

Cancer Prevention and Control in the Changing Communication Landscape

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The changing communication landscape, characterized by social media, wikis, mobile technologies, and a host of other emerging, multidirectional communication channels, has dramatically altered the way we conceptualize and carry out health communication efforts related to cancer prevention and control. In this evolving environment, traditional health promotion models are increasingly challenged, while new and innovative communication approaches are developed, implemented, and evaluated. The rapid dissemination of cancer information through online media channels has influenced health journalism, and in clinical care, health information technologies are altering the ways in which providers and patients interact with one another and with health information.

Researchers and practitioners have begun to examine the impact of the changing communication environment on cancer-related knowledge, attitudes, and behaviors across the cancer control continuum. Empirical evidence has begun to emerge, though many questions remain unanswered: How is the participative online environment affecting public health and clinical care? How is user-generated content shaping cancer-related health journalism and media campaigns? How can emerging technologies be leveraged to improve cancer control efforts? What are the outcomes of social media-based interventions for various populations? What is the impact of these new technologies and information channels on communication inequality and cancer disparities?

To highlight emerging evidence for these and other questions, the National Cancer Institute's (NCI) Health Communication and Informatics Research Branch (HCIRB), a part of the Behavioral Research Program within the Division of Cancer Control and Population Sciences, released an open call inviting investigators from a range of disciplines to contribute empirical work, commentaries, or systematic reviews to this issue of *JNCI: Monographs*. The call was met with an enthusiastic response represented by the submission of more than 100 abstracts followed by more than 60 competitive manuscripts, and a rigorous, multitiered peer review process that resulted in the final 16 innovative, thought-provoking papers that comprise this monograph.

HCIRB last sponsored a cancer communication-related issue of *JNCI* in 1999, titled, "Cancer Risk Communication: What We Know and What We Need to Learn." That issue followed a workshop on the same topic and consisted mostly of invited articles

by workshop attendees. This most recent installment is meant to have a broader scope, with the goal of laying the foundation for the next generation of cancer communication research. Contributions address the influence of the changing communication landscape in three distinct domains: 1) clinical care and patient support, 2) health journalism and mass media, and 3) cancer prevention and control interventions. The selected papers highlight the use of innovative communication strategies and technologies in cancer prevention and control. Specifically, a key theme in this issue is social media, characterized by information sharing, interoperability, and participation. Social and participative communication technologies enable users to interact and collaborate in a dialogue as creators of user-generated content, in contrast to traditional communication endeavors (eg, websites or text messaging systems) where users are limited to consuming content passively.

The issue begins with a grant portfolio analysis by Ramírez et al. (1) that examines trends in NCI funding for cancer communication research over more than a decade. The analysis includes funded grant proposals resultant of NCI's "Extraordinary Opportunity in Cancer Communication," as initially identified in NCI's fiscal year 2001 budget (2) and further delineated in future budgets, prioritizing communication science as one critical mission of the institute. The "extraordinary opportunity" designation was the launching pad for initiatives such as the Health Information National Trends Survey (HINTS), the Centers of Excellence in Cancer Communication Research (CECCR) P50 and P20 grant program, as well as investments in extramural research aimed at bridging the digital divide. All of these initiatives, we believe, helped orient the research community to the opportunities enabled by the new communication environment and helped precipitate submission of the high-quality grants enumerated in the Ramírez et al. review.

Other highlights of the monograph include papers led by Kim (3) and Portier (4) that feature methodological considerations for cancer communication research in the social media landscape. Papers led by Gollust (5), Post (6), Peterson (7), and Namkoong (8) examine how the emerging communication environment is shaping clinical care and patient support. Contributions by Kim (9) and Noar (10) demonstrate innovative methods for health journalism and mass media research and speak to the implications of the changing mass media environment on cancer prevention and control efforts, and Smith et al. (11) outline directions for research in this

understudied area. In the domain of cancer prevention and control interventions, papers authored by Viswanath (12), Post (13), and An (14) offer evidence for using Web 2.0 intervention strategies to reach target populations, and a literature review by Thompson (15) summarizes how social media interventions are being used to target minority populations. Finally, as a closing piece, cancer communication science leaders at NCI, the Centers for Disease Control and Prevention, and the American Cancer Society outline a “blueprint” for coordinating efforts across the national cancer program by leveraging the new capabilities afforded by advances in communication science (16).

As the communication environment continues to evolve and as cancer information and user-generated content become increasingly ubiquitous, investigators will continue to face design and measurement challenges for studies that attempt to isolate the effects of communication on intended cancer control outcomes. We are gratified by the enthusiastic response this issue generated in the scientific community, and it is our hope that the papers in this monograph will provide insight into cutting-edge methods and study designs for investigating the use of multidirectional communication in cancer prevention and control.

References

- Ramírez AS, Galica K, Blake KD, Chou W-YS, Hesse BW. Cancer communication science funding trends, 2000–2012. *J Natl Cancer Inst Monogr.* 2013;47:133–139.
- The Nation’s Investment in Cancer Research: A Budget Proposal for Fiscal Year 2000. Washington, DC: US Dept of Health and Human Services; 1999.
- Kim A, Hansen H, Murphy J, Richards A, Duke J, Allen J. Methodological considerations in analyzing Twitter data. *J Natl Cancer Inst Monogr.* 2013;47:140–146.
- Portier K, Greer GE, Rokach L, et al. Understanding topics and sentiment in an online cancer survivor community. *J Natl Cancer Inst Monogr.* 2013;47:195–198.
- Gollust SE, Dwyer AM. Ethics of clinician communication in a changing communication landscape: guidance from professional societies. *J Natl Cancer Inst Monogr.* 2013;47:147–152.
- Post DM, Shapiro CL, Cegala DJ, et al. Improving symptom communication through personal digital assistants: the Communicating Health Assisted by Technology Project. *J Natl Cancer Inst Monogr.* 2013;47:153–161.
- Peterson SK, Shinn EH, Basen-Engquist K, et al. Identifying early dehydration risk in home-based sensors during radiation treatment: a feasibility study with head and neck cancer patients. *J Natl Cancer Inst Monogr.* 2013;47:162–168.
- Namkoong K, McLaughlin B, Yoo W, et al. The effects of expression: how providing emotional support online improves cancer patients’ coping strategies. *J Natl Cancer Inst Monogr.* 2013;47:169–174.
- Kim HS, Lee S, Cappella JN, Vera L, Emery S. Content characteristics driving the diffusion of antismoking messages: implications for cancer prevention in the emerging public communication environment. *J Natl Cancer Inst Monogr.* 2013;47:182–187.
- Noar SM, Ribisl KM, Althouse BM, Willoughby JF, Ayers JW. Using digital surveillance to examine the impact of public figure pancreatic announcements on media and search query outcomes. *J Natl Cancer Inst Monogr.* 2013;47:188–194.
- Smith KC, Niederdeppe J, Blake KD, Cappella JN. Advancing cancer control research in an emerging news media environment. *J Natl Cancer Inst Monogr.* 2013;47:175–181.
- Viswanath K, McCloud R, Minsky S, et al. Internet use, browsing, and the urban poor: implications for cancer control. *J Natl Cancer Inst Monogr.* 2013;47:199–205.
- Post SD, Taylor SC, Sanders A, Goldfarb J, Hunt YM, Augustson EM. If you build (and moderate) it, they will come: the smokefree women Facebook page. *J Natl Cancer Inst Monogr.* 2013;47:206–208.
- An LC, Demers MRS, Kirch M, et al. A randomized trial of an avatar-hosted multiple behavior change intervention for young adult smokers. *J Natl Cancer Inst Monogr.* 2013;47:209–215.
- Thompson HS, Shelton RC, Mitchell J, Eaton T, Valera P, Katz A. Inclusion of underserved racial and ethnic groups in cancer intervention research using new media: a systematic literature review. *J Natl Cancer Inst Monogr.* 2013;47:216–223.
- Hesse BW, Cole GE, Powe BD. Partnering Against Cancer Today (PACT): a blueprint for coordinating efforts through communication science. *J Natl Cancer Inst Monogr.* 2013;47:233–239.

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