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Strategic use of communication to market cancer prevention and control to vulnerable populations

Gary L. Kreps*

Abstract: There are significant challenges to communicating relevant cancer prevention and control information to health care consumers due both to the complexities of the health information to be communicated and the complexities of health communication, especially with vulnerable populations. The need for effective communication about cancer risks, early detection, prevention, care, and survivorship is particularly acute, yet also tremendously complex, for reaching vulnerable populations, those groups of people who are most likely to suffer significantly higher levels of morbidity and mortality from cancers than other segments of the population. These vulnerable populations, typically the poorest, lowest educated, and most disenfranchised members of modern society, are heir to serious cancer-related health disparities. Vulnerable populations often have health literacy difficulties, cultural barriers, and economic challenges to accessing and making sense of relevant health information. This paper examines these challenges to communicating relevant information to vulnerable populations and suggests strategies for effectively using different communication media for marketing cancer prevention and control to reduce health disparities and promote public health.

Keywords: Cancer prevention and control, health disparities, strategic communication, vulnerable populations

There are many significant health risks that confront the public today, including the risk of heart disease, cancer, diabetes, stroke, HIV/AIDS, and other serious health threats (Singh & Hiatt, 2006; Kunitz & Peis-Katz, 2005). Effective health communication is needed to help those members of the public who are at greatest risk (most vulnerable)

* Department of Communication, George Mason University, Fairfax, VA (gkreps@gmu.edu).

for these threats to recognize risks, minimize the likelihood of confronting health risks, and to respond effectively to these potential health problems (Haider, 2005; Kreps, 2003). It is particularly important to effectively communicate clear, accurate, and motivating infonnation to vulnerable populations about cancer risks, cancer prevention, and cancer care due to both the serious public health threats that cancers pose and to the misinformation and resulting confusion concerning the causes, strategies for early detection, and best treatments for cancers that often lead to late cancer diagnoses and suboptimal cancer outcomes for many individuals (O'Hair *et al.,* 2007; Kreps *et al.,* 2007; Mayer *et al.,* 2007). Cancer is a particularly complex and dangerous set of diseases that present in many different ways, are often difficult to detect, and demand unique, intensive, and timely medical interventions (O'Hair *et al.,* 2007; Mayer *et al.,* 2007). Even the debilitating physical and psychological effects of cancer treatments can threaten health and well-being (Mayer *et al.,* 2007). Unfortunately, current efforts to educate the public about the complexities of cancer prevention, detection, treatment, and control are insufficient to help consumers make informed decisions about their best health care choices (O'Hair *et al.,* 2007; Kreps *et al.,* 2007; Mayer *et al.,* 2007). Strategic health communication is needed to provide consumers with the information and support needed to reduce cancer threats and improve cancer-related health outcomes (Kreps & Bonaguro, 2007). Strategic communication here refers to the planned application of key social marketing principles in health communication efforts, such as conducting in-depth audience analyses to learn more about and to segment target audiences, adapting persuasive message design and delivery to the unique characteristics and orientations of targeted groups, and introducing culturally-sensitive interventions for reinforcing the adoption of health behaviors by targeted audiences (Kotier & Lee, 2005; Andreasen, 1997; Albrecht, 1996; Maibach, 2002).

The need for effective strategic communication about health risks and benefits is particularly acute, yet also tremendously complex, for reaching the most vulnerable health care consumer populations who are at greatest risk to suffer significantly higher levels of cancer-related morbidity and mortality than other segments of the population (Kreps, 2005a; Thomas *et al.,* 2004). These vulnerable populations, typically the poorest, lowest educated, and most disenfranchised members of modern society, are heir to serious disparities in cancer-related health outcomes, resulting in alarming levels of morbidity and mortality, especially in comparison to the rest of the public (Kreps, 2005; Ashton *et al.,* 2003; Freeman, 2004). Vulnerable populations often have significant health literacy difficulties and are challenged by intercultural communication barriers to accessing and making sense of relevant health information (Kreps, 1996a; Chang *et al.,* 2004; Kreps, 2005b). These consumers are often confused and misinformed about the causes of cancers, prevention of cancers, strategies for early detection of cancers, and the optimal treatments for cancers which leads to serious errors, omissions, and resultant health problems (Kreps, 2007).

Members of vulnerable population, who suffer significant health disparities, need relevant, accurate, and timely health information about cancer prevention and control (Gazmarian *et al.,* 2003; Kreps & Massimilla, 2002; Institute of Medicine, 1999).

Members of these vulnerable groups often include elderly, immigrant, socioeconomically deprived, and minority health care consumers (Ashton, 2003; Kreps, 1986, 1990). Furthermore, many vulnerable immigrant consumers in the US are non-native English speakers and encounter serious language barriers and health literacy challenges that necessitate adaptive, culturally-sensitive communication strategies to provide them with needed health information (Hardin, 2005; Kreps, 2006; Parker & Kreps, 2005). In addition, consumers with serious and chronic medical conditions, as well as individuals who confront physical and mental disabilities, are often particularly vulnerable to health risks and have unique communication needs that have to be adequately addressed to provide them with the relevant health infonnation they need to preserve their health (Kreps & Kunimoto, 1994). This article examines social marketing based strategies for developing culturally-sensitive communication programs that can provide vulnerable consumer populations with the relevant health information they need to effectively evaluate cancer-related health risks, make informed health care decisions, and engage in health behaviors that will enable them to reduce cancer incidence and improve cancer outcomes. A large body of research literature illustrates that culturally-sensitive health communication intervention programs are likely to be effective at reaching and influencing vulnerable populations because these programs are designed to be relevant, interesting, and easily understood by target audiences (Friedman & Hoffman-Goetz, 2006; Houston *et al.,* 2002; Kreps, 1996a, 2005a, 2005b, 2006; Kreps & Kunimoto, 1994; Kreps & Massimilla, 2002; Lee *et al.,* 2006; Liang *et al.,* 2004; Muturi, 2005; Santhya & Dasvarma, 2002; Wood, 1989).

Focus on cultural issues

Consumers' unique cultural backgrounds and orientations have powerful influences on their communication practices that must be carefully accounted for in strategic health communication efforts (Kreuter & McClure, 2004). It is critically important to identify and examine the relevant cultural issues that are likely to influence the ways consumers, particularly members of vulnerable populations, respond to communication about cancer risks, prevention, detection, and control (Chew *et al.,* 2004; Kreps, 2006; Kreps & Kunimoto, 1994). Several of the key cultural variables that influence health communication outcomes include the unique health beliefs, values, norms, and expectations that different consumers bring to health situations (Kreps & Kunimoto, 1994). It is also important to assess consumers' culturally-based language skills and orientations, their health literacy levels, their motivations to seek health information, and their unique media use patterns (Youmans & Schillinger, 2003). Examination of these key cultural factors provides relevant information for determining how to best design and deliver key messages for effectively communicating complex health information to diverse populations (Chew *et al.,* 2004; Kreps, 2006; Kreps & Kunimoto, 1994). Culturally-sensitive health communication is essential to providing vulnerable consumers with relevant information about cancer risks, prevention, early detection, treatment, and survivorship (Betancourt *et al.,* 2003).

Strategic health communication

Health education messages must be carefully designed to be effective. The critical factor in strategic message design is adapting health education messages to meet the unique needs and communication orientations of specific audiences. This means that effective health communication efforts should adopt a consumer orientation to health education (Kreps, 1996b). Careful audience analysis is essential to identifying the salient consumer characteristics for guiding message design (Kreps, 2002). Messages should be designed to appeal to key beliefs, attitudes, and values of targeted audience members, using familiar and accepted language, images, and examples to illustrate key points (Kreps, 1990). It is wise to pre-test sample health education messages with representatives of targeted audiences before implementing health communication intervention programs (Maibach & Parrott, 1995). Formative evaluation data gathered through message pretesting is essential to refining health education messages (Maibach & Parrott, 1995). This is a form of usercentered design, where health education messages are shaped and refined by representatives of the actual audiences targeted in health communication interventions (Kiinzie *et al.,* 2002). Pre-testing is also a strategy for increasing audience participation in health education efforts, which can increase not only the cultural sensitivity of health communication efforts, but can also enhance audience receptivity and cooperation with the health promotion effort (Minkler, 2000). Involving consumers, their family members, key members of their social networks, and community representatives can increase the support and social encouragement for paying attention to, accepting, and utilizing health education messages (Maibach & Parrott, 1995; Minkler & Wallerstein, 2002).

To be most effective it is wise to plan multiple message strategies for reaching vulnerable audiences with health education information, utilizing the communication principles of redundancy and reinforcement to enhance message exposure and impact (Donohew *et al.,* 1998). Multiple messages can help to capture audience attention, reinforce message content, and iliustrate key health education concepts. The use of vivid imagery in health communication interventions through the use of narrative and visual illustrations can also reinforce message content, especially to audiences with limited health literacy and problems with numeracy that make it difficult for them to understand statistics and numerical risk estimates (Maibach & Parrott, 1995; Dowse & Ehlers, 2005; Hwang *et al.,* 2005; Knapp *et al.,* 2005). For example, the use of narratives and visual illustrations that are familiar and appealing to different audiences can often enhance attention to health promotion messages and increase the influence of these messages (Kreuter & McClure, 2004; Maibach & Parrott, 1995).

A powerful strategic communication approach to designing health messages that meet the unique needs of individuals is the use of tailored communication systems, where relevant background information from an individual informs customized use of messages for that person (Rimer & Kreuter, 2006). Typically, tailored communication systems employ interactive computer systems that gather relevant background information from consumers on key communication variables through questions posed to these individuals, including questions eliciting information about individual demographic,

psychographic, and health belief/behavior information. Once key background information is gathered from the individual, the information is used to select specific messages stored in a library of messages that match the unique background features of users. In this way, information about the individual health risks and orientations of a specific consumer, for example an elderly, Japanese, female health care consumer with a history of breast cancer and diabetes, will automatically be selected and content-appropriate heallh information will be provided by the tailored health information system to the user. As the consumer continues to interact with the tailored health information system, providing the system with additional background information, the computer program is able to continually refine information responses to this consumer to match his or her unique personal characteristics and interests.

In addition to developing strategic messages that match the cultural orientations of at-risk consumers, it is critically important to determine the most effective communication channels for reaching targeted populations of consumers. The best communication channels to utilize are those that are close, familiar, and easily accessible for targeted audience members (Maibach *et al.,* 1993). For example, the use of indigenous media, such as community newspapers, local radio stations, and cable television programs targeted at specific populations, have been shown to be effective media channels for disseminating health information and influencing health behaviors (Friedman & Goetz, 2006; Frates *et al.,* 2006; Vargas & DePyssler, 1999; Pickle *et al.,* 2002; Anderson & Huerta, 2000; Farr *et al.,* 2005; Roberto *et al.,* 2002; Sun *et al.,* 2007). It is important to employ communication channels that are easy for members of the intended audience to use. It would be a serious error to develop an online health education website for consumers who do not have access to computers and are not sophisticated computer users. Communication channels that are dramatic and memorable can have strong influences on audience attention and interpretation of health messages (Knapp *et al.,* 2005). Health educators should consider using communication channels that can be accessed over time, channels that can retain important information for later review, and even interactive channels that enable consumers to ask questions and receive clarifications about complex health information (Maibach & Parrott, 1995; Maibach *et al.,* 1993).

It is important to decide what the best sources are for delivering key messages about potential cancer risks, prevention strategies, opportunities for early detection, and optimal treatment modalities (Kreuter & McClure, 2004). It is crucial to identify the most credible sources of health information for members of the intended audiences (Maibach *et al.,* 1993). Decisions need to be made about whether it is best to utilize familiar sources of information, expert sources, or perhaps peer communication may be most influential with different audiences. Just as with the use of strategic messages, it is a good idea to pre-test different information sources and different communication channels with target audiences (Maibach & Parrott, 1995).

Evaluating communication interventions

A critical juncture in communicating cancer risk, prevention, detection, and treatment infonnation to vulnerable audiences is evaluating how well different communication strategies work to educate targeted audiences about important health issues (Maibach *et al.,* 1993). It is important to assess how well consumers really understand the risks and benefits that are being communicated and what difference communication programs are making in promoting informed consumer decision-making. A first step is to establish clear baseline measures of consumer understanding before introducing new health education programs. These baseline measures can be used as a starting point for tracking the influences of communication efforts (Kreps, 2002). Feedback mechanisms, such as consumer surveys, focus groups, hotlines, help-desks, and comment cards, should be introduced as integral parts of communication interventions for tracking and evaluating consumer understanding of health messages. The data gathered through these feedback mechanisms can be used to refine health communication programs and track progress in health education.

Policy and practice implications for strategic communication

What policies and best practices are needed to guide effective communication of cancer control information to vulnerable populations? First and foremost, communication interventions to educate vulnerable populations need to be strategic and evidence-based. This is too complex a process to be handled without careful planning and data. For example, a key objective listed in the Department of Health and Human Service's Health Communication chapter (Chapter 11) of Healthy People 2010 suggests increasing the proportion of health communication activities that are based upon research and incorporate evaluation activities (US Department of Health and Human Services, 2000). The quality of health promotion programs would improve dramatically if public health departments and government agencies that develop communication interventions for vulnerable populations would embrace this policy recommendation.

It is also critical for health educators to adopt culturally sensitive communication practices to reach and influence vulnerable populations. Community participative communication interventions are a valuable strategy for integrating consumers' perspectives into health education efforts and building community commitment to health communication interventions (Minkler, 2000; Minkler & Wallerstein, 2002). Public health promotion policies can be established to guide application of comprehensive audience analysis data to the strategic development communication interventions that are responsive to the unique cultural orientations of targeted vulnerable audiences. It is also a good idea to incorporate health communication training for both health care providers (educators) and consumers to enhance the quality of cross-cultural communication efforts (Kreps, 2005b; Coleman, 2003).

It is important for health promoters to consider using multiple relevant communication channels and media for health communication interventions for vulnerable audiences. For example, the introduction of new communication technologies, such as

interactive and tailored information systems, has the potential to support health education efforts targeted for audiences who are comfortable with and actively utilize these communication technologies (Thomas *et al.,* 2004). Evidence suggests that when using new information technologies for health promotion efforts, care must be taken to provide relevant instruction, training, and equipment maintenance to support technology users (Kreps *et al.,* 2007).

Several lessons that can guide the development and introduction of policies to support health communication efforts with vulnerable populations have been learned from past efforts to increase the effectiveness of health communication interventions (Kreps 2005b, 2006, Parker & Kreps, 2005). These include:

- Involving and empowering vulnerable and at-risk consumers in health communication efforts;
- Developing inter-organizational partnerships to support intervention efforts;
- Providing appropriate training and support for both consumers and providers;
- Designing culturally appropriate messages and materials for communication efforts;
- Conducting strategic media planning to match communication strategies (such as designing compelling messages, identifying credible information sources, and employing the most effective media channels) to the cultural orientations and communication predispositions of targeted vulnerable audiences;
- Designing relevant, interesting, and compelling health promotion messages, story-lines, and images for use in campaigns that will capture audience attention, generate the greatest message exposure, and have powerful influences on targeted vulnerable populations;
- Delivering campaign messages via strategic multiple channels of communication (such as print, radio, television, online, and interpersonally) that are familiar, attractive, and easy for target audience members to use;
- Building redundancy into communication campaigns to reinforce key messages over time by utilizing different, yet complementary, delivery channels and messages;
- Focusing on the family and the community for delivering and reinforcing messages, and;
- Providing consumers with choices and options for promoting their health.

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