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Introduction

The Breast Health Intervention Evaluation (BRIE) Study evaluated the relative effectiveness of three different approaches to breast health messages--a fear appeal, a positive affect appeal, and an affectively neutral, cognitive appeal. The three interventions were structured as three 10-12 minute videotaped presentations targeting 450 African American women residing in three rural communities in Georgia (150/community). Each site received all three intervention approaches which were randomly assigned within the site sample. The intervention was contextualized within a 60-minute breast health workshop. Workshops were coordinated and conducted by a Community Lay Health Worker at each site. Pre-/post-intervention KAP surveys were administered. Participants were provided with breast self-examination information and breast screening referral information. A telephone follow-up was conducted. We provided referral services to ACR-approved sites for study participants.

The BRIE Study was conceptualized as a collaborative research venture between Morehouse School of Medicine (MSM) and Georgia State University (GSU). The collaboration of a minority medical school and a large research university created unique strengths that do not currently exist elsewhere in Georgia. In addition to fiscal management and general oversight, MSM provided key input into the initial qualitative work (focus groups), the development of the survey instrumentation, and the pre-testing of both the surveys and the videotaped interventions. GSU provided analysis of the qualitative data, creation, development and production of the videotaped interventions, the development and implementation of the follow-up protocol, and the final data analysis.

Background

Relatively little research has been devoted to identifying effective strategies for increasing breast cancer screening rates among black women. Black and white women alike are regularly exposed to health-related messages through the mass media and the work of public agencies and nonprofit organizations. Commonly used health education materials and approaches, however, may be inappropriate for minority populations.

Research examining the efficacy of health promotion message appeals, content, and channels of delivery has likewise been very limited in public health research. Social scientists and health promotions professionals have maintained that if health promotion campaigns are to influence the audience as intended, they must be culturally, demographically, and geographically appropriate. In response, many health educators working with African American populations have simply substituted images of black models for those of white models in printed material, or have restructured health promotion efforts with little attention, if any, to theoretical foundations or guiding principles of health communication formulation.

Finally, research examining the defining variables of cultural sensitivity is also very limited regarding health promotion efforts specifically targeting African American audiences. Culture has been described in numerous ways, often giving the appearance that the concept is difficult to define empirically. For the purposes of this research, we will define culture as a set of interlocking cognitive schemata that construct and give meaning to what people do in their everyday lives. In order to understand how culture works, it is necessary to examine the storage and transmission of information and beliefs shared by a group of people. These strategies are used to guide health seeking behavior and give it meaning to people's lives. Cultural knowledge provides Alocal logic@ by which people make sense of their world and solve their health problems by providing a bounded

set of options that motive specific, help-seeking behavior. Finally, cultural knowledge and practices are both reproduced and transformed within specific social environments and are constrained by the economic and political context of a specific group. Given the complexities of everyday life, cultural knowledge and practices are constantly being generated, thus creating shifts in the knowledge that is used for guiding behavior responses to disease, or threat of disease.

Hypothesis

A culturally appropriate breast health promotion message will motivate increased compliance to recommended cancer screening schedules, and changes in knowledge and attitudes. Affectively positive and negative messages will result in greater change than will affectively neutral, cognitive messages. The relative ordering of the two affective messages is unknown.

This hypothesis incorporates the following sub-hypotheses:

- ! Knowledge of breast cancer risks and prevention among women aged 45-65 will increase by approximately 30% from baseline to immediate post-test.
- ! At follow-up, the percentage of women aged 45-65 who have had a clinical breast examination within the past year will increase by at least 20%.
- ! At follow-up, the percentage of women aged 45-65 who have had a mammogram within the past year will increase by at least 20% and will be at least 50%.

Procedures

The GOAL of the BRIE Study was: To evaluate and determine the relative efficacy of three different approaches to breast health education messages--a fear appeal, an appeal using a positive affect, and an affectively neutral, cognitive appeal--among African American women residing in three rural communities in Georgia. The project aims were:

1. to provide information on breast cancer screening to women in the community and motivate them to seek screening;
2. to increase access to breast cancer screening services;
3. to determine the most effective breast health communications approach (among three under investigation) to use in African American populations.

The BRIE Study was operationalized in accordance with the following **TECHNICAL OBJECTIVES**.

OBJECTIVE 1: Develop the culturally appropriate breast health communication tools, lay health worker training materials, and data gathering instruments.

Sub-Objective 1.1: Develop and pre-test a breast health message based on a fear appeal, a message based on an affectively positive appeal, and a message utilizing an affectively neutral cognitive appeal.

Sub-Objective 1.2: Develop and pre-test a lay health worker training curriculum.

Sub-Objective 1.3: Develop/Revise data gathering instruments.

OBJECTIVE 2: Organize each of the three rural intervention communities around the problem of breast cancer.

Sub-Objective 2.1 Define and describe the sociodemographics of each community.

Sub-Objective 2.2 Identify, hire, and train one lay health worker for each community.

Sub-Objective 2.3 Recruit study participants according to established guidelines and selection criteria.

OBJECTIVE 3: Implement the intervention in the three target communities.

Sub-Objective 3.1 Train three community lay health workers.

Sub-Objective 3.2 Provide an intervention to 150 women aged 45-65 in each of the 3 target communities.

Sub-Objective 3.3 Increase access to breast cancer screening services for low-income women in the intervention communities.

OBJECTIVE 4: Evaluate the impact of the comprehensive intervention on breast cancer screening knowledge, attitudes, and practices by measuring these parameters at baseline, and following the intervention.

Sub-Objective 4.1 Through pre- and post-intervention questionnaires, measure changes in breast cancer knowledge, attitudes and practices (including obtaining breast exams and mammograms) among women aged 45-65 in the intervention communities.

Sub-Objective 4.2 Through follow-up data gathered one year post-exposure, measure long term changes in knowledge, attitudes, and actual practices.

Results & Discussion

UNANTICIPATED OPERATIONAL CHALLENGES

One of the challenges of collaborative, multidisciplinary, inter-institutional research is equalization of knowledge bases. Indeed, one of the unique strengths of the present study is the opportunity to combine communication theory with public health practice. The realization of this opportunity necessitated considerable effort on the part of the GSU Research Team to gain an understanding of the public health promotion campaign literature from the perspective of communication research and practice. Therefore, beginning early in Year 01 and continuing throughout, the GSU Team undertook an extensive literature review. The result of this extracurricular activity, an annotated bibliography prepared by Dr. Darin W. Klein, is included in the Appendix of this report.

Secondly, inasmuch as the development of the script for the videotaped stimuli was of key importance to the successful conduct of this study, we elected to reconceptualize our developmental approach, and to spend more time on the process evaluation and pre-testing components. The reconceptualization of the stimuli created a more complex and time-consuming shooting and editing schedule resulting in a delivery delay of approximately 12 months. This delay caused all subsequent implementational activities to be similarly delayed. The specifics of these decisions and delays are discussed at length under the appropriate headings within the Statement of Work following.

Finally, we did not anticipate the difficulties we encountered in participant recruitment. Despite the cash incentives offered and our use of community health workers indigenous to each of the target areas, recruitment was challenged by a variety of issues including failure of a health worker in one site to recruit any subjects beyond the pre-test sample, other concurrent mammographic promotional initiatives mounted by other organizations, scheduling difficulties and a period of incapacitation of a health worker, logistical issues, as well as higher than anticipated levels of resistance to participating in a community-based research study. Again, all of these issues are discussed within the Statement of Work.

STATEMENT OF WORK

Month

1 - 3	Focus Groups Videoscript development
3 - 4	Videoscript process evaluation Videoscript assessment Pre-testing of messages
4 - 6	Lay Health Worker Training Curriculum Development Develop Procedures Manual
7 - 8	Recruit, hire, & train Community Lay Health Worker in each site
9 - 12	Survey Q=aire Assessment & Modifications Pre-testing of Q=aire
13 - 15	Video Production
16 - 18	Establish relationships with target communities Assess sociodemographics and comparability of communities
19 - 20	Recruit study participants Identify mammography and clinical breast exam sites
21 - 27	Organize and conduct 5-7 workshops in each target community
28 - 29	Evaluate data gathered in workshops
30 - 31	Recruit & train graduate student phone interviewers

32 - 34	Implement 12-month follow-up
35 - 36	Analyze data and write reports

FOCUS GROUPS

QUALITATIVE DATA GATHERING & ANALYSIS

As planning for the focus groups progressed, it became apparent to both the GSU and the MSM research teams that the quality and depth of the anticipated data could be significantly affected by the cultural orientation of the focus group leader. Since no age appropriate, African American woman was a member of either research team, we enlisted the services of Mary P. Williams, EdD, PA-C, Associate Professor of Community Health and Preventive Medicine, and Director of the Morehouse Gerontology Center. Dr. Williams also served as the Principal Investigator of the Breast Health Belief Systems Study (DAMD17-97-1-7312) funded by the USAMRMC. Using her contacts with the USDA Cooperative Extensive Service at Fort Valley State University, a rural HBCU located in Fort Valley, Georgia, we conducted three focus groups composed of 10-15 rural, African American women demographically matched to the study's target population. Dr. Williams served as the focus group leader for all three. The focus groups were audio- and videotaped. Personnel from GSU Department of Communication attended to observe unobtrusively.

The selection of variables was relatively straightforward in this project. We were looking at accurate knowledge about, and attitudes toward, breast cancer and breast health. In terms of stimulus variables, we were looking at three different kinds of affect. There were some possible confounding variables such as religiosity but they were included as part of the overall attitude variable.

Focus Group I (FG I)

For the accurate knowledge variable, some people talked about media as their source of information. However, specific levels of knowledge about breast cancer and mammography including conceptions and misconceptions were unclear. Equally important were the sources of information/beliefs. In this regard, talking about breast health (obtaining information) with peers/friends emerged as a significant source. During the analysis of these data, it became apparent that deeper probing is needed on this issue, specifically, when do these women talk about breast cancer with their friends, what gets said and what gets left out? What kinds of information do their friends give them about breast cancer? However, an interesting issue to emerge was repeated mention of home remedies. This was pursued further in subsequent groups.

On the attitude end, several worthwhile things came out of the FG I. One generally interesting finding was this group's general distrust or suspicion of doctors. This finding was explored more deeply in subsequent groups. Similarly, why the distinction between health care providers and doctors as this group did? This is an important issue affecting the design of the messages.

Another notable outcome from FG I was the importance of religion. Especially intriguing was a respondent's comment that suggested that a doctor's spiritual cooperation could be important. We looked at the role of religion and how doctors might play a role in that. The issue of religiosity surfaced many times suggesting that if one really has faith, then that person should leave things to the Lord. This belief appeared to be commonly held (one respondent accepts that the Lord provides

us with doctors), then this was important for us to know in our message design and for us to measure at the outset.

Another issue that fell broadly under the rubric of attitude was respondents' *fears* of breast cancer. Some respondents showed the natural tendency to deny that there might be a problem. If there is a problem, they don't want to know about it. The theme of denial was followed and linked to the issues of prevention and/or early diagnosis and cure. Exploring this issue helped reveal some of the underlying beliefs of our target group.

The third variable that we explored had to do with message design. Dr. Williams asked some questions about what respondents would like to see in message. The answers were to have it presented in written and oral form and in clear, simple language.

Focus Group II (FG II)

A number of comments were made about the problems of communication between health care givers and patients. These are summarized as follows:

- ! Doctors are not thorough enough with their patients. They don't spend enough time with their patients and they don't ask them enough questions about how they're doing.
- ! Patients feel they are mishandled by nurses in their clinical care: too much time spent waiting. When they do get to see their doctors, their doctors talk in technical jargon which they don't understand.
- ! Participants expressed the desire to have problems explained to them by doctors in lay terminology.
- ! One participant said she would like to have check-up information written down and then gone over with by the doctor. Others agreed.
- ! Participants were divided over whether they prefer to discuss their problems with a doctor or a nurse. Some said they didn't want to talk with a nurse; they came to see the doctor. Another said that talking with a nurse could also be helpful.
- ! A couple of participants said they prefer having a female doctor. Some also said they prefer having an African-American doctor because he or she would be more sensitive to diseases that are common among African-Americans.
- ! The role of folk medicine was discussed in FG II. Many agreed on the need for alternatives to Western medicine. One respondent said that folk medicine is *coming back*.⁶ Several said they use folk remedies but if they do, they don't tell their doctors about it.
- ! Spirituality came up in FG II as it did in FG I but largely at the prompting of the moderator. Participants seemed to believe that spirituality plays an important role in their lives. Some noted that having a health care giver who believes in prayer can be helpful for recovery.
- ! Respondents spent some time discussing their perceptions of breast cancer. When asked how they would react to news of possible cancer, two said that they were afraid to find out, especially because they knew they were at high risk. One participant provided a very

eloquent summary of all the fears and thoughts she had when she was diagnosed with ovarian cancer. Respondents also expressed a variety of views about hormonal replacement therapy and its possible relation to breast cancer. All seemed to understand that there were risks to taking or not taking hormonal replacement therapy. Some felt it was worth the risk of breast cancer because the hormones gave them more energy. Others felt the risk of breast cancer outweighed the risk of not taking hormonal therapy.

- ! Perceptions of behaviors to minimize the risks of breast cancer were mixed. Some respondents said that they did do BSEs and these were the ones who also said they got mammograms. Another woman said she doesn't do BSEs because *if it ain't broke, don't fix it.* Another fell in between these two extremes, feeling that she ought to do BSEs but hasn't yet done one on herself or had a mammogram. These respondents seem to represent different parts of continuum in persuasibility.
- ! Participants addressed questions regarding the use of questionnaires and message design. Participants said that if given a questionnaire to fill out about their health, they probably wouldn't spend much time on it. When asked about breast cancer information presented in a frightening manner, some participants expressed their preference for a positive message. Another said she would like a balance of pros and cons. Another said fear is OK if it grabs your attention but that it's not a good idea to leave people scared at the end.

Focus Group III (FG III)

This focus-group was intended to address issues specifically pertaining to message design. This group was shown five short, 1-2 minute clips of a variety of breast health videos that exemplified different affective and structural approaches to videotaped health communication. The major finding of FG III was that respondents want to be told about breast cancer in a very straightforward way. Below is a list of additional points which followed from this major premise:

- ! They like the use of *regular people* in the videos and seem to believe that the use of such people enhances the video's credibility.
- ! They don't want to be told that a mammogram involves no pain, there is pain!
- ! They want spokespersons who have had breast cancer and who can speak from experience.
- ! Need to note that breast cancer does not always mean having to get the breast removed. Need to mention that there are other choices.
- ! The respondents were favorable to the use of pleasant scenery and music but didn't seem to have much to say about formal features otherwise.
- ! Some respondents thought the plant analogy video might be a little difficult for some people to comprehend, that it was not clear enough on its own, and might require some additional information.
- ! A combination of formats might be effective.

- ! Some respondents expressed their fear of getting a mammogram because of what they might find out after it's done (as opposed to fear of the mammogram itself).
- ! One respondent expressed the concern that radiation from the mammogram or from cancer treatment (it's not clear which she meant) might lead to more cancer.
- ! They liked the information on Breast Self Exams.
- ! Video in which the woman was shown getting a mammogram was viewed as most believable. Participants expressed the desire not just to hear about it but to actually see it.

We proposed to use Witte's Persuasive Health Message (PHM) Framework (Witte, 1995) as the structural model for constructing the breast health messages. In general, the application of health communication theory is difficult because of the sheer number and complexity of available theories/factors that tend to inhibit their use in practical settings. Unfortunately, no single, generic theory can be applied to a particular health problem and then effectively used to effect behavioral change in all groups of people. However, Witte's Persuasive Health Message Framework provides a useful blueprint toward message development because it takes into account variables that, if ignored, can undermine well-intentioned health promotion campaigns.¹ The PHM framework is composed of elements from the theory of reasoned action,² the elaboration likelihood model,³ and protection motivation theory,⁴ and offers an integrated approach to generating effective campaigns. The PHM framework states that both constant and transient factors must be addressed prior to the development of campaign messages. The constant components serve as a structural foundation in a health promotion message, and include a problem message, an efficacy message, various cues, and an orientation toward a specific audience. The problem message tries to make the audience feel susceptible to a health threat. The efficacy message tries to convince individuals that they are able to perform the recommended response, and that the recommended response effectively reduces or eliminates the threat. The cues refer to those variables that can influence the persuasive process in an indirect manner. The audience profile includes demographic and psychographic information, and makes the message >fit= the audience.

The cues pertain most particularly to the issue of cultural sensitivity as it is generally understood. For example, many health educators working with African American populations believe that persuasive message acceptance and processing will be enhanced when it is delivered by a high credibility person, or by a same-race, same-SES individual. While this approach may reduce initial resistance, there is a danger that the message will be processed peripherally, i.e., audience members will be persuaded *ONLY* by cues such as credibility, appearance or perceived similarity. In this event, peripheral cues have guided the decision-making process, and not the actual message content. In contrast, when people believe a topic is relevant and important to them, they process the message centrally by carefully listening to, and evaluating the content of the message. Well-planned health messages will include cues that enable message receptivity without overshadowing its content. In addition to credibility, appearance, and similarity, other cue variables related to the source of the message include the manner in which the message is organized, the type of appeal (cognitive or emotional), the number of repetitions in a message, and the vividness of the language and presentation.

The transient components address the particular attributes of the target audience, i.e., salient beliefs, culture, environment, and message goals. Two categories of transient components determine the actual message content and features. First, information relevant to the threat and

efficacy of the recommended response must be determined. Second, culture/environment and preferences must be assessed to develop cues and the audience profile. Source and message preferences will aid in the production of cues. The audience profile is developed from cultural (demographics, psychographics) and environmental (potential barriers, e.g., lack of services, lack of transportation) information.

Combination of the transient information and the constants will yield a message that is uniquely personalized to the target audience on a number of levels. First, the targeting of an audience=s specific salient beliefs about the threat and efficacy of the recommended response increases involvement in and personal relevancy of the message.⁴ Increased involvement in a message leads to central processing of the message which is desirable because it leads to lasting and stable attitude shifts.⁵ If salient beliefs are targeted in the message then motivation and/or ability of audience members to process the message should increase because the message is relevant to them, and they can understand it.⁴

Within the Persuasive Health Message Framework, data obtained through the focus groups provides the following outline:

Constants

I. Threat

(A) Susceptibility: targeted population (i.e., African-American women aged 55 and over living in rural Georgia) has a higher incidence of breast cancer than their white American counterparts.

(B) Severity: high rates of mortality from breast cancer in this the population.

II. Efficacy

(A) Response efficacy: routine BSEs, CBEs, and mammographies all help minimize the risks of breast cancer.

(B) Self-efficacy: the procedures of BSEs, CBEs, and mammographies are easy to follow.

III. Cues

(A) Message

(1) organization of video: a story, narrative.

(2) organization of lay health care worker presentation

(3) type of appeal (3 viewing conditions):

- a. negative
- b. neutral
- c. positive

(4) number of repetitions (as yet to be determined)

(5) vividness of language (neutral)

(B) Source

(1) main character (similar in background, i.e., race, age, and SES to targeted population)

(2) her husband (similar in background, i.e., race, age, and SES to targeted population)

(3) her friend (similar in background, i.e., race, age, and SES to targeted population)

(4) her doctor (African-American and probably female)

Transients

I. Message goals

(A) Overall: to reduce the mortality rate of breast cancer in targeted population.

(B) Behavior: increasing BSEs, CBEs, and mammographies in targeted population.

(C) Population: African-American women aged 55 and older living in rural Georgia.

II. Salient beliefs

(A) Susceptibility: from the focus-group data, many respondents seem to know that they are susceptible to breast cancer.

(B) Severity: according to focus-group data, perceived severity seems to vary among respondents as a function of how close they are to other people who have gotten breast cancer, especially family members. All seem to understand that breast cancer is potentially fatal.

(C) Barriers to self-efficacy: although respondents in the focus-group are afraid of getting breast cancer, they also expressed their fear of *knowing* they had breast cancer. In short, knowing one has breast cancer may be more frightening than the breast cancer itself--a significant mitigating factor in mammography usage.

(D) Response efficacy:

(1) Respondents understand that BSEs, CBEs, and mammographies can help minimize the risk of breast cancer.

(2) However, many respondents in the focus-group expressed their dislike of the way they are treated in their health care clinics (from the nurses and doctors), which could be a barrier to response efficacy.

III. Salient referents

- (A) Family members, church members, and friends (especially older members of the community who are considered experienced).
- (B) Susceptibility: cannot be determined from present focus-group data.
- (C) Barriers to self-efficacy: cannot be determined from present focus-group data.
- (D) Response efficacy: cannot be determined from present focus-group data.

IV. Cultural/Environmental Variables and Preferences

(A) Source

- (1) main character: a regular person similar to respondents= own background c i.e., race, age, and SES.
- (2) doctor: should also be African-American, though preference for a male or female varied. In either case, race seemed most important.

(B) Channel

- (1) video (on television monitor)
- (2) lay health care worker (who will present the video)

(C) Message

- (1) use simple language (no jargon)
- (2) show what it=s like to go through a mammography screening
- (3) note that breast cancer does not necessarily mean having the breast removed
- (4) state up front that mammographies are somewhat painful.

(D) Audience profile

African-American women aged 55 and over living in rural Georgia. Strong religious values. Strong ties to family and network of friends. Some belief in folk medicine. Economically and medically disadvantaged.

VIDEOSCRIPT DEVELOPMENT

After the focus group data were analyzed and structured within the PHM framework, weekly meetings of the GSU Research Team were conducted to discuss the process by which three affectively different messages could be constructed that would both retain cognitive and affective balance and not create comparability problems, i.e., the degree or intensity of persuasion would not

be greater or more compelling in one or two of the three messages. Therefore, a challenge of the formulation of the research stimuli was to design messages for each viewing condition (positive, neutral, or negative) that are comparable to each other. If three different scripts were written for the three different viewing conditions, then comparison of results from those conditions would become extremely difficult. Apparent differences from viewing conditions could be either the result of differences in valence, or because the manipulation of the script in one message was stronger than it was for the others. In other words, differences among scripts could become a **CONFOUNDING VARIABLE**. In order to control for this possible spuriousness, we determined that each viewing condition should be as close to the others in every way possible except in terms of valence (our independent variable). The way we decided to control for this problem was to use the same script for all three viewing conditions. The story line was open-ended so that the viewer is left uncertain about what happens to the main character after she gets her breast cancer screening. This element responded to the focus group finding that a diagnosis of breast cancer seemed to be more frightening than having the disease itself. Differences among the different viewing conditions will be accomplished through manipulation of the formal features of the audio and visual channels to convey a positive, neutral, or negative valence. For example, in the positive video condition, warm, glowing lighting was used and was accompanied by upbeat music in a major key. In the negative video condition, darker (i.e., more ominous) lighting was used and was accompanied by music in a minor key. In the neutral video condition, the lighting was essentially flat, and music was omitted altogether. In this way, valence of the videos was manipulated while all other aspects of the videos remained the same.

Using focus group data structured within the PHM framework, we developed a preliminary (Aworking@) script.

VIDEOSCRIPT PROCESS EVALUATION

A working draft of the videoscript was circulated among a variety of health educators, nurses, physicians, a gerontological researcher, and other faculty members at Morehouse School of Medicine and faculty members and graduate students at GSU. Written subjective evaluations of the draft were received, and preliminary results indicated that some revisions were required. Most of the comments were superficial in nature, i.e., names of characters, use of slang or colloquial expressions, story/visual elements that were secondary or non-supportive of the storyline. There was consensus on some important structural elements, however, that were more central, i.e., difficulty following the story, difficulty understanding why a particular character did/said ..., a scene or statement that was not believable. One of the most important and consistent findings was that the respondents expressed mild consternation that the dramatic stress of the story was unresolved. This suggests that engagement did, in fact, occur, and that readers were able to identify with the characters. From a theoretical perspective, this finding suggests central processing of information--a very desirable response.

VIDEOSCRIPT ASSESSMENT

An additional level of data gathering occurred among organizations associated with breast health promotion and education among African American populations. These organizations included the National Black Leadership on Cancer, BreasTest and More, the MSM Gerontology Center=s Breast Program, Bosom Buddies, Inc. Findings from these assessments confirmed our findings in the process evaluation. will be added. Members of the GSU Research Team will consult with professionals whose occupations are breast health promotion and education among African

American populations, specifically, the National Black Leadership Initiative on Cancer, BreasTest and More, Emory University Breast Health Program, Bosom Buddies, Inc.

PRE-TESTING OF MESSAGES

We conducted an informal pre-test of the rough cuts of the videos among faculty and staffers at MSM and GSU. While data from this pre-test was very helpful and encouraging, we felt that a pilot test among groups demographically matched to the target population should be carried out to ensure that members of the target population will be able to understand the message. (See Pre-Testing of Questionnaire below.)

Based on feedback from the pre-test of the video stimuli, several further modifications were carried out. Specifically, the volume of the music soundtrack was decreased, while the spoken components were sharpened and increased slightly in volume to improve clarity. Further, ambient sound was decreased and sound effects were added where appropriate. In terms of the mise-en-scène, lighting levels were increased throughout especially in the negatively valenced version. One scene was deleted entirely across all versions--that of a facial grimace from the main character while she is seen having her mammogram. (This portrayal was originally included in response to the focus group observation that mammograms are uncomfortable and that this discomfort should be acknowledged.) Members of pre-test groups, however, were unanimous in stating that this facial reaction was highly dissuasive. Because this issue could not be dealt with within its respective affective context, the scene was deleted entirely throughout all videos.

LAY HEALTH WORKER TRAINING CURRICULUM & PROCEDURES MANUAL

Initially, we have experienced some difficulties in the development of a training curriculum and procedures manual in terms of accessing the materials that were needed to formulate these documents. Ultimately, we formulated our training curriculum and procedures manual by following selected guidelines from:

- (1) *Do the Right Thing...The Right Way*, a user=s guide for community programs on mammography screening and education developed by The National Project AwarenessK Partnership, the National Cancer Institute, DeBor and Associates, Inc., Birch & Davis Associates, Inc., Prospect Associates, Inc.,
- (2) *BreasTest & MORE* developed by the Georgia Department of Human Resources, Division of Public Health, Cancer Control Section,
- (3) *The Heart of a Healthy Life*, a cardiovascular health education program for people over 50 developed by the American Association of Retired Persons and the American Heart Association. All of these materials provide a basic, tested guide to effective health education.

To this, we added elements relative to health communication issues, e.g., workshop leaders were sensitized to the possible confounding nature of incidental affective remarks, and presentation methods that support or undermine the videotaped message. The Training Curriculum and Procedures Manual are included in the Appendix.

RECRUIT, HIRE, & TRAIN COMMUNITY LAY HEALTH WORKER

Initially, the process of recruitment, hiring, and training of the community lay health workers was slightly impacted by the decision to devote greater time and more intense effort to the development of the structural components of the videotaped messages. Originally, we expected to recruit, hire, and train the community lay health workers in the second half of Year 01. After some consideration, we decided to delay this activity until the beginning of Year 02. The reasons for this decision were:

- (1) Little could be done by the lay health workers in their home communities other than superficial community organization in preparation for the implementation phase. We felt that important elements of the marketing strategy, i.e., immediacy and anticipation of the workshops (intervention) would be compromised if undertaken too early resulting in a gap of approximately one year between the beginning of the consciousness-raising publicity regarding participant recruitment and workshop planning, and the actual conduct of these activities. In short, valuable momentum of interest would be lost.
- (2) By carrying over the funding originally designated for lay health worker salaries in the second half of Year 01, we were able to provide some flexibility in terms of the levels of efforts that was required for the fieldwork. Originally projected at 10 hours per week per lay health worker, we felt that this projection was somewhat modest when evaluated within the context of the variety of unforeseen issues and problems that are customarily attendant to community-based research efforts.

Because of the delays in finalizing the videos, we elected to postpone training of the lay health workers until implementation was nearly ready to begin. Otherwise, re-training would have been necessary. The proposed, full-day training was accomplished as well as an additional half-day update training session following successful completion of the pilot test activities and survey modifications.

A significant problem occurred within our Ware County site. Preliminary recruitment efforts were begun with the pastor of one of the largest African American congregations. He was able to identify several interested individuals and to arrange an interview schedule. From this group, we selected applicant who was a nurse and very experienced community-based health promotion. After training and orientation, our Ware County health worker was able to recruit ten participants for the pre-test group. Following that, there was evasiveness and excuses, continual communication difficulties, and a complete lack of meaningful productivity. Finally, we were left with no choice other than separation, an action that appeared to resonate negatively within our target population. Given this perceived social climate, we elected to move the Ware County site to Bibb County and to subcontract with the Older American Council of Middle Georgia to recruit our third cohort of study participants. (The Older American Council of Middle Georgia is an African American community-based organization providing a variety of health services (including home health care, Meals-on-Wheels, etc.) to 13 rural counties in middle Georgia. This organization was very helpful in assisting us with the organization of the focus groups in Year 01.) In the Results section of this report, this group is designated as Group B.

SURVEY QUESTIONNAIRE ASSESSMENT & MODIFICATIONS

PRE-TESTING OF QUESTIONNAIRE

The pre- and post-intervention surveys were modified from a 24-item Breast Cancer Awareness Survey developed by the National Black Leadership Initiative on Cancer and the Atlanta Breast Coalition. As stipulated in the protocol, these instruments were reviewed by appropriate faculty members at MSM who are experienced survey and community-based researchers. They assessed the presentation and appropriateness of each item to the proposed study. The self-administered questionnaire included the following items: level of cancer awareness including incidence of disease and its management, and curability of stage-specific disease, breast cancer screening history, family history, and sociodemographic data (age, occupation, educational level, and family income). The questionnaire also contained questions focusing on breast health knowledge, awareness of breast cancer warning signals, and attitudes toward breast cancer. Finally, the GSU team expressed an interest in adding some items that measured specifically some communicational attributes. Before the assessment instrument was used, it was reviewed by the MSM IRB, and was pre-tested to determine suitability with the target population of this study.

We encountered an additional delay when we carried out the pre-testing of the survey instruments. Specifically, we chose Fort Valley, Georgia, a rural community located in Peach County. It is also the home of Fort Valley State University, an HBCU. We attempted to recruit an appropriate sample of African American women, aged 45-65, living in neighboring rural communities similar to our three target communities, and who had not been diagnosed with breast cancer nor received a mammogram within the preceding 12 months. The Older Americans Council arranged for appropriate facilities in which to conduct the pre-test and we provided lunch (in lieu of a cash incentive) for participants. Unfortunately, the recruitment and selection process for this pre-test group was not as rigorous as we had stipulated in that the entire sample of 35 women was between 63-72 years of age. Because of this, we determined that the pre-test was invalid.

Subsequently, a formal pilot test was attempted among 10 participants in each of our target sites; 30 participants in all. A total of 25 persons participated. These participants were recruited by our on-site lay health workers who had already received extensive training regarding subject recruitment and selection. Each site showed only one of the videos randomly assigned.

The pilot test of the workshop was implemented with twenty-five women, ages 45 to 65, with 10, 6, and 9 individuals viewing the videos in the three selected communities. Although these women had been screened prior to participation in the workshop, in their answers to the pre-test survey questions, 4 responded that they had had a mammogram within the past year, and thus were disqualified from the pilot. However, within the group, 52% had a relative or friend who had breast cancer (33.3% a friend, 25% a sister, and 16% a mother).

Most of the pilot test women were aware of the major symptoms of breast cancer (between 40% and 60% for each symptom), based on pre-test survey responses. While nearly half of participants were not aware of the major factors that increase the risk for breast cancer at the pre-test survey, about two-thirds responded correctly to these same questions at the post-test survey.

Following the pilot test, the following changes were made in the pre-/post-survey instruments. The finalized pre/post questionnaire is included in the Appendix. All of these changes were submitted to, and approved by our IRB:

Administration of the Informed Consent

Originally, we had planned to include the informed consent form in each survey set, and to obtain consent from each participant when she attended the workshop. Following our pilot test, the lay health workers revealed that this was a time-consuming, laborious process. In response, we elected to remove the administration of the informed consent from the workshop setting. When subjects are recruited, successfully meet the selection criteria, and are admitted to the Study, they are scheduled for a workshop and provided with a date, time, and location. Prior to their attendance, an informed consent form is mailed to them with instructions to read it carefully, and bring it to the workshop with them. At the beginning of the workshop, questions are answered and signatures are obtained.

Enhanced Confidentiality of Participant Data

By removing the informed consent from the survey set, and by coding the survey sets, we are able to enhance confidentiality of survey data. Further, by using the Participant Contact Form (See Appendix) that includes the survey codes, we are able to link a specific survey with the respondent's consent form. The Participant Consent Form will also serve as the source of contact information for the telephone follow-up.

Deletion of Breast Self-Examination Items from the Survey Instruments

Our pre-/post-survey instruments were modified versions of the 24-item Breast Cancer Awareness Survey developed by the National Black Leadership Initiative on Cancer. The Breast Cancer Awareness Survey included 3 items dealing with breast self-examination. We elected to delete these items from the final instruments in the interest of reducing the length of the survey, and because BSE was not part of the research protocol of this Study. The provision of BSE information was part of the workshop protocol from an educational, not investigative, perspective.

Changes in Likert Scale Items

Originally, we elected to provide a 7-level Likert Scale regarding breast health and breast cancer knowledge and attitudes, and with respect to the participants' appraisal of the video stimulus. This range of response choices proved to be difficult and confusing for respondents. Therefore, we decreased the range of response choices to 5.

VIDEO PRODUCTION

In Year 01, the videoscript was completed and appropriately amended following valuable input from two levels of process evaluation: (1) health educators, nurses, physicians, a gerontological researcher, and other faculty members at Morehouse School of Medicine and faculty members and graduate students in GSU Department of Communication, and (2) professionals whose occupations involve breast health promotion and education among African American populations, specifically, the National Black Leadership Initiative on Cancer, BreasTest and More, Bosom Buddies, Inc.

We determined that each viewing condition should be as close to the others in every way possible except in terms of valence (our independent variable). The way we decided to control for this problem was to use the same script for all three viewing conditions. The story line was open-ended so that the viewer is left uncertain about what happens to the main character after she gets her breast cancer screening. This element responds to the focus group finding that a diagnosis of breast cancer seemed to be more frightening than having the disease itself. Differences among the different viewing conditions were accomplished through manipulation of the formal features of the

audio and visual channels to convey a positive, neutral, or negative valence. For example, in the positive video condition, warm, glowing lighting was used and was accompanied by upbeat, gospel music. In the negative video condition, darker (i.e., more ominous) lighting was used and was accompanied by slow, somber music. In the neutral video condition, the lighting was essentially flat, and music omitted altogether. In this way, valence of the videos could be manipulated while all other aspects of the videos were kept the same.

We were also concerned that manipulation of only the formal features might be too subtle for study participants to discern. Therefore, adhering closely to the finalized videoscript, each key scene was shot three times from differing affective positions. For example, in the positive video condition, the main characters are seen smiling, and appear more upbeat and engaging. The pacing is slightly more brisk. In the negative video condition, a darker, somewhat apprehensive mood pervades the story, and this is exemplified in the way characters deliver their lines and in character interactions (the speeches themselves are identical throughout all three videos).

A key element in the videoscript was the careful and controlled telling of a story, and not merely the recital of breast cancer facts coupled with recommendations for mammographic screening. A story creates numerous opportunities for affective manipulation, dramatic stress, enhanced credibility, and viewer identification and involvement. In our (untitled) story, there are four main characters (all of whom are African American): Ruby, an overweight woman in her last 40's/early 50's who lives with her husband in an unidentified rural community. She is very involved in church and community activities. Ruby's best friend is Mary, a middle-aged woman who initially raises the issue of the importance of mammograms, and encourages Ruby (who reluctantly admits to never having had a mammogram) to schedule an appointment. Both Mary and Ruby's husband provide varying degrees of emotional support (strong in the positive condition; weak in the negative condition). Finally Dr. Lee is the physician whom Ruby sees and who administers her mammogram. Dr. Lee also serves as the vehicle for providing factual breast cancer information and screening recommendations. Based on our initial focus group data, important themes present in our video stimuli are: humor, denial, internal struggle regarding the importance of regular screening and the scheduling of an appointment, apprehension about keeping the appointment, curiosity about the procedure, discomfort involved in the procedure, and anticipation (during the subsequent wait) of the results. Each video ends with Ruby receiving a telephone call from Dr. Lee's office to discuss the results of her mammogram. Viewers, however, are not informed or given any indication as to what the results are.

Throughout Months 13-15, Evan Lieberman, the videographer on the GSU Team, took care of the numerous pre-production details that are necessary before a film shoot can begin. These included: development of a detailed video budget and shooting schedule, selection of the film crew (camera, sound, set, props, costumes, etc.), casting, location selection, and the selection and purchase of film stock.

Casting occurred in four separate sessions. One of the challenges of the casting session was to find actors and actresses who would be age and ethnically appropriate (i.e. African American actors/actresses older than 45). The main character, Ruby, and her husband were played by two members of the Screen Actors' Guild who had appeared together as a couple in several previous feature films.

The principal location for the film shoot was Rockdale County, a distant rural suburb of Atlanta. In selecting the location for the home of the main character, Ruby, it was essential to select a locale that would most closely resemble the rural communities in which members of the target audience

live. Consequently, we selected a modest white frame house with a large yard including a rustic barn and nearby pasture with a horse in it. Locations for other scenes in the films included a local clinic, a cemetery, and a church.

Shooting for the three films took place in Month 17 (December 20-23, 1997). The shooting process was extremely complex. Each scene had to be shot three times in three different ways. To convey the appropriate tone for each condition, the lighting, set design, set composition, mise-en-scène, camera movement, camera angle, and performance by the actors were all carefully varied and controlled. For example, in the negative condition, the lighting of the sets was darker (especially in Ruby=s home), the furniture was covered in cooler color tones, shots of Ruby tended to be taken from a lower camera angle, etc. These changes in set-up both within and between scenes took many more hours to complete than if only one condition had been shot. In one case, shooting took over 20 continuous hours to complete.

Upon completion of the production aspects, the GSU Team contracted with Cinepost of Atlanta to provide the post-production facilities. When the initial contract was signed, an Avid Editing System had been promised for completion of the films. Shortly after editing began, the Cinepost contractor replaced the Avid Editing System with a Windows NT Workstation. Unfortunately, this alternative system was not a satisfactory substitute for the one that had been initially promised to us. Problems with the Windows NT system included: (1) an inability to capture sound and video at high definition levels, (2) improper ordering of the edited sequences, and (3) system-wide crashes of the hard disk. These and other technical problems delayed the post-production editing of the films for several months. Eventually, owing to the contractor=s inability to address these problems satisfactorily, we were forced to move post-production to another company, Cats Eye Productions. Monies paid to Cinepost were not recoverable. Because Evan Lieberman is an established filmmaker in Atlanta, we were able to obtain a substantial discount from Cats Eye for completion of the editing. Thus, the GSU Team was able to stay within the overall GSU budget for Year 02. Rough cuts of the films were delivered to the MSM Team on June 30, 1998.

Pending completion of the final versions of the video stimuli, informal pre-testing was conducted among age/gender/race appropriate faculty and staffers at both MSM and GSU. Surveys were developed and are included in the Appendix of this report. Participants were asked to view all three videos (designated A, B, & C) and to complete the same survey after viewing each video. Finally, participants were asked to avoid as much as possible the tendency to make comparisons between and among the videos (since the study participants will view only one of the three). Preliminary results from this activity are very encouraging. All pre-test participants were able to correctly identify the affective position of each of the videos, and all were engaged by the story, and all felt that from a cultural perspective, the portrayals were sensitive, accurate and credible.

This activity was originally scheduled for completion by Month 15. We received rough cuts from our collaborative partner, Georgia State University, in Month 24, and final versions in Month 26. As a result of this delay, all subsequent activities relating to the implementation phase of the study were also delayed.

ESTABLISH RELATIONSHIPS WITH TARGET COMMUNITIES

ASSESS SOCIODEMOGRAPHICS AND COMPARABILITY OF COMMUNITIES

Establishment of relationships with target communities and assessment of sociodemographics and comparability of communities occurred earlier than projected, i.e., in Months 13 and 14 instead of 16 through 18. Preliminary data gathering was carried out when we were in the design stages of the BRIE Study, and target sites were selected based on these findings. When we embarked upon the participant recruitment in field implementation phase of the Study, we found that our initial findings were correct with regard to sociodemographic comparability. The change in location of one site (from Ware to Bibb County) did not compromise the site comparability. The recruitment and hiring of the community lay health workers provided an excellent opportunity to establish strong and positive relationships, a key element to community-based research in rural, African American communities.

RECRUIT STUDY PARTICIPANTS

The delays that we encountered in the initial developmental phase with respect to both the video production and the questionnaire pre-testing adversely impacted implementation phase including both participant recruitment as well as workshop scheduling and conduct.

In terms of subject recruitment protocol, however, we developed a Participant Contact Form (See Appendix) to serve the following functions:

- a. To provide a means of tracking the productivity of lay health workers
- b. To enable the lay health workers to centralize important contact information
- c. To provide a checklist to enable lay health workers to establish participant eligibility
- d. To provide a coding mechanism, thus enhancing confidentiality
- e. To provide centralized contact information for the telephone follow-up activities
- f. To enable verification of eligibility criteria by Study Team members.

The proposed Study sites are three rural areas located in south Georgia: Waycross, Valdosta, and Americus. Participant recruitment proceeded very slowly in Americus and Valdosta. In Waycross, however, no activity appeared to occur beyond the organizing of the field pre-test. After some investigation, we discovered that the community health worker in Waycross was unable to carry out the recruitment and workshop activities that she agreed to. Her involvement with the Study was terminated, and rather than risk contamination in Waycross by attempting to identify, train, and place another community health worker, we elected to move the site to Macon and subcontracted with the Executive Director of the Older Americans Council of Middle Georgia to recruit our third cohort and conduct the workshops. The catchment area for the Older Americans Council of Middle Georgia includes 10 rural counties, not adjacent to either Sumter (Americus) or Lowndes (Valdosta) Counties, with large population segments that are within the Study's participant guidelines and are demographically matched to the defined sample profile.

Overall, recruitment of study participants was very challenging. Traditional marketing approaches (public announcements, posters, announcements in church-related publications and events) proved to be ineffective. Likewise, attempts by the lay health workers to organize participants into workshops of 20-25 persons were also unsuccessful. Therefore more aggressive marketing techniques were used, e.g., direct interpersonal recruitment, speaking engagements, contacting women's groups and church-based women's organizations, recruiting activities at senior citizen centers and organizations. In an attempt to maximize participation, lay health workers conducted smaller and more frequent workshops as these were easier to schedule and resulted in the higher levels of involvement. We discovered that the no-show rate correlated positively with the length of lag time between recruitment and attendance at a workshop. We attempted to minimize this by

conducting smaller workshops more frequently. Community health workers provided reminder phone calls a day or two before the scheduled workshop, and they changed the workshop locations to accommodate each particular group. All of these efforts were much more labor-intensive than was envisioned. Despite all these efforts, participant recruitment proceeded very slowly.

As completed surveys were delivered, they were reviewed for eligibility, completeness, and measuring the self-rating of risk of getting breast cancer. During early stages of Study implementation, as the review of submitted surveys was done, several inconsistencies were noticed, some of which predated undertaking selected validation calls to women who had participated in the study. The validation calls were made to women for whom age was changed from outside of the eligible range to within the eligible range, and a different response to age or time since last mammogram on the contact sheet and the survey form. Those women for whom data were incorrect on the survey form were disqualified from the study and their surveys not used. Additional women and surveys were rendered disqualified based on having a large number of questions for which responses were not recorded, typically more than 12 questions left blank on a single survey or more than 6 questions left blank in either section for which the same questions were asked before and after viewing the video. The number of disqualified surveys further slowed the pace of data collection because the community health workers were required to recruit replacements.

The Study sample was specified at 450 participants (150 in each of three communities). Based on rate of qualified surveys returned and expected losses during period before telephone follow-up, we elected to increase the Macon site by 50 for an anticipated total of 500 participants.

PARTICIPANT RECRUITMENT

Lowndes (Valdosta)	Sumter (Americus)	Bibb (Macon)	TOTAL
117	140	195	452

IDENTIFY MAMMOGRAPHY AND CLINICAL BREAST EXAM SITES

We provided our lay health workers with basic information with regard to local low-cost or no-cost mammography exam sites in the target areas. We assigned the task of identifying specific facilities to each health worker. For the most part, these sites were the county health department facilities who provided mammograms as part of the Georgia BreastTest and More Program. An interesting complication that arose in connection with the identification of these sites was the extent to which such facilities target their services during October which is Breast Health Month. We observed a substantial increase in demand for mammographic services during this time arising presumably from the increase in mammogram promotional initiatives that occurred at that time. We realized that such initiatives constituted an uncontrolled variable and a potential threat to the validity of the present Study. In an effort to have some understanding of the possible impact of these external influences, we included an item on the telephone follow-up survey that asked if had seen or heard breast health messages from other sources. Respondents were also asked to identify through which media they recall receiving these messages.

ORGANIZE AND CONDUCT 5-7 WORKSHOPS IN EACH TARGET COMMUNITY

Because of developmental delays and participant recruitment challenges, the implementation phase took longer than anticipated necessitating a second 12-month no-cost extension. This revision of the timeline was communicated to the lay health workers in each site, and they strengthened their

recruitment efforts by seeking referrals from workshop participants of other women in their respective communities who may be interested in participating in this Study. The selection criteria, however, were not relaxed, and referral was not necessarily synonymous with admission.

Additionally, in our half-day training update session, the issue of workshop size was revisited. While smaller groups (of approximately 10-15) may have been optimal, and larger groups (20-25 participants) may have been expedient, our experience in Lowndes and Sumter Counties suggested that the length of time that elapsed between recruitment and participation in a workshop was a significant factor in our attrition rate. Therefore, workshop scheduling was driven by the recruitment outcomes which were affected by numerous external factors. For example, recruitment and workshop scheduling were difficult during October because of the occurrence of other competing breast health initiatives. Similarly, recruitment and workshop scheduling were ineffective from mid-November until mid-January because of holiday issues.

In terms of the workshop content, the operational agenda for each for each workshop was carefully specified in the health workers= training manual. Each workshop was conducted as follows:

- Welcome
- Informed consent gathering (Read as necessary)
- Respond to informed consent questions, if necessary
- Distribute survey set
- Instruct participants to complete FIRST SURVEY, and then, STOP. Read if necessary.
- Show AFirst Test® using the version (A, B, or C) that was assigned to EACH workshop
- Do not participate in any discussion that may occur.
- At the end of video, instruct participants to complete SECOND SURVEY. Read if necessary
- Collect survey set.
- Distribute BSE materials.
- Show Breast Health Kit BSE video
- Distribute referral information
- Reiterate follow-up procedure
- Thank participants & end.

The training manual explicates each of these steps, and further cautions the health workers against possible contaminating behaviors like vocal inflection, informal discussions, offering opinions, etc. that may influence participants= knowledge, attitudes, or beliefs relative to breast health, breast cancer, or mammography.

EVALUATE DATA GATHERED IN WORKSHOPS

Completed surveys, contact sheets, and consent forms were sent to the Project Director (initially at MSM, later at GSU) for review as soon after the conduct of a workshop(s) as practicable. The surveys were reviewed for completeness and to ensure that the participant selection criteria were valid. The data were then entered into Epi Info Version 6.0 by three graduate research assistants over the course of two semesters for an approximate total of 200 hours. All data were double-entered and validated. The graduate students had received training in data entry and data validation from other experienced staff and worked under the direct supervision of Dr. Theresa Ann Sipe, GSU College of Health & Human Sciences biostatistician. All data problems were brought to the attention of the Program Director for clarification and resolution. Data problems included missing data, duplicate data or ID numbers, and illegible handwriting. The data were exported into SPSS Version

9.0. Program files were written in SPSS to create variable labels, value labels, and score instruments. Frequencies and descriptive statistics were conducted. Two data files were provided to the Applied Research Center at Georgia State University for purposes of the follow-up survey.

VALID SURVEYS BY SITE

Lowndes (Valdosta)	Sumter (Americus)	Bibb (Macon)	TOTAL
116	138	195	449

VALID SURVEYS BY VIDEO VERSION SHOWN

A	B	C	TOTAL
149	149	148	446

RECRUIT & TRAIN GRADUATE STUDENT PHONE INTERVIEWERS IMPLEMENT 12-MONTH FOLLOW-UP

Because of the developmental and implementational delays we encountered, we determined that we could reclaim some lost time by subcontracting the follow-up protocol to the GSU Applied Research Center (ARC). This approach eliminated the need for graduate student recruitment and training, the infrastructural requirements to carry out the telephone follow-up, and data inputting functions. Further, ARC was able to provide extensive tracking of the results of each phone call, i.e., how many attempts were required, the outcome of each attempt, as well as administrative issues relative to the disbursement of incentive monies.

The Survey Research Lab within the Applied Research Center at Georgia State University maintains one of the most versatile and well-trained survey research staffs in the Southeast. The lab employs approximately 50 well-trained telephone interviewers, and conducts over 15,000 telephone interviews each year. For telephone interviews, the Survey Research Lab uses a Computer Assisted Telephone Interviewing (CATI) system. This system, while allowing us to maintain personal contact with the participant through an interviewer, enables us to input the response directly into computer data files. This eliminates the need for all subsequent data entry, significantly reduces the number and type of errors that can be made by the interviewer, and speeds up the process of telephone interviewing and data collection considerably.

In addition, the CATI system is programmed to allow the interviewer to enter only those values within the range of each specific question. For example, if the appropriate answers to a specific question are AYes@ or ANo@, where AYes@ is labeled 1 and ANo@ is labeled 2, CATI is programmed to accept only those two numbers as an answer. This further reduces the number of errors that an interviewer can make during the interview. On the C13 CATI system the exact text of each question appears by itself on a screen. This text screen provides the interviewer with all of the possible answers and clarifying statements, if necessary, for each question along with any notes or special instructions for the interviewer. In this system all branching patterns are preprogrammed with the branching response automatically leading to the next question in the pattern. Additionally, this system makes it easy to go back to confirm answers and, if necessary, to change them in the midst of an interview.

The CATI system also allows data entered at some point earlier in the interview to be inserted later in the survey in the text of a question. For example, if a series of questions pertains to ethnic background, or race, the client may wish to use the respondent's definition of race or how he/she describes his/her own race. A screener question may ask the respondent to define an ethnic term. The interviewer would type that definition into CATI. CATI would then recall the definition and insert it later in the survey when certain questions appear.

The CI3 CATI system maintains separate call records on each respondent in the sample. These call records are accessible only by the supervisors. Each call record contains the Acall history® for the respondent, and any appointments that have been set for that respondent. The call history is comprised of the disposition, or result, of every call placed to a particular respondent, the interviewer that placed each call, and the time and date at which the call was made.

To sum up, the ability to program the CATI system to allow only those values within the range of each specific question to be accepted, present questions in random order to preclude systemic order effects, allow for split sample questions, and response dependent follow-up questions include additional respondent specific information, and keep separate call records on each individual in the sample makes the CI3 CATI system an integral and versatile tool in the generation of telephone survey research. This state-of-the-art system serves as an essential component in the production of over 15,000 completed interviews a year for the Applied Research Center and has assisted in the development of the centers' reputation as being one of the most versatile and well-staffed research centers in the Southeast.

The sample for the BRIE study was prepared and sent to the Applied Research Center by the Program Director, Larry Brown. We began with a list that contained 384 telephone numbers of women who had participated in the first phase of the study. An additional 65 telephone numbers of participants were sent to us approximately a month and a half before the end of the study. Table 1 gives the outcomes of our calls to the 449 possible respondents. In the end, only 15% of the names on the two lists could not be contacted because of an incorrect telephone number.

Description of Sample Units

Sample Type	Total	Percent
Eligible Sample	383	85.3
Nonsample	66	
Business	4	6.0
Disconnected or Nonworking Number	62	94.0
TOTAL	449	100.0

The survey began on March 12, 2001 and continued until June 25, 2001. Interviewing was conducted on weekdays from 10 am to 9 pm, Monday through Thursday and on Fridays from 10 am to 5 pm. Weekend interviewing took place on Saturdays from 11 am to 7 pm and on Sundays from 1 pm to 9 pm.

THIS PAGE CONTAINS UNPUBLISHED DATA

On average, 5.1 calls were made to each of the 449 telephone numbers on the original lists of previous participants, and the average length of the interview was 13.05 minutes. Table 2 presents statistics for the participants who had working telephone numbers. Overall, the refusal rate was very low, but we were able to convince six people who had initially refused to complete the interview.

Follow-Up Survey Outcomes for the Eligible Sample

Outcome	Number	Percent
Completed Interviews	324	84.6
Refusals by Respondent or Someone Else in Household	5	1.3
Noninterviews (Sickness, Doesn't Speak English, Out of Town, Respondent Unavailable)	54	14.1
TOTAL	383	100.0

The very high response rate of 84.6% resulted from several factors. We mailed an introductory letter to each sample unit that reminded the respondent of her previous participation and described the follow-up survey. The letter also stated that the respondent would be mailed a payment of \$10.00 upon completion of the interview. Any of these introductory letters that could not be delivered were returned to us, and the BRIE study staff attempted to locate new addresses. Survey research lab interviewers called the telephone numbers of these respondents in case only the addresses had changed. In addition, we sent a second letter to those respondents who apparently had a valid address (the first letter was not returned to us) but a nonworking or disconnected telephone number. This letter asked the participants to call the survey lab on a 800 number to complete the interview.

ANALYZE DATA & WRITE REPORTS

Sample: Five hundred twenty-one (521) women from the three rural cities agreed to participate in the study. Pretest and posttest data were complete for 449 participants.

Demographic Descriptives by City: The mean age for the sample was 52.55 years (S.D. = 11.23 years). There was a significant difference between city participants on age ($F(2,446) = 7.78, p = .000$). Women in City A (Mean = 49.66, S.D. = 10.25) were younger than participants from City B (Mean = 54.49, S.D. = 11.48) and City C (Mean = 52.89, S.D. = 11.20). See Table 1 for mean ages by city and by video group. A significant difference was noted between city groups on household income ($\chi^2 = 23.07, df = 12, p = .027$); a greater percentage of women in City B reported household incomes of greater than \$50,000 per year. The city groups differed on marital status ($\chi^2 = 11.55, df = 4, p = .021$), with a greater percentage of married women living in City C. Women in City B reported significantly higher education levels than women in the other two cities ($\chi^2 = 34.90, df = 10, p = .000$). There was no difference between city groups on access to regular health care. See Table 2 for demographics of sample by city.

Demographic Descriptives by Video Group: There was a significant difference between groups on age ($F(2,443) = 16.03, p = .000$). Women in Group C (Mean = 56.68, S.D. = 12.67) were significantly older than women in the other two groups (Group A: Mean = 50.36, S.D. = 10.30; Group B: Mean = 50.64, S.D. = 9.38). See Table 3 for demographic information by video group. A significant

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difference between groups on annual household income was noted ($\chi^2 = 30.88$, $df = 12$, $p = .002$). More women in Group C came from household with an annual income of less than \$10,000 per year. See Table 3. {Note: there was a significant difference between counties in annual household incomes ($\chi^2 = 23.07$, $df = 12$, $p = .027$). More participants in County B made less than \$10,000 per year or \$50,000 or more per year]. A significant difference between groups on education was reported ($\chi^2 = 29.26$, $df = 10$, $p = .001$). More women in Groups A and B reached higher levels of education than women in Group C. No significant difference between groups was noted on marital status or having a regular source of health care. The groups differed on sources of health care insurance. The women in Group C were less likely to have private insurance ($\chi^2 = 22.96$, $df = 2$, $p = .000$). Women in Group C were more likely to have health care coverage from Medicaid ($\chi^2 = 13.74$, $df = 2$, $p = .001$). or Medicare ($\chi^2 = 12.38$, $df = 2$, $p = .002$) than in the other two groups.

Breast health and history were assessed. The groups did not differ in regards to the incidence of breast cancer diagnosis of a family member or close friend, a breast cancer diagnosis of the participant herself, nor their use of tobacco. For the most part, the women in all groups had heard of a mammogram, however, the women in Groups A and B were more likely to have had a mammogram ($\chi^2 = 26.09$, $df = 8$, $p = .001$); see Table 2. Each participant was asked to check reasons why she did not get a mammogram regularly. There were significant differences between groups on their responses. Although the numbers were small, more women in Group C indicated that they did not know where to get a mammogram ($\chi^2 = 6.13$, $df = 2$, $p = .047$). Fewer women in Group C reported that they were afraid to get a mammogram than those in Groups A and C ($\chi^2 = 7.12$, $df = 2$, $p = .028$). See Table 3.

Instructed to check all that applied, the participants were asked to identify symptoms that they thought were warning signs of breast cancer. More women in Groups A and B thought that pain, soreness, and burning in the breast was symptomatic of breast cancer than women in Group C ($\chi^2 = 12.24$, $df = 2$, $p = .002$). Women in Group C were less likely to identify discharge from the nipple ($\chi^2 = 10.52$, $df = 2$, $p = .005$), swelling or enlargement of the breast ($\chi^2 = 8.95$, $df = 2$, $p = .011$), changes in shape of the breast or nipple ($\chi^2 = 14.22$, $df = 2$, $p = .001$), and discoloration ($\chi^2 = 15.73$, $df = 2$, $p = .000$) as signs and symptoms of breast cancer than participants in Groups A and B. See Table 4.

RESULTS

Hypothesis: A culturally appropriate breast health promotion message will motivate increased compliance to recommended cancer screening schedules, and changes in knowledge and attitudes. Affectively positive and negative messages will result in greater change than will affectively neutral, cognitive messages. The relative ordering of the two affective messages is unknown.

The defining variables of cultural appropriateness that emerged from the three focus group conducted in the initial stages of the study and subsequently guided the development and formulation of the videotaped intervention included: same-race and race consonant characterizations throughout, rural setting, themes of strong interpersonal support, evidence of extended family, and importance of religion and involvement with church activities. Each of the three developmental steps--videocscripts, rough cuts of the videos as work progressed, and the final video products—were all pre-tested among various African American audiences to ensure the messages and portrayals were culturally appropriate.

The issue of equalizing the affective orientation of the interventions has been explained in detail in the previous section of this report. See Statement of Work.

In terms of knowledge, the affectively positive and negative message did not significantly outpace the neutral message. Table 8 shows that those participants viewing the neutral message (Video C) gained the most knowledge from pretest to posttest. This is a particularly noteworthy finding considering that the neutral message group pretest mean was very comparable to the positive (Group A) and negative (Group B) message groups pretest means. Further, Group C differed significantly from Groups A and B on several levels. This phenomenon is discussed below.

In terms of attitudes, Table 9 shows that slight positive shifts occurred for Video Group A (positive), slight negative shifts occurred for Video Group B (negative), and greater positive shifts occurred for Video Group C (neutral). An interesting phenomenon occurred in the knowledge and attitudes scales at follow-up. All video groups dropped significantly in both knowledge and attitudes from posttest to follow-up. A possible explanation could be the change in rhetorical landscape, i.e., the conditions under which participants responded to the posttest were very different from those under which they responded to the telephone follow-up approximately 12 months later. In the survey and intervention situation, they had been asked to attend a workshop (an event) requiring them to anticipate, prepare for, and focus on this activity. The workshops were held in congenial environments and may have been concurrently attended by their peers or friends thus adding the additional dynamic of social support. The intervention itself provided an engaging plot that may have enhanced central processing of the message components. All of these influences enhanced and supported message transmission, processing, and acceptance. Conversely, at follow-up, participants were aware of an impending follow-up telephone call through the reminder letters that each once received immediately prior to the implementation of the follow-up protocol, but they did not know the day or time that they would receive the telephone call. It is therefore likely that the participants were not focused or not as focused on the issue of breast cancer prevention and mammographic screening as they were in the workshop setting. Further, since follow-up calls were made to the participants' homes, it is likely that they were otherwise occupied at the time of the call, or were not disposed to provide thoughtful, considered answers to the questions that they were asked.

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In terms of compliance with the intervention recommendation (to get a mammogram), groups viewing both of the affective messages showed higher levels of message acceptance (48.0% (positive) and 46.9% (negative)) than the group viewing the neutral message (34.5%). See Table 12. However, compliers (participants who reported having received a mammogram within the previous 1-2 years) accounted for more than half of each group (Video Group A = 68.0%, B = 58.5%, C = 58.8%), a finding that challenges the persuasive impact of the intervention since more than half of those participants who accepted the intervention recommendation appeared to be pre-disposed to do so. Nevertheless, the affectively positive and negative messages showed higher recommendation acceptance rates among those women who reported being less compliant with general mammographic screening recommendations (>2 years since last mammogram) as well as among those women who reported never having had a mammogram. See Table 12.

Despite considerable efforts at randomization of the video stimulus within and across all three sites, the combined cohort from all three sites that viewed the neutral video (Video C) was significantly less affluent (58% reported household incomes of less than \$10,000 compared to 47% and 36% for Groups A and B respectively), reported lower educational attainment (70% reported not finishing high school compared with 39% and 36%, A and B) reported higher rates of divorce, death of spouse, or separation (55% compared with 47% and 49%, A and B), and higher dependence on Medicaid (52% compared to 26% and 31%, A and B). This finding must be taken into consideration when interpreting the results of this study.

Sub-hypothesis #1: Knowledge of breast cancer risks and preventions among women aged 45-65 will increase by approximately 30% from baseline to immediate post-test.

Knowledge of breast cancer risks and preventions was measured by an 9-item true/false questionnaire, with scores ranging from 0-9. The relative percentage of change $[(\text{post-test} - \text{pretest}) / \text{pretest}] \times 100$ between the pretest and post-test scores for the sample was 15.36%. The relative percentage of change for each group follows: Group A = 12.24%; Group B = 13.51%; Group C = 20.06%.

There was a significant difference between pretest and post-test scores for the total sample ($t = -8.155$, $df = 449$, $p = .000$). Scores for the sample were slightly higher on post-test (Mean = 6.81, S.D. = 1.76) than they were on pretest (Mean = 6.17, S.D. = 1.60). When differences between groups were analyzed, no significant difference was noted between groups on pretest/post-test scores ($F(2,444) = .121$, $p = .886$). However, the test for within-subjects effects indicated that the individuals in the groups differed in their knowledge at pretest and post-test $F(df = 1) = 64.64$, $p = .000$.

Knowledge of breast cancer was measured one year following the intervention. There was no significant difference between video groups on knowledge of breast cancer over the three measurement periods ($F(2,323) = .955$, $p = .386$). Although the video groups did not differ in their knowledge, it is interesting to note that the subjects knowledge of breast cancer differed significantly over time. There was an increase in post-test scores over pretest scores, however knowledge scores at the one year measurement period dropped significantly for all groups ($F(2,323) = 214.87$, $p = .000$). See Table 8 for mean knowledge scores.

Perceived risk for breast cancer was measured by a visual analog scales (VAS). Participants were asked to mark their perceived risk for breast cancer on a line with marking ranging from 1 (high risk)

to 8 (low risk). For the total sample ($N = 395$) the markings on the VAS actually decreased slightly from pre-test (Mean = 5.08, S.D. = 1.92) to post-test (Mean = 5.07, S.D. = 1.97). There was no significant difference between pre-test and post-test perceived risk for breast cancer in the whole sample ($t = .20$, $df = 394$, $p = .840$), however, there was a significant difference in scores between groups ($F(2,389) = 7.631$, $p = .007$). Women in Group A rated their perceived risk lower at both pre-test and post-test than did the women in the other groups.

Attitudes about breast cancer were assessed with an 11-item questionnaire that used a Likert-like scale (strongly agree to strongly disagree) to report participants' attitudes. Scores could range from 11-55. There were no significant differences in attitudes scores between pre-test and post-test for the total sample ($t = -1.247$, $df = 449$, $p = .213$) nor between groups ($F(2,444) = 2.342$, $p = .097$). Comparison of attitude scores by group across all three measurement periods demonstrated that there was no significant difference between groups ($F(2,318) = 1.103$, $p = .333$). See Table 9 for mean attitude scores by group. As can be seen in Table 9, the mean attitude scores decreased for all groups at the final measurement period; this within-subjects effect was significant ($F(2,318) = 540.778$, $p = .000$).

As part of the post-test data collection, subjects were asked to complete a 12-item questionnaire about the video they watched. Items 1-8 asked about the participant's feelings about the video. There was no significant difference between groups on the total score for questionnaire regarding their feelings about the video ($F(2,444) = 1.452$, $p = .235$). Group differences were noted on the item related to their feelings about the music in the video ($F(2,444) = 9.729$, $p = .000$). No significant difference between groups was found on Item 9 which focused on the overall rating of the video ($F(2,444) = 1.244$, $p = .289$). Table 7 presents descriptive information regarding the subjects' feelings about and rating of the video. Items 10-11 inquired about characters in the video. Groups reported a significant difference regarding the character that they liked the most ($\chi^2 = 15.558$, $df = 6$, $p = .016$) and the character they liked the least ($\chi^2 = 15.552$, $df = 6$, $p = .016$). The character Mary was the favorite of all groups, but Ruby came in a close second for Video Group B. Dr. Lee was the least favorite character across all video groups, however, Video Group B also reported a dislike of husband Frank. The final item asked the participant to predict what the outcome of the main character's mammogram was. There was no difference between groups on their responses to the results of the mammogram ($\chi^2 = 6.451$, $df = 4$, $p = .168$). Most of the respondents did not know what the results were, but about 1/3 of each group felt that Mary may have some breast health problems. At the 12-month follow-up period, participants were asked if they remember the video as happy and upbeat, sad and depressing, or neither happy nor depressing. There was a difference between groups on responses ($\chi^2 = 18.192$, $df = 8$, $p = .020$). A greater percentage in Video Group B (30.3%) recalled that the video was happy and upbeat. Participants in Video Group C (19.6%) viewed the video to be sad and depressing. Women in Video Group A (57.8%) indicated that the video was neither happy nor sad. Table 10 includes the video group responses to these questions.

Sub-hypothesis 2: At follow-up, the percentage of women aged 45-65 who have had a clinical breast examination within the past year will increase by at least 20%.

This sub-hypothesis was discarded early in the study when it was determined that access to mammography services may or may not be available within a facility that also offered clinical breast exams as well. Given the scarcity of clinical facilities in many of the areas in which this study took place, cost considerations for a predominantly low-SES population, and complications attendant to

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doubling the message recommendation, we elected to focus exclusively on promoting mammographic screening.

Sub-hypothesis 3: At follow-up, the percentage of women aged 45-65 who have had a mammogram within the past year will increase by at least 20% and will be at least 50%.

The selection criteria of this study eliminated women who had had a mammogram within the previous 12 months at enrollment since in most cases, they would be ineligible to comply with the intervention recommendation. Moreover, general recommendations for mammographic screening vary from 1-2 years depending on the source, time of the recommendation, and age of the target. In the BRIE Study, we interpreted reported mammogram frequencies of 1-2 years as compliant. Viewed from this perspective, data indicate that the compliers are dependably compliant because this subgroup showed the highest percentages of recommendation acceptance, all of which exceeded 50%. Curiously, those members of this subgroup who viewed Video A demonstrated a 3% decrease from baseline. One possible explanation could be the occurrence of the workshop within each participant's screening schedule, i.e., compliers may have been on a 12, 18, or 24 month screening schedule as recommended by their health care provider and thus were not due to obtain a mammogram within the 12-month post intervention window. Another explanation could be that for members of this subgroup, Video A was slightly dissuasive even though the overall effect of the positive message on all subgroups appeared to motivate the greatest levels of recommendation compliance. Those members of the subgroup who viewed Video C demonstrated a 19% increase from baseline but the lowest compliance rates of all three affective conditions.

Of the total number of women contacted at 12 months ($n = 319$), the overall percentage of women receiving a mammogram since the intervention ($n = 193$; 60.5%) was greater than the percentage of the total sample ($N = 447$) who had had a mammogram within the past 2 years ($n = 215$; 48.1%). See Tables 11, 12, and 13.

Of the total number of women contacted at 12 months ($n = 319$), the overall percentage of women receiving a mammogram since the intervention ($n = 193$; 60.5%) was greater than the percentage of the total sample ($N = 447$) who had had a mammogram within the past 2 years ($n = 215$; 48.1%) prior to the intervention. See Tables 4, 11, and 12. Women in Video Group C were less likely to get a mammogram before and after the intervention. Table 12 provides some interesting information. It could be assumed that all the women who were compliant with the recommendations to get a mammogram annually were those women who had had a mammogram within the last two years. When these percentages are compared with the percentage of women who received mammograms since the intervention, it can be seen that the percentage dropped from pre-intervention to 12 months post-intervention for Video Group A (pre-intervention = 58.7%; 12 months post-intervention = 48.0%) and Video Group C (pre-intervention = 36.5%; 12 months post-intervention = 34.5%). Video Group B remained relatively stable (pre-intervention = 46.3%; 12 months post-intervention = 46.9%). Definite gains in mammography screening can be noted in the number of women who had never had a mammogram or who had a mammogram more than 2 years prior to the intervention. The increase in percentage gains for these women ranged from 21.3% of women in Video Group C who had never had a mammogram to 50.0% of the women in Video Group A who had had a mammogram more than 3 years prior to the intervention.

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During the telephone interview at the 12-month follow-up, participants were asked if they recall seeing or hearing any information about breast health from various sources. Over the course of the last year or two, 86.3% of the sample recalled hearing or seeing some information about breast health. See Table 13. Across all groups, television was identified as the source most often associated with breast health information. The doctor=s office or site where the participant received health care was reported to be the second most common resource for breast health information. The workplace was least likely to be identified as a resource for this information. The groups varied in their identification of breast health information resources. Video Group A was least likely to report the church or women=s club as a resource. The radio and signs or billboards were identified less often by Video Group B. Video Group C were less likely to remember seeing or hearing about breast health in the doctor=s office or the workplace.

Table 1.
Differences on Age by City and by Video Group

	<i>n</i>	<i>Mean</i>	<i>S.D.</i>
Age by City			
City A (Sumter)	138	49.66	10.25
City B (Bibb)	195	54.49	11.48
City C (Lowndes)	116	52.89	11.20
Age by Video			
Group A	149	50.36	10.30
Group B	149	50.64	9.38
Group C	148	56.68	12.67

Table 2.

Demographic Characteristics by City

	<i>Sumter</i> (<i>n</i> = 134) <i>n</i> (%)		<i>Bibb</i> (<i>n</i> = 195) <i>n</i> (%)		<i>Lowndes</i> (<i>n</i> = 114) <i>n</i> (%)	
Household income						
Less than \$10,000	49	(36.6)	66	(33.8)	26	(22.8)
\$10,000-\$14,999	11	(8.2)	29	(14.9)	20	(17.5)
\$15,000-\$24,999	22	(16.4)	24	(12.3)	23	(20.2)
\$25,000-\$34,999	10	(7.5)	19	(9.7)	16	(14.0)
\$35,000-\$49,999	18	(13.4)	14	(7.2)	7	(6.1)
\$50,000 or more	11	(8.2)	24	(12.3)	7	(6.1)
Unknown	13	(9.7)	19	(9.7)	15	(12.9)
Education						
Less than high school	48	(35.3)	73	(37.4)	24	(21.1)
High school graduate/GED	41	(30.1)	49	(25.1)	38	(33.3)
Some college or technical school	27	(19.9)	25	(12.8)	36	(31.6)
College graduate	12	(8.8)	20	(10.3)	13	(11.4)
Advanced college degree	6	(4.4)	23	(11.8)	2	(1.8)
Other	2	(1.5)	5	(2.6)	1	(0.9)
Marital status						
Married	51	(36.7)	84	(43.1)	61	(53.5)
Single	42	(30.2)	39	(20.0)	18	(15.8)
Divorced, widowed, or separated	46	(33.1)	72	(36.9)	35	(30.7)
Regular source of health care						
Yes	110	(81.5)	166	(85.6)	88	(81.5)
No	26	(18.5)	28	(14.4)	20	(18.5)
Health care insurer						
Private insurance	56	(40.3)	85	(43.6)	54	(46.6)
Medicaid	41	(29.5)	45	(23.1)	23	(19.8)
Medicare	22	(15.8)	44	(22.6)	22	(19.0)
Cash, check, money order, credit card	35	(25.2)	60	(30.8)	33	(28.4)
Other	9	(6.5)	18	(9.2)	9	(7.8)

Table 3.

Demographic Characteristics by Video Group

	<i>Group A</i> (<i>n</i> = 149) <i>n</i> (%)		<i>Group B</i> (<i>n</i> = 149) <i>n</i> (%)		<i>Group C</i> (<i>n</i> = 148) <i>n</i> (%)	
Household income						
Less than \$10,000	47	(31.8)	36	(24.5)	58	(40.0)
\$10,000-\$14,999	19	(12.8)	23	(15.6)	18	(12.4)
\$15,000-\$24,999	26	(17.6)	28	(19.0)	14	(9.7)
\$25,000-\$34,999	14	(9.5)	21	(14.3)	9	(6.2)
\$35,000-\$49,999	13	(8.8)	16	(10.9)	10	(6.9)
\$50,000 or more	17	(11.5)	15	(10.2)	10	(6.9)
Unknown	12	(8.1)	8	(5.4)	26	(17.9)
Education						
Less than high school	39	(26.2)	36	(24.5)	70	(47.9)
High school graduate or GED	50	(33.6)	48	(32.7)	29	(19.9)
Some college or technical school	29	(19.5)	29	(19.7)	30	(20.5)
College graduate						
Advanced college degree	16	(10.7)	21	(14.3)	8	(5.5)
Other	12	(8.1)	11	(7.5)	6	(4.1)
	3	(2.0)	2	(1.4)	2	(2.1)
Marital status						
Married	69	(46.0)	68	(45.6)	58	(39.7)
Single	34	(22.7)	32	(21.5)	33	(22.6)
Divorced, widowed, or separated	47	(31.3)	49	(32.9)	55	(37.7)
Regular source of health care						
Yes	119	(82.1)	124	(86.1)	119	(82.1)
No	26	(17.9)	20	(13.9)	26	(17.9)
Health care insurer						
Private insurance	77	(52.7)	75	(51.0)	41	(27.9)
Medicaid	26	(17.8)	31	(21.1)	52	(35.4)
Medicare	25	(17.1)	20	(13.6)	43	(29.3)
Cash, check, money order, credit card	37	(25.3)	46	(31.3)	42	(28.6)
Other	14	(9.6)	11	(7.5)	11	(7.5)

Table 4.

History of Mammograms by Video Group

History of Mammogram	Video Group A	Video Group B	Video Group C	Total
	Pre- Intervention n = 150 n (%)	Pre- Intervention n = 149 n (%)	Pre- Intervention n = 148 n (%)	Pre- Intervention n = 447 n (%)
Had mammogram within the past 12 months	0 (0.0)	4 (2.7)	0 (0.0)	4 (0.9)
Had mammogram between 1-2 years ago	88 (58.7)	69 (46.3)	54 (36.5)	211 (47.2)
Had mammogram between 2-3 years ago	9 (6.0)	9 (6.0)	17 (11.5)	35 (7.8)
Had mammogram more than 3 years ago	14 (9.3)	20 (13.4)	16 (10.8)	50 (11.2)
Never had mammogram	39 (26.0)	47 (31.5)	61 (41.2)	147 (32.9)

Table 5.

Reasons for Not Having a Regular Mammogram by Video Group

Reasons for not having a regular mammogram	Group A n (%)	Group B n (%)	Group C n (%)
I don=t know how or where to get one.	4 (6.8)	5 (7.5)	16 (18.2)
I don=t believe that it increases my chances of survival.	2 (3.4)	3 (4.5)	7 (8.0)
I don=t believe that I am at risk for breast cancer.	11 (18.6)	12 (17.9)	11 (12.5)
I=am afraid.	24 (40.7)	21 (31.3)	18 (20.5)
I can=t afford it.	25 (42.4)	16 (23.9)	29 (33.0)
I=ve never been told to get a mammogram.	14 (23.7)	19 (28.4)	20 (22.7)

Table 6.

Identification of Signs and Symptoms of Breast Cancer by Video Group

Identified signs and symptoms of breast cancer	Group A n (%)	Group B n (%)	Group C n (%)
Lumps in the breast	141 (94.6)	138 (95.2)	131 (89.7)
Shortness of breath	24 (16.1)	36 (24.8)	30 (20.5)
Pain, soreness, burning in the chest	93 (62.4)	107 (73.8)	79 (54.1)
Nausea	19 (12.8)	19 (13.1)	18 (12.3)
Discharge from the nipple	99 (66.4)	103 (71.0)	78 (53.4)
Swelling or enlargement of the breast	76 (51.0)	92 (63.4)	68 (46.6)
Changes in shape of breast or nipple	89 (59.7)	101 (69.7)	70 (47.9)
Discoloration	63 (42.3)	78 (53.8)	45 (30.8)

Table 7.

Feelings About Video by Video Group

<i>Item: Feelings about...</i>	<i>Rating Scale</i>	<i>Group A n (%)</i>	<i>Group B n (%)</i>	<i>Group C n (%)</i>
The importance of screening and early detection of breast cancer?	Very/mostly negative Neutral Very/mostly positive	7 (4.7) 4 (2.7) 137 (92.6)	9 (6.1) 4 (2.7) 134 (91.2)	9 (6.2) 5 (3.4) 132 (90.4)
Getting a mammogram?	Very/mostly negative Neutral Very/mostly positive	9 (6.0) 3 (2.0) 137 (91.9)	5 (3.4) 6 (4.1) 136 (92.5)	10 (6.8) 5 (3.4) 131 (89.7)
The characters?	Very/mostly negative Neutral Very/mostly positive	9 (6.2) 1 (0.7) 136 (93.2)	4 (2.7) 9 (6.1) 134 (91.2)	9 (6.3) 6 (4.2) 129 (89.6)
What was said to one another?	Very/mostly negative Neutral Very/mostly positive	7 (4.8) 4 (2.7) 136 (92.5)	6 (4.1) 5 (3.4) 137 (92.6)	6 (4.1) 8 (5.5) 132 (90.4)
The way the characters talked/ acted toward one another?	Very/mostly negative Neutral Very/mostly positive	7 (4.7) 2 (1.4) 139 (93.9)	5 (3.4) 8 (5.4) 135 (91.2)	7 (4.9) 3 (2.1) 132 (93.0)
The story?	Very/mostly negative Neutral Very/mostly positive	6 (4.1) 1 (0.7) 141 (95.3)	7 (4.8) 3 (3.0) 137 (93.2)	7 (4.9) 7 (4.9) 130 (90.3)
The scenery?	Very/mostly negative Neutral Very/mostly positive	4 (2.7) 8 (5.4) 137 (91.9)	6 (4.1) 8 (5.4) 134 (90.5)	4 (2.8) 13 (9.0) 127 (88.2)
The music?	Very/mostly negative Neutral Very/mostly positive	4 (2.8) 11 (7.6) 130 (89.7)	9 (6.1) 18 (12.2) 120 (81.6)	11 (8.3) 27 (20.3) 95 (71.4)
Rating of the overall tone of video	Very/mostly negative Neutral Very/mostly positive	3 (2.0) 5 (3.4) 139 (94.6)	4 (2.8) 5 (3.5) 133 (93.7)	3 (2.1) 5 (3.5) 133 (94.3)

Table 8.

Means of Knowledge of Breast Cancer Questionnaire

<i>Video Group</i>	<i>Pre-Test</i>		<i>Post-Test</i>		<i>12 Months</i>	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
A	6.266	1.66	6.700	1.70	4.504	1.59
B	6.214	1.61	6.832	1.86	4.800	1.35
C	6.027	1.52	6.851	1.72	4.640	2.00

Table 9.

Means for Attitudes About Breast Cancer Questionnaire

Video Group	Pre-Test		Post-Test		12 Months	
	Mean	SD	Mean	SD	Mean	SD
A	43.273	7.27	43.793	6.71	30.981	4.81
B	43.053	6.97	42.402	7.44	30.836	4.86
C	41.297	7.44	42.567	6.96	31.176	5.71

Table 10.

Impressions About Characters and Mammogram Outcomes

Which character did you like the most?

Video Group	Ruby		Mary		Frank (Husband)		Dr. Lee		Total n
	n	%	n	%	n	%	n	%	
A	31	23.0	62	45.9	35	25.9	7	5.2	135
B	51	37.2	55	40.1	24	17.5	7	5.1	137
C	40	29.0	54	39.1	26	18.8	18	13.0	138
Total	122		171		85		32		410

Which character did you like the least?

Video Group	Ruby		Mary		Frank (Husband)		Dr. Lee		Total n
	n	%	n	%	n	%	n	%	
A	19	15.6	13	10.7	32	26.2	58	47.5	122
B	24	20.0	8	6.7	42	35.0	46	38.3	120
C	19	17.9	18	17.0	17	16.0	52	49.1	106
Total	62		39		91		156		348

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What do you think Ruby=s mammogram results were?

Video Group	Positive (possible problem)		Negative (She=s fine)		I don=t know		Total n
	n	%	n	%	n	%	
A	51	34.5	31	20.9	66	44.6	148
B	41	27.9	26	17.7	80	54.4	147
C	58	39.5	21	14.3	68	46.3	147
Total	150		78		214		442

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Do you recall if the video was a happy, upbeat sort of show, or was it sad and depressing, or was it neither happy or sad?

Video Group	Happy and Upbeat		Sad and Depressing		Neither happy or sad		Don=t know		Total n
	n	%	n	%	n	%	n	%	n
A	29	26.6	12	11.0	63	57.8	5	4.6	109
B	30	30.0	18	16.4	51	46.4	5	4.5	107
C	22	21.6	20	19.6	47	46.1	13	12.7	102
Total	84		50		161		23		318

Table 11.

Incidence of Mammograms Prior to and 12 Months Following the Intervention**

History of Mammogram		Video Group A		Video Group B		Video Group C	
		Pre-Intervention n = 150* n (%)	12 Month Follow-up n = 109* n (%)	Pre-Intervention n = 149* n (%)	12 Month Follow-up n = 109* n (%)	Pre-Intervention n = 148* n (%)	12 Month Follow-up n = 101* n (%)
Had mammogram within the past 12 months	Yes No	0 (0.0)	0 (0.0)	4 (2.7)	2 (66.7) 1 (33.3)	0 (0.0)	0 (0.0)
Had mammogram between 1-2 years ago	Yes No	88 (58.7)	49 (77.8) 14 (22.2)	69 (46.3)	41 (78.8) 10 (19.2)	54 (36.5)	30 (75.0) 10 (25.0)
Had mammogram between 2-3 years ago	Yes No	9 (6.0)	4 (57.1) 3 (42.9)	9 (6.0)	4 (57.1) 3 (42.9)	17 (11.5)	4 (36.4) 7 (63.6)
Had mammogram more than 3 years ago	Yes No	14 (9.3)	7 (63.6) 4 (36.4)	20 (13.4)	8 (61.5) 5 (38.5)	16 (10.8)	4 (33.3) 7 (58.3)
Never had mammogram	Yes No	39 (26.0)	12 (42.9) 16 (57.1)	47 (31.5)	15 (42.9) 20 (57.1)	61 (41.2)	13 (33.3) 26 (66.7)
Had a mammogram since the video intervention (12 months)	Yes No		72 (66.1) 37 (33.9)		70 (63.6) 39 (35.5)		51 (50.0) 50 (49.0)

* Percentage of this column based on cell an.e

** Women in the follow-up sample who had had a mammogram since the intervention (approximately 12 months).

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Table 12.

Intervention Compliance** for Mammograms at 12-Month Follow-up

History of Mammogram	Video Group A		Video Group B		Video Group C	
	Pre-Intervention n = 150* n (%)	Intervention Compliant n = 109* n (%)	Pre-Intervention n = 149* n (%)	Intervention Compliant n = 109* n (%)	Pre-Intervention n = 148* n (%)	Intervention Compliant n = 101* n (%)
Had mammogram within the past 12 months	0 (0.0)	0 (0.0)	4 (2.7)	2 (50.0)	0 (0.0)	0 (0.0)
Had mammogram between 1-2 years ago	88 (58.7)	49 (55.7)	69 (46.3)	41 (59.4)	54 (36.5)	30 (55.5)
Had mammogram between 2-3 years ago	9 (6.0)	4 (44.4)	9 (6.0)	4 (44.4)	17 (11.5)	4 (23.5)
Had mammogram more than 3 years ago	14 (9.3)	7 (50.0)	20 (13.4)	8 (40.0)	16 (10.8)	4 (25.0)
Never had mammogram	39 (26.0)	12 (30.8)	47 (31.5)	15 (31.9)	61 (41.2)	13 (21.3)
Had a mammogram since the video intervention (12 months)		72 (48.0)		70 (46.9)		51 (34.5)

* Percentage in this column based on the pre-intervention n for this group.

** Women in the follow-up sample who had had a mammogram since the intervention (approximately 12 months).

Table 13.

Awareness of Public Information About Breast Cancer Screening

Source		Video Group A n (%)	Video Group B n (%)	Video Group C n (%)	Total n (%)
Over the past year of so, can you remember <i>hearing or seeing anything</i> about breast health?	Yes No	90 (83.3) 18 (16.7)	99 (90.0) 11 (10.0)	88 (87.1) 13 (12.9)	279 (86.3) 43 (13.7)
Can you remember hearing or seeing anything on <i>signs or billboards</i> about breast health?	Yes No	51 (57.3) 38 (42.7)	44 (44.4) 55 (55.6)	44 (52.4) 40 (47.6)	140 (51.1) 134 (48.5)
Can you remember hearing or seeing anything on <i>TV</i> about breast health?	Yes No	85 (94.4) 2 (5.6)	92 (92.9) 7 (7.1)	77 (88.5) 10 (11.5)	256 (92.1) 22 (7.9)
Can you remember hearing or seeing anything on <i>radio</i> about breast health?	Yes No	51 (56.7) 39 (43.3)	46 (47.4) 51 (52.6)	45 (52.3) 41 (47.7)	143 (52.0) 132 (48.0)
Can you remember hearing or seeing anything at <i>your church or women=s club</i> about breast health?	Yes No	35 (39.2) 54 (60.8)	50 (50.5) 49 (49.5)	38 (43.2) 50 (56.8)	125 (45.0) 153 (55.0)
Did you see or hear anything at the <i>doctor=s office or where you receive your health care?</i>	Yes No	74 (83.1) 15 (16.9)	84 (84.8) 15 (15.2)	64 (72.7) 24 (27.3)	224 (80.6) 54 (19.4)
Did you see or hear anything <i>where you work?</i>	Yes No	37 (41.1) 53 (58.9)	40 (40.4) 59 (59.6)	25 (28.4) 63 (71.6)	103 (37.1) 175 (62.9)

Key Research Accomplishments

- X This research study provided an in-depth exploration of a variety of breast health promotion, breast cancer prevention, and health communication issues among a large sample (n=449) of rural, African American women--a notoriously difficult to access and sensitive population.
- X In addition to the primary findings in response to the study hypothesis, a key deliverable of this research is a very large database of knowledge, attitude, and practice items from a 66-item pre-/posttest survey set as well as a 24-item follow-up survey.
- X Study accomplishments also include findings of three large focus groups (n=15) and analysis of these data.
- X Training and procedures manual for conducting community-based research in rural settings using lay health workers who may be inexperienced with the operationalization of a research study protocol.
- X An annotated bibliography of relevant journal articles was completed.

Reportable Outcomes

The very large database produced by this research can and will be interpreted from a wide variety of perspectives. Clinical interpretations will examine the history and utilization of mammographic services among the target population compared with age, income, marital status, access to and payment practices for health care, tobacco use, belief systems and previous preventive behaviors. From a health promotion point of view, the results of this study will be analyzed from the perspectives of accessibility, recruitment, comprehension, reinforcement, recall, and the adoption of the preventive recommendation. In terms of health communication, data from this study afford an opportunity to explore dimensions of persuasion within the rubric of health promotion, as well as issues relating to message sources, content, receivers, settings, channels, and, of course, affective orientation which was the primary motivation for the study. All of these efforts will generate many publications authored by the various individuals from both the MSM and GSU Teams. All published materials will cite the USAMRMC as the funding source for the research effort, and copies will be forwarded to appropriate persons as articles emerge.

Conclusions

As indicated in the RESULTS sections above, the overall findings of the BRIE Study support the hypothesis that affectively positive and negative messages will motivate greater levels of message compliance than affectively neutral messages. However, this finding is not without qualification. First, it must be viewed within the context of community-based research including attendant threats to internal validity. For example, the BRIE Study promoted mammographic screening through appeals of varying affective orientation and involving a variety of thematic elements. Study participants were exposed to the intervention one time only. Approximately 12 months later, participants were asked, among other questions, whether or not they have obtain a mammogram. During the interval that elapsed between the time of intervention exposure and follow-up, it is highly likely that the

participants were exposed to other messages from various media sources that also promoted mammographic screening. In fact, approximately 86.3% of all study participants reported at follow-up that they had seen or heard other breast health messages. Of these, 92.1% reported receiving breast health messages or information on TV, and 80.6% reported receiving breast health messages or information in a doctor's office or from their regular healthcare provider. This finding challenges the persuasive impact of the intervention messages, and calls into question the effect that the study intervention had within the context of other confounding influences. Nevertheless, our data shows higher levels of recommendation acceptance among those groups who viewed the affectively positive and negative videos compared with those participants who viewed the neutral message. While the likelihood of confounding messages may be acknowledged, it must also be assumed that such spurious message exposure was spread equally among all study participants.

Another challenge to the internal validity of the BRIE Study was the finding that approximately 90% of all participants overall found the video that they viewed very or mostly positive. There are several possible explanations for this phenomenon. First, there is the possibility of a variation of the Hawthorne effect. Participants knew they were taking part in a research study, although they did not know the issue under exploration was the affective domain of breast health messages, nor did they know that different groups saw different videos. Further, our previous experiences with rural, African American female populations have revealed a strong impulse for consonance, agreeableness and generosity, and a disinclination toward critical appraisal and negative opinion. Therefore, participants may have felt that the "desirable" or "right" responses to probes about their appraisal of the video they viewed were positive or mostly positive. Second, as explained in detail in the Statement of Work section of this report, the affective orientation of the three videos was achieved through the manipulation of various formal features of the videography. It is plausible that women viewing a single video could not discern the affective content due to its subtle almost subliminal impact even though this issue did not surface in the various pre-tests during video development. A third interpretation of this finding is the perhaps the most interesting and provocative. The video intervention presented a highly engaging 12-minute story about the friendship and interactions between two women, Mary and Ruby, with tangential support from various collateral characters throughout. Dramatic stress builds continuously as the story unfolds. Mary ultimately succeeds in persuading Ruby who has never had a mammogram to obtain one. The reporting of the results appears to be somewhat delayed increasing the stress still further. Finally, just as the test results are about to be revealed, the video ends leaving the question unanswered. This technique met with consistent consternation among the pre-test and experimental groups, a strong indication that engagement did, in fact, occur suggesting central (as opposed to peripheral) processing of the message elements. When asked what they thought the results were, only 1.7% of respondents across all versions thought that the results were negative while 34% thought the results were probably positive. This finding is troubling because it suggests reinforcement of one of the focus group findings—that preventive screening in general is just asking for trouble—that could undermine a variety of health promotion and disease prevention initiatives. Among rural, African American populations this issue should be explored further.

From a public health perspective, data from the BRIE Study indicate an overall increase of 21.3% in mammography utilization among those participants who reported never having had a mammogram with the greatest increases among those subgroups within this category who viewed the affectively positive and negative videos as compared to the neutral message. That the intervention and other information played a role in helping these participants overcome their resistance to mammographic screening is significant. As reported elsewhere in this report, the largest group of participants who reported receiving a mammogram were those women who were compliant within 1-2 years with

screening recommendations. This finding suggests that the sustained efforts in recent years at mammography promotion have been somewhat successful even in remote and rural locales. However, among those Study participants who reported not having had a mammogram previously, fear and cost were given as the two primary reasons.

The findings of the BRIE Study suggest that research should be undertaken into the role of the medium in breast health promotion and in health communication in general. The consistent levels of engagement in the video intervention suggested by the Study findings indicates that health messages embedded within a plotted story may convey promotional information more reliably, more persuasively, and more understandably than information presented in pamphlets, brochures, public service announcements and similarly condensed forms of communication.

In conclusion, the BRIE Study has yielded a large and rich database of information relating to breast health knowledge, attitudes, and practices among rural, African American women that will enable analysis from clinical, public health, and health communications perspectives.

Personnel Receiving Salary Support

Year 01

MSM Team: Larry Brown, Project Director, Mary P. Williams, Co-Investigator

GSU Team: Gregory Lisby, GSU Project Coordinator, Darin W. Klein, Co-Investigator, Evan Lieberman, Co-Investigator, Graduate Research Assistants

Year 02

MSM Team: Larry Brown, Project Director, Corleen J. Thompson, Epidemiologist, Homer Stephenson, Administrative Secretary

GSU Team: Darin Klein, GSU Project Coordinator, Evan Lieberman, Co-Investigator, William A. Evans, Co-Investigator, Graduate Research Assistants

Year 03

MSM Team: Larry Brown, Project Director, Corleen J. Thompson, Epidemiologist, Jackie Ali, Administrative Secretary, Community Lay Health Workers

Year 04

MSM Team: Larry Brown, Project Director, Community Lay Health Workers

Year 05

GSU Team: Larry Brown, Project Director, Theresa Sipe, Biostatistician, Graduate Research Assistants, Community Lay Health Workers, Applied Research Center Personnel

References

Appendices

ANNOTATED BIBLIOGRAPHY

by Darin W. Klein, PhD

One of our objectives this year has been to collect and review research relevant to our project in a variety of different areas and from a variety of different perspectives. The list below shows our efforts in these major areas.

Message/Stimulus Development: Production Variables

Too many projects in health communication give scant consideration to the role of media production variables. Because media production variables play such a key role in message and stimulus design, we have sought to collect articles on how audio and video production techniques (or formal features) can be used to foster and otherwise enhance comprehension and recall. Research on this question is interdisciplinary, coming primarily from those with backgrounds either in psychology or film studies or both. Particular emphasis in this research has been given to children and television and news comprehension.

Atkin, C.K., and Gantz, W. (1978). Television news and political socialization. *Public Opinion Quarterly*, **42**, 183-197.

Calvert, S.L., and Gersh, T.L. (1987). The selective use of sound effects and visual inserts for children=s television story comprehension. *Journal of applied developmental psychology*, **8**, 363-375.

Campbell, T.A., Wright, J.C., and Huston, A.C. (1987). Form cues and content difficulty as determinants of children=s cognitive processing of televised educational messages. *Journal of experimental child psychology*, **43**, 311-327.

Clifford, B.R., Gunter, B., and McAleer, J. (1995). *Television and children*. Hillsdale, NJ: Erlbaum.

Collins, W.A. (1979). Children=s comprehension of television content. In E. Wartella (ed.), *children communication: media and development of thought, speech, and understanding* (pp. 21-52). Beverly Hills, CA: Sage.

Cowan, N. (1988). Evolving conceptions of memory storage, selective attention, and their mutual constraints within the human information processing system. *Psychological bulletin*, **104**, 163-191.

Friedlander, B.Z., Wetstone, H.S., and Scott, C.S. (1974). Suburban preschool children=s comprehension of an age-appropriate television program. *Child development*, **45**, 561-565.

Gunter, B. (1980). Remembering television news: effects of picture content. *The journal of general psychology*, **102**, 127-133.

Gunter, B., Furnham, A., and Frost, C. (1994). Recall by young people of advertisements as a function of programme type and audience evaluation. *Psychological reports*, **75**, 1107-1120.

Hayes, D.S., and Birnbaum, D.W. (1980). Preschoolers= retention of televised events: is a picture worth a thousand words? *Developmental psychology*, **16**, 410-416.

Huston, A.C., Wright, J.C., Wartella, E., Rice, M.L., Watkins, B.A., Campbell, T., and Potts, R. (1981). Communicating more than content: formal features of children=s television programs. *Journal of communication*, **31**, 42-48.

Lang, A. (1990). Involuntary attention and physiological arousal evoked by structural features and emotional content in TV commercials. *Communication research*, **17**, 275-299.

Lang, A., Newhagen, J., and Reeves, B. (1996). Negative video as structure: emotion, attention, and capacity. *Journal of broadcasting and electronic media*, **40**, 460-477.

Livingstone, S. (1987). Implicit representation of characters in *Dallas*: a multidimensional scaling approach. *Human communication research*, **13**, 399-420.

Pezdek, K., and Stevens, E. (1984). Children=s memory for auditory and visual information on television. *Developmental psychology*, **20**, 212-218.

Rolandelli, D.R. (1989). Children and television: the visual superiority effect reconsidered. *Journal of broadcasting and electronic media*, **33**, 69-81.

Rolandelli, D.R., Wright, J.C., Huston, A.C., and Eakins, D. (1991). Children=s auditory processing of narrated and nonnarrated television programming. *Journal of experimental child psychology*, **51**, 90-122.

Strull, T.K., and Wyer, R.S.(1979). The role of category accessibility in the interpretation of information about persons: some determinants and implications. *Journal of personality and social psychology*, **37**, 1660-1672.

Tannenbaum, P.H. (1954). Effect of serial position on recall of radio news stories. *Journalism Quarterly*, **31**, 319-323.

Watkins, B., Calvert, S., Huston-Stein, A., and Wright, J.C. (1980). Children=s recall of television material: effects of presentation mode and adult labeling. *Developmental psychology*, **16**, 672-674.

Public Health Campaigns: Theories and Models

The articles below review broad theoretical assumptions made either explicitly or implicitly in public health campaigns previously conducted. They provide a macro perspective especially useful for designing a new public health campaign. Some also focus on the role of the mass media and designing breast cancer screening campaigns in particular.

Alcalay, R., and Shahnaz, T. (1989). Community health campaigns: from theory to action. In R. E. Rice and C.K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Atkin, C.K., and Freimuth, V. (1989). Formative evaluation research in campaign design. In R. E. Rice and C. K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Flay, B.R., and Cook, T.D. (1989). Three models for summative evaluation of prevention campaigns with a mass media component. In R.E. Rice and C.K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Freimuth, V.S. (1995). Mass media strategies and channels: a review of the use of media in breast and cervical cancers screening programs. *Wellness perspectives: research, theory, and practice*, 11, 79-106.

Hornik, R. (1991). Alternative models of behavior change. In J. Wasserheit, S. Aral, and K. Holmes (Eds.), *research issues in human behavior*, Washington, DC: American society for microbiology.

Hornik, R. (1989). Channel effectiveness in development communication. In R. E. Rice and C. K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Jeffery, R.W. (1989). Risk behaviors and health: contrasting individual and population perspectives. *American psychologist*, 44, 1194-1202.

McGuire, W.J. (1989). Theoretical foundations of campaigns. In R.E. Rice and C.K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Peetz-Schou, M. (1991). How to measure consumer awareness of mass-media campaigns for public health purposes. *Patient education and counseling*, 30, 53-59.

Rice, R.E., and Foote, D. (1989). A systems-based evaluation planning model for health communication campaigns in developing countries. In R.E. Rice and C.K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Solomon, D.S. (1989). A social marketing perspective on communication campaigns. In R.E. Rice and C.K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Spenko, D.G., Osuch, J.R., Garlinghouse, C., Rakowski, V., and Glenn, B. (1992). The design and implementation of a community breast cancer screening project. *CA-A cancer journal for clinicians*, 42, 163-176.

Willms, D.G., Best, J.A., Taylor, D.W., Gilbert, J.R., Wilson, D.M.C., Lindsay, E.A., and Singer, J. (1990). A systematic approach for using qualitative methods in primary prevention research. *Medical anthropology quarterly*, 4, 391-409.

Zapka, J.G., Costanza, M.E., Harris, D.R., Hosmer, D., Stoddard, A., Barth, R., Gaw, V. (1993). The impact of a breast cancer screening community intervention. *Preventive medicine*, 22, 34-53.

Public Health Campaigns: Cognitive Factors

Quite a lot of research has gone into how different cognitive factors (i.e., knowledge, beliefs, attitudes, and opinions) intervene to affect the behavioral outcomes of public health campaigns. In many cases, these cognitive factors at least partially explain why public health campaigns usually evidence only a modest degree of success. A number of the articles listed below are concerned specifically with how different cognitive factors predict the success of breast cancer screening and mammography programs. Others seek to explain how these cognitive factors are related to other kinds of public health problems, such as cancer more generally, smoking, sexually transmitted diseases (AIDS especially), and tuberculosis.

Aiken, L.S., West, S.G., Woodward, C.K., and Reno, R.R. (1994). Health beliefs and compliance with mammography screening recommendations in asymptomatic women. *Health psychology*, **13**, 122-129.

Aiken, L. S., Fenaughty, A.M., West, S.J., Johnson, J.J., and Luckett, T.L. (1995). Perceived determinants of risk for breast cancer and the relations among objective risk, perceived risk, and screening behavior time. *Women=s health: research on gender, behavior, and policy*, **1**, 27-50.

Bandura, A. (1990). Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and program planning*, **13**, 9-17.

Becker, M.H. (1974). The health belief model and sick role behavior. *Health education monographs*, **2**, 409-419.

Becker, M. H., and Maiman, L.A. (1975). Sociobehavioral determinants of compliance with health and medical recommendations. *Medical care*, **13**, 10-24.

Bostick, R. M., Sprafka, J. M., and Potter, J. D. (1993). Knowledge, attitude, and personal practices regarding prevention and early detection of cancer. *Preventive medicine*, **22**, 65-85.

Dervin, B. (1989). Audience as listener and learner, teacher and confidante: the sense-making approach. In R. E. Rice and C. K. Atkins (Eds.), *Public communication campaigns*. Newbury Park, CA: Sage.

Dibble, S. L., Vanoni, J. M., and Miaskowski, C. (1997). Women=s attitudes toward breast cancer screening: differences by ethnicity. *Women=s health issues*, **7**, 47-54.

DiClemente, C. C., Prochaska, J. O., Fairhurst, S. K., Velicer, W. F., Velasquez, M. M., Rossi, J. S. (1991). The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. *Journal of consulting and clinical psychology*, **59**, 295-304.

Fishbein, M., Middlestadt, S. E., and Hitchcock, P. J. (1991). Using information to change sexually transmitted disease-related behaviors: an analysis based on the theory of reasoned action. In J. Wasserheit, S. Aral, and K. Holmes (Eds.), *research issues in human behavior*, Washington, DC: American society for microbiology.

Fishbein, M., Bandura, A., Triandis, H. C., Kanfer, F. H., Becker, M. H., and Middlestadt, S. E. (1991). Factors influencing behavior and behavior change, final report. Presented to theorist=s workshop, October 3-5, Washington, DC.

Fisher, J. D. (1988). Possible effects of reference group-based social influence on AIDS risk behavior and AIDS prevention. *American psychologist*, **43**, 924-920.

Kelly, J. A., St. Lawrence, J. S., Diaz, Y. E., Stevenson, L. Y., Hauth, A. C., Brasfeld, T. L., Kalichman, S. C. Smith, J. E., Andrew, M. E. (1991). HIV risk behavior reduction following intervention with key opinion leaders of population: an experimental analysis. *American journal of public health*, **81**, 168-171.

Kirscht, J. P. (1974). The health belief model and illness behavior. *Health education monographs*, **2**, 387-408.

Kirscht, J. P. (1974). Research related to the modification of health beliefs. *Health education monographs*, **2**, 455-469.

Maiman, L. A., and Becker, M. H. (1974). The health belief model: origins and correlates in psychological theory. *Health education monographs*, **2**, 336-353.

McCaul, K. D., Schroeder, D. M., and Reid, P. A. (1996). Breast cancer worry and screening. *Health psychology*, **15**, 430-433.

McCaul, K. D., Branstetter, A. D., Glasgow, R. E., and Schroeder, D. M. (1996). What is the relationship between breast cancer risk and screening? A meta-analytic review. *Health psychology*, **15**, 423-429.

Miller, L. Y., and Hailey, B. J. (1996). Challenging hopelessness about cancer in African-American women: education about breast cancer screening. *Journal of gender, culture, and health*, **1**, 99-110.

Rakowski, W., Fulton, J. P., and Feldman, J. P. (1993). Women's decision making about mammography: a replication of the relationship between stages of adoption and decisional balance. *Health psychology*, **12**, 209-214.

Rosenstock, I. M. (1974). The health belief model and preventive health behavior. *Health education monographs*, **2**, 354-386.

Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health education monographs*, **2**, 328-335.

Snow, L. F. (1983). Traditional health beliefs and practices among lower class black Americans. *The western journal of medicine*, **139**, 820-828.

Public Health Campaigns: Demographic Factors

Aside from cognitive factors, there are a number of demographic factors such as race, age, gender, and so forth which also predict the success of public health campaigns. Emphasis on demographic factors in this research seems to have been almost entirely at the expense of cognitive factors.

Nevertheless, some studies have attempted to explore how both kinds of factors might be associated with each other to affect particular kinds of health behavior. Such studies are included in the previous list. With few exceptions, the articles below concentrate on the relation between demographic factors and breast cancer screening. Most are concerned in particular with the relation between race and breast cancer, though some explore how other demographic factors, such as age and income, play a role.

Abraham, C. L. (1997). Breast health at midlife: guidelines for screening and patient evaluation. *Geriatrics*, **50**, 58-66.

Boyle, D.M. (1993). Maintaining momentum in cancer prevention research. *Innovations in oncology nursing*, **9**, 14-29.

Calle, E. E., Flanders, W. D., Thun, M. J., and Martin, L. M. (1993). Demographic predictions of mammography and pap smear screening in women. *American journal of public health*, **83**, 53-60.

Caplan, L. S., Wells, B. L., and Haynes, S. (1992). Breast cancer screening among older racial/ethnic minorities and whites: barriers to early detection. *The journal of gerontology*, **47**, 101-110.

Cassel, C. K. (1992). Breast cancer screening in older women: ethical issues. *The journal of gerontology*, **47**, 126-130.

DeBor, M. (1993). What do women do now? *Cancer*, **72**, 1486-1490.

Duelberg, S.I. (1992). Preventive health behavior among black and white women in urban and rural areas. *Social scientific medicine*, **34**, 191-198.

Ehmann, J.L. (1993). *BSE Rap*: intergenerational ties to save lives. *Patient education*, **20**, 1255-1259.

Fink, R., and Shapiro, S. (1990). Significance of increased efforts to gain participation in screening for breast cancer. *American journal of preventive medicine*, **6**, 35-41.

Fox, S. A., and Stein, J. A. (1991). The effect of physician-patient communication on mammography utilization by different ethnic groups. *Medical care*, **29**, 1065-1082.

Gordon, D. R. (1990). Embodying illness, embodying cancer. *Culture, medicine, and psychiatry*, **14**, 275-297.

Gregg, J., and Cuary, R.H. (1994). Explanatory models for cancer among African-American women at two Atlanta neighborhood health centers: the implications for a cancer screening program. *Social scientific medicine*, **39**, 519-526.

Harper, A.P. (1993). Mammography utilization in the poor medically underserved. *Cancer*, **72**, 1478-1482.

King, E. S., Resch, N., Rimer, B., Lerman, C., Boyce, A., and McGovern-Gorchov, P. (1993). Breast cancer screening practices among retirement community women. *Preventive medicine*, **22**, 1-19.

Lannin, D. R., Mathews, H. F., Mitchell, J., Swanson, M.S., Swanson, F. H., and Edwards, M. S. (1995). The influence of race, socioeconomic factors, and cultural factors on breast cancer stage in the rural Southern United States. Unpublished paper, University of North Carolina.

Lauver, D. (1996). Understanding barriers to mammography use among women of low socioeconomic status. *Journal of women health*, **5**, 473-480.

Lerman, C., Rimer, B., Trock, B., Balshe, M.A., and Engstrom, P. F. (1990). Factors associated with repeat adherence to breast cancer screening. *Preventive Medicine*, **19**, 279-290.

Lind, S. E., Good, M.D., Seidel, S., Csordas, T., and Good, B. (1989). Telling the diagnosis of cancer. *Journal of clinical oncology*, **7**, 583-589.

Mandelblatt, J. Traxler, M., Lakin, P., Kanetsky, P., and Kao, R. (1993). Targeting breast and cervical cancer screening to elderly poor black women: who will participate? *Preventive medicine*, **22**, 20-33.

Mathews, H. F., Lannin, D. R., and Mitchell, J. P. (1994). Coming to terms with advanced breast cancer: black women's narratives from Eastern North Carolina. *Social scientific medicine*, **38**, 789-800.

Mor, V., Pacala, J. T., and Rakowski, W. (1992). Mammography for older women: who uses, who benefits? *The journal of gerontology*, **47**, 43-49.

Morrison, A.S. (1992). Efficacy of screening for breast cancer in older women. *The journal of gerontology*, **47**, 80-84.

O'Malley, M.S., Earp, A. L., and Harris, R. P. (1997). Race and mammography use in two North Carolina counties. *American journal of public health*, **87**, 782-785.

Rimer, B. K. Resch, N., King, E., Ross, E., Lerman, C., Boyce, A., Kessler, H., and Engstrom, P. F. (1992). Multistrategy health education program to increase mammography use among women ages 65 and older. *Public health reports*, **107**, 369-380.

Rutledge, D. N., Hartmann, W. H., Kinman, P. O., and Winfield, A. C. (1988). Exploration of factors affecting mammography behaviors. *Preventive medicine*, **17**, 412-422.

Schaller, R., DeVillis, B. M., Soreson, J. R., Wilson, K. R., Lannin, D. R., and Emerson, J. A. (1994). Breast cancer in African-American families. *Annals New York Academy of Sciences*, **768**, 281-285.

Shankar, A.D. (1997). Pilot study: the influence of cultural components on breast cancer patients' perceptions of their support systems. *The Howard journal of communications*, **8**, 101-111.

Weinberger, M., Saunders, A.F., Bearon, L.B., Gold, D.T., Brown, J. T., Samsa, G.P., and Loehaer, P. J. (1992). Physician-related barriers to breast cancer. *The journal of gerontology*, **47**, 111-117.

Zapka, J. G., and Berkowitz, E. (1992). A qualitative study about breast cancer screening in older women: implications for research. *The journal of gerontology*, **47**, 93-100.

Zapka, J. G., Stoddard, A., Maul, L., and Costanza, M. E. (1991). Interval adherence to mammography screening guidelines. *Medical care*, **29**, 697-707.

Zapka, J. G., Hosmer, D., Costanza, M. E., Harris, D. R., and Stoddard, A. (1992). Changes in mammography use: economic, need, and service factors. *American journal of public health*, **82**, 1345-1351.

THE BREAST HEALTH INTERVENTION EVALUATION (BRIE) STUDY

IMPLEMENTATION PROCEDURES

1. Overview of the BRIE Study

The Breast Health Intervention Evaluation Study will evaluate the relative effectiveness of three different approaches to breast health messages--a fear appeal, a positive affect appeal, and an affectively neutral cognitive appeal. The three interventions will be structured as three 10-12 minute videotaped presentations targeting 450 African American women residing in three rural communities in Georgia (150/community). The videos will be presented within the context of breast health workshops that will be coordinated by a Community Health Worker at each site. Pre-/post-intervention knowledge and attitude surveys will be administered. Participants will be provided with breast self-examination information and breast screening referral information. A 12-month follow-up will be conducted. We will provide referral services to ACR-approved sites for study participants.

Analysis and development of the videos will be a collaborative effort between Morehouse School of Medicine and Georgia State University which will also provide expertise in focus group leadership, audience analysis, and lay health worker training. The collaboration of two institutions creates unique strengths that do not currently exist elsewhere in Georgia. Further, working collaboratively will enable us to combine communications theory with public health research practice.

2. Preparing to Begin

- X Organize your notebook so that you have a written record of your time, mileage, and out-of-pocket expenses.
- X You will be provided with one set of Versions A, B & C of a First Test. Keep these videos in a very safe place, away from heat. Until all the workshops are completed, don't show them to friends or family members. Use the videos ONLY in workshop settings.
- X Identify at least one (preferably 2-3) clinical sites that offer low- or no-cost mammograms in your area. Contact each, and inquire about eligibility, appointment scheduling, how the results are communicated, and any out-of-pocket expense. Verify that each site is FDA accredited.
- X Visit the facility that you will use for workshop presentation. Identify and establish contact with the person in charge of managing the facilities.

Decide on a workshop room. Is the room clean, tidy, and well-lighted? Can it accommodate groups of about 20 persons? Is it easy to access from the parking areas? Are there restroom facilities nearby? Are there any distracting influences (i.e., sounds, smells, etc.)?

Are there tables and chairs set up or available for set up? If the room is not set up, identify and make contact with the building custodian. Get his phone number. How much advance notice does he need in order to have the room properly set up? Does he completely

understand the set-up configuration that you want? Will there be a charge for custodial services?

Identify a locked storage area for the TV/VCR. If you will need a key, have one made. (This expense is reimbursable.) Can you easily move the TV/VCR from its locked storage area into the workshop room? The equipment should NOT be used for other activities until after all the workshops have been completed.

Discuss best days/times for workshop scheduling with the pastor or the person managing the facilities to avoid possible conflicts.

3. Logs & Documentation

In a research study, all aspects of the work MUST be carefully documented. For this reason, be sure to carefully document all of your activities in your BRIE Study notebook, so that all information would be centralized in one place. It is important to keep the notebook in your possession or put away, and not laying out for other people to peruse.

Things that are important to document are:

- Specific locations where you are placing advertisements
- Contact/call-back information for study participants
- Workshop information
- Number of hour each day that you have spent doing BRIE Study work.
- Number of miles that you have driven doing BRIE Study work.
- All out-of-pocket expenses incurred while doing BRIE Study work.

Paychecks are issued on the 15th and last day of every month. If the 15th or the last day of the months falls on a weekend or holiday, then paychecks will be issued on the preceding workday. Timesheets are due in the MSM Payroll Office seven calendar days before the payday. For example, November 15, 1998 falls on a Sunday. Therefore, paychecks will be issued on Friday, November 13, 1998, and timesheets are due in the Payroll Office by 5:00 pm on Friday, November 6, 1998. In order to allow for processing, please use the 1998-1999 Payroll Schedule for BRIE Study Employees.

Please submit timesheets by FAX (404-752-1085) followed by standard 1st class US Mail.

Please submit mileage and expense reports on the 1st of the month for the month preceding.

Quality Control

In order to verify the correct recording of information, the Project Director will ask to see your notebook from time to time.

A member of the BRIE Study Team will randomly select participants= completed survey sets from each Study site, and verify workshop attendance and eligibility criteria via telephone. The results of these verifications will be reported to the appropriate Community Health Worker.

4. Selection Criteria and Recruitment Efforts

All participants in the BRIE Study MUST meet ALL the following criteria:

- ! African American female aged 45-65
- ! Current resident of target community
- ! No history of breast cancer
- ! No mammogram within the preceding 12 months

a. Where, when, how many

Determine the best places to which you have access to post advertisements. Where are the best places to recruit your group of study participants? Document all recruitment efforts and locations.

The sample size for each area is 150. In order to allow for possible problems in carrying out the follow-up activities, it would be a good idea to oversample by 25 participants for a site total of 175 participants.

b. Publicizing the Study

Use the approved advertisements.

Inform interested persons that women who meet the selection criteria and are willing to participate in the Study will be paid \$20.00.

When explaining the Study, say something like:

The BRIE Study is looking at how effective video messages are in health promotion. The Study deals with breast health and getting a mammogram. Participation means attending a workshop at _____, completing some surveys, viewing some videos, and providing some follow-up information when a Study interviewer telephones you in about a year. If you complete all the requirements for participation, you will be paid \$20.00.

THINGS NOT TO DO

Don't divulge that different groups will view different videos.

Don't discuss the scientific basis of the research with anyone.

Don't minimize participation in the Study by beginning recruitment statements with, "All you have to do is..."

5. Workshop Size and Location

The number of participants in each workshop is up to you. It is important to remember some important points when you are assembling workshops:

- a. All participants must be comfortably seated. No crowding.
- b. All participants must have a clear and unobstructed view of the TV/VCR, and should not be sitting farther than 10-15 feet from the monitor.
- c. Larger groups will require more time than smaller groups to complete the workshop.
- d. Determine the best workshop times to accommodate the greatest number of participants. Establish 2-3 workshop times, recruit participants until workshops are filled. Make note of popular workshop times.

6. Organizing the Workshop Groups

- a. Each participant should be scheduled into a workshop as soon as possible after she has been recruited. Long delays between recruitment and workshop attendance can cause participants to forget or lose interest.
- b. Don't recruit the entire group, and then organize participants into workshop groups. Recruitment and workshop conduct should be concurrent activities.
- c. When the workshop schedule is set, call the Project Director to receive a VERSION ASSIGNMENT. This will be Version A, Version B, or Version C. Versions are assigned in order to maximize randomization. Therefore, the version assigned to a particular workshop MUST be the one that is shown.
- d. The day before EACH workshop, check with the facility to ensure access, to make sure that the room is setup properly, and that heating is turned on, if necessary, and that there are no scheduling conflicts with regard to the workshop room.
- e. The day before EACH workshop, prepare all the paperwork you will need so that you have complete sets. This includes putting your name on p. 1 of the Informed Consent Forms. Circle the letter (A, B or C) of the version of a First Test^e you will use on the cover page of the survey sets. Put your location (Americus, Waycross, or Valdosta) and the workshop date on the cover page of the survey sets.
- f. Prior to the beginning of EACH workshop, set up the TV/VCR. Make sure that ALL settings are correct, and adjust the volume control. RECHECK THESE CONTROL SETTINGS BEFORE EACH WORKSHOP.

7. Issues of Confidentiality

Confidentiality in medical research studies is very important. The US Army Medical Research and Materiel Command as well as Morehouse School of Medicine have imposed stringent guidelines with regard to the protection of information received from human subjects who are participating in a research study. These guidelines apply to participants in the BRIE Study.

Each Community Health Worker will be responsible that all safeguards to data confidentiality be maintained. The Project Director will monitor compliance to ensure high levels of confidentiality.

Participation in a breast health workshop, filling out some surveys, and viewing some videos may not seem very important or critical in terms of confidentiality. It is essential to bear in mind that different people view health concerns and issues differently, and what may seem to be unimportant to you, may be very important to others. Further, you will have no way of knowing if a participant is struggling with breast cancer fears, whether breast cancer has touched close friends or other members of her family, whether a participant has found a lump but is fearful of consulting a health care provider. Therefore, maintain a professional and courteous manner at all times. Never discuss your BRIE Study activities with anyone who could be a participant or who might know one or more potential participants. Participants must believe that confidentiality will be maintained.

Two types of information are being collected: factual (personal) information about age, income, health histories of the participant as well as of her family, and attitude (values) information about what the participant thinks about a variety of topics or issues. In order to obtain reliable and truthful information, participants must be assured of strong confidentiality. If the participant feels that the information she is providing may not be held in confidence, or might be gossiped about, or might somehow be shared with other people in the community, she is more likely to provide inaccurate information. Providing inaccurate or defective information is worse than providing no information at all.

Don't review completed surveys before sending them to the Project Director.

Never photocopy completed surveys.

Remember: Do NOT discuss anyone's participation in the BRIE Study or their participation in a workshop even if you think it won't matter or that the participant won't mind. If the participant chooses to disclose her participation to anyone, that is up to her.

Completing the Informed Consent Form & Responding to Questions

The Informed Consent Form must be completed immediately after the welcome and any preliminary remarks.

As the participants are following along, read 2-3 paragraphs of the Informed Consent Form aloud. Pause, and inquire if everyone understands. Answer all questions before proceeding. Continue until finished.

Tell the participants that the telephone number they provide will be used for the telephone follow-up. Interviewers will speak ONLY with the Study participant, and not to other family members or friends. Tell participants to indicate whether the phone number they provide is a day or an evening phone number.

Walk around the room and visually make sure that everyone in the workshop completes the Informed Consent Form and signs it:

Printed Name & Signature
Address
City, State, Zip
Phone Number

There is a place for you to sign the Informed Consent Form as a witness. Do this AFTER the participants have completed and signed the form and the survey sets have been collected following completion of both surveys.

8. Completing the Pre-Video Survey

Ask participants to turn to Page ____ of the survey set, and complete the FIRST survey. Reiterate that all information will be held in confidence. If necessary, read each question and all answer selections. Ask participants to complete each survey question to the best of their ability. If anyone has questions, ask them to raise their hand. Don't try to influence how a participant answers a question. Tell the participant to choose an answer ONLY from those given that MOST CLOSELY reflects her beliefs or attitudes.

Tell participants to STOP when they reach Page ____, and not to continue on until told to do so.

9. Presenting the AFirst Test@ Video

Settle the room.

Ask participants to refrain from commenting out loud or to one another on the video until after they have completed the SECOND survey.

Don't disclose anything about the video except the title: AFirst Test.@

When the video is over, don't discuss any aspects of it until after the SECOND survey has been completed.

10. Completing the Post-Video Survey

Immediately after the video is over, instruct the participants to turn to Page ____ of the survey set, and complete the SECOND survey.

Ask the participants to refrain from commenting out loud or to one another about the video until after they have completed the survey.

11. Dealing with Discussion Arising from the Video

Don't participate in any discussion about the video following the completion of the SECOND survey. If participants wish to discuss the video among themselves, that is OK.

If any participant asks you about any aspect of the video, respond politely that you are not allowed to discuss it.

Don't discuss or speculate as to what Ruby's mammogram results are.

12. Presenting BSE Information

Distribute breast self-examination materials. Allow participants several minutes to read, review, and discuss these materials.

13. Showing BSE Video

Settle the room. Focus everyone's attention on the BSE video.

14. Providing Referral Info

Distribute a photocopied list of referral sites for low- or no-cost mammograms including the name, address, and phone number of the facility, any pertinent appointment scheduling information, and if possible, driving directions. If the facility is low-cost, include information about payment.

15. Reiterating Telephone Follow-up Procedures

The telephone follow-up is a key element of the BRIE Study. Stress the importance of this final step of the research study. Telephone interviewers will make every effort to call Study participants at convenient and appropriate times. This brief conversation should last no longer than about 10 minutes.

16. After the Workshop is Over

Gather up the completed surveys. Make sure that the workshop date, site location, and version assignment letter appear on the cover, that your name appears on p. 1 of the Informed Consent Form, and that you have signed the form as a Witness.

Within 24 hours of workshop completion, send the completed surveys via US PRIORITY MAIL to:

Larry Brown
Morehouse School of Medicine
720 Westview Dr., SW
Atlanta, GA 30310

THE BREAST HEALTH INTERVENTION EVALUATION (BRIE) STUDY

IMPLEMENTATION PROCEDURES

AMENDMENT

7. Issues of Confidentiality

Completing the Informed Consent Form & Responding to Questions

The Informed Consent Form must be completed for each Study participant. When you have recruited each participant and scheduled her for a workshop, tell her that a blue consent form will be mailed to her PRIOR to her scheduled workshop date. (Postage is a reimbursable expense.) Explain that this form should be carefully read, and that she **MUST** bring it with her to the workshop. Tell the participant that any questions she may have concerning her consent to participate in the Study will be answered at the beginning of the workshop.

At the beginning of the workshop, ask the participants if anyone has questions about the blue consent form. Respond appropriately, or if you cannot, refer the participant to the Project Director or to the Chairman of the MSM Institutional Review Board. If the participant declines to sign the blue consent form, she **SHOULD NOT** participate in the workshop at that time. She may be rescheduled to a later workshop if she subsequently agrees to provide consent.

If a participant arrives at the workshop and has forgotten to bring her blue consent form, provide her with one. Be sure she reads and signs the form before the workshop continues. If this creates a logistical problem, offer to reschedule her to another workshop.

Tell the participants that the telephone number(s) they provided during recruitment will be used for the telephone follow-up. Interviewers will speak **ONLY** with the Study participant, and not to other family members or friends.

There is a place for you to sign the Informed Consent Form as a witness. Do this **AFTER** the participants have completed and signed the form and the survey sets have been collected following completion of both surveys.

17. Providing the Cash Incentive

After all components of the workshop are completed, explain that, according to the information provided during the recruitment process as well as in the blue Informed Consent Form, each participant will receive \$10 in cash, and that she will receive an additional \$10 by check after she completes the telephone follow-up. Ask each participant to print her name and sign the Cash Receipt Form. Give each participant \$10 in cash.

At the bottom of each Cash Receipt Form, there is a place for you to sign. Your signature attests that you have, in fact, provided the cash incentive as indicated. Since you are being

provided with a cash advance, Morehouse School of Medicine requires that a cash receipt system that ensures financial accountability be followed.

You may use one cash receipt form per workshop, or if the groups are small, you may include multiple workshops groups on one form.

ID NUMBER _____

LOCATION _____

DATE _____

A

B

C

THE BRIE STUDY SURVEY SET

FIRST SURVEY

Please fill in the blank or check the correct response. If your response includes a direction (Go to Question X), DO NOT answer the questions in between.

1. What is your age? _____

2. What was your household income last year?

G₁ Less than \$10,000

G₂ \$10,000 - \$14,999

G₃ \$15,000 - \$24,999

G₄ \$25,000 - \$34,999

G₅ \$35,000 - \$49,999

G₆ \$50,000 or more

G₀ Unknown

3. What level of education have you completed?

G₁ Less than high school graduate

G₂ High school graduate or GED

G₃ Some college or technical school

G₄ College graduate

G₅ Advanced college degree

G₆ Other

4. What is your marital status?

G_M Married

G_S Single

G_D Divorced, widowed, or separated

5. Do you have a regular source of health care?

G_Y Yes

G_N No

6. How do you pay for your health care? (Check all that apply)

G_Y Private Insurance

G_Y Medicaid

G_Y Medicare

G_Y Cash, check, money order, or credit card

G_Y Other

7. Has any one in your family or any close friend been diagnosed with breast cancer?

G_Y Yes

G_N No (Go to Question 9.)

G_D I don't know (Go to Question 9)

8. If yes, what is the relationship to you? (Check all that apply.)

- G_M Mother
- G_S Sister
- G_D Daughter
- G_F Close Friend
- G_O Other Relative

9. Have you ever been diagnosed with breast cancer?

- G_Y Yes
- G_N No

10. Have you ever smoked or used tobacco?

- G_C Yes, I smoke or use tobacco now.
- G_F Yes, I used to smoke or use tobacco in the past.
- G_N No, I have never regularly smoked or used tobacco.

11. What do you think are some of the warning signs or symptoms of breast cancer? (Check all that apply.)

- G_Y Lumps in the breast
- G_Y Shortness of breath
- G_Y Pain, soreness, burning in the breast
- G_Y Nausea
- G_Y Discharge from the nipple
- G_Y Swelling or enlargement of the breast
- G_Y Changes in shape of breast or nipple
- G_Y Discoloration

12. Have you ever heard of a mammogram?

- G_Y Yes
- G_N No

13. Have you ever had a mammogram?

- G₁ Yes, within the past 12 months (Go to Question 15)
- G₂ Yes, between 1-2 years ago (Go to Question 15)
- G₃ Yes, between 2-3 years ago
- G₄ Yes, more than 3 years ago
- G₀ No, I have never had a mammogram.

14. If you have not gotten a mammogram regularly, why? (Check all that apply.)

- G_Y I don't know how or where to get one.
- G_Y I don't believe that it increases my chances of survival.
- G_Y I don't believe that I am at risk for breast cancer.
- G_Y I'm afraid.
- G_Y I can't afford it.
- G_Y I've never been told to get a mammogram.

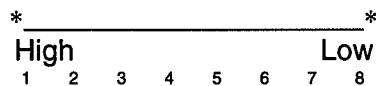
Please circle the response that indicates whether you think the following statements are TRUE or FALSE.

- | | | | |
|-----|---|---|---|
| 15. | Mammograms are not very effective at detecting breast cancer. | T | F |
| 16. | Breast cancer is more difficult to cure if detected early. | T | F |
| 17. | Mammograms can cause breast cancer. | T | F |
| 18. | Women who do monthly breast self-examination are more likely to find a lump that could indicate a problem. | T | F |
| 19. | Women with a family member who has had breast cancer are at <u>greater</u> risk for breast cancer than women without such a family history. | T | F |
| 20. | Women who are overweight are at <u>greater</u> risk for breast cancer than women who aren't. | T | F |
| 21. | Women who do not smoke are at <u>less</u> risk for breast cancer than women who smoke. | T | F |
| 22. | Women who are older than 50 are at <u>greater</u> risk for breast cancer than women who are younger than 50. | T | F |
| 23. | African American women in general are at <u>lower</u> risk for dying from breast cancer than are women of other races. | T | F |

Please circle the response that most closely indicates your agreement or disagreement with the following statements

		Strongly Agree	Mostly Agree	Neither Agree nor Disagree	Mostly Disagree	Strongly Disagree
24.	I am responsible for taking care of my own body including my breasts.	1	2	3	4	5
25.	Mammograms can hurt.	1	2	3	4	5
26.	There is nothing I can do to prevent breast cancer.	1	2	3	4	5
27.	I don=t like to touch my own breasts for breast self-examination.	1	2	3	4	5
28.	I need to get a mammogram every one to two years.	1	2	3	4	5
29.	Breast cancer is the will of the Lord.	1	2	3	4	5
30.	I would be more likely to get a mammogram if encouraged or supported by someone close to me (husband, best friend, sister, etc.).	1	2	3	4	5
31.	I think mammograms are worth it.	1	2	3	4	5
32.	I don=t want to get a mammogram because I=m afraid of what it might show.	1	2	3	4	5
33.	Getting a mammogram is embarrassing.	1	2	3	4	5
34.	I am not afraid of getting a mammogram.	1	2	3	4	5

This line represents breast cancer risk. Mark () on the line where you believe YOUR risk of getting breast cancer is.



STOP

**DO NOT TURN THE PAGE UNTIL YOU
ARE TOLD TO DO SO**

SECOND SURVEY

Directions: Circle the number of the response that MOST ACCURATELY describes your feelings.

		Very negative	Mostly negative	Neither negative nor positive	Mostly positive	Very positive
1.	How did the video make you <u>feel</u> about the importance of screening and early detection of breast cancer?	1	2	3	4	5
2.	How did the video make you <u>feel</u> about getting a mammogram?	1	2	3	4	5
3.	Overall, how did you <u>feel</u> about the characters?	1	2	3	4	5
4.	How did you <u>feel</u> about what they said to one another?	1	2	3	4	5
5.	How did you <u>feel</u> about the way they talked/acted toward one another?	1	2	3	4	5
6.	How did you <u>feel</u> about the story?	1	2	3	4	5
7.	How did you <u>feel</u> about the scenery?	1	2	3	4	5
8.	How did you <u>feel</u> about the music?	1	2	3	4	5
9.	How would you rate the overall tone of the video?	1	2	3	4	5
10.	Which character did you like the most ?					
	Ruby Mary Frank (Husband) Dr. Lee					
11.	Which character did you like the least ?					
	Ruby Mary Frank (Husband) Dr. Lee					
12.	What do you think Ruby=s mammogram results are?					
	G _P Positive (There might be a problem.)					
	G _N Negative (She=s fine.)					
	G _D I don=t know					

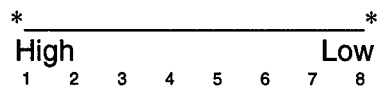
Please circle the response that indicates whether you think the following statements are TRUE or FALSE.

- | | | | |
|-----|---|---|---|
| 13. | Mammograms are not usually effective at diagnosing breast cancer. | T | F |
| 14. | Breast cancer is more difficult to cure if detected early. | T | F |
| 15. | Mammograms can cause breast cancer. | T | F |
| 16. | Women who do monthly breast self-examination are more likely to find a lump that could indicate a problem. | T | F |
| 17. | Women with a family member who has had breast cancer are at <u>greater</u> risk for breast cancer than women without such a family history. | T | F |
| 18. | Women who are overweight are at <u>greater</u> risk for breast cancer than women who aren't. | T | F |
| 19. | Women who do not smoke are at <u>less</u> risk for breast cancer than women who smoke. | T | F |
| 20. | Women who are older than 50 are at <u>greater</u> risk for breast cancer than women who are younger than 50. | T | F |
| 21. | African American women in general are at <u>lower</u> risk for dying from breast cancer than are women of other races. | T | F |

Please circle the response that most closely indicates your agreement or disagreement with the following statements

		Strongly Agree	Mostly Agree	Neither Agree nor Disagree	Mostly Disagree	Strongly Disagree
22.	I am responsible for taking care of my own body including my breasts.	1	2	3	4	5
23.	Mammograms can hurt.	1	2	3	4	5
24.	There is nothing I can do to prevent breast cancer.	1	2	3	4	5
25.	I don=t like to touch my own breasts for breast self-examination.	1	2	3	4	5
26.	I need to get a mammogram every one to two years.	1	2	3	4	5
27.	Breast cancer is the will of the Lord.	1	2	3	4	5
28.	I would be more likely to get a mammogram if encouraged or supported by someone close to me (husband, best friend, sister, etc.).	1	2	3	4	5
29.	I think mammograms are worth it.	1	2	3	4	5
30.	I don=t want to get a mammogram because I=m afraid of what it might show.	1	2	3	4	5
31.	Getting a mammogram is embarrassing.	1	2	3	4	5
32.	I am not afraid of getting a mammogram.	1	2	3	4	5

This line represents breast cancer risk. Mark () on the line where you believe YOUR risk of getting breast cancer is.



FOLLOW-UP TELEPHONE SURVEY

This is _____ calling from Georgia State University in Atlanta about the Breast Health Study that you participated in last ____ (date) _____. I'm not selling anything. You may recall attending a workshop or talking with _____, filling out some surveys, and watching one or more videos. You were paid \$10 for participating at that time, and you were told that you would receive an additional \$10 to complete the telephone follow-up survey. I'm calling today to do that survey. It will take about 10 minutes. Do you have time to talk to me now?

1. Have you received a mammogram (a special test that x-rays your breasts) since ____ (date) ____? Y N

If No: I'm going to read some of the most common reasons women don't get regular mammograms. Please tell me if one or more of these explains why you didn't get one.

- Gy I don't know how or where to get one.
Gy I don't believe that it increases my chances of survival.
Gy I don't believe that I am at risk for breast cancer.
Gy I'm afraid.
Gy I can't afford it.
Gy I've never been told to get a mammogram.

Do you remember the video you watched? Y N

If Yes, can you name one or more of the characters?

Do you recall if the video was a happy, upbeat sort of show, or was it sad and depressing, or was it neither happy nor sad?

- a. Happy and Upbeat
b. Sad and Depressing
c. Neither happy nor sad

4. Over the past year or two, can you remember hearing anything about breast health? Y N

If Yes, do you recall seeing these messages

On signs and billboards around your community? Y N

On TV Y N

On the radio Y N

At your church or women=s club Y N

At a doctor=s office or where you receive your health care? Y N

Where you work? Y N

The following questions are about your knowledge, attitudes and beliefs about breast health. Please answer true or false.

- | | | | |
|-----|---|---|---|
| 5. | Mammograms are not very effective at detecting breast cancer. | T | F |
| 6. | Breast cancer is more difficult to cure if detected early. | T | F |
| 7. | Mammograms can cause breast cancer. | T | F |
| 8. | Women who do monthly breast self-examination are more likely to find a lump that could indicate a problem. | T | F |
| 9. | Women with a family member who has had breast cancer are at <u>greater</u> risk for breast cancer than women without such a family history. | T | F |
| 10. | Women who are overweight are at <u>greater</u> risk for breast cancer than women who aren=t. | T | F |
| 11. | Women who do not smoke are at <u>less</u> risk for breast cancer than women who smoke. | T | F |
| 12. | Women who are older than 50 are at <u>greater</u> risk for breast cancer than women who are younger than 50. | T | F |
| 13. | African American women in general are at <u>lower</u> risk for dying from breast cancer than are women of other races. | T | F |

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
14.	I am responsible for taking care of my own body including my breasts.	1	2	3	4	5
15.	Mammograms can hurt.	1	2	3	4	5
16.	There is nothing I can do to prevent breast cancer.	1	2	3	4	5
17.	I don=t like to touch my own breasts for breast self-examination.	1	2	3	4	5
18.	I need to get a mammogram every one to two years.	1	2	3	4	5
19.	Breast cancer is the will of the Lord.	1	2	3	4	5
20.	I would be more likely to get a mammogram if encouraged or supported by someone close to me (husband, best friend, sister, etc.).	1	2	3	4	5
21.	I think mammograms are worth it.	1	2	3	4	5
22.	I don=t want to get a mammogram because I=m afraid of what it might show.	1	2	3	4	5
23.	Getting a mammogram is embarrassing.	1	2	3	4	5
24.	I am not afraid of getting a mammogram.	1	2	3	4	5

BRIE STUDY

CONTACT FORM

Name _____ Phone _____ Alt. Phone _____

Address _____ City _____, GA Zip _____

ELIGIBILITY GUIDELINES

African American female aged 45-65?	Y	N	G NOT ELIGIBLE
Ever had a mammogram?	Y	N	
If yes, about how many months/years ago?	_____		WKSHP DATE _____ TIME _____
History of breast cancer?	Y	N	
History of breast surgery?	Y	N	No show G Reschl=d for _____
Attended <input type="checkbox"/>	ID Number _____		INFORMED CONSENT SIGNED? Y N

Name _____ Phone _____ Alt. Phone _____

Address _____ City _____, GA Zip _____

ELIGIBILITY GUIDELINES

African American female aged 45-65?	Y	N	G NOT ELIGIBLE
Ever had a mammogram?	Y	N	
If yes, about how many months/years ago?	_____		WKSHP DATE _____ TIME _____
History of breast cancer?	Y	N	
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Attended <input type="checkbox"/>	ID Number _____		INFORMED CONSENT SIGNED? Y N

Name _____ Phone _____ Alt. Phone _____

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ELIGIBILITY GUIDELINES

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If yes, about how many months/years ago?	_____		WKSHP DATE _____ TIME _____
History of breast cancer?	Y	N	
History of breast surgery?	Y	N	No show G Reschl=d for _____
Attended <input type="checkbox"/>	ID Number _____		INFORMED CONSENT SIGNED? Y N

References

1. Witte, K. Fishing for Success: Using the Persuasive Health Message Framework to generate effective campaign messages. In: Designing Health Messages, Maibach & Parrott (eds.), Thousand Oaks, CA, Sage Publications, 1995.
2. Fishbein, M & Ajzen, I. Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley, 1975.
3. Petty, RE & Cacioppo, JT. Communication and persuasion: Central and peripheral routes to attitude change. New York, Springer, 1986.
4. Rogers, RW. Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. Cacioppo & R. Petty (eds.) *Social psychophysiology*, New York, Guilford, 1983.



DEPARTMENT OF THE ARMY

MEDICAL RESEARCH AND MATERIEL COMMAND
504 SCOTT STREET
FREDERICK, MARYLAND 21702-5012

REPLY TO
ATTENTION OF

MCMR-RMI-S (70 17

26 Aug 02

MEMORANDUM FOR Administrator, Defense Technical Information
Center (DTIC-OCA), 8725 John J. Kingman Road, Fort Belvoir,
VA 22060-6218

SUBJECT: Request Change in Distribution Statement

1. The U.S. Army Medical Research and Materiel Command has reexamined the need for the limitation assigned to technical reports written for this Command. Request the limited distribution statement for the enclosed accession numbers be changed to "Approved for public release; distribution unlimited." These reports should be released to the National Technical Information Service.

2. Point of contact for this request is Ms. Kristin Morrow at DSN 343-7327 or by e-mail at Kristin.Morrow@det.amedd.army.mil.

FOR THE COMMANDER.

Encl


PHYLIS M. RINEHART
Deputy Chief of Staff for
Information Management

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