ASSERTIVENESS

Encounters Between Persons with and without a Disability

Increase in Stereotypical Behavior/Cues

Stereotyped Expectations held by Person without a Disability

Negative Consequences for Person with a Disability

Passive or Aggressive Reactions by Person with a Disability

Modified Communication Behavior by Person without a Disability

Selective Assertiveness Responses by Person with a Disability

Ryan, Bajorek, Beaman, et al., 2005

Evaluations of Older Adult Assertiveness in Problematic Clinical Encounters

Ellen Bouchard Ryan
Ann P. Anas
McMaster University
Daniela B. Friedman
University of Waterloo

Evaluations of Senior as a Function of Response
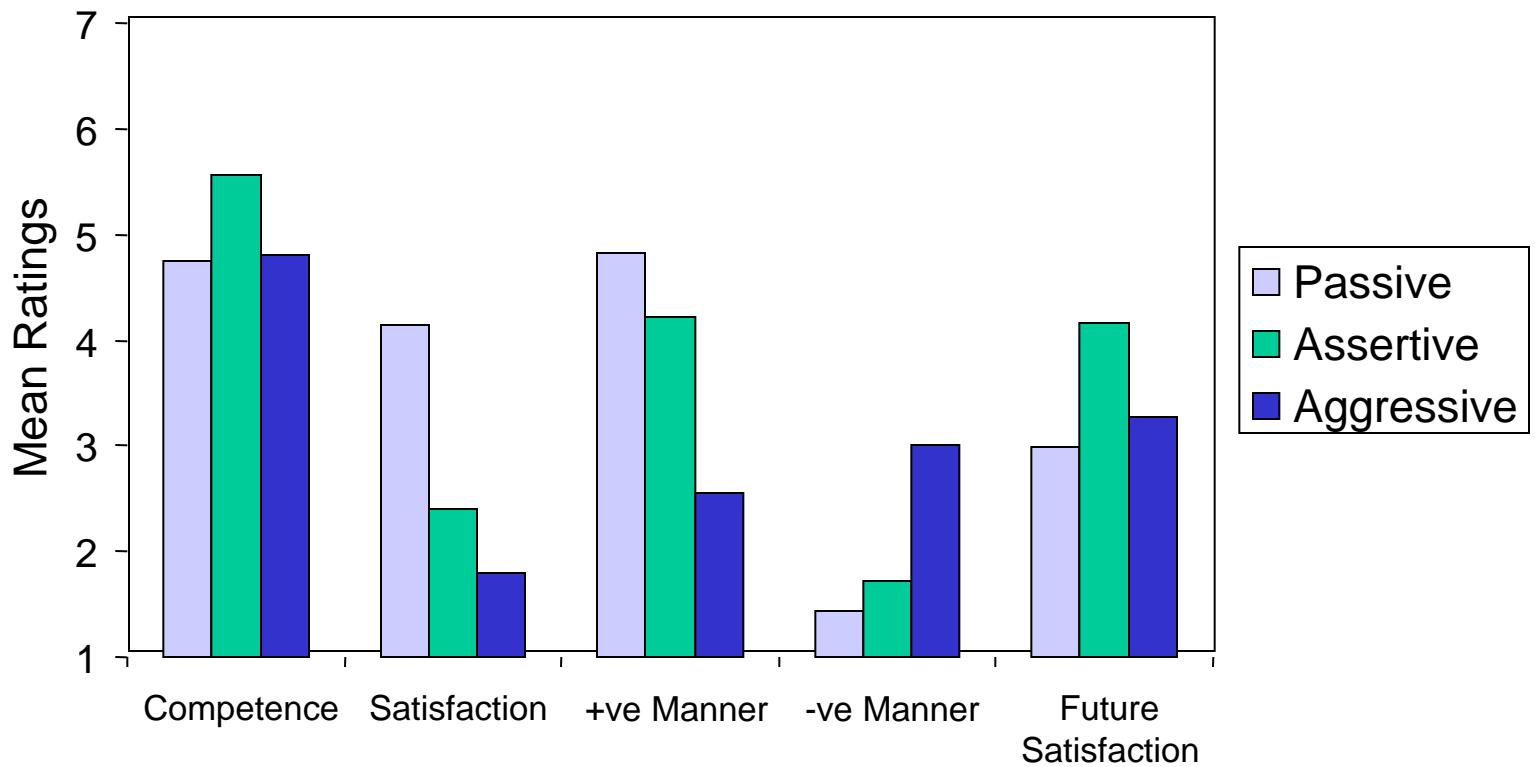
Ryan, Anas, & Friedman, 2004

Table 2
Mean Evaluations of the Senior Client As a Function of Participant Age and Response (*SD*s are in parentheses)

Measure	Participant Age	Response					
		Passive		Assertive		Aggressive	
Competence	Young	—		—		—	
	Old	—		—		—	
	Marginal means	4.74^a	(1.05)	5.57^b	(1.03)	4.81^a	(1.02)
Positive manner	Young	5.05^a	(1.04)	4.21^b	(1.22)	2.45^c	(1.02)
	Old	4.57^d	(1.13)	4.22^b	(1.18)	2.67^c	(1.39)
	Marginal means	4.82	(1.11)	4.21	(1.20)	2.56	(1.22)
Negative manner	Young	1.31^a	(0.60)	1.85^b	(1.08)	3.27^c	(1.44)
	Old	1.56^b	(0.75)	1.56^b	(0.81)	2.74^d	(1.43)
	Marginal means	1.43	(0.69)	1.71	(0.96)	3.01	(1.45)
Satisfaction	Young	4.49^a	(1.28)	2.44^b	(1.04)	1.64^c	(0.77)
	Old	3.81^d	(1.89)	2.36^b	(1.04)	1.97^c	(0.93)
	Marginal means	4.15	(1.28)	2.40	(1.04)	1.80	(0.87)
Future satisfaction	Young	—		—		—	
	Old	—		—		—	
	Marginal means	2.99^a	(1.69)	4.16^b	(1.77)	3.27^a	(1.70)

Note: Means with different superscripts are significantly different from each other.

Mediated Communication
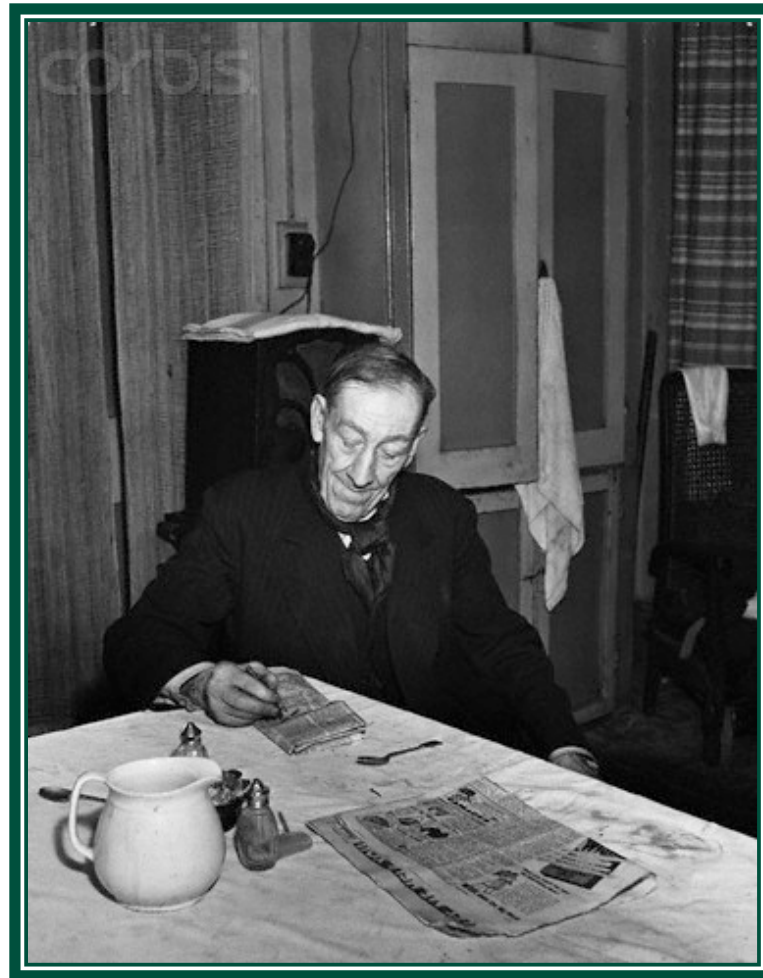
Sources of Cancer Information for Seniors: A Focus Group Pilot Study Report

DANIELA B. FRIEDMAN, MSC, LAURIE HOFFMAN-GOETZ, PHD, MPH

# Cancer Coverage in North American Publications Targeting Seniors

DANIELA B. FRIEDMAN, MSC, LAURIE HOFFMAN-GOETZ, PHD, MPH

TABLE 3. Frequency of Mention of Themes in Focus
Group Documents

Core Themes	Sub-themes	No. Transcript Documents (%)	No. Citations
Lack of Confidence in Cancer Information Sources	Physicians	3/3 (100)	17
	Journalists	3/3 (100)	10
	Print Media	3/3 (100)	14
	Internet	2/3 (67)	4
	Alternative Medicine	1/3 (33)	8
Confidence in Credible Cancer	Notable References	1/3 (33)	2
	Health Organizations	1/3 (33)	5
Motivations for Seeking out Cancer Information	Relevance	3/3 (100)	22
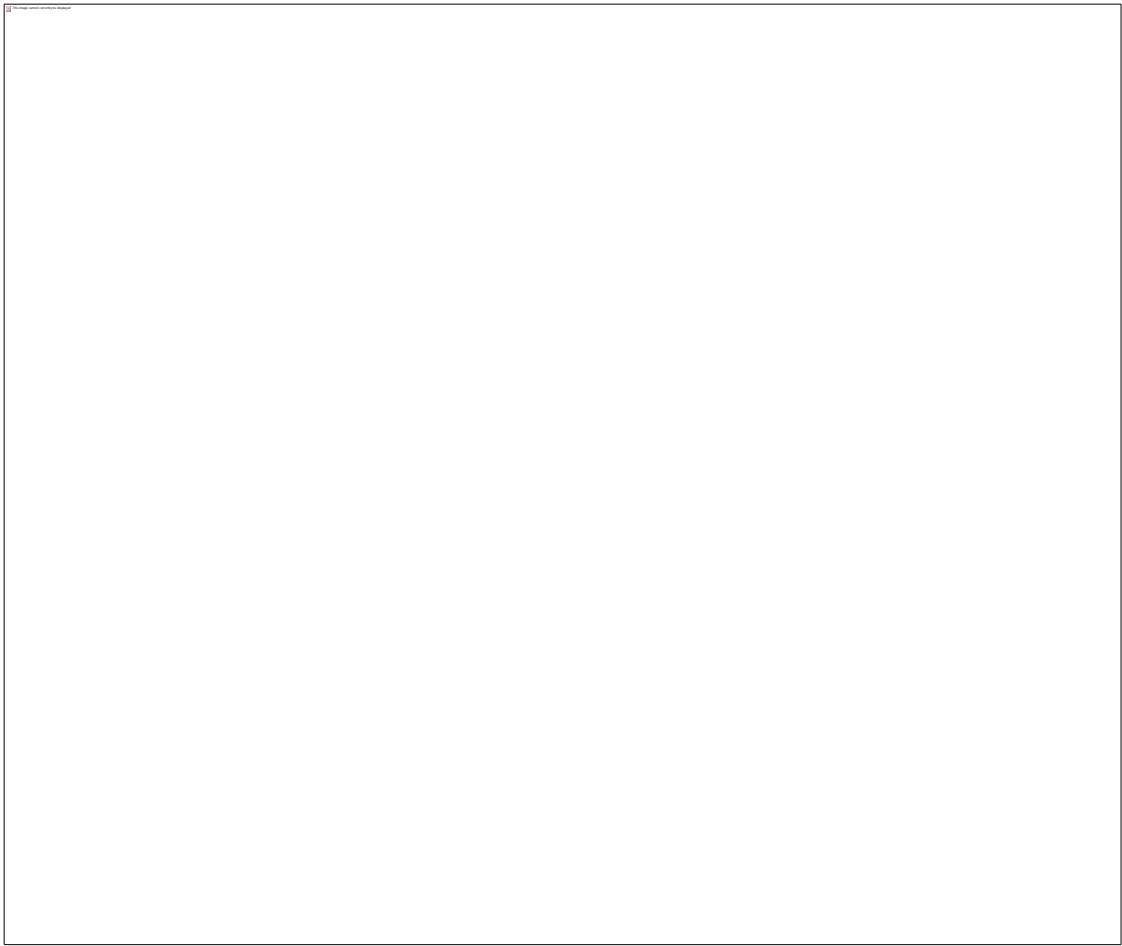
Technology Use

Internet Use for Health

Evaluation of a Public Library Workshop:
Teaching Older Adults How to Search
the Internet for Reliable Cancer Information

Laurie Hoffman-Goetz
Daniela B. Friedman
Ann Celestine

Readability vs. Comprehension

- Comprehension of online cancer resources evaluated with 44 community-dwelling older adults using a Cloze procedure and recall questions.
- Participants' comprehension scores were compared with SMOG and Fry readability scores (< grade 13 vs. > grade 13).
- Overall, older adults had satisfactory comprehension of cancer information as measured by Cloze (.86) and recall (.71).
- For CrCA information written at grade 13, a significant negative correlation between readability and Cloze comprehension was found (p= .019), indicating poorer participant comprehension at higher readability levels.
- Though readability plays a role in cancer comprehension, cancer type and content are also important factors that influence understanding.
- Other work assessed cultural appropriateness of resources
  - Cultural Sensitivity Assessment Tool
  - Qualitative focus groups / interviews

- Mean S-TOFHLA was 28.28 (±1.98), implying ''adequate'' comprehension.

- Mean Cloze was .71 (±.05) for a Grade 8 document and .66 (±.04) for a Grade 13 document, also showing ''adequate'' comprehension.

- Despite having satisfactory literacy test scores, results from interviews and focus groups revealed participants' limited understanding and misconceptions about prostate cancer risk.

Friedman, Corwin, Rose, & Dominick, 2009
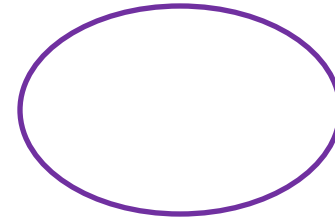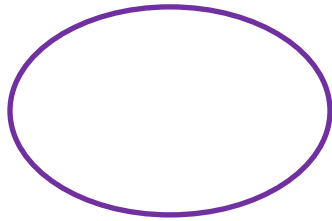
South Carolina Cancer Disparities Community-Network II:
Pilot Prostate Cancer Education Intervention
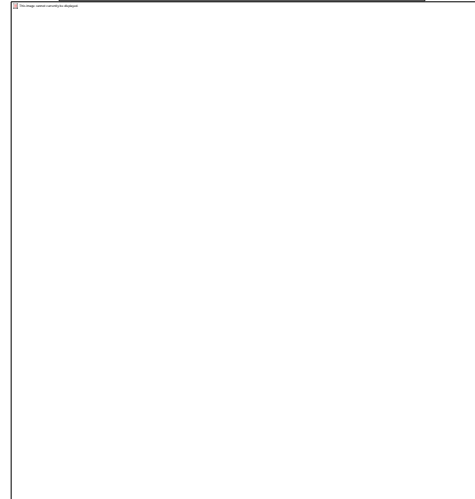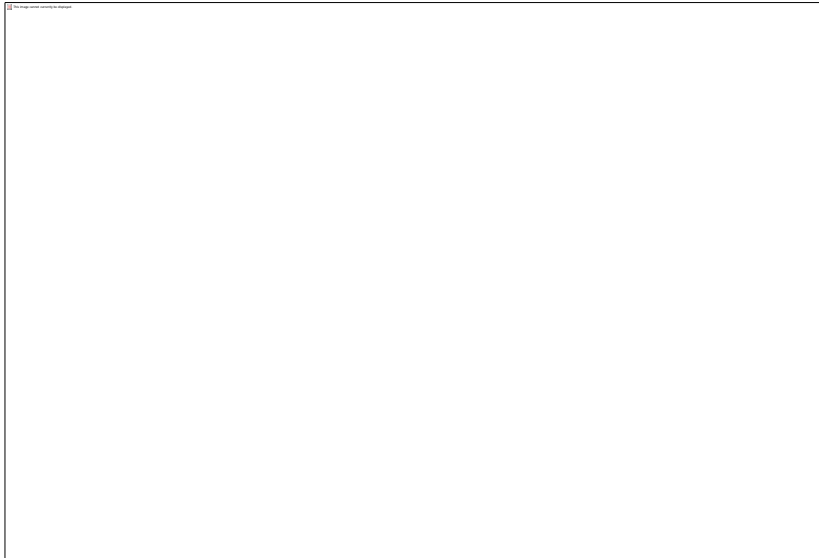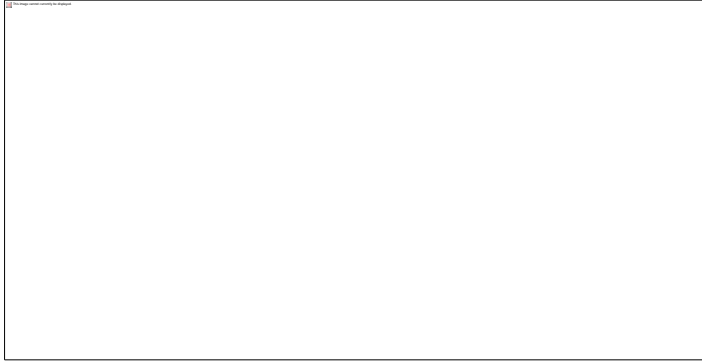
Preferred Sources of Health Information

- 66.7% reported primary doctor as their <u>preferred</u> source of health and cancer information followed by a health educator (24.3%)

- Few other sources included:
  - Family member/Friend (3%)
  - Internet (3%)
 - Newspaper (1.5%)
  - Other (1.5%)

Openness to Sources of Cancer Information

- **Nearly 40% of all participants were open to receiving health and cancer information by email.**
    -Over half of participants reported having valid email addresses

- **22.8% of all participants were open to receiving health and cancer information via text messaging.**

    - -68% of all participant's owned text capable cell phone.

- Other sources included:
    – Television (38%)
    – Internet (35.4%)
    – Mobile voice messages (34.2%)
    – Newspaper (32.9%)
    – Magazine (27.8.%)
    – Radio (19%)
    – Mobile phone applications (11.5%)

Example of Information Distributed During Intervention
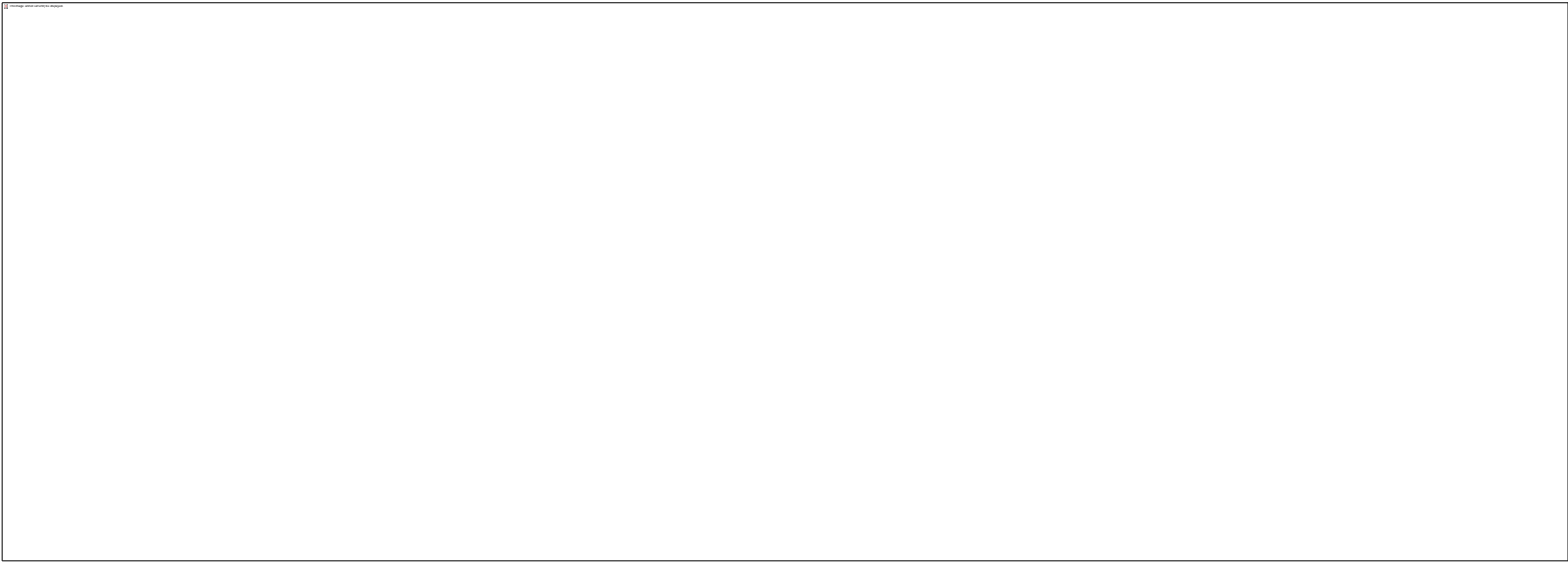
A Comprehensive Assessment of the Knowledge, Perceptions, and Communication Needs about Clinical Trials among Adults in Rural South Carolina

Funded by Health Sciences South Carolina

Sei-Hill Kim, PhD, Principal Investigator
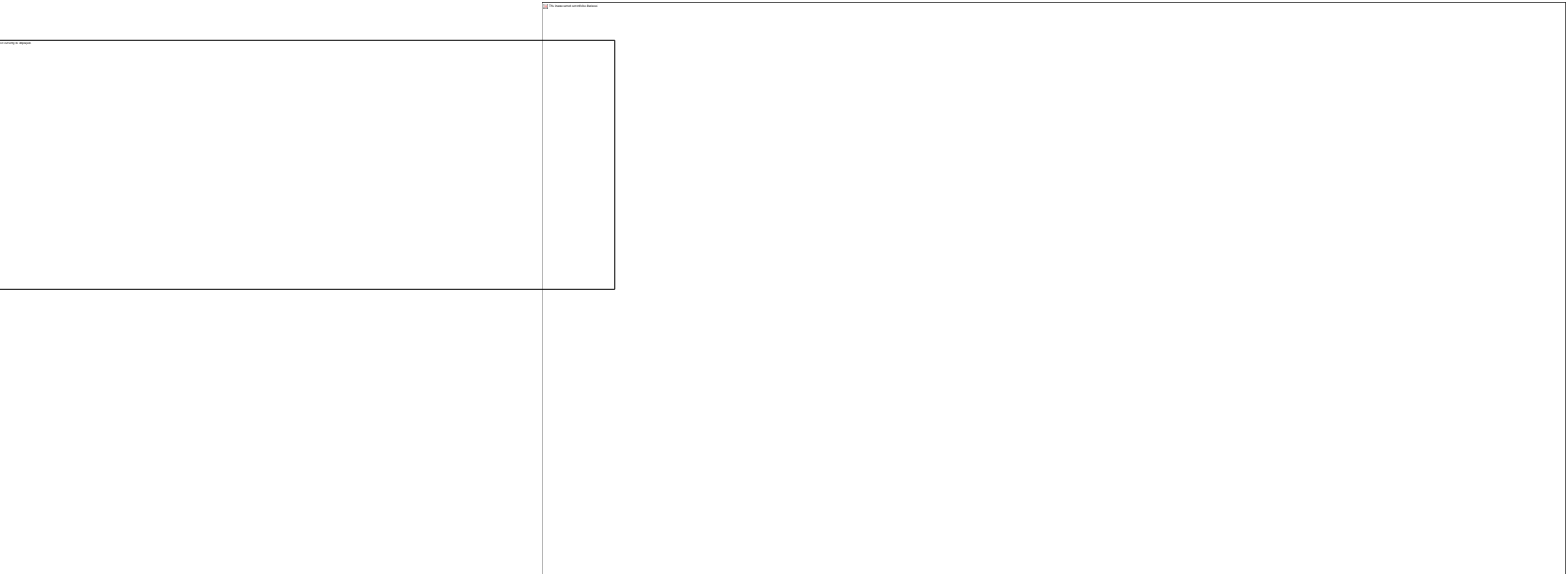
Andrea Tanner, PhD, Co-Principal Investigator

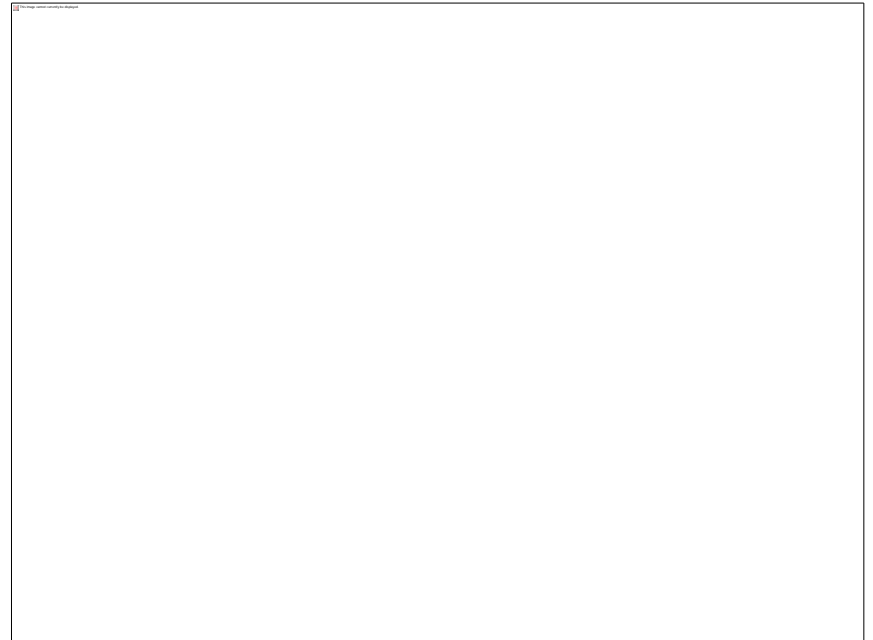Daniela B. Friedman, MSc, PhD, Co-Principal Investigator

Cancer Prevention and Control Research Network (CPCRN)

- 10 CPCRN sites funded by the Centers for Disease Control and Prevention and the National Cancer Institute

- Focus is on Dissemination and Implementation (D&I) of evidence-based programs and interventions

Integrating a Farmers' Market with an FQHC

Planting Healthy Roots
(documentary funded by USC Science and Health Communication Research Group)

Patient/Shopper Perspectives

1. Providers role modeling use of the market influenced patients' food choices and perceptions of the market:

- *"It boosted them [providers] up. Most of the employees came over and bought things in great amounts,"*

- *"It's good for them because the doctors and nurses are out there buying fruits and veggies,"*

2. Market provided opportunity for providers and patients to discuss healthy eating:

- *"[Shopping at the market] enabled me to follow more of my doctors' orders. It reinforced what my doctors were teaching."*

3. Market provided opportunity for informal social interactions between patients and providers:
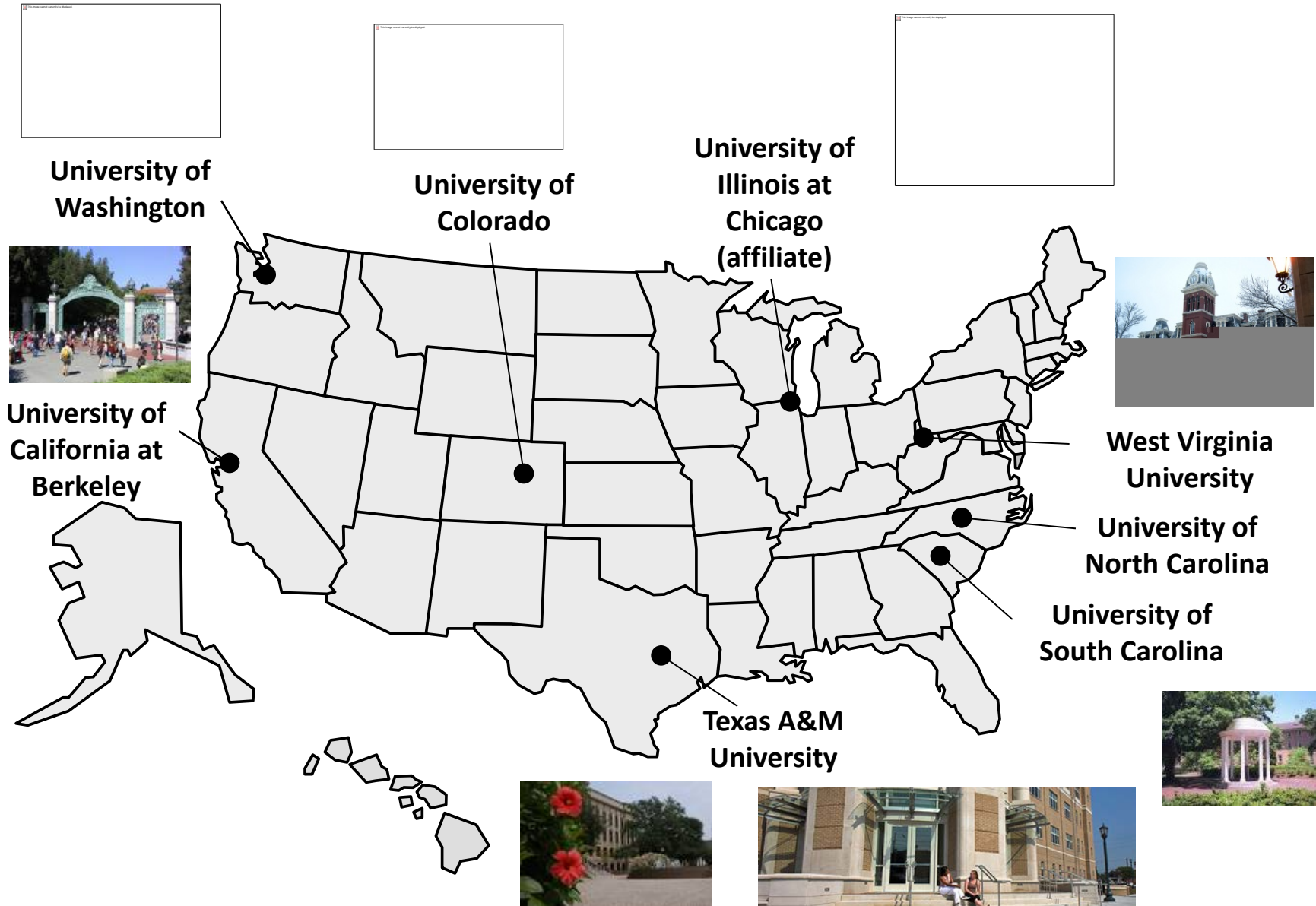
- *"I see a lot of personnel at the market; there is more interaction with them."*

Healthy Aging Research Network (HAN)

- Better understand the determinants of healthy aging in diverse populations and settings;

- Develop and evaluate policies and programs that promote healthy aging; and

- Translate and disseminate such research into sustainable public health programs and policies throughout the nation.

CDC-HAN Member Centers and Affiliates

University of Washington

University of Colorado

University of Illinois at Chicago (affiliate)

West Virginia University

University of California at Berkeley

University of North Carolina

University of South Carolina

Texas A&M University

Promoting Cognitive Health

The Healthy Brain Initiative
A National Public Health Road Map to Maintaining Cognitive Health

The CDC Healthy Brain Initiative
Progress 2006-2011

- Collaborative Policy Development & Formative Research started 2005
- CDC
- Alzheimer's Association
- NIH
- AARP
- The CDC funded Healthy Aging Research Network
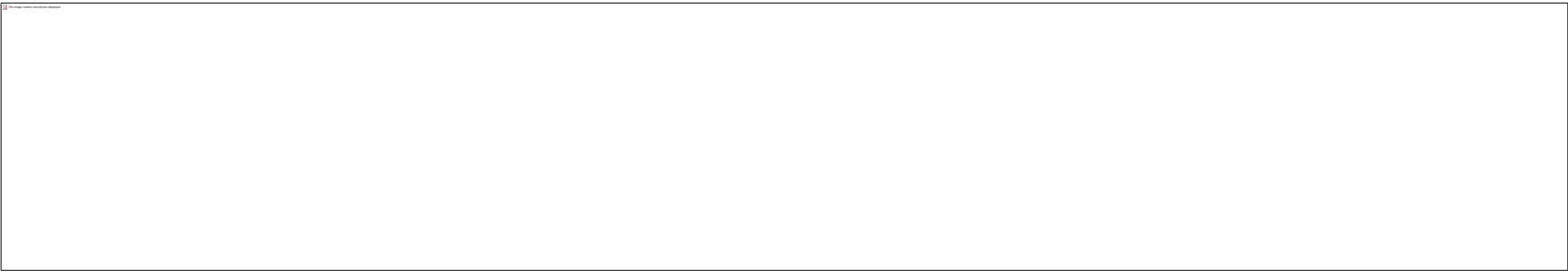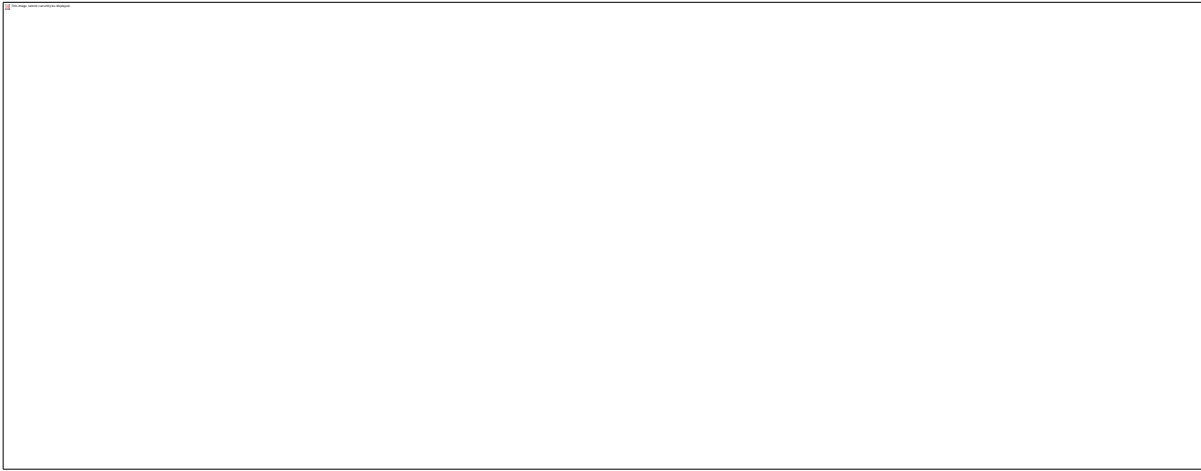- Other partners
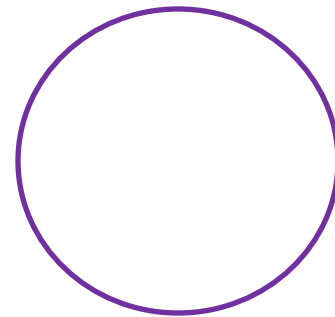
The Gerontologist

Promoting Cognitive Health

Photo by Joe Sharkey

Background on this research and related publications:

The Gerontologist
Volume 49, Number S1, June 2009

Friedman et al., in press (April 2013)

Opportunity: How is cognition work linked to cancer prevention and control?

- HHS Multiple Chronic Conditions (MCC) Strategic Framework
  - Made available in late 2010, the *Framework* is organized by four major goals:
    - Strengthening the health care and public health systems.
    - Empowering the individual to use self-care management.
    - Equipping health care providers with tools, information, and other interventions.
    - Supporting targeted research about individuals with MCC and effective interventions.
- The *Framework* is directed to clinical practitioners, policy makers, researchers, and others. It is designed to address the needs of all population groups with MCC.

http://www.hhs.gov/ash/initiatives/mcc/address-mcc.html#framework

- In early 2012, HHS developed the *Implementation of the Strategic Framework*, a work plan focusing on several areas of the *Framework*. Activities in the plan include:
- Examining how the Affordable Care Act supports individuals with MCC.
- Increasing the dissemination of HHS data and patient-centered outcomes research.
- Advancing the quality measures agenda.
- Facilitating self-care management activities.
- Integrating MCC into clinical practice guidelines.
- Including individuals with MCC in clinical trials.
- Promoting MCC curricula for health workforce sectors.
- Educating federal, private, public and international sectors about MCC-related issues.

Challenge: Sustainability

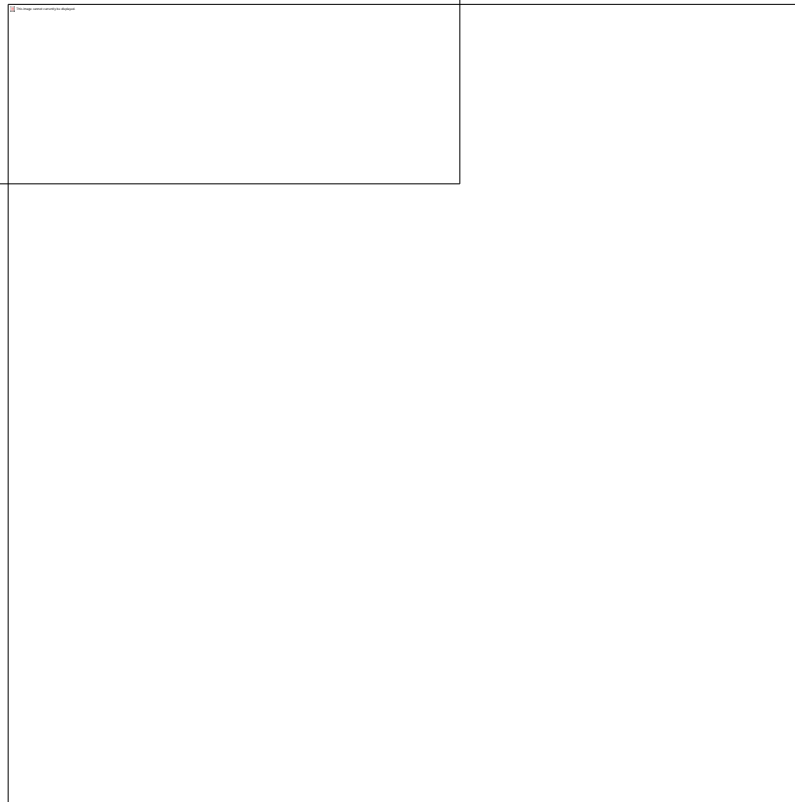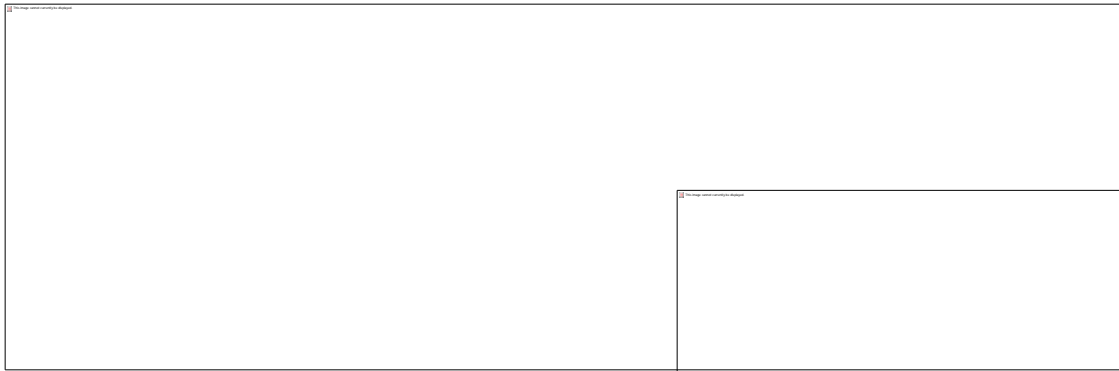# Appropriate Risk Communication?
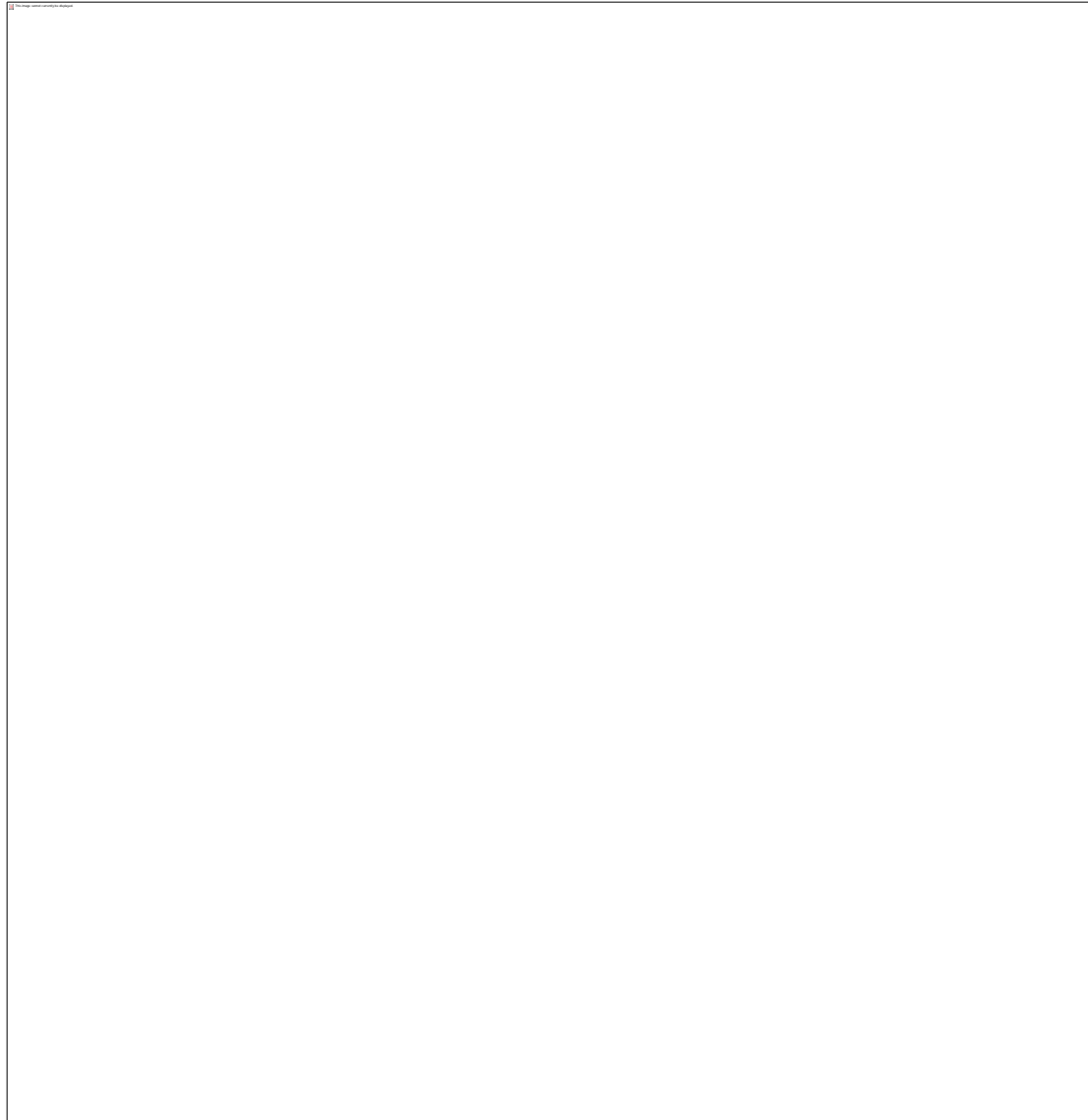
Who likes pictures?

DBF's thoughts on where we go from here?

- Revisit our discussion about 'theory-driven' campaigns
  - Interdisciplinary approach to health communication
  - How can campaign outcomes feed back to theory development?
  - Consider MCC framework

- Do not just jump on the bandwagon! Consider evaluation of new media, emerging technologies
  - Mobile health/mHealth, eHealth, etc.
  - Standardizing evaluation is key: http://www.jmir.org/2011/4/e126/
  - CDC Social Media Resources – tips for evaluation: http://www.cdc.gov/socialmedia/Tools/guidelines/

- We cannot forget about interpersonal communication
  - Clinical partnerships: doctor-patient communication / engagement AND influence of technology on DP encounters

- Let's share!
  - Detail on message/campaign design and evaluation
  - Publish on the process … process evaluation & partnership communication
    - PARTNER http://www.partnertool.net/ -- U Colorado Denver
    - Amherst Wilder Foundation. http://wilderresearch.org/tools/cfi/index.php (an online inventory)
  - Dissemination & replication

Reducing Cancer Disparities Through Innovative Partnerships: A Collaboration of the South Carolina Cancer Prevention and Control Research Network and Federally Qualified Health Centers

Daniela B. Friedman · Vicki M. Young · Darcy A. Freedman · Swann Arp Adams ·
Heather M. Brandt · Sudha Xirasagar · Tisha M. Felder · John R. Ureda ·
Thomas Hurley · Leepao Khang · Dayna Campbell · James R. Hébert

Professional Development Opportunities

- Get Involved with Professional Organizations
  - South Carolina Cancer Alliance
    - Prostate Cancer Workgroup
    - Coordinating Council
  - American Association of Cancer Education (AACE)
    - Journal of Cancer Education editorial board
  - American Public Health Association/APHA (Aging & Public Health; Public Health Education and Health Promotion Health Communication Workgroup)
    - Student award opportunities
    - Abstract and Manuscript Reviewer
    - Section Councilor (A&PH section)
    - Awards Chair
    - Chair-Elect

Make sure you are current & in the loop!

- Serve on grant review panels
  - NCI Small Business Innovation Research (Technology to Facilitate Patient-centered Communication in Cancer Care),
  - Trandisciplinary Research in Energetics and Cancer (U54)
  - Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts
- Review conference abstracts
  - APHA, AACE, Canadian Public Health Association
- Be creative and keep an open mind
  - Center for Teaching Excellence technology grants
- Learn about interdisciplinary work on campus
  - Journalism and Mass Communications: Convergence conference
  - Science and Health Communication Research Group
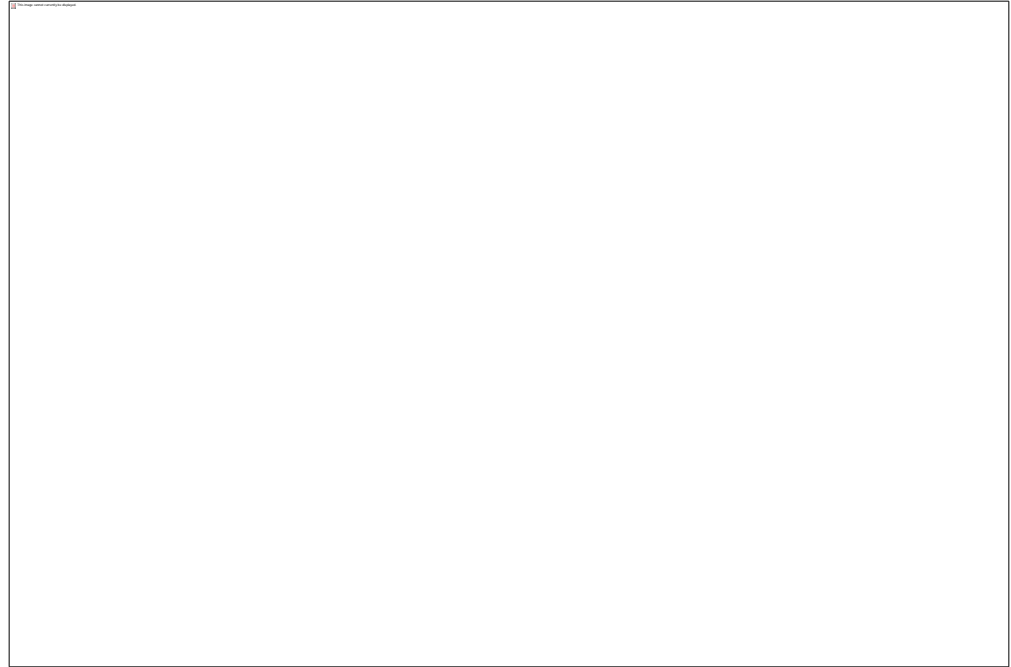 - Magellan Scholars' work
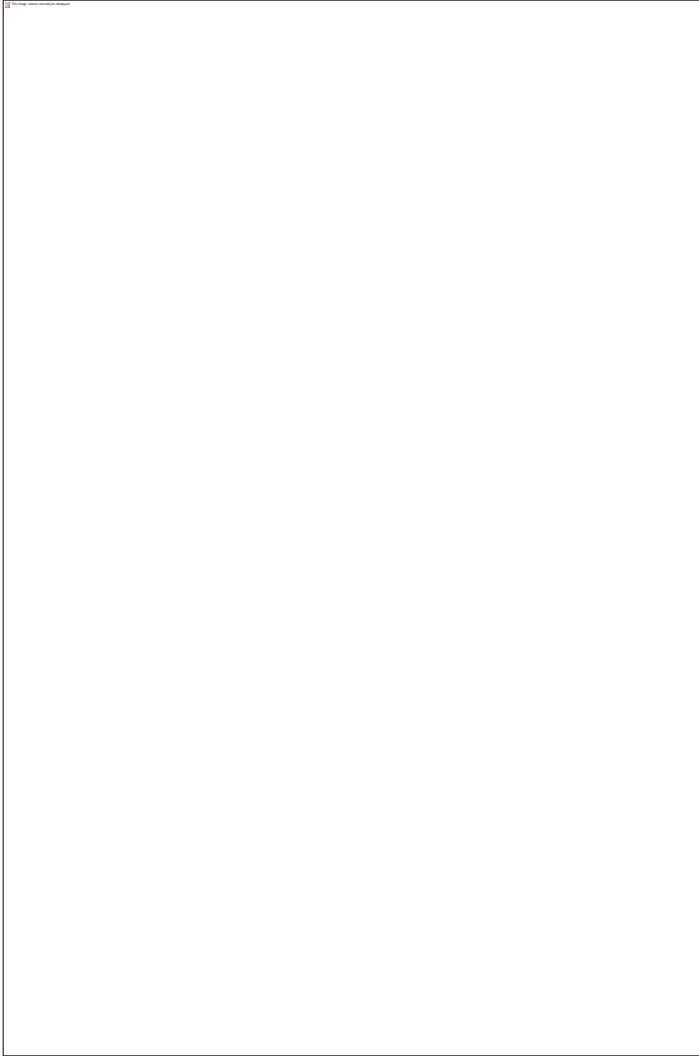
Health/Cancer Communication Resources

- **NCI Pink Book – Making Health Communication Programs Work**
  - http://www.cancer.gov/pinkbook
- **The Health Communication Unit (THCU)**
  - http://www.thcu.ca/index.htm
- **Pfizer Clear Health Communication Initiative**
  - http://www.pfizerhealthliteracy.com/
- **Journal of Health Communication**
  - http://www.tandf.co.uk/journals/titles/10810730.html
- **Health Communication journal**
  - http://www.tandf.co.uk/journals/hhth
- Thompson, T.L., Dorsey A.M., Miller, K.I., & Parrott, R. (Editors). (2003). **Handbook of Health Communication**. Mahwah, NJ: Lawrence Erlbaum Associates.

Health/Cancer Communication Resources

- **CDC Social Media Resources**
  - http://www.cdc.gov/socialmedia/
- **Harvard School of Public Health - Health Literacy Studies**
  - http://www.hsph.harvard.edu/healthliteracy/
- **American Academy on Communication in Healthcare**
  - http://www.aachonline.org/
- **Pew Internet and American Life Project**
  - http://pewinternet.org/
- **Center for Digital Storytelling**
  - http://www.storycenter.org
- **American Public Health Association Health Communication Working Group**
  - http://www.apha.org/membergroups/sections/aphasections/phehp/HCWG/

Questions?
How does health communication fit in to your work? Let's percolate!

Have a relaxing afternoon!