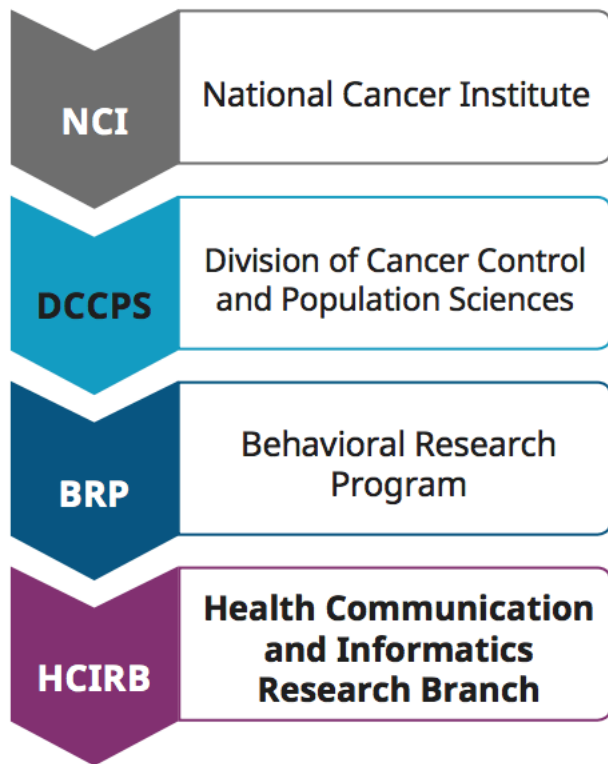


The National Cancer Institute's Portfolio of Research on Health Literacy and Communication in Oncology and Priorities for Future Research



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Mission

The Health Communication and Informatics Research Branch (HCIRB) advances research on the processes and effects of communication and informatics across the cancer control continuum.



Health Literacy and Health Disparities



Behavioral Informatics



Media Effects



Social Media and Technology-Mediated Communication



Public Health Communication Environment

Health Literacy at NCI

Summary

The branch supports research on health literacy, defined as “the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions” (Institute of Medicine, 2004). Limited health literacy is an important contributor to health disparities and frequently a barrier to medical screening, treatment, health-related quality of life, and cancer communication. HCIRB encourages innovative research that examines the role of health literacy in public health and clinical cancer care. Scientific priorities include testing the effect of tailored and targeted communication, understanding the digital divide and its impact on health disparities, developing strategies for communicating uncertain and complex cancer information to diverse and limited health literacy populations, and applying mixed methods approaches to investigate challenges related to limited health literacy.

Health Disparities

- A health disparity is “[a] particular type of health difference that is closely linked with social or economic disadvantage.”
- Health disparities **adversely affect** groups of people who have **systematically** experienced greater social/economic obstacles to health
 - Racial or ethnic group;
 - religion;
 - socioeconomic status;
 - gender;
 - age;
 - mental health;
 - cognitive, sensory, or physical disability;
 - sexual orientation;
 - geographic location;
 - or other characteristics historically linked to discrimination or exclusion

<https://www.cancer.gov/about-cancer/understanding/disparities>

Advancing Health Equity and Examination of Social Determinants of Health



Health Literacy



The Cancer Control Continuum

FOCUS					
Etiology	Prevention	Detection	Diagnosis	Treatment	Survivorship
<ul style="list-style-type: none"> • Environmental factors • Genetic factors • Gene-environment interactions • Medication (or pharmaceutical) exposure • Infectious agents • Health behaviors 	<ul style="list-style-type: none"> • Tobacco control • Diet • Physical activity • Sun protection • HPV vaccine • Limited alcohol use • Chemo-prevention 	<ul style="list-style-type: none"> • Pap/HPV testing • Mammography • Fecal occult blood test • Colonoscopy • Lung cancer screening 	<ul style="list-style-type: none"> • Shared and informed decision-making 	<ul style="list-style-type: none"> • Curative treatment • Non-curative treatment • Adherence • Symptom management 	<ul style="list-style-type: none"> • Coping • Health promotion for survivors
Cross-Cutting Areas: Communications Surveillance Health Disparities Decision-making Epidemiology Health Care Delivery Dissemination of Evidence-based Interventions Measurement					

A large, stylized blue chevron graphic pointing to the right, composed of two overlapping shapes, occupies the left side of the slide.

NCI Portfolio in Health Literacy and Future Directions

Background

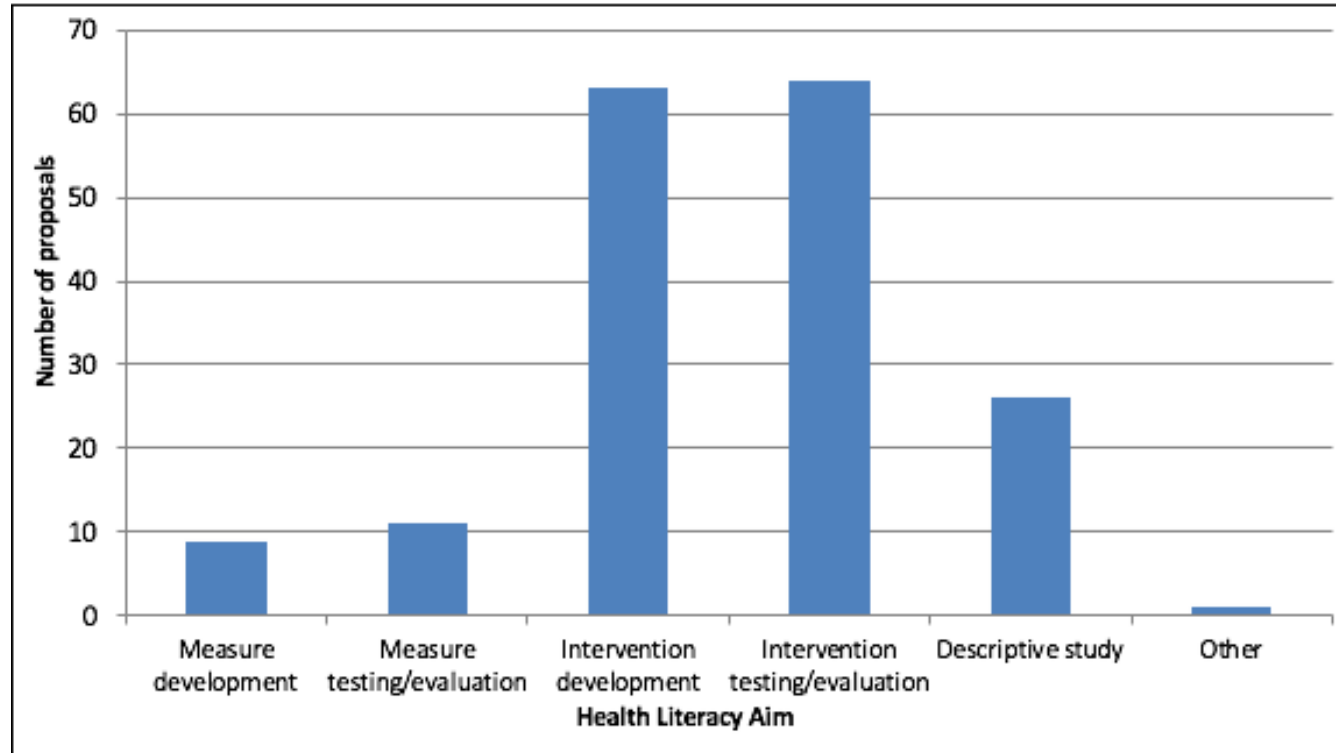
- Health literacy (HL): “The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (HHS)
- NCI has partnered with 11 other ICs and offices at NIH to issue health literacy funding opportunity announcements (FOAs)
- “Understanding and Promoting Health Literacy” first issued in 2004; reissued in 2007, 2010, and 2013; expired in 2016
- Present focus is on priority cancer prevention and control outcomes and health literacy as a cross cutting health communication research agenda

Portfolio Analysis

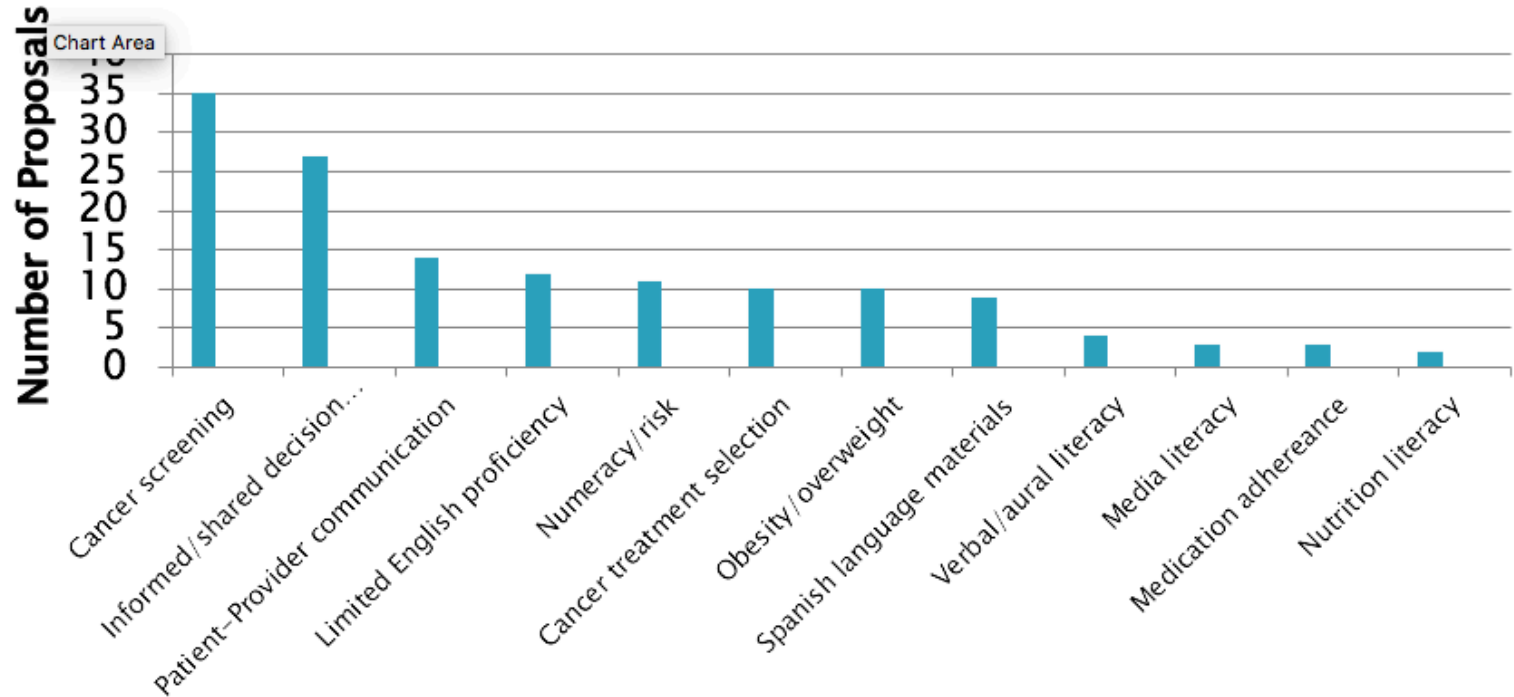
- Thematic analysis of project abstracts from 2010 and 2013
 - 96 proposed projects included in analysis
 - NCI indicated as the primary IC in 75% of project proposals (n=72)
 - Coded for primary aims, research domains, HL definition/conceptualization, populations, cancer focus, and technology



Health Literacy as the Primary Aim



Primary Cancer Prevention and Control Outcomes



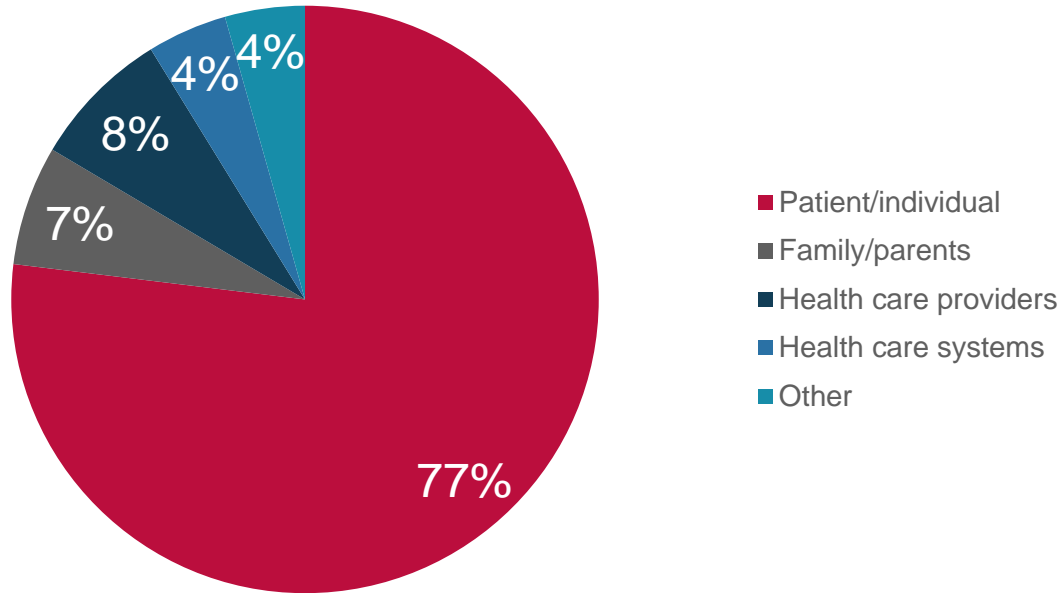
Future Opportunities: Precision Medicine, Genomics, Clinical Trials, Digital, Financial

Health Literacy and Implementation and Dissemination Science



Multi-Level Health Communication

64/96 proposals (67%) contained the development and/or testing of an intervention

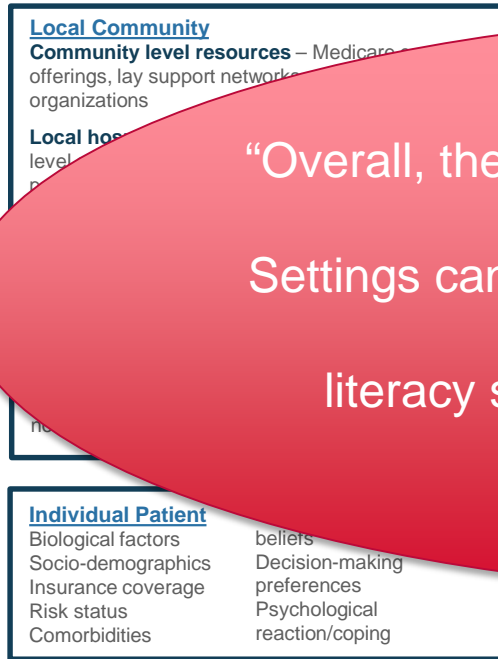


Most of the studies examined only one level,

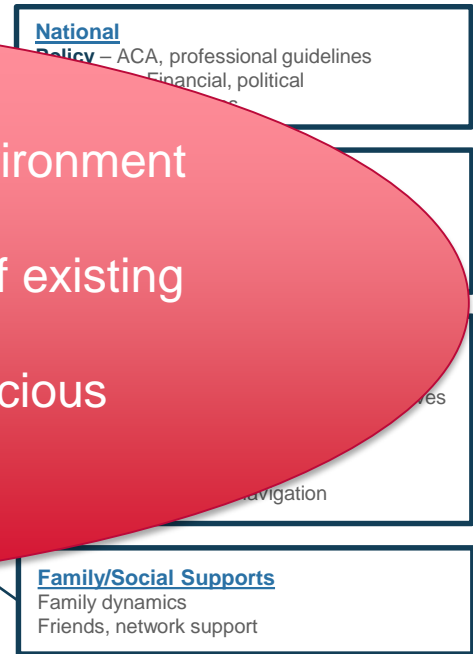
if we want to address Health Communication Inequalities, including at least more than two levels of a multi-level framework are needed.

Need to understand mechanisms across levels and contexts

“Overall, the physical, social, and normative environment of health care Settings can inhibit or facilitate the application of existing literacy/health literacy skills as well as the practice of efficacious communication efforts”
(Rudd, 2018)



Improved cancer-related outcomes



* Figure design adapted to fit page

Taplin, Stephen H et al. “A multilevel research perspective on cancer care delivery: the example of follow-up to an abnormal mammogram.” *Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology* vol. 21,10 (2012): 1709-15.

Intersection between Technology and Health Literacy

- In 2010 majority of proposals (58%) included some type of technology, by 2013 it was 78%.
- 21 forms of technology
- Most common
 - Internet/website: 14%
 - Video: 10%
 - Social media: 5%
 - Text messaging: 4%
 - Computer: 4%
 - Dashboards: 4%
 - Electronic health records: 4%





Intersection between Technology and Health Equity

Communication inequality refers to differences in the generation, manipulation, and distribution of Information among social groups, as well as differences in: (1) access to and use of information channels, (2) attention to media content, (3) recall, knowledge, and comprehension, and (4) capacity to act on relevant information among individuals (Viswanath 2006).

Digital inequalities and why they matter

Laura Robinson, Shelia R. Cotten, Hiroshi Ono, Anabel Quan-Haase, Gustavo Mesch, Wenhong Chen, ...show all
Pages 569-582 | Received 16 Jan 2015, Accepted 16 Jan 2015, Published online: 16 Mar 2015

Download citation | <https://doi.org/10.1080/1369118X.2015.1012532>

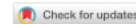


The first-level digital divide shifts from inequalities in physical access to inequalities in material access

Alexander JAM van Deursen, Jan AGM van Dijk

First Published September 7, 2018 | Research Article

<https://doi.org/10.1177/1461444818797082>



Future Directions to Reduce Communication Inequalities

- Reduce Communication Inequalities, including examination of the intersection between health literacy and digital health
- Multi-level and Multi-component interventions that include health literacy in at least one of two or more "levels" or components
- Inclusion of participatory methods in defining health literacy interventions and across patient, provider and organizational contexts
- Examination of health literacy in dissemination and implementation research and iterative approaches to understand behavior change
- In examination of settings and contexts where the research is occurring, making sure we are not reinforcing health inequalities and disparities

Select Funding Opportunities

Mechanism for Time-Sensitive Drug Abuse Research
[PAR-19-064](#) (R21 Clinical Trial Optional)

Contact: Kelly Blake
kelly.blake@nih.gov

Expiration Date: Nov. 9, 2021

End-of-Life and Palliative Care Health Literacy:
Improving Outcomes in Serious, Advanced Illness
[PAR-18-498/PAR-18-499](#) (R01/R21 Clinical Trial Optional)

Contact: Wen-Ying Sylvia Chou
wen-ying.chou@nih.gov

Expiration Date: May 8, 2021

Innovative Approaches to Studying Cancer
Communication in the New Media Environment
[PAR-18-638/PAR-18-639](#) (R01/R21 Clinical Trial Optional)

Contact: Kelly Blake
kelly.blake@nih.gov

Expiration Date: June 14, 2019

NIH-NSF joint funding opportunity: [Smart and Connected Health](#)

Contact: April Oh
april.oh@nih.gov

Expiration Date: Dec. 11, annually

Leveraging Health Information Technology (Health IT) to
Address Minority Health and Health Disparities
[PAR-19-093](#) (R01 Clinical Trial Optional)

Contact: April Oh
april.oh@nih.gov

Expiration Date: March 5, 2021

Modular R01s in Cancer Control and Population Sciences
[PAR-18-869](#) (R01 Clinical Trial Optional)

Contact: Scott Rogers
rogerssc@mail.nih.gov

Expiration Date: March 9, 2021

A complete list of BRP funding opportunities can be found at cancercontrol.cancer.gov/brpfunding.
Meet HCIRB-funded grantees at cancercontrol.cancer.gov/brpgrantees.



Thank you!

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Questions:

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@NCIBehaviors

An estimated 26.9% of U.S. college students and 25.4% of college faculty and staff are protected by campus [#smokefree](#) or tobacco-free policies and state laws. Read more in a new paper by BRP's Kelly Blake and collaborators: go.usa.gov/xyDxp
[#TobaccoControl](#)

Percent of Accredited, Degree-Granting Institutions with 100% Smoke-Free or 100% Tobacco-Free Campus Protections

Map showing the percentage of accredited, degree-granting institutions with 100% smoke-free or 100% tobacco-free campus protections by state. The map is color-coded by percentage: 0-10% (light blue), 11-20% (medium blue), 21-30% (dark blue), 31-40% (very dark blue), 41-50% (black), 51-60% (dark grey), 61-70% (medium grey), 71-80% (light grey), 81-90% (white), 91-100% (yellow). The map shows that the majority of states have 0-10% of institutions with 100% smoke-free or tobacco-free campus protections.



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