HealthScope: A Model for a Low Cost Health Education Program Using Commercial Television

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Synopsis

HealthScope is a health education program based on the Health Belief Model that uses television and print materials. It was designed for a number of agendas—(a) *a desire by health educators to provide health information to a broad audience at a reasonable cost,* (b) *a desire by the local medical association to promote its role in prevention and primary care, and* (c) *a desire by commercial television to expand its coverage of local health issues in a cost-effective way.*

In its initial summer series, HealthScope included 10 weekly television programs that focused on various aspects of disease prevention and health promotion and answered viewers' questions on the air. Each program was followed by a bank of physicians answering questions on the telephone for 90 minutes. Corresponding fact sheets were distributed through a local pharmacy chain. A "healthy weekend" sweepstakes contest also was held.

Intermediate outcome measures indicated that HealthScope had a broad reach and stimulated viewers to seek additional information about health. At the same time, the program generated revenue for the commercial television station.

CAN A LOW-BUDGET HEALTH education program be designed for commercial television? What impact would such a program have on viewers, the program's sponsors, and the television station? These questions were addressed in the production and followup of HealthScope, an interactive health education program featuring television and print materials in Honolulu in the summer of 1993.

Literature Review

A 1987 Nielsen report estimated that 100 million Americans watched television on any given evening. As they watch, viewers are exposed to a considerable amount of health-related information, through both entertainment and news programs, and actually quote television as a source of health information (*1,2*). For example, in a U.S. survey, respondents were most likely to cite television as a source of AIDS information; in fact, television was quoted as the major source twice as often as newspapers and 25 times as often as physicians (*3*). Indeed, television viewing is deeply integrated into our lives, and television has become an important socialization factor in today's culture, according to Signorielli (*2*). Unfortunately, much of the research on the content of health information on television suggests that these images often run counter to realistic guidelines for health and medicine (*2*).

Health educators have been fascinated by the information-disseminating potential of television since its inception, and mass media does appear "to be well-suited to messages that flow from a lifestyle theory of health promotion," Wallack writes (*4*). Although few commercial television programs have demonstrated an ability to bring about sustained changes in health behavior, a number of programs have demonstrated the achievement of intermediate objectives, including agenda setting, reinforcement, and stimulating people to seek further information about health issues (*5*).

Agenda setting refers to the ability of the mass media to focus attention on health issues or to cast them in a new light; research suggests that media attention does help to move some issues onto the public agenda (*6*). Reinforcement refers to messages that help people maintain desirable behaviors, often through the appropriate use of role models and the strengthening of support systems. In terms of stimulating people to seek further information, successful media campaigns have helped recruit people into community health programs (*7*) and increased calls to an information hotline (*8*).

Use of mass media outlets like television by public

health educators can be problematic because of the often conflicting values and goals of the two institutions. Public health professionals value consistent and timely delivery of health information and health promotion guidelines while the media, in an attempt to increase its audience, may seek to present ever-new and somewhat sensational information to the public. The media may be willing to run messages designed by public health professionals, but competing demands for time and space may mean that television airs the message at 2 a.m. while in the newspaper the story is reduced to a few paragraphs (*9*).

Another major barrier to effective use of the media by health professionals is cost (*10*). For health professionals, budget constraints may result in amateur productions that may not catch or hold the audience's attention, little exposure through public access media, lack of control over the message, or lack of control over the time slot of its broadcast.

This paper describes the development and effect of HealthScope, a health education program designed for a number of agendas—(*a*) of health educators who want to provide accurate and timely health information to a broad audience through commercial television at a low cost, (*b*) of the local medical association that wants to promote its role in prevention and primary care, and (*c*) of a commercial television station that wants to expand its coverage of local health issues in a cost-effective way.

Theoretical Framework

The development of HealthScope was based on the health belief model (*11*) that attempts to explain health behavior through a person's values and expectations. The model was developed by scientists affiliated with the Public Health Service in the 1950s following limited success of several of their programs. Their research on the beliefs and behaviors regarding tuberculosis screening suggested that people who were more likely to followup with screening were those who perceived that they were susceptible to tuberculosis, that it was a serious condition, that X-rays could detect tuberculosis prior to the appearance of symptoms, and that early detection and treatment would improve prognosis (*12*). Subsequent reviews of the research on the health belief model suggest that it is a valuable model for explaining sick-role behaviors, preventive-health behaviors, and use of clinics (*13*).

The health belief model has also been used to design health communications. Specifically in the area of television, Bakdash and colleagues (*14*) reported on a 30-second television message on periodontal disease based on the health belief model. The authors found that 79 percent of a representative sample of the potential audience viewed the message and 10 percent said that, because of viewing the message, they intended to increase preventive dental visits in the future.

Method

The initial proposal for a health education television program was developed in response to a request from the Hawaii Medical Association. It included half-hour programs followed by a physician telephone bank and fact sheets distributed through pharmacies and physician's offices. The proposal was developed by the authors, who ultimately served as the program's coproducers, with input from the Hawaii Medical Association and contacts at the local public television station and the local NBC affiliate, station KHON-TV2. Both stations were interested, but KHON offered a better time slot—Fridays at 7 p.m. (following "Wheel of Fortune")—if the program could be ready to air over the summer when much of their programming consisted of reruns.

Potential sponsors were approached. Commitments were received from two sponsors for broadcast on the commercial station because it had a broader reach than the public television station and would provide higher visibility through advertisements about the sponsors. The two sponsors—Long's Drug Stores, a local pharmacy chain, and the Hawaii Medical Services Association (HMSA), Hawaii's Blue Cross-Blue Shield health insurance provider—each contributed $20,000 to television production costs and $10,000 (either cash or in-kind) toward advertising and print cost. The contributions—out of promotions budgets—guaranteed the sponsors' names would be displayed at the beginning and the end and in three advertisements during the program. KHON, however, reserved the right to sell additional advertising space or to run public service announcements in the remaining minutes of nonprogram air time.

Once funding was secured, a planning committee was formed. It included the program's coproducers (an independent television producer and a university professor of health education), HMSA's director of health education, and several staff members and professional members of the local medical association. Although the second sponsor and the local department of health were invited to participate and were supportive of the effort, they did not feel they had time to sit on the planning committee (primarily because the funding was secured only in May 1993

for a series scheduled to run from July 2 to September 3 of that year).

The planning committee chose the topics, agreed on the health messages for each topic, developed and distributed the fact sheets, identified people and programs to be featured in the television program, and identified physicians for the phone bank. Except for the independent television producer, all work of steering committee members was donated to the project.

The series featured 10 topics, 1 each week, including breast cancer, diabetes, skin cancer, asthma, pregnancy, heart disease, sexually transmitted diseases, other cancer (lung, colon, prostate), substance abuse, and a final program entitled, "Getting Healthy, Staying Healthy." These topics were chosen by the planning committee based on the prevalence of these diseases in the State (*15*) and the availability of corresponding preventive, screening, treatment, and support services.

The program's moderator was Leslie Wilcox, coanchor of KHON's morning news show who had been given an additional assignment of producing short news stories on health—called HealthScope features—for the morning or evening news programs on Sunday, Monday, or Tuesday. It was decided that the weekly, half-hour programs would be billed as a "series of half-hour HealthScope specials." This way, the short HealthScope packages in the evening news could be used to advertise the Friday special. For most topics, more footage was shot and more issues covered than could be included in the Friday program; this additional but related information was used by the moderator in the HealthScope features earlier in the week. She also announced the Friday night program during her morning news show, and KHON produced promotional spots that ran between 2 and 15 times a day.

Components of HealthScope

Television program. The box presents a summary of the community programs featured, the people interviewed, and the points covered in the television portion of HealthScope. Per commercial television standards, 22.5 minutes of the program were devoted to content, with the remaining 7.5 minutes reserved for advertising. Within this time frame, each program was fast-moving and included both on-location and in-studio segments.

Programs opened with an on-location feature of a community program devoted to primary, secondary, and tertiary prevention relative to the week's topic. Next, the program featured a 5- to 7-minute interview with a local physician about the susceptibility, seriousness, and benefits of prevention or treatment of a particular condition. Physicians chosen to appear on the program were expert in the topic, well respected by their colleagues and patients and, for the most part, born and raised in the State. The latter characteristic was seen as important because of Hawaii's strong local culture; our most successful physicians are those who understand that culture and communicate well with the various ethnic groups (primarily Japanese, Caucasian, Hawaiian, Filipino, and Chinese) represented in the State (*16*).

After the first commercial break, a short video clip introduced the consumer. For example, viewers saw the consumer for the breast cancer program in her support group and the consumer for the "getting healthy" program race walking. This video clip was followed immediately by a 5- to 7-minute interview with the consumer with special focus on his or her feelings, fears, coping strategies, and advice to others. Common barriers to prevention or treatment and how to overcome them were also discussed in the consumer segment.

Since it was conceived that the consumer would serve as a role model for the viewer, the principle of homophily was applied in the selection of consumers who appeared on the program. For example, because Native Hawaiian women have high rates of mortality from breast cancer (*15*) and because the concept of extended family is important to that culture, the consumer section of the breast cancer program featured a Native Hawaiian woman with breast cancer supported by a family member.

After the next commercial break in the program, the physician returned to the set and spent 2 to 4 minutes addressing relevant viewer questions from man-on-the-street interviews as well as from the fact sheets. The program closed after a preview of the next show and a reminder to viewers to pick up fact sheets, mail in questions, and enter the sweepstakes contest.

Throughout the program, viewers were told how they could access additional information on the topic. One way was through Hawaii's Tel-Med service, a collection of more than 350 free health messages on audiotape that can be accessed by telephone 24-hours a day. In Hawaii, Tel-Med is a program of HMSA, one of HealthScope's sponsors. The phone numbers of key community resources were also featured, such as the local chapter of the American Diabetes Association in the diabetes program. Three times during the broadcast, viewers were informed that they could talk to a physician by telephone after the program.

Programs and People Featured and Main Points Covered

Topic and location	*Physician segment*	*Consumer segment*	*Main points covered*
Breast cancer—a mobile mammography unit	Female breast surgeon	Woman with breast cancer and her sister	• all women at risk • practice breast self examination monthly • see doctor about any lump or discharge • benefits of early detection and treatment • sources of help and support
Diabetes—a community diabetes program featuring home visits and clinic-based support groups	Physician president of the local chapter of American Diabetes Association	Wife of the mayor of Honolulu, who has diabetes	• prevalence of diabetes, high-risk groups • signs and symptoms • consequences if untreated • conquering fear of diagnosis, diet changes, and self-immunization, • sources of help and support
Skin cancer—the beach with a famous lifeguard and surfer who had melanoma	Dermatologist and one of his female patients who had melanoma	Two high school students making a video on "safe sun"	• all Hawaii residents at risk • what skin cancer looks like • practice "safe sun" habits • benefits of early detection and treatment • sources of help and support
Asthma—a community program to help children and parents learn to cope with asthma	Physician asthma specialist with asthma himself	Teenager and his father who have learned to cope with asthma	• prevalence in Hawaii, high-risk groups • signs and symptoms • fear in children and parents with asthma • how to control asthma • sources of help and support
Pregnancy—a neonatal intensive care unit	Female obstetrician-gynecologist	Teenage mother and peer-educator about realities of teen pregnancy and the coordinator of the peer education program	• prevalence of problem pregnancies • benefits of adequate prenatal care • how to have a positive pregnancy • special problems of teen pregnancies and programs that help prevent them • other sources of help and support

Phone bank. The Hawaii Medical Association sponsored a physician telephone bank at its offices for 90 minutes following each television program. Incoming calls were answered by one of the participating physicians who specialized in the topic area. When all physicians were busy with callers, the person staffing the front desk took the caller's name and phone number so a physician could return the call later in the evening. The phone bank was advertised in the fact sheet and on the television program itself; a special phone number was provided for residents of neighboring islands so that they could call toll free. During the initial summer series, five to eight HMA physicians participated in each Friday night phone bank, managing between 40 and 130 calls per program.

Fact sheets. For each of 10 topics, 50,000 fact sheets were produced and distributed through a local drug store chain and physicians' offices at least 10 days prior to the television program on the same topic. On the front of the fact sheet were a limited number of points on the susceptibility and severity of the condition and the benefits of behavior change, early detection, and treatment. These points were repeated in the television program. The back of the fact sheet included quiz questions, which provided an opportunity for viewers to prove to themselves that they

In Television Portion of HealthScope, Honolulu, HI, 1993

Topic and location	*Physician segment*	*Consumer segment*	*Main points covered*
Heart disease—cardiac diagnostic, treatment, and rehabilitation programs	Cardiologist	University professor who made lifestyle changes after his recent heart attack	• anyone can get heart disease • how to reduce your risk • benefits of early detection and treatment • source of help and support
STD[1]—a local high school with an STD health educator	Female internist specializing in infectious diseases and STD	Woman who contracted HIV through intercourse with her husband	• everybody outside of monogamous relationships is at risk • although some STD can be treated, HIV is fatal • how to reduce your risk • sources of help and support
Cancer—prevention, detection, and treatment programs	Oncologist	Male survivor of lung cancer and female survivor of colon cancer	• anyone can get cancer • cancer is not as scary as it used to be; many are surviving cancer • how to reduce your risk • benefits of early detection and treatment • sources of help and support
Substance abuse—an elementary school with a high school group that sings and dances anti-drug messages	Pediatric-adolescent psychiatrist specializing in substance abuse	Reformed substance abuser who now counsels youth to prevent or stop substance abuse	• anyone can become a substance abuser • signs and symptoms • relationship of substance abuse to murder and domestic abuse • how to help family members prevent, detect, treat substance abuse
Getting healthy, staying healthy—a worksite wellness program in a local bank	Psychiatrist who teaches tai chi and nutrition	Man who lost weight and got his diabetes under control through race walking, and his female coach	• relationship between lifestyle and health • eat less fat and more produce • exercise more • get help and support • you can do it

[1] Sexually transmitted disease

understood the information discussed on the fact sheet and on the television program. Also provided were the Tel-Med phone number and the numbers for selected audio tapes relevant to the topic.

Contest. Viewers were encouraged to mail in the answers to the quiz questions on the back of the fact sheets. Those with correct answers were entered into a "Healthy Weekend Sweepstakes." A single winner was randomly selected at the end of the series and received airfare, hotel accommodations, and a rental car for a weekend stay on the island of Maui. The contest prize was valued at about $300 and was donated by a local travel agency.

Advertising. The majority of advertising for the series was done by the television station. As previously mentioned, the short HealthScope features on the weekday news programs served to advertise the Friday night program. In addition, the television station edited short promotional announcements by the moderator about the upcoming program that ran up to 15 times daily. The fact sheets also served as a form of advertising. In addition, the sponsoring pharmacy chain announced the upcoming program in its Sunday ad in the local newspaper. Finally, a feature story on HealthScope appeared on the cover of the local television viewing guide published by and distributed with the Sunday newspaper.

Impact of HealthScope on people seeking additional information and entering contest, Honolulu, HI, 1993

Topic	Calls to physician telephone bank	Correct entries in Healthy Weekend Sweepstakes	Tele-Med tape	Monthly calls to Tel-Med: Average	Monthly calls to Tel-Med: Post-air
Breast cancer	73	61	Breast cancer	15	30
Diabetes	108	79	Are you a hidden diabetic?	55	86
			Diabetes in children	9	16
Skin cancer	77	118	Cancer of the skin	18	30
Asthma	131	77	Bronchial asthma	35	43
Pregnancy	77	56	Am I really pregnant?	49	69
			Early prenatal care	7	20
Heart disease	120	104	Decreasing heart attack risk	18	35
			Diet and heart disease	11	23
			Exercise and your heart	22	33
Sexually transmitted diseases	88	92	Safe sex and AIDS	39	178
			Venereal diseases, STDs	40	97
Cancer	74	70	Cancer of the prostate	14	30
			Lung cancer	27	68
			Cancer of the colon and rectum	24	41
Substance abuse	34	56	Do you want to quit smoking?	10	60
			Is drinking a problem?	14	42
			So, you love an alcoholic	10	26
			Cocaine	19	161
			Crack	5	31
			Marijuana	26	150
			LSD	18	68
			Amphetamines	14	54
Getting healthy, staying healthy	82	11	Exercise: Warm up slowly	10	34
			Exercise and your heart	22	39
			Obesity	26	36
			A guide to good eating	30	85
Totals	864	724		587	1,585

Operation of the Health Belief Model

According to the health belief model, likelihood of action is influenced by a person's perceptions of threat (susceptibility to and seriousness of the condition) and the person's expectations about taking action (perceived benefits, perceived barriers, and perceived self-efficacy).

Perceived threat. In terms of susceptibility, the television program and the fact sheets specified the groups most at risk of the disease or condition based on available epidemiologic findings. Pains were taken, however, not to give people a false sense of security about risk. For example, although the risks of breast cancer were enumerated, it also was reported that 75 percent of women diagnosed with breast cancer have no risk factors so that, in a sense, everyone is at risk. Similarly, although our studio physician noted that fair skinned people were at higher risk of skin cancer, decreasing ozone protection puts every one at risk, regardless of skin tone.

Severity, defined as the seriousness of the disease in terms of disability and death, was also addressed in the television program and the fact sheets. In most cases, the diseases or conditions covered were those that could be prevented or their impact lessened through lifestyle changes, screening, early detection, and treatment. About one-fourth of the television program and one-third of the fact sheet were devoted to threats to good health.

Expectations. A person's expectations about action include his or her perceptions of benefits of the action, barriers to taking action, and self-efficacy (ability to perform the action). About half of the television program was devoted to increasing perceptions of benefits and self-efficacy and reducing perceptions of barriers. Perceived benefits of prevention or early detection and treatment were emphasized both by the physicians who presented epidemiologic findings and by the consumers who provided real-life examples.

Barriers and how they can be overcome were addressed primarily by the consumers. For example, several of the consumers on the program addressed the barrier of fear. The wife of Honolulu's mayor was featured on the program on diabetes. She discussed her initial denial that she was at high risk of diabetes despite her family history, her fear of giving herself injections once diagnosed, overcoming her fears through support from her family and local organiza-

tions, and how she has been able to integrate diet and injection routines into her very busy and productive life. The barriers of access and cost were addressed with information on where free or inexpensive services could be obtained. Self-efficacy was promoted by the role modeling of the consumers. As with the physicians, identification with the consumers was enhanced by careful matching of ethnicity, sex, and place of residence.

Cues to action. Consumers were provided with a number of opportunities to take action. In addition to the quiz and call for Healthy Weekend Sweepstakes entries, the fact sheets provided a detachable form for sending in questions to be addressed on the television program. Immediate access to additional health information was provided through the physician phone bank and through HMSA's Tel-Med. Phone numbers of local community programs, most often those featured in the television show, were also provided. About one-quarter of the television program and three-quarters of the fact sheet provided cues to action.

Impact

In keeping with the need to maintain a low budget for the entire intervention, indicators used to evaluate HealthScope were those that were convenient and could be collected in a non-obtrusive manner. These indicators included Nielsen ratings, the number of calls made to the phone bank, Tel-Med, and the featured community agencies, and the number of contest entries.

Audience reach. An overnight rating paid for by KHON suggested a good reach for the program. HealthScope had an 8 rating, meaning that 8 percent of all television sets in Honolulu were tuned to Healthscope, and a 20 share, meaning that 20 percent of Honolulu's sets that were turned on were tuned to HealthScope. The audience size was estimated at 50,000 viewers. The only program with a higher proportion of viewers in that time slot was the situation comedy, "Family Matters." In addition, the 2- to 3-minute news packages on health reached about 80,000 viewers per evening news broadcast and 47,000 viewers per morning news broadcast. These are high figures for Honolulu with its small population of about a million. In comparison, the most popular evening news broadcast (Friday at 6 p.m. on KHON) is seen by about 152,000 viewers and "Wheel of Fortune" by about 148,000 viewers (*17*). Both of these programs preceded HealthScope on Friday evenings during the summer. In addition to a high viewership, KHON reported that HealthScope generated revenue through sales of commercial air time.

Subsequent information-seeking. HealthScope stimulated a portion of the viewing audience to seek additional health information or participate in the Healthy Weekend Sweepstakes, or both (see table). In summary, 864 viewers took advantage of the physician phone bank to discuss their concerns about the topic. Participating physicians reported very few crank calls and felt that they helped a number of callers address serious concerns. For example, a caller described symptoms of juvenile diabetes in her daughter and was advised to go immediately to the emergency room. Several callers during the substance abuse program were also given immediate referrals.

HMSA's 24-hour Tel-Med service compiles its statistics monthly. In our analysis, we compared the number of requests for featured audio tapes on a specific topic for the 2 months prior to our program with the number of requests received the month our specific program aired. Although this procedure is less than ideal, findings suggest that HealthScope had an impact on Tel-Med call volume. For example, the requests for the Tel-Med tape on breast cancer doubled (from an average of 15 per month to 30 in the month of the program), the asthma tape calls increased only slightly (from 35 to 43 per month), while the requests for tapes featured in the STD and substance abuse programs increased dramatically (from 39 to 178 for the safe sex tape and from 19 to 161 a month for the cocaine tape).

Staff members of three of the community programs that were featured in HealthScope were also asked to track calls for the week prior to and the week following the program. They reported only slight increases in volume—from 50 to 55 calls a week for the local chapter of the American Diabetes Association, from 57 to 69 calls a week for the MothersCare phone line, and from 165 to 180 calls a week for the STD hotline. They surmised that they did not experience significantly increased call volumes because of the immediate availability of the physician phone bank and the Tel-Med service and because the show aired on Friday night, and these programs and phone lines were closed until Monday morning.

The fact sheets stimulated some action as well. About a dozen questions were received prior to each show and were addressed on the air. In addition, the local medical association received 724 entries to the Healthy Weekend Sweepstakes with correct answers to the quiz.

Exposure for physicians and sponsors. The series provided significant exposure for the Hawaii Medical Association (HMA). About 7 minutes of each HealthScope television program featured an HMA physician in either the on-location or in-studio segment. HMA's name appeared at the program's opening, closing, during commercial breaks, and during the phone bank announcement for an additional 60 seconds. The series also provided significant exposure for the paying sponsors whose names and logos were presented in each HealthScope opening, during commercial breaks, and at the end of each program. Both the physician group and the sponsors expressed satisfaction with the show's content and the amount of exposure they received during the series.

Reruns and future programming. Due to the success of the summer series, the sponsors agreed to finance a repeat of the programs during the fall of 1993 at 4 p.m. on Sundays. When the series repeated, a lower volume of calls (about 30 per program) was fielded by two to three physicians. Although the audience was significantly smaller in this time slot, the program still received a 2 rating and a 6 share with an estimated 8,000 viewers. The only program with a higher percentage of viewers in that time slot was "Lifestyles of the Rich and Famous" (*17*). The fact sheets and the contest were not included in the reruns.

Discussion

The findings support the feasibility of developing and airing a health education program based on the health belief model that combines commercial television, print materials, and a physician telephone bank. The television program was viewed by a significant portion of the population and stimulated a small percentage of viewers to seek additional information about health. At the same time, HealthScope proved to be of no cost to health educators, low cost to sponsors ($30,000 each), and revenue-generating for the television station.

Aside from reaching and influencing viewers, HealthScope also had an impact on the education of the sponsors, the steering committee, and the television station. Specially, sponsors were shown that health programs can be popular and worth supporting. Coalitions were built among the organizations represented on the steering committee. Most importantly, the television moderator reported learning a great deal about preventive health and continued to use materials and tap contacts developed during production for other news stories, even after the summer series was completed. This investment in the education of the media is in line with a media advocacy approach to public health, in which mass media outlets are used to change the way problems are understood by putting them in a public health perspective (*18*).

It is interesting to speculate about the proportion of de facto viewers versus motivated viewers of HealthScope. In other words, did people watch the show because it followed Honolulu's most popular evening news program and "Wheel of Fortune?" Or, did people make a special effort to watch HealthScope because they were interested in health issues or in making behavior changes? Although this project was not able to address this issue, a study by Flay and coworkers (*19*) found that television viewers were loyal to favorite stations; even people who reported an intent to quit smoking did not change the channel to watch a 20-day stop-smoking series imbedded in another station's news program. This finding supports efforts to place health education messages in mainstream media, even if it means taking time away from content and giving it to advertising. Our sponsors felt the same way.

The major problem with the initial HealthScope pilot was the fact sheet component. Although 50,000 fact sheets were produced for each topic, the distribution system had not been perfected in the short time between funding and broadcast. Although fact sheet distribution through physicians' offices was managed adequately, the 20 stores in the pharmacy chain were inconsistent in their display and distribution of fact sheets. In some stores, fact sheets were displayed too long before or after the television broadcast on the same topic. No formal count of wasted fact sheets was conducted, although anecdotal information suggests that thousands were just discarded at the outlets. Even assuming that 25 percent of the fact sheets (about 12,500 each week) made it into consumers' homes, only a dozen people per week submitted questions, while about 60 per week used the fact sheets to enter the contest. The steering committee did what it could to rectify this problem once it was identified. They agreed, however, that should a second series be produced, an alternative to the fact sheet would be developed. For example, asking viewers to telephone and electronically record such questions to be addressed on television or contest entries may result in a higher response from viewers at a lower cost to sponsors.

Also disappointing was the seemingly low response rate of viewers to HealthScope's cues to action. Combining counts for phone calls to the phone bank (864), the increased number of calls to Tel-Med

(998), and the contest entries (724) and averaging this count over the 10 weeks suggests an average of 258 responses per week to HealthScope. Given a weekly audience of 50,000, the response rate is a mere 0.5 percent. Perhaps a different methodology would have yielded higher numbers. For example, Finland's 1984-85 season of "Keys to Health" was evaluated through a random mail survey that found more than half of the sample reported watching three or more sessions of the 15-part television program on health, that between 10 and 15 percent changed their eating habits to comply with recommended nutritional guidelines, and that 2 percent reported losing at least 2 kilos (about 4.5 pounds) as a result of watching the program (*20*). Bakdash and colleagues (*14*) found that 79 percent of a representative sample of the potential audience viewed their 30-second televised message on periodontal health and that 10 percent of these people said that because of viewing the message they intended to increase preventive dental visits in the future.

The indicators for evaluating HealthScope were chosen for their ease and relatively low cost. A more sophisticated evaluation design and corresponding budget is recommended for any further evaluation of HealthScope.

Overall, however, the members of the steering committee, the sponsors, and the television station expressed a high level of satisfaction with the initial summer HealthScope series. High viewership and anecdotal information (through letters and calls to the sponsors and the television moderator) also suggested high satisfaction by viewers. Costs were reasonable, with much of the talent and labor donated and most of the production and printing costs covered by the sponsors. From this experience, it appears possible to develop and produce a low-cost health education program that leads some viewers to take actions to learn more about health.

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