BLOOD PRESSURE AND YOU:

HEALTH EDUCATION FOR HISPANICS

A graduate project submitted in partial satisfaction of the requirements for the degree of Master of Public Health in Health Education

by

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The author wishes to dedicate this project
to her father
Robert Waite
a diagnosed hypertensive
who endeavors to comply with his medical regimen
and who makes his daughter very proud.
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The purpose of this project was to develop a health education presentation on blood pressure and hypertension for Hispanics using a series of 35mm slides with taped narration.

Prior to production, a literature review was conducted at four levels to facilitate development of the project:

1. Psycho-social factors of health behavior
2. Applied communications and persuasion
3. Hypertension intervention strategies
4. An overview of the Hispanic population

This information was used to synthesize a slide presentation sensitive to the needs of the Hispanic community of Los Angeles County.

The content of the slide production, "Blood Pressure and You" is aimed at the primary goal of the project,
to increase blood pressure and hypertension awareness in the Hispanic community. A second goal of the project is to persuade Hispanics to seek regular blood pressure checkups and, if needed, treatment for hypertension.

The presentation was researched and completed through the use of storyboard cards, with assistance from three professionals: a photographer, graphic artist, and narrator/soundtrack engineer.

Following its completion, the project premiered at a health education media workshop. Health education professionals from both Los Angeles County and throughout the state attested to the validity of "Blood Pressure and You" through written evaluative criteria. The results suggested not only a variety of possibilities for its use, but recommendations for future additions to the project as well.
CHAPTER ONE
Introduction

The 1979 California State Plan for High Blood Pressure Control identified five priority target populations for hypertension intervention, including health education:

1. medically underserved
2. ethnic minorities at high risk
3. groups for which prevalence is known to be high
4. groups believed to have a high prevalence of high blood pressure for which estimates are not available
5. groups which are at increased risk (State of California, Department of Health Services, 1979)

While it is statistically true that both Blacks and Anglos suffer from hypertension in greater percentages than Hispanics, a closer look at this population changes the picture of risk drastically. (Leonard, 1981) The following pages will clearly identify the Hispanic population as one described by the above criteria.

Between 1970 and 1980, the United States Hispanic population grew at a rate 6\frac{1}{2} times that of the general population. The 1980 census placed the number of Hispanics living in the United States at 14.6 million, based on self-identification. (Guernica, 1981) Additionally, there are an estimated three to twelve million undocumented Hispanics, about whom few reliable statistics are
available. Compounding this is the fact that Hispanic mothers are giving birth at a rate higher than the general population. These facts seem to indicate that while the percentage of Hispanics who have hypertension is about half that of Blacks, the actual number of Hispanics in the population is larger---maybe nearly double what is documented. If this is true, the Hispanic population may be at nearly equal risk with Blacks for hypertension.

A 1979 survey by the Hypertension Detection and Follow Up Program Cooperative Group studied hypertension prevalence in Californians by race, sex, and age, giving some preliminary clues to the magnitude of the Hispanic health problem. In older Hispanics, thirty-nine percent of males and forty-five percent of the females were shown to suffer from hypertension. Of younger Hispanics (those under fifty), fourteen percent of males and eight percent of females suffer from the disease. The same report showed large discrepancies between awareness, treatment, and control of hypertension. Among hypertensive Hispanics, only half are aware they have the disease. This awareness level is lower than for any of the other three ethnic groups surveyed. Less than one third of Hispanic hypertensives in California are under treatment; again, the lowest rate among all groups. Finally, only twelve percent of hypertensive Hispanics have their blood pressure under control.
Still another study, conducted in Texas, disclosed that less than one third of the minority respondents to a questionnaire on health recognized heart disease as the major cause of death in the United States. When asked to name six risk factors for heart disease, sixty-one percent of all respondents (including all ethnic backgrounds) could not name more than two. Of all risk factors named, high blood pressure was named least frequently among Hispanic respondents. (Weaver and Ramirez, 1978)

The use of media to reach this population can be justified by studying the methods by which Hispanics obtain health information, as well as their television viewing habits. Research indicates that an audience remembers fifteen percent of what it sees, twenty-five percent of what it hears, and fifty percent of what it sees and hears. (Bagg, 1980) The use of a slide presentation is just such a tool, combining the "seeing" with the "hearing". In addition, over half of the Hispanics in the Texas survey indicated they rely on either their physician or the television for the bulk of their health information. (Weaver and Ramirez, 1978) Knowing this, the next step is to merge medicine and the media, to create a vehicle for health education.
Statement of the Problem

The underdocumented, underserved Hispanic population is at risk for hypertension and its consequences. There is a serious lack of knowledge in this population, and a lack of blood pressure control in diagnosed hypertensives as well.

Purpose of the Project

The purpose of this project is to develop a health education presentation on blood pressure and hypertension for Hispanics using a series of 35mm slides with taped narration.

Limitations of the Project

1. The presentation will be written in English, while many of the target population have Spanish as their native language.

2. The presentation will be aimed at Hispanics and, because of this, will not emphasize race as a risk factor.

3. Changing the actual health behavior of the clients, the ultimate goal of the project, is not directly addressed at this time.

4. There may be a lack of motivation for clients to pay attention to the slide presentation if they do not feel ill and/or are not diagnosed as hypertensives.

Definition of Terms

Health Education - Any combination of learning
opportunities designed to facilitate voluntary adaptations of behavior (in individuals, groups or communities) conducive to health.

**Blood Pressure** - The measurement of the pressure inside the arteries caused by the flow of blood from the heart.

**Systolic Blood Pressure** - The peak blood pressure measurement when the heart muscle contracts and pushes the blood out of the heart and against the walls of the arteries.

**Diastolic Blood Pressure** - The blood pressure measurement when the heart muscle is relaxed between heart beats.

**Sphygmomanometer** - An inflatable cuff attached to either a mercury manometer or an aneroid dial manometer which is used to measure blood pressure in millimeters of mercury.

**Stethoscope** - An instrument used in conjunction with the sphygmomanometer to measure blood pressure which acts as a microphone to amplify the heartbeats.

**Brachial Artery** - Major artery of the arm, over which the stethoscope is placed at the elbow crease when measuring blood pressure.

**Normal Blood Pressure** - An average normal blood pressure for an adult between 18 and 45 years of age is considered to be 120 systolic and 80 diastolic, or 120/80. Temporary increases are normal and may be due to excite-
ment, stress, or exercise.

**Hypertension (High Blood Pressure)** - A consistent blood pressure elevation of 160 or more systolic or 95 or more diastolic.

**Essential Hypertension** - A consistent elevation of blood pressure without evident physiological cause; accounts for about ninety percent of hypertension cases.

**Primary Prevention** - Those activities undertaken to prevent disease or illness.

**Secondary Prevention** - Those activities undertaken to intervene after disease can be detected, but before it is symptomatic.

**Tertiary Prevention** - Those activities undertaken to prevent the progression of symptomatic disease or illness.
This chapter will review literature at four levels. First, the psycho-social factors of health behavior will be discussed. Techniques and theories of applied communication and persuasion will follow. After presenting literature on hypertension intervention strategies, the chapter closes with an overview of the Hispanic population.

**Psycho-social Factors of Health Behavior**

Research aimed at behavioral prediction elaborates upon both behavioral outcome and its antecedents. While knowledge alone is insufficient to change behavior (Moser, 1977), it is important to note that when combined with relevant psycho-social factors, behavior change may occur. This section first defines health behavior, then reviews the Health Belief Model and the Theory of Reasoned Action.

Kasl and Cobb (1966) defined health behavior as any activity undertaken by a person who believes himself to be healthy for the purpose of preventing disease or detecting disease in an asymptomatic stage. Because high blood pressure is asymptomatic and requires screening for its detection and treatment, participation in blood pressure education could be considered a health behavior.
This term, therefore, appears to be appropriately applied to this project of primary prevention.

Within the scope of health behavior, there has been a wide assortment of conceptual models which study causality. Cummings (1980) analyzed 14 different models totalling 109 variables in order to ascertain distinct concepts relevant to explaining health related actions. Although these models vary in scientific rigor, six interpretable factors emerged. These included:

1. Accessibility to health care
2. Evaluation of health care
3. Perception of symptoms and threat of disease
4. Social network characteristics
5. Knowledge about disease
6. Demographic characteristics (Cummings, 1980)

While knowledge is an integral factor in this set, it must be considered in concert with other psycho-social factors if behavior change is to be expected.

**The Health Belief Model**

The Health Belief Model is a value-expectancy theory probing five predictors of health decision. (Becker, et al., 1977) Basically, the model attempts to predict behavior through cognitive constructs which include the individual's perceptions of susceptibility, severity, benefits of care/health, barriers of care/health, and cues to action. While this model has extended itself into illness and sick-role behavior studies, it was originally used to generate explanations of preventive health behavior.
This model is not without limitations. First, the model lacks an analysis of lay referral and social support. In his Theory of Social Comparison Processes, Festinger (1954) suggests that when an individual lacks the internal ability for self-evaluation, he or she will make comparisons with other people. Particularly because of the asymptomatic nature of high blood pressure, this notion becomes vital for individual decision making. For many people, social comparison will precede the decision to seek hypertension screening.

Research in the field of social support has strong implications for individual as well as family health. Pilisuk (1982) defines social support as "those relationships among people that provide not only material help and emotional assurance, but also the sense that one is a continuing object of concern on the part of other people." In a study by Langlie (1977), social networks were found to influence preventive health behaviors such as medical checkups, dental care, and miscellaneous screening exams. Pratt (1972) examined conjugal communication with results supporting her hypothesis that marriages characterized by shared power, flexible division of tasks, and a high level of companionship were more likely to engage in health behavior. In the area of compliance and sick-role behavior, Kaplan (1977) reported findings which demonstrated expeditious recoveries when social support was present.
A second limitation of the Health Belief Model is that it does not address the doctor/patient relationship and interaction. While there is vast literature on hypertension compliance, little is known about the primary prevention issues facing the consumer. It is not unreasonable to assume that the Hispanic community must come to grips with the barriers of the doctor/patient relationship at both a cultural and bilingual level.

The Theory of Reasoned Action

The Theory of Reasoned Action is often viewed as an additivity formula for predicting behavior. Here the measurement of attitudes and subjective normative beliefs are combined to estimate behavioral intention and the subsequent behavior. Ajzen (1971) found evidence that persuasive communication focusing on the attitudinal component of this model could influence one's behavioral intention under conditions of competition. Conversely, the persuasive communications which focus on the normative beliefs component were shown to influence behavioral intention when under conditions of cooperation.

Summary

These two models afford a clear framework from which to develop the audio-visual project. The Health Belief Model directs attention to informational content which may influence specific cognitive perceptions and the Theory of Reasoned Action suggests conditions under
which persuasive communication is likely to affect change. While neither model has an applied history in pure production, both seem to give direction for such activities. Finally, these models make an important assumption that man is a rational being, and that decision making is affected accordingly. This concept is engrained in the very definition of health education and is perceived as appropriate for this project.

Applied Communications and Persuasion

The preceding section focused upon several cognitive models which emphasized the prediction of behavior. In contrast, this section reviews research in which the primary interest is on the independent variables. The classic information processing model of general attitude and behavior change was developed by Hovland et al. (1953) It consists of five independent variables: source, message, channel, receiver, and destination. McGuire (1972) elaborated this model through the formation of a persuasion matrix. Here it is suggested that the independent variables are affected by six dependent variables, or steps in being persuaded:

1. Exposure to the message
2. Attention to the message
3. Comprehension of the message
4. Yielding to the appeal of the message
5. Retaining the new position
6. Taking action based on the message
   (McGuire, 1972)

The contention is that the persuasive strengths of each
of the communication components (dependent variables) will influence the degree to which the learner adopts these six steps of persuasion.

Because the project's intent is to be sensitive to communication and persuasion issues, the following areas are outlined:

1. Source Characteristics
2. Bases of Social Power
3. Fear Arousing Communications
4. The Inoculation Effect
5. Program Appeal and Salience

While these issues are not all-inclusive, each represents a particular concern addressed by this project.

**Source Characteristics**

It seems readily apparent that cohesion between source and receiver could enhance awareness, understanding, and decision making. For example, a source with both authority and expertise gains credibility with its receiver. Likewise, the source characteristics of similarity and likability are attractive to the receiver. Findings have supported the following tenets:

1. There will be more opinion change in the desired direction if the communicator has high credibility than if he has low credibility. (Hovland and Weiss, 1951)

2. A communicator's effectiveness is increased if he initially expresses some views that are also held by his audience. (Weiss, 1957)

3. What an audience thinks of a persuader must be directly influenced by what they think of his message. (McGinnies, 1968)
4. People are more persuaded by a communicator they perceive to be similar to themselves. (Aronson, 1962)

More recently, Chaiken (1979) demonstrated that more attractive communicators induced significantly greater persuasion on the target audience. Such research underscores the continuing importance of the source-receiver relationship in the production of health education programs.

**Bases of Social Power**

The Bases of Social Power have been delineated and examined by Collins and Raven (1968) as one component of group structure. Each base is dependent on the influencing agent ("O") and the target ("P"). Both individual and group influence are possible through one or more of the six bases:

1. **reward** - based on P's expectation that O will do something in return, such as reward P if P complies.

2. **coercive** - based on P's belief that O can and will punish him for non-compliance.

3. **legitimate** - stems from P's acceptance of a given role/structural relationship believing that O has the right to request compliance in the area and P further feeling obliged to comply.

4. **expertise** - stems from P's belief that O has superior knowledge of P's ability and knows what sort of behavior on P's part will lead P to the best outcome.

5. **informational** - stems from the content of the persuasive communication from O to P as a careful and successful explanation of the necessity for change.
6. referent - follows from P's identification with O, or from a desire for such identification. Being part of one unit, P then gets some satisfaction from behaving, feeling, believing, etc., similar to O. (Collins and Raven, 1968)

The power bases provide a useful tool in the planning of the audio-visual project. In this case, the slide show represents "O" and the target audience represents "P". Because the project employs both the delivery of information and referent sources for the presentation, informational power and referent power may have the strongest associations within the target audience. Expertise and legitimate powers are used, though to a lesser extent and would correspondingly expect less influence. Reward and coercive powers are not directly used in the slide presentation.

Fear Arousing Communications

The arousal of fear in order to insure health behavior is an area of unresolved controversy. One of the earliest experiments in this area was conducted by Janis and Feshbach (1953). Comparing fear arousing versus non-fear arousing communications in generating acceptance of dental health recommendations, the findings demonstrated that the highest fear level was associated with the lowest degree of acceptance of the recommended actions. The authors concluded that subjects denied the relevance of the fear arousing messages to themselves.
Leventhal (1965) suggested two options in the preparation of messages. First, a program could arouse positive drives about seeking a blood pressure checkup, for example. This could be done by emphasizing the health benefits of screening and early detection. Secondly, the program could use aversive drives by arousing fear regarding the dangers of high blood pressure such as premature death and disability. He points out that it is often impossible to avoid the arousal of fear when making a presentation regarding health problems; and, moreover, suggests that access to screening or whatever the health behavior entails should be available when applying fear arousing communications.

Kirscht and Haefner (1973) demonstrated that high threat and message repetition can increase the likelihood of a medical checkup. They concluded that threatening content may be an appropriate component of a health message. In a study of weight change among obese children, Kirscht et al. (1978) found similar results, demonstrating that people who perceive the health problem as moderately severe are in most cases in a better state of readiness to act than those people whose perceptions are high or low.

While there are no easy answers regarding the amount of fear arousal to include, the approach taken by this project was to establish mild cognitive dissonance within the viewers and to assist in the resolu-
tion of this uncomfortable state by suggesting individual blood pressure measurements. In short, the audio-visual project demonstrates how each viewer can reduce personal anxiety by having his or her blood pressure measured.

The Inoculation Effect

This phenomenon supports the belief that the two-sided argument is favored over the one-sided argument. (Lumsdaine and Janis, 1953) Basically, when exposed to a counter communication, those who are persuaded by a one-sided argument are more inclined to regress back to their initial position than those who are given the two-sided argument. Thus, the two-sided argument tends to defend receivers against the effects of subsequent counter advocacy. In this project, both sides of the health problem are presented. (The outcome of regular screening versus possible outcomes without screening) It is unclear, however, how crucial this approach is for high blood pressure awareness and understanding, since the healthy options are undoubtedly favored. Greater relevance may be found in the comparison of hypertensives who wish to comply with medication regimens, but are experiencing side effects and become non-compliant.

Program Appeal and Salience

Finally, program appeal and salience may be seen as the key to the success of the project. Swinehart
(1975) describes several of the creative elements addressed by the Feeling Good program of the National Health Education Television Series. Multiple appeals (message reinforcement), use of entertainment, recruitment of influencing agents, and sophisticated technological production techniques were a few of the Children's Television Workshop's approaches in making health education both salient and appealing. While appeal and salience are not necessarily synonymous, this project has taken what it believes to be a salient health issue facing the Hispanic community and developed an appealing audio-visual program. Although no one can guarantee creativity in the use of mass media, this certainly was a goal of the project.

Summary

This section has outlined five communication issues facing most media productions. Source characteristics and the bases of social power are clearly the most quickly resolved relative to this project. Fear arousing communications and the inoculation effect, on the other hand, are not so easily managed. However, for this project to achieve its goal of increasing awareness and understanding of blood pressure in the Hispanic community, program appeal and salience are perhaps the most critical issues. If a program is unappealing, then a salient issue may be disregarded by the viewing
audience.

Hypertension Intervention Strategies

This section looks specifically at the results of hypertension intervention strategies. This author acknowledges that no single educational intervention can be expected to have a lasting effect on health behavior unless it is supported by other educational experiences over time. Moreover, what works to change the behavior of some will not necessarily work for others. Thus, this project could and should be combined with other educational methods to facilitate and enhance high blood pressure control in the Hispanic community. Presented here are first, an overview of Cartwright's Three Structured Persuasion Framework, the Classical Diffusion Model, and selected hypertension intervention programs.

Cartwright's Principles of Persuasion

Cartwright (1949) developed three principles of mass persuasion. In brief, he demonstrated that persuasion meant changing people's cognitive structures - their levels of information; changing their motivational structures - what they want to do; and finally changing their action structures - what they actually do. This approach assumed that once changes in knowledge and beliefs have been brought about, changes in attitudes, initiations, and behavior will automatically follow. It is clear that this project addresses Cartwright's first
principle. However, additional educational approaches are necessary to effect the motivational and action structures.

The Classical Diffusion Model

This may be described as the process by which an innovation is communicated via certain channels over time to members of a social system. (Kar, 1974) Since the goal of the project is to increase blood pressure awareness within the Hispanic community, the innovation could be conceived as first, the concept of a symptomless disease, and secondly, the act of measuring blood pressure. The general characteristics of innovations are related to the following issues: relative advantage, compatibility, complexity, trialability, and observability. Unfortunately, high blood pressure does not rate well within these issues.

The relative advantage of high blood pressure screening is not readily apparent. When the illness consists of no real symptoms, has a treatment modality which often makes the patient feel worse than before, and has no cure but lifelong treatment, high blood pressure detection may pose an unusual barrier to successful screening and follow-up programs. Compatibility is the degree to which an innovation is perceived as consistent with existing values, past experiences and needs of the reciever. The adoption of controlling
high blood pressure may require adjusting present values for the Hispanic community.

The third issue of innovation is that of complexity. Blood pressure measurement is a simple procedure, although it may appear to be quite complex for those individuals unfamiliar with the equipment and methods. The demystification of this procedure is addressed in the audio-visual project. Trialability is the fourth issue of innovation and, if blood pressure screenings are accessible to the Hispanic community, this should not be a problem of great magnitude. Again, referral to an agency for screening is built into the project. Finally, observability is the degree to which the results of an innovation are visible to others. Public screenings in clinics are often free and well advertised.

Given the classical diffusion model, Flay et al. (1980), Cleary et al. (1980), Richman and Urban (1978), and Maccoby and Farquhar (1975) elaborate communication approaches in the areas of health promotion, hypertension control, television health education and cardiovascular risk reduction, respectively. Each baseline is similar to the classical diffusion model, although these researchers have varied approaches. In addition, each dwell in Cartwright's Three Structured Persuasion Model. This section reviews these concerns with the speculation that the audio-visual project has a place to fill within an intervention strategy.
Educational Intervention Strategies

Morisky et al. (1982, 1983) reports conclusive evidence demonstrating that health education interventions can have significant effects on morbidity and mortality. In a six-year study including a randomized factorial design, three sequential interventions were incorporated into the treatment of hypertension. These included:

1. An exit interview to increase understanding of the physician's instructions;
2. Encouraging a family member to provide support for the patient; and
3. Small group sessions to increase the patient's confidence and ability to manage his/her problem. (Morisky et al. 1983)

These interventions demonstrated a positive effect on compliance with the medical treatment and blood pressure control. Moreover, the six-year analysis showed a continuing positive effect on appointment-keeping, weight control, and blood pressure control. Six year hypertension-related mortality was 59 percent less for all experimental groups compared to the control group (9.9/100 versus 22/100, p = < .05) with the family member intervention demonstrating the single strongest effect.

According to Deeds (1979) the patient should be able to state the following in making the decision to control blood pressure:
1. Personal blood pressure and normal limits;
2. That high blood pressure can be asymptomatic;
3. That untreated high blood pressure can lead to stroke, kidney disease, or heart disease;
4. That drug therapy can control high blood pressure and reduce risk of these complications; and
5. The necessity of lifelong therapy for control (Deeds, 1979)

Finally, in a longitudinal study of 432 hypertensive patients under the care of private physicians, Glanz (1981) examined client reactions to four educational intervention strategies. The strategies included:

1. Written messages (hand delivered)
2. Nurse's phone call (one time)
3. Self monitoring (personal instruction)
4. Social support (telephone call, meeting, the involvement of a significant other, and follow-up phone calls) (Glanz, 1981)

Positive results were found from patient interviews. The wide majority of clients recalled the kinds of educational activities they were exposed to several weeks after the exposure. A substantial percentage also believed those educational activities were interesting, important, and reassuring. However, the behavior effect was of limited scope and duration relative to the educational interventions. (The cause of this may have been due to a ceiling effect - initial adherence levels were high, especially for medications.) Glanz suggests that "perhaps life-long modifications of behaviors require long term educational activities." (Glanz, 1981, p. 151)

Educational intervention strategies are faced with
three charges. First, Morisky et al. (1983) has demonstrated that such strategies can make the difference not only in compliance and control of hypertension, but also in morbidity and mortality outcomes. Second, Deeds (1979) has identified successful strategies pointing toward an interface between patient and provider intervention strategies. And third, educational interventions may require long term implementation plans to insure lifelong behavioral adoption as suggested by Glanz (1981).

Summary

This section has discussed Cartwright's Three Structured Persuasion Framework, the Classical Diffusion Model, and educational intervention strategies. Although high blood pressure control involves the three levels of prevention, the focus of this project has been to increase high blood pressure awareness at the primary prevention level. Nevertheless, it has the potential for application within the cited intervention programs at both secondary and tertiary levels as well.

An Overview of the Hispanic Population

As stated previously, the Hispanic population comprises a large, rapidly growing sector of the United States population. Therefore, canvassing demographic and cultural data on this population must be antecedent to the development of Hispanic health education materials.

Gianchello (1983) used the 1980 United States
census to identify health care needs of the Hispanic population. Documented Hispanics comprise about 6.4 percent of the U. S. population. It is a population of youth, with a median age of 23 and one third of its members under 15. This fact itself indicates the tremendous potential for rapid growth in population, as well as the health concerns accompanying such a trend. In addition, the Hispanic family is generally characterized by low income; 23 percent are below the poverty level---over double the rate of total U. S. families. As might be expected, educational levels are lower than for non-Hispanics. Of those over 25, only 42 percent have completed at least twelve years of education, a rate twenty percent below that of the national average.

Family structure and roles permeate deep into Hispanic culture. Strong bonds of kinship connect the nuclear and extended families. (Guernica, 1981) Queen (1974) delineates specific cultural sex roles for Hispanic family members. Adult males assume a masculine "macho" role. At home, the male is a detached monarch, having ultimate power over family decisions. Being both protector and provider, he represents his family and its name to the community. The female's purpose in life is to create a home and family for her husband. As a result, family solidarity and the virtues of family life are the center of the Hispanic home.
Summary

The Hispanic population can be characterized as a rapidly growing community of poverty whose kinship ties are extremely strong. The incorporation of these facts with the principles of behavior, persuasion and intervention reviewed in this chapter provide a strong foundation on which to produce the audio-visual project.
CHAPTER THREE
Methodology

This chapter will present the scheme by which the audio-visual project, "Blood Pressure and You" evolved. First, the target population and goals and objectives will be identified. Subsequently, the production processes will be detailed in order to lend understanding to the steps of the project's creation. Finally, the chapter closes with a discussion on the validity testing of the project done by a group of health professionals.

Target Population

The target population for this project is the Hispanic community of Los Angeles County, whose size is well over two million people. Of these, 66 percent are adults. Those with hypertension number 231,775 or seventeen percent of the population, yet only about half are aware they have the disease. Of those, only 32 percent are under treatment, and still fewer (fourteen percent) have their hypertension controlled. When compared to Hispanics statewide, the Los Angeles County Hispanic population is statistically parallel in its lack of awareness, treatment and control of hypertension. (Figure 1)

Because much of this Hispanic population is concentrated in the eastern portion of Los Angeles County, it
is for these people that this project was created. This includes the communities of Mount Washington, Lincoln Heights, Boyle Heights, East Los Angeles, El Sereno, Highland Park, City Terrace, Maravilla, Montebello, and Commerce. The East Los Angeles Health Task Force, which sponsored this project, provides health services to these people, 95 percent of whom are low income Hispanics. (Hendricks, 1980) A map of the targeted community appears in Appendix A.

Goals and Objectives

The goal of the project was to increase blood pressure and hypertension awareness in the Hispanic community through the use of the audio-visual presentation, "Blood
Pressure and You." Dovetailing this is a second goal of the project, to increase the number of Hispanics who receive regular blood pressure measurement. Three specific objectives have been created to achieve these goals. After viewing the slide presentation, the learner should be able to:

1. State what blood pressure is and how it is measured;
2. Tell the difference between normal blood pressure and hypertension; and,
3. Discuss the importance of regular blood pressure checkups.

These objectives can be evaluated through a discussion following the slide presentation. The project is not intended as the sole source of meeting the objectives; but rather as a vehicle for health education in concert with a human health educator to provide both clarification and feedback to the learner.

Production

The finished slide presentation is a fifteen-minute, seventy-frame program of 35mm slides with cassette tape narration. The production and script were completed by the author using the principles of Kemp (1980), Abel (1979), Kasper (1977), and Bagg (1980). Its steps are outlined below.

Content Organization

The first step in the production of the slide
presentation was to synthesize materials and form a content outline on which to base the script. The slide presentation outline is located on page 30. A separate reference list for the slide presentation follows the primary sources list in the bibliography.

Script Development

Apart from the content of the script, specific and deliberate nuances were strategically presented to enhance interest and learning. The script opens with a question, "How many times have you sat in a doctor's office having your blood pressure taken?" Before the audience has time to 'answer', another question is posed. "Did you know what was being measured?" Again, another question, "Do you know now?" By this point, the audience is contemplating the act of blood pressure measurement and how little they actually know. It is here that the relief from this cognitive dissonance is administered in the form of the objectives for the presentation. "In the next few minutes, you will learn what blood pressure is, how it is measured, and most of all, why measuring blood pressure is so important to you." The introduction is finished, the content is ready to be presented, and the learners are ready to receive health education.

Earlier it was stated that demystification of procedures and equipment aids in the adoption of health
SLIDE PRESENTATION OUTLINE

I. Introduction
   A. Overview and statement of objectives
   B. Title, preliminary credits

II. Measuring Blood Pressure
   A. Definition of blood pressure
   B. Description of terms
      1. systolic
      2. diastolic
   C. Interpretation of blood pressure
   D. Equipment
      1. sphygmomanometer
         a. mercury column
         b. aneroid
      2. stethoscope
   E. Demonstration
      1. cuff placed around upper arm
      2. palpation of brachial artery
      3. stethoscope placed over artery site
      4. screw on bulb tightened
      5. bulb pumped, causing mercury to rise
      6. screw loosened, cuff deflates slowly, mercury drops slowly
      7. during deflation, provider listens for pulse through stethoscope
      8. level of mercury at first audible pulse measures systolic blood pressure
      9. level of mercury at last audible pulse measures diastolic blood pressure
     10. blood pressure is recorded as a fraction, systolic over diastolic
   F. Review of objectives

III. Hypertension - The Silent Killer
   A. Normal adult blood pressure
      1. about 120/80 for adults 18-45 years old
      2. low blood pressure is of concern only when accompanied by other symptoms
         a. dizziness
         b. weakness
         c. fatigue
      3. temporary increase in blood pressure can be normal
         a. excitement
         b. stress
         c. exercise
B. Adult hypertension
   1. Definition of hypertension
      a. consistent elevation of 160 or more systolic, or
      b. consistent elevation of 95 or more diastolic
   2. Cause of hypertension
      a. 90 percent unknown (essential hypertension)
      b. 10 percent other diseases
         (1) kidney disease
         (2) arteriosclerosis
   3. Symptoms
   4. Prevalence
   5. Risk factors
      a. over forty years old
      b. smokers
      c. hypertensive family members
      d. overweight/obesity
      e. high salt/fat diet
   6. Prevention
      a. quit smoking
      b. lose weight
      c. reduce salt in diet
         (1) read labels on packaged foods
         (2) ingredients listed in order of amount
      d. regular blood pressure checkups
         (1) every six months
         (2) keep a record for yourself
   7. Treatment
      a. diet modification
      b. medication
      c. control, but no cure

IV. Review
   A. Definition of blood pressure
   B. Definition of normal adult blood pressure
   C. Definition of adult hypertension
   D. Asymptomatic nature of hypertension
   E. Treatment for control only
   F. Importance of regular blood pressure checkups

V. Clinic Information

VI. Final Credits
behaviors. Elucidation is second on the slide show agenda. Frames 10 through 14 show and explain all pieces of blood pressure measuring equipment, including both types of cuffs and the stethoscope. Systolic and diastolic pressure are defined, and those dubious fractions are explained. A step-by-step demonstration of the blood pressure measurement process completes the demystification process. In frame 24, the elderly Hispanic woman smiles when the provider tells her that her blood pressure is normal for her age.

Beginning with frame 31, a 30-year-old Hispanic male takes on the role of patient. The decision to use a younger person, especially a male, underscores that the "macho" man has his blood pressure taken and under control. Interspersed with information on hypertension, he is seen jogging (frame 31), having a picnic with his family, which reinforces the strong family bonds of Hispanic culture (frames 35, 36), and of course, visiting the local clinic for regular blood pressure checkups (frames 37 through 39, 51 through 53, 62 and 63).

Another component of this section of the program ties in patient responsibility to blood pressure control. Three times during the show, the audience is urged to ask what his/her blood pressure is when it is measured. At frame 52, the script counsels, "It is important for you to ask---it is important for you to know."

The section on prevention is included to further
assist the learner in taking responsibility for his/her health. A great deal of emphasis is placed on the reduction of salt in the diet. The rationale for this is that dietary sodium is considered to be among the top environmental factors influencing blood pressure. (Kaplan, 1980; Fries, 1976) Unfortunately, consumers facing hidden salt daily in the grocery store are often unaware of this health threat. Attention to this concern, therefore, appears warranted.

Frames 56 through 62 review information presented in both sections of the slide presentation. Repetition has been mentioned earlier as a key to learning retention.

Finally, the audience is promised information on blood pressure clinics following the show (frame 63). This purposeful inclusion assures that a resource person will be available for follow-up questions and clarification as stated in the objectives.

As the scenario closes and the music fades in, the last and most substantive tactic is employed. In frames 64 and 65 the "macho" man and his young child are seen spending what appears to be 'quality time' together. The audience hears, "Your life and health are your most valuable possessions. Protect them both by keeping blood pressure under control." Not only does this again reinforce the strong family ties, but it implies that the investment in a blood pressure checkup is an investment in the future quality (and
quantity) of life. Perhaps some members of the audience think to themselves, "Hey, I want to be around to see my children (or grandchildren) grow up." If so, they have taken the health behavior bait; the supreme intent of the author. A copy of the script appears in Appendix B.

Readability Factor

Although the audience in a slide presentation is not reading but listening, the complexity of the words in the script is nonetheless an issue of concern. It seems appropriate to apply a readability formula to the script in order to discern the potential understandability of the slide show narration. While there are a multitude of formulae for readability, the SMOG grading formula was selected for its ease and accuracy.

In the United States Department of Health and Human Services' publication, Readability Testing in Cancer Communications (1981), the four steps of the SMOG test are outlined:

1. Count off 10 consecutive sentences near the beginning, in the middle, and near the end of the text.

2. From this sample of 30 sentences, circle all words containing three or more syllables (polysyllabic), including repetitions of the same word, and total the number of words circled.

3. Estimate the square root of the total number of polysyllabic words counted. This is done by finding the nearest perfect square root.
4. Finally, add a constant of three to the square root. This number gives the SMOG grade, or the reading grade level that a person must have reached if he or she is to fully understand the text being assessed. (U.S. Department of Health and Human Services, 1981, p. 4)

The results of the SMOG test for "Blood Pressure and You" are found in Table I. The target grade level for the script was eighth, and the calculated grade level for the script is eighth. Considering that many of the words are also defined, repeated, and seen on the screen as they are heard, this level may be considered even lower.

Storyboard Cards

The storyboard cards are actually a catalyst for the blending of script, photography, and narration. Kemp (1980) suggests the usefulness of storyboarding with a pack of 3 x 5 or 4 x 6 cards. The cards become the model for the actual pictures and narration in the slide presentation. Each card contains a portion of the script and a sketch of the visual which will appear on the screen as the narration is heard. In addition, production notes or special considerations for photography or effect are included. Storyboard cards afford organization and allow the production staff to try modification ideas in the program without encumbering time, money and supplies. A set of 70 storyboard cards were developed and used for "Blood
# TABLE I
"BLOOD PRESSURE AND YOU" READABILITY TEST

<table>
<thead>
<tr>
<th>POLYSYLLABIC WORDS</th>
<th>NUMBER OF TIMES USED</th>
<th>SECTION TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>equipment</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>measuring</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>measurement</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>provider</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>arteries</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>systolic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>diastolic</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>dangerously</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>community</td>
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<td></td>
</tr>
<tr>
<td>overweight</td>
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<td></td>
</tr>
<tr>
<td>family</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>systolic</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>diastolic</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>indicates</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>provider</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>immediately</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>valuable</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>possessions</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>following</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>regularly</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>medication</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>hypertension</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Polysyllabic Words = 29

$$\sqrt{25} = 5$$

The approximate reading level is 8th grade
Pressure and You". A sample appears in Figure 2.

Graphics

Kemp (1977) recommends the use of graphics (diagrams, charts, cartoons) for the clarification and simplification of complex concepts. In "Blood Pressure and You", a graphic artist was hired to produce sixteen graphics. Eleven of these were lettered or numbered cards only, used for statistical explanation or credits. The remaining five included charts and cartooning.

Photography

If one component of the slide show could be singled out as the determinant of the appeal and salience of the program, it must be the photography. While a shallow script cannot be made into a masterpiece by lovely photography, no one will argue that even the best production can be ruined with poorly produced slides.
Because of this, a professional photographer was hired to complete the "Blood Pressure and You" scenes. Working closely with both the producer/author and the storyboard cards, he was able to complete the shooting in one day, which helped cut production costs.

Narration

Like the photography, the soundtrack of the slide show is intensely significant in the success or failure of the program. Fortunately for the author, a professional broadcaster volunteered his voice for the narration, as well as his audio engineering skills to record the soundtrack. The recording was done in a professional studio on reel to reel tape, with music and slide change tone inserted as designated by the script. Later, the master tape was copied onto cassette for the practical function of accompanying the slide presentation.

Summary

The steps leading from the conception to the complete production of the project have been outlined in the preceding pages. It is clear that its success is not owed to one person alone. The combined efforts of people dedicated to their craft and to public health education made this project happen---right down to the person who donated the chicken for the picnic scene.
Validiy Testing

The completed slide presentation was presented to a group of health professionals at a workshop designed to acquaint them with the use of media for minority populations. The invited participants were from two groups:

1. Representatives from the California State Hypertension Program in Sacramento, as well as those health educators involved in local blood pressure projects.

2. Representatives from health agencies which serve the Hispanic Community in Los Angeles County. Selection of the participants was based on their agencies' appearance in the "Health Education and Services" section of Hispanic Community of the County of Los Angeles: Study and Directory, a resource directory published by the Institute for Hispanic Media and Culture, University of Southern California, 1982.

The value of using this type of evaluation scheme to pre-test the slide presentation is twofold. First, it allows for blood pressure professionals to add input for revision or deletion before the presentation is
actually seen by the target population. This affords consensus and continuity and may help expedite duplication and distribution on a statewide basis. That is, if state officials approve the program, it can be copied and distributed to many health centers, thus avoiding the time and energy needed for each center to create its own media. Secondly, health professionals not in the field of blood pressure education are given the opportunity to evaluate this presentation in terms of its appeal to the Hispanic population.

The evaluation tool selected, "Audiovisual Critique Form", has been successfully designed and used by the National Heart and Blood Vessel Research and Demonstration Center, Baylor College of Medicine, 1980. Its format includes criteria on which to evaluate the specific components of the slide presentation. A copy of the form is shown in Appendix C.

Results of Validity Testing

The results of the validity testing were tallied in a simple frequency mode. Because the purpose of this exercise was not to evaluate the presentation, but to gain validation from health professionals who work with Hispanics, the use of simple frequencies can be justified.

The critique form is divided into five sections: media selection, audio clarity, content quality, visual quality, and comments on overall effectiveness of the
Media selection. All of the viewers felt the slide presentation medium was appropriate for the audience, as well as the objectives, viewing setting, and as an instructional tool. One person remarked, "It is simple enough to be comprehended by any person."

Audio clarity. Overall audio quality was rated as good by over fifty percent of the viewers. Some persons had difficulty hearing the final few minutes of the program and made a notation. This taped narration should be investigated for audio dipping and be revised as needed.

Content quality. The content quality ranged from average to good. 85 percent of the high blood pressure professionals felt that not enough emphasis was placed on the borderline hypertensive, the person whose systolic blood pressure measures between 140 and 159mm Hg. About ten percent of the respondents felt the program was too long, while one person remarked it was too short.

Visual quality. Visual quality received an overall rating of good. Viewers responded favorably to the use of color and variety of slides. About fifteen percent expressed concern over tilting and asymmetry on the lettered graphics.
Overall effectiveness. 95 percent of those who commented on the overall effectiveness of the slide show rated it positively, deeming it appropriate for use as a tool of health education.
CHAPTER FOUR

Recommendations and Conclusions

This chapter presents suggestions for revision of the slide presentation and summarizes the author's conclusions on the project.

Recommendations for Revision

As stated at the onset of the project, there is a need for "Blood Pressure and You" to be translated into Spanish. For this process, graphics, too, must be modified to read in Spanish as they appear on the screen. A dedicated bilingual team can accomplish this task whose benefits far outweigh the minimal time, effort, and finances needed.

Another area of concern involves the length of the program. There are two possible approaches to this problem. First, and most obvious, is the shortening of the program through careful editing. Since the program is already in two parts, viewing only one part at a time may offer a second solution.

Revision recommendations made by the reviewers in the methodology section also point to a number of options for adding polish to "Blood Pressure and You". The addition of values for borderline hypertension is a suggestion that merits further consideration. Slide
presentation "spin-offs" on specific aspects of high blood pressure (medication, stress, diet) could be created in the same format used for this project. A brochure containing the objectives of the presentation as well as the address of the clinic site for blood pressure measurement and treatment could prove to be a valuable supplement.

Because television has been shown to be a major source of health information for this population, it would benefit those who follow to consider permeating public television with health messages and presentations. Public access cable television is available free to those who have the time, energy, and resources to use it. Certainly this project is not complete; hopefully it is the beginning of a long series of relevant, marketable health education tools for this population in need.

Conclusions

Hispanics in Los Angeles County have high blood pressure and don't know it. Some know it, but aren't able to control it. They need to be made aware and motivated to take health behavior that assures both quality and quantity of life. The "Blood Pressure and You" project researched the psycho-social factors of health behavior as well as the specific demographic data and cultural norms of Hispanics. When pooled with the established principles of blood pressure measurement
and media production, the result was the framework on which to build understanding and personal health responsibility for the Hispanic community.

California State Plan for High Blood Pressure Control, Executive Summary, Department of Health Services, State of California, revised 1979, 14 pp.


Glanz, Karen, Kirscht, John, and Rosenstock, I. "Linking Research and Practice in Patient Education for Hypertension: Patient Responses to Four Educational Interventions." Medical Care, 19, No. 2 (1981), 141-152.


Swinehart, James W. Creative Use of Mass Media to Affect Health Behavior, presented at Conference on Cancer Control and the Behavioral Sciences, sponsored by the National Cancer Institute, January, 1975.


----------, and Ramirez, Amelie. A Methodology for the Development of Consumer Health Education Programs, National Heart and Blood Vessel Research and Demonstration Center, Houston, TX, November, 1979.


Slide Presentation References


APPENDIX A
TARGET POPULATION MAP

Greater East Los Angeles Health Assessment Catchment Area

10 areas
79 tracts

SS = Spanish surname population of area
pop. = population of area
APPENDIX B

"Blood Pressure and You" Script

* indicates slide change

VOICE: How many times have you sat in a doctor's office or clinic having your blood pressure taken? Did you know what was being measured? Do you know now? *

In the next few minutes, you will learn what blood pressure is, what equipment is used to measure it, how the equipment works, and most of all, why measuring blood pressure is so important to you. * * * *

Blood pressure is a measurement of the pressure inside the arteries caused by the flow of blood from the heart. When the heart beats, pumping blood into the arteries, the pressure is called systolic blood pressure. *

In between beats, when the heart is relaxed, the pressure drops to a lower level, called diastolic blood pressure. *

Blood pressure is written as a fraction, with the systolic or peak pressure over the diastolic or relaxed pressure. For example, if your health care provider told you that your blood pressure was 120/80, that would mean your systolic pressure was 120 and your diastolic pressure was 80. But what do those numbers mean? *

The numbers are actually a measurement. They measure the length of the column of mercury at two different times. Using again the example 120/80, the 120 means
that the peak or systolic pressure will push the column of mercury to a length of 120 millimeters. *
By the same token, the diastolic or at rest pressure holds the mercury column at a length of 80 millimeters.
This leads us to the equipment we will use to measure blood pressure. *
The first piece of equipment is the sphygmomanometer, or blood pressure cuff. It is made up of an inflatable cuff attached to a meter. The meter may actually contain the column of mercury we've been talking about, or it may be in the form of a dial, set to measure the pressure in the same way as the mercury column. *
The second needed piece of equipment is a stethoscope. By making quiet sounds louder, it acts as a microphone to amplify the heartbeats. *
These, then, enable us to measure blood pressure. Remembering what's been said about blood pressure measurement so far, let's watch a demonstration of the procedure. *
**PROVIDER:** Good morning, Mrs. Ramos. I'm going to take your blood pressure. **VOICE:** The cuff is placed snugly around the upper arm, with the lower edge about one inch above the elbow crease. **The brachial artery pulse is felt in the elbow crease, usually in the side closest to the body. **The stethoscope is placed over the artery. We are ready to begin blood pressure measurement. **
The screw on the cuff is closed and the bulb is pumped,
causing the cuff to tighten around the arm. As the cuff tightens, the mercury in the column goes up. *
When the pressure reaches a certain point, the screw is loosened slightly and the cuff slowly begins to deflate. As this happens, the mercury column also begins to drop slowly. *
All the while, the provider listens carefully for a pulse through the stethoscope. The level of the mercury when the first pulse is heard is the measure of the systolic or peak pressure. *
The mercury continues to fall slowly. The level of the column at which the last pulse is heard is the diastolic pressure. It is always less than the systolic pressure. *
The blood pressure is written as a fraction, systolic over diastolic. *
**PROVIDER:** Your blood pressure is 120/80, normal for your age. *

**VOICE:** In this short time, we have discussed what blood pressure is, how it is measured and what equipment is used. But what if there is a problem? *
What if the doctor had said, "Your blood pressure is 180/100." Is that too high? *
How high can blood pressure be before it is considered high blood pressure? Do you feel any different if you have it? These questions and more will be answered in the next part of our program. *

For the average adult between the ages of 18 and 45, a
blood pressure reading of 120/80 is normal. Some people have blood pressure that is lower than this average. Low blood pressure is not usually a problem unless the person also feels dizzy, weak, or tired. * For most of us, blood pressure tends to increase as we get older. A temporary increase in blood pressure may happen at any time due to excitement, stress, or exercise. * But, a consistent elevation of 160 or more systolic or 95 or more diastolic indicates high blood pressure. This is reason to see your doctor or health care provider immediately. *

About 90 percent of persons with high blood pressure have what is called "essential hypertension". For these people, the cause is unknown. People with essential hypertension have either a heart that pumps too much blood, or a normal heart pump, but narrowed blood vessels. * In a small number of cases, the high blood pressure is caused from some other disease that makes blood pressure go up. For example, persons who have some types of kidney disease or hardening of the arteries often find they have high blood pressure due to their illness. If that is the case, then the hypertension can usually be controlled by treating the other disease. * One of the most serious problems of hypertension is that most of the time, you can't tell if you have it or not. * You can feel good or bad, but the way you feel does not tell you. There is only one way to find out. *
Have your blood pressure checked by a doctor or nurse. * High blood pressure can cause strokes, heart attacks, and kidney disease, yet a person whose blood pressure is dangerously high may have no symptoms at all. Because of this, high blood pressure is often called the silent killer. * This silent killer is stalking our community. It can strike anyone -- young or old, men or women, relaxed people or tense people---ANYONE! *

It does strike one out of every ten persons in the United States. * You have a bigger chance of having high blood pressure if you: are over forty years old, smoke, are overweight, have family members with high blood pressure, eat foods high in fat or salt. How then, can we protect ourselves and our loved ones from the silent killer? *

Well, if you don't smoke, don't start. If you do smoke, reduce the amount, or better yet, quit. *

If you are more than ten pounds overweight, try to lose the weight with a safe, balanced diet program. Always consult your doctor or health care provider before starting any new diet. *

Dietary sodium or salt has been shown to affect blood pressure. The problem with salt is that in addition to the shaker on the table, we find large amounts of "hidden" salt already in the processed foods we buy. *

So, we can see that just removing the shaker from the table does not remove salt from our diet. *
These are common foods which contain sodium or added salt, but there are many others as well. Your best bet in trying to lower your salt intake is to read the labels on foods as you shop. *

Look for the word salt or sodium on the label. Also remember that the ingredients are listed in order of amount. That is, the first ingredient on the label is the main ingredient found in the product. *

The higher sodium is on the list, the greater the amount of salt in that food. So, read labels on foods you purchase and try to reduce the amount of salted foods you eat. *

And throw away that salt shaker! *

Most important, take pride in taking care of your health. Know what your regular blood pressure is. *

The best way to do this is to ask your health care provider when it is measured. Write it down. *

Some doctors will give you a small card to keep on record. It is important for you to ask. It is important for you to know. *

Even if your blood pressure is normal, you should still have it checked at least every six months. If it tends to be high, see your doctor for treatment. *

Many persons have their blood pressure controlled by medicine and diet. But it is important to remember that there is no cure for hypertension. *

Some persons stop taking their medication because they
feel fine, or they think they are "cured". They are not. * Soon the blood pressure will return to the dangerously high level, threatening their health, and even their life. * Today we have discussed several aspects of blood pressure measurement and hypertension. Blood pressure is the measurement of the pressure inside the arteries caused by the flow of blood from the heart. *

Blood pressure is written as a fraction, with the systolic or peak pressure over the diastolic or relaxed pressure. *

A reading of 120/80 is normal for an adult between the ages of 18 and 45. Slightly higher or lower readings may also be normal. *

A consistent reading of 160 or more systolic or 95 or more diastolic indicates the presence of high blood pressure. This is reason to see your doctor or health care provider immediately. *

High blood pressure can cause strokes, heart attacks, and kidney disease, yet most persons have no symptoms. Because of this, it is important to have your blood pressure checked regularly. *

Changing eating habits, losing weight, as well as taking medication can be used to control hypertension, but there is no cure. *

Even a person whose blood pressure is normal should still have it checked at least every six months. Ask your health care provider what your blood pressure is and
keep a record for yourself.

Following this program, you will find out where and when you can get your blood pressure checked in your community.

Your life and health are your most valuable possessions.

Protect them both by keeping blood pressure under control.
APPENDIX C

NAME/AGENCY
(optional)

TITLE

AUDIOVISUAL CRITIQUE FORM

Please rate the following categories as "good", "adequate", or "poor". A "good" rating denotes that the specific aspect of the production exemplified a high standard which could be considered a model for other productions. An "adequate" rating denotes an acceptable example which need not be revised, but should not be considered a model for other productions. A "poor" rating carries with it the necessity for revision. Whenever a category is rated "poor", please include suggestions concerning its revision in the blank column at the right.

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>RATING</th>
<th>REVISION SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Selection of Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Appropriateness of the medium for the following):</td>
<td></td>
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</tr>
<tr>
<td>1. Audience</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>2. Objectives</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>3. Viewing setting</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>4. Instructional tool</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>B. Audio Clarity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Narration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Voice</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>b. Enunciation</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>c. Pace</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>2. Soundtrack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Background</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>b. Sound Effects</td>
<td>G A P</td>
<td></td>
</tr>
<tr>
<td>3. Overall audio quality</td>
<td>G A P</td>
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</tbody>
</table>

Adapted from National Heart and Blood Vessel Research and Demonstration Center, Communications Core, Baylor College of Medicine, 1980, "Audiovisual Critique Form".
(Audiovisual Critique Form-2)

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>RATING</th>
<th>REVISION SUGGESTIONS</th>
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<tbody>
<tr>
<td>C. Content Quality</td>
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<tr>
<td>1. Organization of Information</td>
<td></td>
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<tr>
<td>a. Introduction</td>
<td>G</td>
<td>A</td>
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<tr>
<td>b. Theme</td>
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<td>A</td>
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<tr>
<td>c. Logical flow of information</td>
<td>G</td>
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<tr>
<td>d. Information reinforcement</td>
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<tr>
<td>e. Conclusion/summary</td>
<td>G</td>
<td>A</td>
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<tr>
<td>f. Consistent use of theme</td>
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<tr>
<td>g. Length</td>
<td>G</td>
<td>A</td>
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<tr>
<td>h. Clarity of objectives</td>
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<tr>
<td>2. Expression</td>
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<tr>
<td>a. Appropriate vocabulary</td>
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<td>b. Definition of terms</td>
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<tr>
<td>c. Usage</td>
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<td>A</td>
</tr>
<tr>
<td>d. Grammar</td>
<td>G</td>
<td>A</td>
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<tr>
<td>e. Use of humor (if applicable)</td>
<td>G</td>
<td>A</td>
</tr>
<tr>
<td>3. Overall Content Quality</td>
<td>G</td>
<td>A</td>
</tr>
</tbody>
</table>

D. Visual Quality

| 1. Composition |        |                      |
| a. Placement of subject | G | A | P |
| b. Horizontal format | G | A | P |
| c. Use of color | G | A | P |
| d. Use of lettering | G | A | P |
| e. Placement of lettering | G | A | P |
| f. Graphic illustrations | G | A | P |
| g. Medical illustrations | G | A | P |
| h. Lighting | G | A | P |
| i. Focus | G | A | P |
| j. Color contrast | G | A | P |
| k. Editing | G | A | P |
| l. Visual representation of content | G | A | P |
| 2. Overall Visual Quality | G | A | P |

E. Overall Comments on the Effectiveness of the Program: