Encouraging healthy sexual and reproductive health behaviors

Healthy behaviors can help lead to healthier lives. As in many health fields, sexual and reproductive health programs use strategies that encourage healthy behaviors to complement biomedical innovations. For example, fertility control methods have enabled couples to space births, but the practice and sustained use of family planning are largely achieved through behavior change interventions. Sexual and reproductive health is highly influenced by social and cultural factors, however, so changing related behaviors is challenging—as is defining, measuring, and replicating successful communication approaches.

This edition of Outlook provides an overview of behavior change communication (BCC) interventions and illustrates how this field has both benefited from and challenged the development of appropriate communication interventions.

Overview of BCC

Human behavior is an essential factor in health. The primary focus of BCC is ensuring that human behavior contributes to positive health outcomes. Behavior change approaches have traditionally been guided by social and psychological theories and models of behavior change to help understand why people do what they do.1,2 While many of these theories focus on the individual as having control over change, some social science and development experts have questioned their effectiveness in guiding sexual and reproductive health across diverse cultures and settings.3–5 The theoretical foundation is expanding to include individual as well as societal and cultural changes; increasingly, programs are using community-level models that include participation, dialogue, and empowerment.6 These approaches strive to predict how a communication intervention can alter behavior to improve health.

Biomedical innovations often depend on human behavior for implementation and effective use. For example, the introduction of oral contraceptives in the 1960s was a major breakthrough for family planning. However, to be effective, pill-taking had to become part of women's daily behavior. In the 1970s, the provision of directive health messages—such as “remember to take your pill”—provided important reinforcement for this behavior. While this type of education effort continues to be part of health promotion campaigns, the assumptions used to guide BCC now recognize the need to consider the individual and the environment in which that person lives.1,2,7,8 This is especially apparent in the face of the HIV/AIDS epidemic, where behavior change is the mainstay of prevention programs.

The terminology has evolved as well. While “behavior change communication” is still used by many experts and organizations, new terms, such as strategic communication, communication for social change,9,10 and strategic behavioral communication11 have also been used to describe this field—in part to signify a revitalized approach to communication efforts that include community and social mobilization as part of the process.

BCC in the context of sexual and reproductive health

Sexual and reproductive health is based on social relationships. Influencing behavior
in this context requires a multifaceted approach to communication that takes the complexities of culture, gender, power, economics, emotions, and social skills into consideration. BCC efforts will not be effective if they focus solely on the individual while disregarding his or her situation and personal motivations.

Enabling and supporting positive behavior change in sexual and reproductive health requires action at several levels. Providing information and ensuring access to services and commodities are key steps in improving health, but they are not sufficient to bring about and maintain a desired change in behavior. They must be supported by social and cultural norms and may need to be supported by laws as well. For example, in Nepal, where abortion has been legalized, traditional norms and values still prohibit women from safely terminating unwanted pregnancies. Although laws have changed, research shows the opinions of husbands, mothers, and mothers-in-law often have not, and they exert strong influences on women’s behavior.12

**BCC processes**

Effective BCC processes use a variety of participatory and interactive tools to engage individuals in discussion of and reflection on their social, familial, and personal situations and to facilitate experience sharing (see box). This creates a foundation for understanding and choosing options for safer behaviors. Based on theories that explain and predict health behavior at various levels, an effective plan describes the desired health outcome, the behaviors needed to achieve that outcome, the interventions needed to stimulate the behaviors, and methods to evaluate the interventions.

Many frameworks that guide communication interventions for sexual and reproductive health share common elements, including a focus on both the individual and the community, community participation, use of data to guide decision-making, clear objectives, and ongoing evaluation to monitor and correct the health behavior change process. One such framework, the Pan American Health Organization’s Youth: Choices and Change Model, includes the following steps: identify the target group; identify the group’s needs and wants; identify the appropriate level of intervention (individual, interpersonal, organizational, community, public policy); identify other influential actors’ needs and wants (e.g., parents, teachers, peers); identify the theories that support the design of the intervention; and finally, translate theory into practice.14

This framework emphasizes the need to identify and distinguish between health behavior determinants (such as attitudes, perceived benefits, and intentions) and health determinants (such as social status, income, literacy, gender, and culture).

**Building confidence through communication**

The Entre Amigas project in Managua, Nicaragua, successfully increased young girls’ knowledge of reproductive health, fostered positive communication and relationships, and strengthened girls’ connections with their community. This project is an example of the new approaches to BCC interventions that are developed by local groups based on input from the target audience and the community.

The project used an integrated package of interventions—from puppet and television shows to engagement through girls’ soccer teams—to promote the health and development of 10- to 14-year-old girls, with an emphasis on sexual and reproductive health. Project activities focused on young girls and others influential in their lives, including their mothers, teachers, local health care providers, and community officials in a low-income area on the outskirts of Managua. Educational and recreational activities for the girls were complemented by learning and support sessions for mothers, training for teachers, and educational entertainment for the local community. Introducing new, young adolescent characters and their support networks into a popular televised soap opera, *Sexto Sentido*, provided a focus for conversation between adolescents, peers, and adults.

Comprehensive quantitative and qualitative monitoring and evaluation showed that the project significantly increased young girls’ self-esteem, knowledge of reproductive health risk behaviors, and discussion of reproductive health with friends. Project activities also were associated with significant increases in the girls’ communication with friends, mothers, providers, and community organizations. A cost analysis suggested that peer education, support to community networks, and mass media are feasible approaches to improving girls’ knowledge and encouraging healthy behaviors. The young girls who participated were leaders in the peer education program; contributors to a nationally televised soap opera; and full participants in the project’s design, implementation, and assessment. Empowering these young women to take charge of their own development was Entre Amigas’ greatest achievement.

**Communication tools**

BCC programs use various tools to provide information, inform decision-making, and encourage community participation for behavior change.1,15 The two main categories of communication—mass media and interpersonal—are often used together to reinforce a message. Use of multiple tools—for example, conveying a message on television, on the radio, and through clinic posters and brochures—can have a synergistic effect, especially if the tools are tied to a strategic framework and specific program goals and objectives. Furthermore, programs that establish a strong “brand” or identity can reinforce the unity of messages that come from different communication channels.
Mass media

Mass media—such as radio, television, and newspapers—have been used extensively to communicate messages that encourage healthy behaviors. A review of studies on the effectiveness of mass media campaigns for the promotion of HIV testing showed media strategies were effective, especially immediately after an intervention. In Uganda, men’s and women’s exposure to media messages about contraceptive use were found to be strongly associated with current use of a modern contraceptive and, among nonusers, with the intention to use a method in the near future.

Entertainment education integrates social messages into popular and traditional media—television, radio, storytelling, theater, cartoons, and music—for the dual purposes of educating and entertaining audiences. Entertainment education has been highly successful in legitimizing the discussion of sensitive sexual and reproductive health topics. The method can reach large audiences and be used in combination with other communication tools to reinforce messages.

Mass media have been most effective at increasing knowledge and awareness, but there is less evidence of impact on changes in behavior—perhaps because increasing knowledge is not sufficient to change sexual and reproductive health behaviors, or because such change takes time and project evaluations can only measure intermediate steps. For example, use of mass media to improve HIV/AIDS awareness and prevention in Nigeria found that those with high exposure to the three-year program were twice as likely as those with low exposure to know that condom use can reduce risk of HIV infection, but program exposure had no effect on condom use at last intercourse. In a multi-country study in Africa, combining mass media with face-to-face communication proved to be a more effective way to influence changes in behavior.

Interpersonal communication

Interpersonal communication is one of the most important components of BCC. Discussing and processing information is essential to both increasing knowledge and fostering healthy behaviors. Photo: Siri Wood.
members. The story ending is left open, and the community audience is given the opportunity to debate the situation and participate in the conclusion. These events enable individuals and groups to discuss once-taboo subjects, such as HIV and sex, and help lay the groundwork for societal changes in attitudes and social norms.

**Social marketing**

Social marketing uses many of the tools and principles of product marketing (including mass media) to "sell" ideas, attitudes, and behaviors related to the sale of a commodity or service. The idea of market segmentation and the benefits of audience research to identify and understand the target group are two of the key contributions of social marketing. In many cases, there is a product—such as a contraceptive—to sell, but social marketing focuses on benefits for the target audience, rather than profit. In Zimbabwe, Population Services International (PSI) launched the ProFam network to increase informed demand for reproductive health services in the private sector. Clinics and pharmacies bearing the ProFam logo sell PSI-branded contraceptive products and are staffed by ProFam-trained staff. These efforts have been supported by media campaigns that encourage couples to plan their future and promote ProFam services and products as reliable, professional, and affordable. The ProFam network provides 10 percent of the couple-years of protection afforded by hormonal contraception in Zimbabwe.

**Information and communication technologies**

As access to computers and the Internet increases, information and communication technologies (ICTs) are being used to promote healthy behaviors. Computers, mobile telephones, and other electronic devices can offer information and provide interactive channels for discussion and education. ICTs can enable programs to reach more—and sometimes harder-to-reach—audiences at very low cost and on a continuous basis. ICTs also offer the possibility of tracking and analyzing user trends.

While the "digital divide" between users and non-users of fixed phone lines, mobile phones, and the Internet is narrowing, the gap is still large. The difference in use of ICTs by gender is also significant; in many countries males far outnumber females in use of the Internet. Nonetheless, interest in ICTs and access are increasing, especially through community access points such as Internet cafés and kiosks. Several websites have been created to provide reproductive health information to adolescents in developing countries, including "dear Auntie Stella" (www.tarsc.org/auntstella/) in Zimbabwe, "Sexsalud.com" in Peru, "@dolescencia" in Mexico, and teen-path.net in Thailand.

**Evaluating BCC programs**

Knowing whether or not a communication strategy has had an impact is essential. While it is often assumed that improving knowledge will lead to changes in attitudes and behavior, proving that a specific communication intervention caused a behavioral outcome is difficult. The influence of the many interacting factors that affect human behavior are difficult to determine.

Even if individuals understand the risks of their behavior, they do not always act to minimize the risk. Research on HIV/AIDS prevention has shown that an individual's behavior and perception of risk is situation- and partner-specific. Qualitative research can help identify and explain some of the apparent contradictions between attitudes and practice.

**Defining success**

Measuring behavior change by any method is difficult, particularly when funding and time are constrained. A good assessment depends on a well-planned strategy, a clear conceptual framework, specific goals and objectives, and a plan for monitoring and evaluation that includes clear outcome indicators.

The type of evaluation corresponds to the project's stage. Formative evaluation is conducted prior to the beginning of a communication intervention to guide its development. The most common methods are surveys, in-depth interviews, and focus group discussions with primary and secondary audiences. Process evaluation assesses the project while it is under way and allows stakeholders to determine whether the interventions are moving along as planned. Summative evaluation assesses whether or not the program made a difference. The answer depends on the strength of the available evidence, which in turn depends on the study design. Summative evaluation uses both quantitative and qualitative methods to assess changes in knowledge, attitudes, beliefs, self-efficacy, and perceived risk.

Although randomized trials (e.g., a pretest/posttest control group design) represent the gold standard for establishing impact in many fields, they generally are not viable for the evaluation of full-coverage communication programs. Randomized trials are only possible where researchers can control exposure to the message. In most cases, it is not possible to "randomize" subjects to be exposed or not exposed to a communication program. In cases
where the program does not reach a certain area of the country, the population in question is usually not comparable on socio-demographic characteristics to those exposed to the program.

Most evaluations in developing countries therefore use quasi-experimental or posttest designs to provide plausible evidence that the intervention produced the specific changes in the desired outcome. For example, an adolescent health intervention in Cameroon compared youth in two towns, Edea and Bafia, to determine if peer education, youth clubs, mass media advertising, and information, education, and communication (IEC) materials used in one town could change attitudes and sexual behaviors. Baseline and post-intervention surveys showed the communication interventions reached 9 in 10 youths in the town of Edea. At the end of the project, young women in Edea were more likely to believe AIDS is avoidable and to discuss sexuality and contraception than were women in the town of Bafia. There was a reduction in risky sexual behaviors among young men and an increase in contraceptive use among both young men and women in Edea compared with their counterparts in Bafia.

Because of the cultural and social sensitivity of the issues involved, participatory evaluation processes are especially well suited to sexual and reproductive health programs. Rather than relying on outside experts to determine the success of communication interventions at one point in time, participatory monitoring asks those involved in a program to determine the information necessary to assess its strengths and weaknesses. The process depends on constant dialogue between program managers and program beneficiaries, providers, and government officials. An evaluation of five participatory HIV/AIDS prevention projects in South Africa found all were effective in meeting their objectives, and program participants achieved a sense of empowerment, new skills in project implementation and evaluation, and the capability to be activists for social change. Unlike quantitative evaluations conducted by external experts, participatory methods rarely yield a quantifiable measure of change. Yet program planners and participants tend to feel greater ownership over such results and may be more likely to act on their findings.

**Challenges to measuring impact**

While many organizations are performing excellent BCC work, there are few good evaluations of their impact. In many cases this is because the project was designed without an evaluation plan. Donors prefer to fund project implementation strategies, and implementing organizations tend to want to show what they can do rather than prove how well it was done. Too often, negative results are not widely reported, even though they offer important lessons.

As BCC in sexual and reproductive health programs has evolved and expanded to include the interactions and influences of relationships, communities, and policies, evaluation methods have not kept pace. Knowledge, attitude, and practice (KAP) surveys may oversimplify and be unable to capture the important influences of context, culture, and local meaning. Ethnographic studies, social and sexual network analysis, case studies, and personal narratives can better show the influence of BCC interventions. Social scientists can contribute to the field by helping develop interventions and evaluation methods that link theory to research methods and determine appropriate indicators for measuring outcomes.

In addition, several factors potentially confound (or bias) the results of evaluations of communication programs. One is reverse causation: a person already practicing the behavior may be more inclined to pay attention to messages about that behavior. Self-reporting is also subject to bias, especially if the individual feels social pressure to respond in a certain way. In the absence of a control group, it is difficult to determine that the intervention is responsible for the outcome.

Sometimes the desire to show success can overwhelm the rigors of the evaluation process. Some researchers have found this eagerness to be evident in the early claims of the “loveLife” HIV prevention program, which was launched in South Africa in 1999 with the ambitious goal of reducing the HIV incidence among 15- to 20-year-olds by 50 percent over three to five years.
Generalizing results from small-scale qualitative and quantitative studies to the national level allowed the project to claim it had "succeeded in creating national recognition among close to 60 percent of the population" in just 12 months. However, national survey data collected in 2004 did not substantiate a decline in HIV prevalence since 2000. Reports indicate that while the program may have had an impact, the lack of critical evaluation made it difficult to verify its true effect.  

**Improving BCC in sexual and reproductive health**  
Several lessons and recommendations can be drawn from the successes and failures of health communication interventions.  

**What works?**  
Evaluations and experience with BCC programs highlight numerous elements that help build effective programs:  
- A strategic plan is needed to guide the development, implementation, and evaluation of BCC. The process begins with good formative research and includes a realistic assessment of whether the behavior objectives can be achieved by the group. Ongoing evaluation is needed to monitor the progress and effects of BCC activities.  
- BCC should integrate top-down (policy level) and bottom-up (participatory) approaches to involve governments, donors, and communities and to promote the participation of stakeholders at all levels. Rather than something to be imposed from outside, BCC should be developed in concert with the beneficiaries. Community empowerment and dialogue are key to participation and sustainability. Including the audience in decision-making ensures an ethical focus that avoids harm, maximizes benefit, and respects individual autonomy.  
- BCC should focus on both the individual and the decision-making environment. Programs must take into account the factors that affect behavior at individual, family, community, and policy levels. Recognizing that life experiences and culture are important can help explain differences within groups.  
- Communication interventions should be part of a multi-component health promotion strategy. Effective strategies use a combination of media and interpersonal communication efforts and a range of communication tools and techniques. They also benefit from supportive environments and policies.  
- While linking communication with the delivery of products and services can be important to improving health, the resulting demand can have longer-term, broader effects, particularly when it is part of a multifaceted program that addresses health issues or strengthens the health system.  
- Integrating BCC strategies that focus on interventions to improve sexual and reproductive health with other programs can meet the needs of the target audience and be empowering, cost-effective, and sustainable.  
- BCC programs take time to plan, implement, evaluate, and sustain; results are frequently the result of sustained interventions. Organizations undertaking BCC need to ensure they have adequate resources to make the investments of staff and money needed to achieve results.  
- To ensure that BCC programs help identify and eliminate social barriers to improving health, BCC should facilitate dialogue within communities and governments. Practitioners should be conscious of gender inequities and human rights issues as they design BCC programs.  

**The way forward**  
BCC programs to promote sexual and reproductive health can be strengthened by:  
- Identifying and defining an appropriate conceptual framework for sexual and reproductive health communication that addresses the complex social and cultural context and the nature of relationships that determine these behaviors.  
- Conducting more rigorous evaluations, identifying better methods to evaluate the impact of interventions, and relating outcomes to changes in desired behaviors.  
- Developing indicators to measure changes in contextual factors such as community empowerment and social norms. (The United Nations Population Fund, World Health Organization, MEASURE Evaluation, and FOCUS on Young Adults have generated some such indicators.)  
- Including more qualitative research and improving the integration of qualitative and quantitative methods.  
- Sharing successes and failures—and scaling-up successes.  
- Exploring the potential of ICTs, particularly the various types of media interventions and the corresponding costs.  
- Continuing to develop and institutionalize capacity for BCC at the local level.  

**Conclusion**  
Improvements in sexual and reproductive health—such as adoption of family planning, HIV risk reduction, and elimination of female genital mutilation—all owe some element of success to effective BCC interventions. BCC has evolved over the last few decades from focusing on transferring information to individuals in the expectation they would change their behavior to
a more participatory approach that involves dialogue and interactions between individuals, communities, and their environments. The process, as well as the outcome, of effective BCC programs can be empowering to individuals and communities and can lead to sustained behavior change.

While there is still great diversity in communication approaches and while programs must be customized to each specific context, cutting-edge communication efforts highlight the fact that people change their own behaviors. BCC programs can help catalyze that change, but no program can impose that change. Approaches that focus on dialogue and other interactive techniques are the new wave of models and methods for encouraging people to adopt safer sexual and reproductive health behaviors.

References
The promise and complexities of BCC

—CY Gopinath, Senior Program Officer, PATH

One of the characteristics of behavior change communication, or BCC, is the development of new ways to describe the approach—recent terms include strategic behavioral communication (SBC); information, education, communication (IEC); and communication for social change (CSC). True, some of these terms are more about behavior and change than others, but all share the belief that through communication of some kind, individuals and communities can somehow be persuaded to behave in ways that will make their lives safer and healthier.

The shifting terminology—and progression from one approach to the next—highlight the fact that BCC is an evolving area. It is neither a discipline, nor a science, nor an art. It encompasses conflicting approaches and a variety of theories; there is little measurement of impact and, often, people use approaches that some feel are too mechanistic. Theories emerging from the West reflect change ideologies rooted in rational choice, individual transformations, and the role of reason and knowledge. Practices emerging in developing countries illustrate the role of the community, social acceptance, emotion, and emulation in personal change.

In a recent discussion, Kenyan villagers offered their own theory of behavior. They explained that the experiences a person undergoes trigger emotions, positive or negative. These shape attitudes, which lead to behavioral choices. One person’s behavior becomes another person’s experience, and the cycle begins again. This simple, home-grown theory has much wisdom. It suggests that if a person’s experience is the key to his or her behavior, then one way to stimulate new behavior might be to expand this pool of experience. In Kenya, we have designed ways to bring about experience-sharing through deep dialogue in groups and theater processes. In India, we conducted theater programs that led to passionate and heartfelt dialogue. In many cases, the critical reflection triggered by these discourses led participants to self-driven changes.

BCC efforts that focus on “target” audiences and fixed, externally determined behavioral outcomes can violate the very principles that underlie work in the community: dignity, participation, and choice. Focusing on community involvement can lead to deep and durable change. If BCC practitioners can support communities in understanding their risks and helping them design behavior change solutions that will work for them, perhaps we will begin to understand where the true transformational power of BCC lies.

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