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To the Graduate Council:

I am submitting herewith a thesis written by Georgianne Dunavant Ratliff entitled "Statistical Analysis of a Health Attitude Survey in Three East Tennessee Counties." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.

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and recommend its acceptance:

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Accepted for the Council:

Vice Chancellor for
Graduate Studies and Research

# STATISTICAL ANALYSIS OF A HEALTH ATTITUDE SURVEY IN THREE EAST TENNESSEE COUNTIES

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A Thesis

Presented to

the Graduate Council of

The University of Tennessee

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

Georgianne Dunavant Ratliff

August 1973

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## ABSTRACT

The general objective of this research was divided into three specific phases: (1) to ascertain health attitudes of a sample population; (2) to determine the relationship between biographic and attitude factors within the sample population; and (3) to evaluate the above in terms of its significance to health care planning.

The writer surveyed the literature, defined hypotheses and developed a questionnaire. A community in each of three East Tennessee counties was selected for surveying. A total of 164 interviews was conducted, 44 in Knox County, 53 in Blount County and 67 in Sevier County. An interview team of 18 students administered the questionnaire over an eight week period. Data were gathered by means of a verbally administered questionnaire and recorded manually. Frequency counts and percentage distributions were used to describe the data. Correlation analysis and crosstabulation with the chi-square statistic to determine level of significance were used to evaluate the relationship between certain variable pairs. Significance was sought at the .05 level of confidence.

Conclusions were reached as follows:

1. The three communities exhibited a definite need for improved health programs, to include additional medical personnel, clinics, transportation and health education programs.

2. The majority of respondents reported favorable attitudes toward their present health care delivery system.

3. Any impetus for change or improvement in the health care delivery system will have to come from outside these communities themselves.

4. While health (or illness) is a topic of much interest, very little thought seems to have been given to the subject of health care delivery.

5. The biographic characteristics of the study population were significantly associated with their attitudes toward health and health care delivery.

6. Age of respondents was significantly associated with their attitudes toward health more frequently than any other biographic characteristic.

7. No relationship was demonstrated between the respondents' age and their attitudes toward change or innovation in health care delivery.

8. Some relationship was exhibited between respondents' income and their willingness to accept change or innovation in health care delivery.

9. While a large percentage of respondents reported favorable attitudes toward new health services, such as physicians' assistants and mid-wives, a smaller percentage reported that they would use such services if available.

10. Many respondents are unaware of the many available sources for medical care, other than their family doctor.

Based on the study's findings and conclusions, the following recommendations were offered: health education programs to assure use

of available health services; additional medical personnel; and community clinics. It was further recommended that any efforts to improve the health care delivery system should be built upon the traditional family-physician health care concept.

Suggestions for additional study include a quantitative assessment of the health condition of the study population and an analysis of the specific relationship between age and those variables with which age showed significant associations.

TABLE OF CONTENTS


| CHAPTER | | PAGE |
|---|---|---|
| I. | INTRODUCTION | 1 |
| | Background and Origins of Study | 1 |
| | Need for the Study | 5 |
| | General Objectives | 8 |
| | Hypotheses | 8 |
| | Organization of the Study | 9 |
| II. | RELATED LITERATURE AND RESEARCH | 10 |
| | Introduction | 10 |
| | National Studies in Health Attitudes | 10 |
| | Appalachian Studies | 12 |
| | East Tennessee Studies | 22 |
| III. | PROCEDURES OF THE STUDY | 31 |
| | Introduction | 31 |
| | Selection and Description of Subjects | 31 |
| | Development of the Instrument | 35 |
| | Procedures for Collecting Data | 36 |
| | Treatment of Data | 39 |
| | Statistical Tools | 40 |
| IV. | ANALYSIS OF THE DATA | 41 |
| | Introduction | 41 |
| | Correlation Analysis (Spearman's Rho) | 41 |
| | Crosstabulations (Chi Square) | 48 |

CHAPTER PAGE

Summary . . . . . 61

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . . . . 63

Summary . . . . . 63

Conclusions . . . . . 65

Recommendations . . . . . 68

REFERENCES . . . . . 71

APPENDICES . . . . . 77

Appendix A . . . . . 78

Appendix B . . . . . 80

Appendix C . . . . . 87

Appendix D . . . . . 96

Appendix E . . . . . 110

VITA . . . . . 115

LIST OF TABLES


TABLE PAGE

1. Correlation Coefficients--Biographic Variables with Group 1 Attitude Variables . . . . . 43
2. Correlation Coefficients--Biographic Variables with Group 2 Attitude Variables . . . . . 44
3. Correlation Coefficients--Biographic Variables with Group 3 Attitude Variables . . . . . 45
4. Correlation Coefficients--Biographic Variables with Group 4 Attitude Variables . . . . . 46
5. Correlation Coefficients--Biographic Variables with Group 5 Attitude Variables . . . . . 47
6. Total Number of Significant Correlation Coefficients--Biographic Variables With Each Group of Attitude Variables . . . . . 48
7. Crosstabulation of "Age" by "If a Clinic Were Nearby Where You Could Receive Physical Examinations Free of Charge, Would You Use It?" . . . . . 50
8. Crosstabulation of "Age" by "If It Means Faster, Less Expensive Service, Would You Be Willing to Give Up Your Family Doctor and See Several Different Doctors in a Clinic Sort of Arrangement?" . . . . . 50
9. Crosstabulation of "Age" by "Would You Be Willing to Pay a Small Monthly Fee If It Would Entitle You and Your Family to Faster, Less Expensive Service?" . . . . . 52

TABLE PAGE

10. Crosstabulation of "Age" by "Do You Think a Person Trained to Assist the Doctor Could Take Care of People Who Aren't Too Sick?" . . . . . 52

11. Crosstabulation of "Age" by "Would You Use Such a Person?" (One Trained to Assist the Doctor) . . . . . 53

12. Crosstabulation of "Age" by "Do You Think Trained Mid-Wives Could Deliver Babies As Well As Doctors?" . . . . . 54

13. Crosstabulation of "Age" by "Would You Use Such a Person?" (Mid-Wife) . . . . . 54

14. Crosstabulation of "Income" by "If a Clinic Were Nearby Where You Could Receive Physical Examinations Free of Charge, Would You Use It?" . . . . . 55

15. Crosstabulation of "Income" by "If It Meant Faster, Less Expensive Service, Would You Be Willing to Give Up Your Family Doctor and See Several Different Doctors in a Clinic Sort of Arrangement?" . . . . . 57

16. Crosstabulation of "Income" by "Would You Be Willing to Pay a Small Monthly Fee If It Would Entitle You and Your Family to Faster, Less Expensive Medical Care?" . . . . . 57

17. Crosstabulation of "Income" by "Do You Think a Person Trained to Assist the Doctor Could Take Care of People Who Aren't Too Sick?" . . . . . 58

18. Crosstabulation of "Income" by "Would You Use Such a Person?" (One Trained to Assist the Doctor) . . . . . 59

TABLE PAGE

19. Crosstabulation of "Income" by "Do You Think Trained Mid-Wives Could Deliver Babies As Well as Doctors?" . . . . . 60

20. Crosstabulation of "Income" by "Would You Use Such a Person?" (Mid-Wife) . . . . . 60

# CHAPTER I

## INTRODUCTION

### I. BACKGROUND AND ORIGINS OF STUDY

The geographic area known as "Appalachia" begins in southeastern Canada and extends about 1,300 miles in a southwesterly direction, ending in northern Georgia and Alabama. The Region includes 355 of the 919 counties in 12 states. About 10 percent of the United States' population resides there. West Virginia is the only one of the 12 states which lies totally within the Region (Nesius, 1968:1).

The Appalachian Regional Commission, which has done extensive research and planning for development of Appalachia, has divided the Region into four major subregions. The first of these is Southern Appalachia, covering Mississippi, Alabama, South Carolina, and parts of Tennessee, North Carolina, and Virginia. The second major subregion is Northern Appalachia, including the southern tier of New York and most of the Allegheny Plateau area in Pennsylvania, Maryland, northern West Virginia, and southern Ohio. Third is the Appalachian Highlands which begins in Georgia and extends through the Great Smoky, Blue Ridge, Allegheny and Catskill Mountains. This subregion covers parts of Georgia, South Carolina, Tennessee, North Carolina, Kentucky, West Virginia, Pennsylvania, and Maryland. The last of the four major subregions is Central Appalachia, covering 60 counties in eastern Kentucky, southern West Virginia, and northern Tennessee

(Peoples Appalachian Research Collective, 1971:59-61). It is within the Central Appalachian subregion that the study area of this thesis lies.

Since 1921, when John C. Campbell conducted the first important survey of Appalachian problems, these have been documented by many authors. Thomas Ford writes:

> *Over a period of time the Appalachians have come to be recognized as a definite problem area in the national economy*. Variations are great among communities and class groups and the majority will rank among comparable groups in the nation. Nevertheless, there remains a core problem area which can be recognized throughout a long period of regional history (Ford, 1962:3).

Using more specifics to describe conditions in Central Appalachia, Lewis and Knipe write:

> There is little question about poverty in Appalachia. If we use income as a criteria we find that the area of Appalachia in which we are interested has a mean income of less than one-half that of the United States. If we use health as a factor we find that only five of the 60 counties has infant mortality rates lower than the national average; in 34 counties the rate was 20 percent higher than the national rate. The TB rates in some parts of the area are 10 times the national average. And in 25 percent of the counties there are fewer than 30 physicians per 100,000 as compared with 139 per 100,000 in the United States. Educational attainment is significantly lower than the rest of the United States. Seventy percent of the adult population had completed less than eight years of schooling. If we turn our attention to housing we find that the rate of construction is only two-thirds of the national average and only 33 percent of the housing is sound and equipped with plumbing. Thus, by almost any standard the level of living in this area is sub-standard, i.e., at the poverty level (Lewis and Knipe, 1970:8).

Knoxville, Tennessee, is located in the Central Appalachian region. As discussed above, this area has an appreciable defect in health care, indicated by such factors as poor physician to population

ratios, nurse to population ratios, hospital bed to population ratios, malnutrition and increased infant mortality. Geographic as well as economic factors play a large role in this situation. Many communities are isolated and have few or no available physicians or health care. Six counties in the 16-county East Tennessee area have no more than one physician and a number of others have no more than two (Area Health Education Center Planning Group, 1973:41,49,59,66). These conditions have made it especially important to search for ways to provide health care and to improve and upgrade social conditions.

In a special report by the Carnegie Commission for Higher Education, *Higher Education and the Nation's Health* (October, 1970), Knoxville, among other cities, was specifically pinpointed as a location for the development of an Area Health Education Center. These centers, as conceived in the special report, are to exercise leadership in the education of health care personnel and in establishing procedures and systems that would more effectively provide health care (Carnegie Commission, 1970:18).

In the same year the Tennessee Higher Education Commission completed an intensive study of medical education in Tennessee with particular attention given to the distribution of physicians in the state. Known as the Pellegrino Report (December, 1970), this study indicated that the physician/population ratio generally became poorer moving from west to east, and from the major cities, especially those which have medical schools or health education programs, i.e., residency training (THEC, 1970). A third study conducted by William R. Willard (1972) also pointed up the needs of East

Tennessee and the unusual educational resources of the Knoxville-Oak Ridge area (Willard, 1972:82). The Pellegrino Report recommended the development of a Clinical Education Center at the University of Tennessee Medical Research Center Hospital (UTMRCH) in Knoxville. The Willard Report suggested the development of a Regional Health Education Center.

The recommendations of the Pellegrino Report were endorsed by the Board of Trustees of the University of Tennessee and implemented by appropriations from the Tennessee State Legislature. Additionally, the University Health Science Center, Memphis, received from the Carnegie Foundation and Commonwealth Fund an Area Health Education Center Planning Grant in January, 1971. This grant was to study the health education resources and programs of the Knoxville-Oak Ridge area in the context of the Area Health Education Center concept in order to identify alternatives that could best utilize the resources of the area.

On March 10, 1972, Dr. Arthur L. Kretchmar, Director of Area Health Education Center (AHEC) Planning Project, circulated a memorandum soliciting comments, criticisms and suggestions from all interested persons stating:

> The whole planning effort . . . depends on a careful identification of the regional population: census, demographic profile, socio-economic profile, educational, cultural, religious and attitudinal characteristics, identifiable sub-populations, etc.

It was at this point that Dr. Harry M. Lindquist, Professor of Anthropology, University of Tennessee, originated the project which culminated in the study described in this thesis. Supported by a

T.V.A. Internship and directed by Dr. Lindquist, the writer conducted a survey in three areas near Knoxville, Tennessee. The immediate purpose of the survey was to gather data which could be used in the AHEC Planning Project. More specifically, the data were intended to reveal: (1) demographic characteristics of the population in the three areas (age, income, occupation, number of children, etc.); (2) what their specific health problems are; (3) what their attitudes regarding health care are; and (4) what are the bases for these attitudes. The long-range purpose of the survey was to provide information which could be useful in devising new models for health care delivery systems and/or revising old ones.

## II. NEED FOR THE STUDY

### *Problems of Appalachia*

The region known as Appalachia has been alternately discussed and forgotten since it was first settled. As a result, the people suffer not only from geographical isolation because of its mountainous terrain but also from sociological isolation caused by the progress of society outside the mountains (Grimm and Risenhoover, 1969:47).

In *Night Comes to the Cumberlands*, Harry M. Caudill writes:

> . . . a million Americans in the Southern Appalachians live today in conditions of squalor, ignorance and ill health which could scarcely be equaled in Europe or Japan or, perhaps, in parts of mainland Asia (Caudill, 1963:xi).

### *Problems of East Tennessee*

The problems of East Tennessee have already been touched on. There is no major medical facility within a 200 mile radius of

Knoxville which is in the center of the 34 counties of East Tennessee. The total population in these counties increased by 7.97% (1,378,496 to 1,488,384) in the decade 1960-1970. Eight of the counties declined in population. The population of the incorporated places of 5,000 or more increased at a rate more than twice that of the region at large until in 1970 it was 594,192 (39.9% of total population of the region). The urban population in the 34 counties in East Tennessee is 661,990. If current growth trends continue, this population will approximately double by 2010 and will pass the size of the rural population by about 1990 (Engels, 1972).[1]

Hospital bed data for East Tennessee shows that urban counties (Sullivan, Washington, Knox and Hamilton) tend to be relatively well served with bed to population ratios of 1 per 131 to 1 per 177 persons. Five rural counties have no hospitals and those with hospitals tend to run at a ratio of 1 per 250 to 1 per 300 persons (East Tennessee Development District, 1973).

The physician to population ratio for East Tennessee emphasizes the maldistribution of physicians in the area. The mean ratio for East Tennessee is a very low 1 physician per 2,000 persons. Five counties, Anderson, Hamilton, Knox, Sullivan, and Washington, stand out with ratios of 108, 128, 134, 130, and 120 respectively. Only four counties are better served than the State of Tennessee average (119 per 100,000) and none are at the level of the national 145 per 100,000 (Trabue, 1970:287).

---

[1]These projections by the U.T. Center for Business and Economic Research are known to be lower than other available projections.

Infant mortality statistics show high negative correlations with the percentage of the county's population that is urban: running from about 30 infant deaths per 1,000 live births in rural counties to 12-15 infant deaths in counties with 50-70% of population in localities of 2,500 or more ("Tennessee Vital Statistics," 1972:39).

Considering these statistics, it is not surprising that the 16-county East Tennessee area is recognized as a medically underserved area with serious maldistribution of health care personnel.

*Need for Input from Consumers into Health Care Planning*

In *Principles of Public Health Administration*, Hanlon writes that in public health the watchword now is statewide and community-wide comprehensive planning of neighborhood health services (Hanlon, 1969:ix). With this emphasis on "community" and "neighborhood" has come a new focus on the individual. For effective health care delivery and planning, the planning agencies have had to turn increasingly to the social sciences to inform themselves about these individuals--what do they think and feel, and why; what do they need; what will they accept or reject. The necessity for understanding the cultural and social factors underlying peoples' attitudes toward health and health care is becoming increasingly more obvious.

The writer found purpose and direction in this study because of a belief that effective health care planning must include input from consumers. Not merely a collecting of statistical information about health consumers, but an effort to understand their problems, needs and feelings as perceived by the consumers themselves.

## III. GENERAL OBJECTIVES

A review of related literature revealed that while attention has been given to health attitudes and practices of mountain people, few, if any, studies attempt to accomplish more than description. This study attempts to go beyond data description to data analysis.

The general objective of this research was divided into three specific phases: (1) to ascertain health attitudes of a sample population; (2) to determine the relationship between biographic and attitude factors within the sample population; and (3) to evaluate the above in terms of its significance to health care planning.

## IV. HYPOTHESES

Four hypotheses were proposed to serve as guide-lines for the conduct of this study. These hypotheses are listed below. In every case the .05 level of significance was used as the criterion for acceptance or rejection.

*Hypothesis I*

Health attitudes do show significant associations with biographic factors.

*Hypothesis II*

Some biographic factors are significantly associated more frequently with health attitudes than others.

*Hypothesis III*

Age is significantly associated more frequently with health attitudes than any other biographic factor.

*Hypothesis IV*

Willingness to accept change or innovation in health care delivery shows a direct relationship to respondent's age and income.

## V. ORGANIZATION OF THE STUDY

Chapter I gives the background and origins of the study, need for the study, general objectives, hypotheses, and an organization of the study.

Chapter II presents a review of literature and research related to the study in the following categories: (1) national studies in health attitudes; (2) Appalachian studies in health attitudes; and (3) East Tennessee studies in health attitudes.

Chapter III details the methodology used in the study including selection and description of subjects, development of the instrument, procedure for collecting data, treatment of data, and statistical tools.

Chapter IV gives an analysis of the data as gathered from the survey instrument.

Chapter V presents the summary, conclusions, and recommendations.

# CHAPTER II

## RELATED LITERATURE AND RESEARCH

### I. INTRODUCTION

The literature reviewed in this chapter emphasizes items relating to health attitudes of the disadvantaged, especially those in Appalachia. While there is a great deal of literature concerning the place of attitude measurement scales in areas concerned with health education, there is a relative absence of actual research in health attitudes in the area called Appalachia (Funk, 1970:21).

This literature seems to fall logically into three main areas: (1) national studies in health attitudes; (2) Appalachian studies; and (3) studies pertaining specifically to East Tennessee.

### II. NATIONAL STUDIES IN HEALTH ATTITUDES

Prior to 1949, health data in the U.S. as a whole were not comprehensive. They were derived from physicians' reports of selected communicable diseases, specialized local health studies and surveys, and limited to a dispersion of reports from hospitals, clinics, and health and hospital insurance plans (HEW, 1965:3). Many of the available statistics were based on the country's mortality rate.

> At that time the most pressing manifestation of ill health in the population was the excessively high death rate, especially from the communicable diseases and among infants and children. The need for mortality statistics was quite evident. Death is a clearly defined event, so that mortality statistics are precise; and registration in this country is now fairly complete, so that the derived statistics are believed to be reasonably accurate, at least as they relate to the demographic

> characteristics of the deceased. Data on their social characteristics, . . . for example, occupation and income, . . . have unfortunately remained at a much less satisfactory stage of development (Lerner and Anderson, 1963:1).

From 1949 to 1955 efforts were made by various groups to fill in the gaps in available health statistics. Studies were made in such places as: New York City, by the Health Insurance Plan of Greater New York; San Jose, California, by the California Department of Public Health; Pittsburgh, by the Graduate School of Public Health, which studies patterns of illness in relation to demographic and social factors; and Kansas City, Missouri, by Community Studies, Inc. These studies, along with many others, added to the knowledge of how morbidity data could be more accurate and useful (HEW, 1965:4).

In 1955 the Department of Health, Education, and Welfare originated what was to become a continuing survey of illness and disability on a nationwide basis--the National Health Survey (NHS) (HEW, 1965:8).

The initial phase of the NHS was the Health Interview Survey.

> The Health Interview Survey covers the civilian, noninstitutional population of the United States. The purpose of the Survey [was] to provide data on the incidence of illness and accidental injuries; the prevalence of diseases and impairments; the extent of disability; the volume and kinds of medical, dental, and hospital care received; and other health-related topics.
>
> These data [were] obtained from the people themselves and therefore measured the social and demographic dimensions of health--the impact of illness and disability and actions taken as a result of these conditions, in various population groups (HEW, 1965:9).

In addition to this effort by HEW, a number of specific tests for measuring health attitudes have been developed. The Brewer-Schrammel Health Knowledge and Attitude Test, published in 1935, is standardized

for use in grades four through eight. This 100-item test provides a more comprehensive measure of knowledge related to health than health habits or the intensity of health attitudes (Mayshark and Richardson, 1963:80). With the development of the Byrd Attitude Scale in 1940 the field of health saw its first attempt in specific measurement of attitudes (Wallace, 1966:20). In 1954, Mayshark used a new technique in the measurement of health attitudes in the development of his scale, *A Health and Safety Attitude Scale for the Seventh Grade*. Mayshark was the first person to use the situation-response behavioristic type item in a health attitude scale (Wallace, 1966:23). While Byrd's attitude scale represented the first attempt at specific measurement of health attitudes, since his original work many health attitude scales have been devised which use a variety of techniques (Funk, 1970:32).

## III. APPALACHIAN STUDIES

Analysis of the literature revealed three works which seemed most appropriate to this study. These three are: (1) *The Southern Appalachian Region: A Survey*, which was edited by Dr. Thomas R. Ford (1962:1-308) and which contained a chapter on "Health and Health Services," written by Dr. C. Horace Hamilton (1962:219-244); (2) "Community Health in a Mountain Neighborhood" by Jesse Tapp, Rena Gazaway and Kurt Deuschle (1964:510-517); and (3) "Adults' Knowledge of, Needs For, Attitudes Toward, and Utilization of Health and Medical Resources in Two Southeastern Kentucky Counties," an unpublished dissertation by Bill Carlton (1973:1-195).

In 1956 at Berea College, Berea, Kentucky, a conference of delegates from a number of religious denominations gathered to discuss the possibilities of cooperative programs in religious education and welfare in the mountain area. One realization which came out of this conference was that accurate data for the Southern Appalachian Region were not available and that before any type of comprehensive program could be initiated, such data had to be made available (Ford, 1962:v).

As a result of the 1956 conference, Dr. Thomas R. Ford edited a report in 1962 entitled *The Southern Appalachian Region: A Survey*. Considered by many to be the most comprehensive survey of the region ever undertaken, this study contained a chapter on "Health and Health Services" written by Dr. C. Horace Hamilton. Hamilton prefaced his analysis by stating:

> The health of any country or any major region results from many interacting factors. Some of these are common to all people. Other factors are correlated with variations in the broad cultural characteristics of peoples or with regional and local factors which influence the institutions by which health needs are served (Hamilton, 1962:218).

In an original draft of his chapter, Hamilton suggested that the broad cultural and social factors influencing health and health services of any people may be listed as follows:

> 1. A knowledge of what good health and good health practices are.
> 2. Motivation to seek good health and to use good health practices.
> 3. Ability and willingness, individually and collectively, to pay the cost of health services and institutions.
> 4. Leadership and community organization in health affairs.
> 5. Availability of health services, personnel and institutions.
> 6. Good working relationships among all elements of the health system (Funk, 1970:41).

In the field study of 1,446 sample households conducted by Dr. Ford's research team, a number of questions were asked concerning sickness and health, as well as other areas. The interview schedule itself was very extensive and was divided into the following parts: (1) household data, (2) economic life, (3) welfare, (4) educational attitudes, (5) government and civic attitudes, (6) religion and morals, (7) health and medicine, and (8) family and population. As this study was primarily one of descriptive nature, no statistical analyses were run other than frequency tabulations and percentage counts (Funk, 1970:41).

Hamilton summarizes the major findings of his study on health and health services as follows:

> As measured by the general mortality and perinatal mortality rates, the health of the people of the Region, on the average, is about the same as in the nation. Although the perinatal rate is still slightly higher in the Region, a revolution has taken place during the past twenty years in the types of medical care and hospitalization of mothers and infants during the natal and prenatal periods. From 1939-1941 to 1954-1956 the percentage of infants delivered by physicians in hospitals more than quadrupled so that at the end of this period nine out of ten babies were delivered in hospitals. Midwife deliveries during the same period declined from 14.3 to 3.2 percent of all live births.
>
> Tuberculosis, with a death rate 50 percent higher than in the nation as a whole, remains a serious problem in the Region. Other diseases having higher than normal death rates in the Region are influenza, pneumonia, parasitic diseases, cardiovascular-renal diseases, and diseases of early childhood. Fatal accidents were also found to be more frequent in the Region.
>
> Modern health services and institutions have increased rapidly in the Region during the past 25 years and are still improving. However, the Region still lags behind the nation in this respect, and backward areas of the mountains are in great need of physicians, dentists, hospitals, and public health services. There is a need for six to eight thousand additional hospital beds and for the replacement of several thousand obsolete beds. Fifty-eight of the 190 counties studied have no hospitals, and twenty-seven of these counties have more than 10,000 population.

Many of the existing hospitals are small, poorly equipped, understaffed, and crowded. Only 54 percent of the Region's hospitals have been accredited by the Joint Commission on Accreditation. It is necessary to have many small hospitals in the rural parts of the Region if the people are to be conveniently served, but it does not follow that small hospitals are doomed to be poorly equipped, poorly managed, and thus render low quality care. Fortunately, many new small hospitals, well-equipped and well-managed, have been constructed in recent years with the help of federal and union funds.

There is a general shortage of physicians in the Region, and the shortage is particularly acute in rural areas. The fact that smaller towns tend to have older physicians indicates that many more small towns may be without doctors within a few years.

The relative shortage of dentists in the Southern Appalachians is even more serious. In order to bring the area up to the national average, more than 1600 additional dentists are needed. Programs of dental education and preventive services are also badly needed. However, the full benefits of dental education can be derived only if accompanied by rising family incomes and increasing public support for preventive dental work.

Although many new public health centers have recently been constructed, the general level of public health organizations falls far short of reasonably good standards. Only a fourth of the county health departments had full-time health officers, and a third of the counties in district health units lacked the services of full-time district health officers. Furthermore, there is a serious shortage of public health nurses and sanitarians. The Southern Appalachian people are aware of their public health departments and services, but they spend annually only 97 cents per capita in their support, nearly half of which comes from state and Federal sources.

Hospitalization, surgery, and other medical services in the Southern Appalachians, as in the nation, are being increasingly supported by health insurance, prepayment plans, and welfare funds. The United Mine Workers Welfare and Retirement Fund and the chain of ten hospitals supported by the Fund represent not only an outstanding development in the Region but in the nation as well. Its very success throws into bold relief the plight of thousands of low income mountain families who are not employed in mining. More than a third of the rural families have no health insurance of any kind, and most of these are in low-income classes.

In spite of the deficiencies listed above, the Southern Appalachian area, as a whole, is following the nation in the improvement of its health and health services. Mortality rates have dropped, the numbers of physicians and dentists have increased; many new hospitals have been constructed; public health organization has grown; the financing of personal

> health services through voluntary health insurance is expanding; better roads have made it possible for rural people of the area to have easier and quicker access to physicians, hospitals, and public health services; the development of communication and the improvement of public education have taken health out of the realm of fear and superstition and have greatly stimulated the people's interest in the scientific approach to medicine. Perhaps most important is that the health progress in the Southern Appalachians evidences the hard and enthusiastic work of hundreds of local and state leaders in health affairs. This leadership is the prime resource on which we must depend for continued development and coordination of health institutions and services.

The second study, "Community Health in a Mountain Neighborhood," was selected for review here not because of its similarity to the writer's study, but because of its complementary nature. The focus of Tapp's study is on the actual health and disease of the study population rather than on their attitudes about health and disease. The author's observations and conclusions, however, point out a number of unanswered questions and suggest that the people of the area must be studied in all their facets if solutions to their problems are to be permanent (Tapp, 1964:516-517). This conclusion is very similar to the one reached by Hamilton in the preface to his study.

Tapp describes his research as a description of a mountain hollow and its people suffering from most of the ills to be found in that area. He writes that "this research plan was to investigate several representative parameters in order to understand better the relationship between patterns of health and disease and the life-way of a small sample of one of Eastern Kentucky's lower socioeconomic groups" (Tapp, 1964:510).

The general location of the study is a mountainous county on the edge of the Cumberland Plateau. This neighborhood was chosen

because it was within an area of apparent need and contained a high concentration of families known to be infected with intestinal parasites. Also, the county was not as deprived of medical and educational facilities as many in the region (Tapp, 1964:510-511).

A period of nine months was spent in establishing rapport, making observations, and carrying out the health screening tests and medical examinations presented in the study. No formal interview schedule was employed. At the end of each day, data were recorded and observations summarized. No specific questions were asked and data were gathered solely through participation in conversations and making observations (Tapp, 1964:517).

Rena Gazaway, the field worker, compiled her own assessment of the health status of the people based on her previous experience as a public health nurse. A team of physicians completed a medical history, physical, and laboratory examinations on all the members of eight families. The environment was surveyed for sanitary and housing conditions and other factors (Tapp, 1964:511).

Tapp summarizes his findings as follows:

> . . . This Kentucky mountain population manifests characteristics of young age distribution, high fertility, high birth and infant mortality rates, and low level of education and economic productivity which are similar to those of societies around the world that have not yet undergone the modernization process.
>
> The disease problems found reflected the pattern of living in an unfavorable environment, such as high rates of tuberculin sensitivity and intestinal parasitism, particularly in the children.
>
> Poor utilization of medical and health services was indicated by a high prevalence of untreated disease problems. Whether this pattern of utilization should be attributable more to limited accessibility of health services, reluctance or inability to pay the usual charges, or lack of motivation for or understanding of the need for such services has not been fully clarified.

A greater importance was placed on disability than on health by many in the neighborhood because of the considerable financial value of the former and lack of opportunity to profit from or enjoy the latter.

In spite of the many environmental and economic pressures that would be expected to force everyone down to a common low level of existence, the people studied still were a very heterogeneous group with wide variations in industriousness, cleanliness, personal standards, and health. Some implications of these findings were discussed (Tapp, 1964:517).

In a section entitled "Comment," Tapp made the following interesting and pertinent observations:

This study was undertaken with the expectation that it would be possible to define clearly certain major health problems directly related to the environment and way of life of this neighborhood. The only strikingly consistent factor demonstrated was that the health and education services have not achieved the salutary effects which might have been expected of them. The question remains to be answered whether this failure is due more to deficiency of utilization of available services because of behavioral peculiarities of the people, or more to inadequacies in the manner in which these services are provided.

Certainly, the economic depression of the area is a basic factor in any evaluation of this community. While medical care costs for professional fees, drugs, and hospitalization are relieved for some people through the state medical care program, other costs, such as for transportation, are not covered and still stand as major barriers to obtaining care. In general, a poor rapport exists between the consumers and providers of health services in this neighborhood.

It appears that any improvement in health conditions, at least, will have to arise from the initiative of the providers of the services, because of their far more favorable educational and economic position. No effective, organized demand for better health care can be expected to come from the people of this neighborhood unless they receive leadership from the providers of services themselves.

. . . The social, economic, and political barriers to implementing this technology are, at the present time in this neighborhood, very poorly understood. Mere providing more health services or larger appropriations from the public purse without formulation of a new and more effective approach will not solve the long-range health problems of these people. In short, when a community is as sick as this one, this sickness is reflected in the members of the society. An attack on the health problems of such an area must be combined with an attack on the social, economic, political, and educational ills if any solutions are to be permanent (Tapp, 1964:517).

The last study to be discussed in this section, "Adults' Knowledge Of, Needs For, Attitudes Toward, and Utilization of Health and Medical Resources in Two Southeastern Kentucky Counties," most nearly approximates the one undertaken by this writer, both in methodology and purpose.

Carlton writes that "the purposes of the study are to collect and disseminate information in four areas of health and medical care that may be used by health planners to improve the health care and sick care that are received by the population of Bell and Harlan Counties, Kentucky" (Carlton, 1973:177). The four areas of concern are: (1) attitudes and opinions toward health and medical care; (2) health needs; (3) health knowledge; and (4) the utilization of medical services and facilities (Carlton, 1973:177).

Fifteen communities in Bell and Harlan Counties were randomly selected and an individual in each community was employed to interview one adult in 20 different households in each community. The National Opinion Research Center, Chicago, Illinois, provided the survey instrument which was considered appropriate after a pilot study was completed (Carlton, 1973:178).

Although Carlton's conclusions are lengthy, this writer believes it is worthwhile to include them in their entirety. The following points were enumerated by the author:

> 1. The use of local people in Bell and Harlan Counties, Kentucky to gather information that can be used by health planners to improve the population's health is a sound idea.
> 2. The physician-population ratio for Bell County is 1 per 888. In Harlan County, the ratio is 1 per 747. Nationally, there is 1 physician for 637 people. Still, the people overwhelmingly believe that a critical shortage of physicians exist in the two counties.

3. The people in the two counties do not hold the physicians in high esteem. Also, they are unhappy with many aspects of the system that provides sick-care to them. Besides the high costs for services, the people have to wait too long before they see a physician in his office; they believe that physicians do not tell them enough about their condition; they feel that physicians do not take enough personal interest in them; many people feel that they do not get an adequate examination from the physicians; and many people believe that drugs and medicines are given unnecessarily.

4. Physicians and clinics do not provide the health information that is needed by the population of the two counties. Instead, the people rely on "hearsay" to a great extent for a very limited supply of information about health and sickness.

5. Newspapers and magazines are used by only a small segment of the population as sources of health information because the people in general do not read about health and medicine.

6. There appears to be room for improvement in the services provided during periods of hospitalization. The people feel that they are kept waiting too long for a bed at the time of admittance. Also, they believe that nurses and other hospital workers do not give proper attention to patients who are hospitalized.

7. The population of Bell and Harlan Counties is one in which sickness is rampant. Symptoms of both mental and physical illnesses are found throughout the population.

8. The death rates in Bell and Harlan Counties due to accidents, heart diseases, and malignant neoplasms far exceed the national death rates. Also, infant and neonatal death rates in Harlan County exceed the national rates.

9. The people are both unhappy and pessimistic about the state of their health.

10. The population perceives disability and sickness as an inherent part of their life-style.

11. A discrepancy exists between what the people believe they should do about health problems and what they actually do. For example, the population perceives depression as a major health problem, but they are unable to cope with this sickness. Of the 49 percent who reported the condition in the past 12 months, only 7 percent sought medical care for it.

12. Some innovations in *sick-care delivery* have been made to provide more efficient and effective *sick-care* to a greater number of people in the two counties; but it appears that little effort has been exerted to provide *health-care* to the population.

13. The people accept the fact that a person can have a serious illness without knowing it. Also, they realize that cancer, diabetes, and heart disease are not contagious. Nevertheless, their knowledge of disease symptoms is quite low.

14. The people believe that the institution of medicine over the last 30 years has improved the chances for good health; but they are concerned now with the high costs for care and treatment. Furthermore, this concern has influenced their decision

to seek treatment. For example, many people put off a visit to the physician because they simply cannot pay the doctor's fees.

15. The population believes that insufficient money is a major barrier that confronts many people who seek medical care in Bell and Harlan Counties. Such a belief probably adds to the pessimism of the population toward health and medical care.

16. The population strongly endorses a type of health insurance that would pay for all medical and dental expenses. Furthermore, they believe that such insurance can help them and their families toward better health.

17. The people do not take the proper preventive measures to protect their health although they believe such measures are important. For example, only a small minority visit the dentist regularly. While many people feel that they cannot afford to pay the dentists' fee, others give what appear to be illogical reasons for not seeing a dentist. To illustrate, if dentures are worn, the people believe that a visit to the dentist is unnecessary.

18. There is a significant difference in the number of outpatient physician contacts between families whose care is financed primarily by the Union Fund, Medicare, and Public Assistance and families who pay for the care themselves. However, there is no significant difference in the times hospitalized by family units whose methods of payment differ.

19. The use of this survey alone to initiate health education activities was not completely successful (Carlton, 1973:184-188).

Based on these findings, Carlton concluded his study with 10 recommendations. The highlights of these recommendations are listed below.

1. The medical societies of Bell and Harlan Counties should meet with the various health committees at regular intervals to establish lines of communication between the people and the physicians.

2. If community health education activities materialize, the people must become involved with the planning, the organization, and the implementation of the educational activities.

3. The hospitals and clinics in Bell and Harlan Counties should be educational centers not only for medical personnel but for patients as well. They should be places that a community can depend on for quality health care and sick care.

4. Public Health Education should be integrated into the framework of the present health-care delivery system in Bell and Harlan Counties.

5. The training of clinic and hospital personnel who meet the patient first as the patient interfaces with the system should receive a high priority.

6. A Health Education Committee should be formed in each hospital in the two counties. These committees should advise, plan, and implement programs for patients, employees, and community groups.

7. Since stays in hospitals should be for temporary and unexpected illnesses, every effort should be made to make the patient as comfortable and happy as possible.

8. Applied research in education techniques should be undertaken to determine the best methods to change the population's poor health habits and poor behavioral patterns.

9. The mass media should be used only as an incidental method in the plans to educate the people of Bell and Harlan Counties for better health. Face-to-face contact between the people and qualified public health educators are needed to bring about a change in behavior.

10. A massive public relations campaign should be undertaken by the Appalachian Regional Hospitals, the Daniel Boone Clinics, and the county medical societies to convince the people that insufficient money is not a barrier to those people who need care and treatment.

## IV. EAST TENNESSEE STUDIES

In this section two recent studies which pertain specifically to the East Tennessee area will be described. These are: "A Descriptive Study of Health and Related Socio-Economic Conditions, Clear Fork Valley, Tennessee," a thesis by Paul M. Campbell (1970:1-130); and "Health Attitudes and Practices in an Isolated Appalachian Valley," a dissertation by Fanchon F. Funk (1970:1-282). Both of these studies focus on the residents in Clear Fork Valley, which is composed of Claiborne and Campbell Counties in Tennessee and Bell County in Kentucky. As their titles suggest, the two studies are complementary; the former is a description of health and related conditions and the latter is concerned with the health attitudes and practices of the valley's residents.

The purpose of Campbell's research was to gather basic health data pertaining to the occupants of the valley. These data were to

be used by the Kentucky-Tennessee Model Valley Health Council to develop a health program for the 5,000 residents of the Clairfield area (Campbell, 1970:4-5).

In describing his methodology, Campbell writes that research for the study followed a basic questionnaire-interview approach for a clearly specified universe, participants in the Clairfield Health Fair during the summer of 1969. Respondents were not selected by stratified random sampling since the study was aimed to include as many Health Fair participants as possible (Campbell, 1970:29).

Interviewers were stationed at the Clairfield Community Center, the site of the Health Fair, in the line-up of screening personnel through which participants proceeded for initial diagnostic work-ups. This enabled interviewers to include a majority of participants in the survey (Campbell, 1970:29).

The instrument used in data collection was a questionnaire based on the National Health Survey and adapted specifically from the Population Health Survey of the Henderson-Union-Webster Development Council and Departments of Health in Kentucky. The Kentucky instrument was modified to be relevant to the Clear Fork Valley area (Campbell, 1970:29).

The questionnaire was administered to 82 participants in the Health Fair at Clairfield, Tennessee, the week of July 28, 1969 to August 2, 1969. These respondents served as spokesmen for all members of their respective families or households, yielding a total study population of 367 individuals (Campbell, 1970:29-30).

The revised questionnaire included questions related to general

demographic characteristics of the study population, with particular emphasis on social and economic variables. The main body of the questionnaire consisted of questions related to health, examined in terms of the two-week period immediately preceding the study and the year period prior to the Health Fair, medical care, and medical expenditures. These questions covered short-term illnesses or chronic conditions, the effects of ill health, medical care received, the auspices of medical care, and medical service-expenditures for the specifically mentioned two-week and one-year periods (Campbell, 1970:31). The writer stated that his primary concern was with the relationship between perceived health problems and obtained medical care (Campbell, 1970:33).

Coded data was computer-processed to obtain frequency counts on relevant questions. The primary tool for further analysis of the data was the chi-square test of statistical independence. Key variables relating to health, demographic factors, and medical care were cross-tabulated and the chi-square calculated in order to examine more closely the possible relationships between these variables. A total of 74 sets of variables were cross-tabulated and the chi-square values computed (Campbell, 1970:37).

To give the reader an idea of the extent and nature of the data reported, the summary of findings is presented here in its entirety:

> The study population was distributed with a considerably lower median age than the national age median; however, this was more in accord with median ages for the Claiborne-Campbell County areas. The overall distribution of the population by age and sex was relatively normal except for the low median age and the narrowing in the 31-40 age range, particularly for males.

Nearly two-thirds of the respondents age 14 years or older reported being married at the time of the survey. The majority of interviewees were considered "immediate" family in their respective household units, with less than one-tenth of the study group "extended" family. The mean number of persons per household was higher than the national average.

Nearly all of the respondents were from Claiborne and Campbell Counties in Tennessee and had lived in the area all their lives. Nearly two-thirds of the households were occupied on a rental basis; no respondents reported sales of produce from their dwellings of over $50. Over two-thirds of the households did not have telephones on the premises.

By income, the study population constituted essentially of a homogenous group with the majority of personal incomes falling below the poverty level. The work status of the respondents with either unemployment, under-employment, or employment in jobs involving unskilled labor the high incidence of welfare recipiency, and the low educational attainment level of the adult population were further dimensions within their low socio-economic status.

Within these rubrics, the health status of the study population was examined. The study respondents reported a high incidence of morbidity with over one-half of the population reporting ill health at some point in the past year. The majority of these health problems were reported for the year period preceding the survey and were chronic in nature. The kinds of problems reported for the two-week period prior to the survey were generally acute or temporary, illustrated by upset stomachs, aches, infections or injuries, and not necessarily acute episodes of chronic conditions.

The health problems identified for the two-week period may have been indicative of recurring episodes of chronic conditions reported for the year period and not isolated "illnesses." However, the majority of the respondents reporting ill health in the past two weeks considered themselves "Sick" rather than "Bothered by an old illness or health problem," suggesting that these respondents may have probably reported morbidities not related to chronic conditions reported for the year period. The limitations of subjective responses are evident in this lack of discrete delineations between the incidence of chronicity and short-term health problems. The correlation of reported health problems for the two-week period with the year period constitutes a possible area for further study.

The majority of the morbidities were chronic and reported for the year period preceding the survey. The most frequently occurring chronic morbidities were "Circulatory," reported by over one-half of the chronically-ill respondents, "Respiratory" and "Musculoskeletal," each occurring in over one-third of the chronically-ill population segment. The most frequently cited single pathology was "Arthritis," cited by approximately one-third of the respondents with chronic conditions.

Respondents over age 40 reported the highest incidence, nearly three-fourths, of chronic health problems. The 41-60 age group

presented a disproportionately high portion of the reported chronic morbidities. Correspondingly, this age group reported the highest incidence of disabling health conditions.

A negative association was observed between income and chronic health problems with the lowest income group, $0-500, reporting the highest incidence of chronicity.

Over one-fourth of the study respondents reported activity or faculty limitations because of a long-term illness or health problem. The most frequently reported disabling health condition was "Difficulty in seeing, hearing, or speaking," reported by over one-half of the disabled sample. Respondents over age 40 reported the majority of the disabilities, with the 41-60 age group reporting the highest incidence of "Sensory" limitations. Work limitations because of health problems were reported by over one-half of the "working-age" males. "Sensory," "Circulatory," and "Nervous" conditions were reported the most frequently as disabling health problems.

With the assumption of no overlapping in the medical attendance reported for the two-week period and for the one-week period, over one-half of the study respondents were found to have received doctor's care in the year period preceding the survey. Chronic morbidities for the 12-month period were attended by a doctor proportionately more often than the generally acute or short-term health problems reported for the two-week period.

Over two-thirds of the reported chronic conditions were brought to a doctor's attention. "Circulatory," "Gastro-intestinal," and "Musculo-skeletal" conditions were attended by a doctor proportionately more often than other chronic conditions. The most frequently attended single chronic entity was "Arthritis"; however, over one-fourth of the reported cases were not brought to a doctor's attention. Similarly, "Arthritis" was the most frequently medically attended problem of the two-week period.

Slightly less than two-fifths of the reported instances of doctor's care were cited by respondents with disabling illnesses or health problems. Two-thirds of those reporting "disability illnesses" reported doctor's care in the year period.

Doctors' services were the most prevalent form of medical attendance reported by the respondents. Nearly two-thirds of the reported physicians' services were provided by clinic doctors, with the most frequent resource the Clairfield Community Clinic. (It is possible that in some cases the reports of "clinic" treatment involved services from medical personnel operating in the clinic other than an actual physician.) Doctors of clinics located in Jellico and LaFollette, Tennessee, and Middlesboro, Kentucky, were the most often utilized resources for doctors' services. A minor percent of the reported physicians' services were provided by doctors outside the Clearfork Valley area. The main reason for approaching specified doctors was "convenient location," reported by nearly one-half the medically attended sample.

Over one-half of the medically attended respondents reported having "no charge" for the doctor's services. For those respondents

incurring doctor's bills the majority paid their bills in full. In a very few cases, the respondents had insurance to cover the cost of doctors' services. The modal expenditure for all doctors' and surgeons' services in the past year was under $25, with approximately one-half of those charged reporting this expense and one-third reporting expenditures in the $26-100 range.

Hospitalizations were reported for the year period by slightly more than one-tenth of the study population. Childbirth and gynecological difficulties were the most frequent reasons for being hospitalized. Approximately one-fifth of the hospitalized respondents reported having had an operation during hospitalization. Approximately one-half of those hospitalized reported having chronic health problems; approximately one-fifth of the reported chronic morbidities were treated with hospital care.

The modal length of hospital stays was from one to seven nights. Approximately one-half of the hospital sample reported "no charge" for hospitalization; the modal expense for those charged was in the $101-400 range. Over one-third of the paying respondents had insurance coverage for the hospital bills.

Nursing services were reported infrequently by the study population, being utilized in the past year by less than one-tenth of the respondents. The majority of nursing services were provided by the Dominican Sisters, public health nurses, operating out of Jellico, Tennessee. Approximately one-half of the nursing services involved nursing care in the home for all or part of the day or night; the remainder were cases of brief home visits by available area nurses.

Medical services provided by local County Health Departments were the second most frequent form of medical care reported by respondents in the past year. Approximately one-fourth of the study population utilized this resource although less than one-half of the interviewees reported knowing the location of this medical facility. The most frequent services utilized were polio vaccinations and other preventive shots such as tetanus or small pox. These were clearly medical services of a preventative nature utilized, however, by a very small segment of the study population.

Dental care was very limited for the study group with less than one-fifth of the interviewees reporting examination and/or treatment by a dentist in the past year. Respondents under age 21 received dental care proportionately more often than respondents over 20. However, approximately three-fourths of the respondents under 21 did not receive dental care. The majority of dental services were provided free of charge through the school systems. For those charged for dental services the modal expense was under $25.

A relatively small portion of the study population, less than one-fourth, reported taking medicine of some nature at the time of the survey. "Circulatory" problems were cited the most often as the reason for taking medicine. There were a very limited number of preventative-type medicines such as vitamins, birth control pills, etc., reported. A greater portion, over one-half (possibly a sampling error), reported expenditures for medicines or prescriptions in the past year. Approximately one-third of the

> respondents reported free medicine; another third reported expenses under $25, and the remainder, expenses as high as $300 and above. Approximately one-tenth of the study population reported expenditures of under $50 for the purchase of special health aids or medical appliances such as eye glasses, hearing aids, wheel chairs, etc.
>
> Over one-third of the study respondents reported hospital insurance coverage. The majority of these secured insurance through employment group plans or A.F.D.C. coverage. All but three of the interviewees 65 years of age or older reported Medicare enrollment; approximately one-half of these were also enrolled for medical insurance under Medicare (Campbell, 1970:114-120).

Four recommendations were made in considering guidelines for further Health Population Surveys:

> 1. That the study be expanded in the Clear Fork Valley to include a wider population base utilizing a random-sampling of area residents.
> 2. That a similar population health survey be administered in selected urban settings.
> 3. That revisions be made in the original instrument to increase its validity.
> 4. That a replicating health survey be administered to Health Fair participants and that a section be added to include information derived from diagnostic work-ups or established health records (Campbell, 1970:122).

The second and final study to be described here is "Health Attitudes and Practices in an Isolated Appalachian Valley." Funk describes the purpose of her research as to describe health conditions and to develop recommendations for the improvement of health services for the residents in Clear Fork Valley. Specifically, she set out (1) to determine health perceptions and practices; (2) to determine the relationship existing between these perceptions and practices; and (3) to determine and evaluate the stated desires for improved health care among the people in the valley (Funk, 1970:5).

Three groups of people, a total of 75 subjects, were selected for surveying:

> 1. Thirty households were chosen by stratified sampling

procedures from persons registered at the Second Annual Health Fair at Clairfield, Tennessee.

2. Thirty households not represented at the Health Fair were selected for comparison and represented citizens considered to be less positive in their attitudes toward health services.

3. Fifteen citizens not indigenous to the research area were selected for their strong positive orientations toward health services as evidenced by their leadership roles within the valley (Funk, 1970:5).

The questionnaire used in this study was a revised version of that used by Dr. C. Horace Hamilton in gathering data published in *The Southern Appalachian Region: A Survey*, edited by Thomas Ford (Funk, 1970:55). Data were gathered by means of a verbally administered questionnaire. Simple statistical techniques in the form of frequency counts, percentage distributions and Chi-Square Analyses were used to interpret and describe the data (Funk, 1970:103).

The following conclusions were drawn by Funk:

1. A majority of the subjects reported favorable attitudes toward health services.
2. Subjects indicating favorable attitudes toward health and the utilization of health services would not necessarily use these services when available.
3. Some relationship, not significant, was evident between the subjects' age and educational experience, and their attitudes toward health services.
4. The Health Fair served not only as a means of obtaining a selected sample population for this study, but it served as a means for dissemination of information on a variety of health topics.
5. Health Fair Attenders and Non-Attenders exhibited no significant differences in health attitudes and practices.
6. Significance in health perceptions was found between the Leadership Participants and Attenders and the Leadership Participants and Non-Attenders. It appeared, however, that the Leadership Participants adequately understood the attitudes of those indigenous to the area.

7. The Valley exhibited immediate need for increased financial assistance in support of health programs, improvement in transportation and communication, additional medical personnel, better equipped medical clinics and improved and extended health education programs in school and other appropriate state and community agencies.

8. This questionnaire is sufficiently easy to administer within a limited time period.

9. This questionnaire and the related procedures appear to have face validity and generate meaningful information to aid in the analysis of health attitudes and practices of folk in isolated mountainous areas (Funk, 1970:105-106).

On the basis of the study's findings and conclusions, the following recommendation were proposed by Funk:

1. Increased financial assistance should be provided for health and educational programs in this area.

2. Additional medical personnel should be made available in the Clear Fork Valley.

3. More efficient use should be made of those medical facilities located near isolated areas. Basic to this improved use will be improvements in transportation, and communication.

4. More education is needed at all levels and new health service occupations must be planned to support the few available professionals.

5. Necessary health education programs should be provided to assure that health services are utilized once available.

6. Advantage should be taken of the facilities of nearby colleges and universities in eastern Tennessee and Kentucky.

7. Investigation should be made of the possibility of locating a technical institute within the area.

8. Every attempt should be made to obtain in isolated areas, a population for study through random sampling techniques.

9. The findings of this research should warrant additional studies made with the same instrument and/or other instruments to the end that the extent of correlation between health attitudes and practices of folk in isolated mountainous areas may be definitely established (Funk, 1970:106-109).

# CHAPTER III

# PROCEDURES OF THE STUDY

## I. INTRODUCTION

The purpose of this research was to gather and analyze data concerned with health problems and attitudes of the people in three communities near Knoxville, Tennessee. This chapter describes the procedures used in both development and administration of the study.

## II. SELECTION AND DESCRIPTION OF SUBJECTS

It is important to focus attention, at the outset, on the nature of the areas selected for study. Three communities were canvassed: (1) Walland-Miller's Cove, in Blount County; (2) Wear Valley, in Sevier County; and (3) Andersonville Pike-Beeler Road, in north Knox County. These three areas were selected on the basis that each represents an occupationally and therefore economically different cross-section of the population, and that the inhabitants of all three areas do not have ready access to medical facilities (hospitals, clinics, physicians' offices, health departments, etc.).

A total of 164 people were interviewed, 44 in Knox County, 53 in Blount County, and 67 in Sevier County.

### *Walland-Miller's Cove*

Located in Blount County, this community has a population of

approximately 2,000 persons.[1] For purpose of this study boundaries are set in accordance with the local postal service area.

Miller's Cove is a valley divided almost in half by Highway 73. East Miller's Cove includes the small, but densely populated, town of Walland. West Miller's Cove is less densely populated with the inhabitants living primarily along the main road running east-west through the valley. The valley itself is seven miles in length.

The people in Miller's Cove are predominantly long-term residents. In Walland the majority of people are employed in industrial plants in nearby Maryville-Alcoa. In West Miller's Cove the majority are also laborers with some small farm owners. In Miller's Cove as a whole, 30.2% of those interviewed reported that they were unemployed. This high percentage of unemployment may be accounted for by the fact that 37.7% of the respondents were 60 years of age or over. The average annual income of this area tended to be somewhat higher than that of the other two communities surveyed. Some 60% reported incomes between $3,000 and $10,000, with most attaining at least middle income level. While this area showed the largest percentage of college graduates (9.4%), it also showed a high percentage of respondents having completed only grade school (41.5%).

In this community there are four resident physicians, all of which practice in the Maryville-Alcoa area, over 10 miles away. The distance to the nearest hospital in Maryville is also 10 miles.

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[1]This figure was supplied by the local Miller's Cove Post Office.

*Wear Valley*

Located in Sevier County, Wear Valley is shown in the *U.S. Census of Population, 1970*, as having a population of 2,721. Since 75% of the 67 respondents in this area report having lived there from 10 to 20 or more years, it is assumed that this figure had not changed appreciably at the time of the study, two years later.

Wear Valley is geographically isolated from surrounding areas. Unlike Miller's Cove, there are no main highways entering the valley and intersections with main highways are some distance from the valley itself. The length of the valley is six miles and although the population is primarily concentrated along the main east-west road, the valley is sparsely inhabited all the way to the tree line.

As already mentioned, the people in this area are predominantly long-term residents. Occupationally the majority are laborers with 20% of those interviewed reporting that they are unemployed. Both income and educational levels of this area were significantly lower than either of the other two areas surveyed. An average annual income of less than $3,000 was reported by 31.3% and $6,000 or less by 42%. The highest education level completed was reported as grade school by 55% and high school by 19%.

There are no resident physicians in Wear Valley and the distance to the nearest hospital in Sevierville is 15 miles.

*Beeler Road-Andersonville Pike*

This area actually represents two separate communities in close proximity to each other. They were both chosen because each

represents a different type of community found in rural Knox County. The total population of the area chosen for surveying was estimated at 495 persons.[2]

Andersonville Pike is highly congested with houses that are small, close together, and close to the road. Beeler Road is in an area which is still chiefly agricultural but which is slowly being surrounded by subdivisions.

As in the other two areas the people are predominantly laborers (46%). This area, however, had the lowest percentage of respondents reporting the head of the household as unemployed (9%). Average annual income levels are similar to those in Miller's Cove with a slightly lower percentage of respondents with incomes under $3,000. It is important here to note that the residents of the Andersonville Pike area are of a significantly younger age group than the other two areas. Also, unlike the other two communities, a large percentage of respondents reported the number of years in their present location as 1-5 (48%). This is contrasted to the large number of long-term residents in the other areas. Compared with Miller's Cove and Wear Valley, this area showed the highest percentage of respondents completing high school (43%).

This area has no resident physician and the distance to the nearest hospital in Knoxville is seven miles.

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[2]This figure was calculated by multiplying the number of houses (150) by the average number of persons per household in Knox County (3.3), according to the *1970 Census of Population and Housing*.

# III. DEVELOPMENT OF THE INSTRUMENT

As discussed in Chapter I, this research was originally conceived as a part of the AHEC Planning Project. The instrument itself was designed to gather some specific information and was developed using a "Regional Health Manpower Planning Model" (see Appendix A) as a guide. This Planning Model, provided by Dr. Arthur Kretchmar, Director of AHEC Planning, demonstrates the relationship of "supply" and "demand" in health care delivery. In a letter to the AHEC Planning Group, Dr. Kretchmar explained the steps of the Planning Model.

> The Regional population (1A), with its health problems (1B), outputs individuals who seek health services (3). This output depends on recognition of the problems by persons trained (7) in various aspects of health and by the individuals themselves depending on public education, advertising, and community programs. The output also depends upon the accessibility to and availability of trained professional and paraprofessional personnel who have been placed (8) so as to be able to relate to the individuals seeking health services. Individuals who do not find or seek services return to the population with health problems.

The instrument used in this research was intended to provide information relative to each of the steps in the "demand" portion of the Planning Model. The final questionnaire included the following sections: Biographical Data; Migration; Health Problems; Recognition of Health Problems; Individuals Seek Health Services; Translation of Health Problems to Services; and Miscellaneous Attitudes About Health. The miscellaneous section included items which did not appropriately fit into any other section, but were considered potentially useful to the planning effort.

In a series of six meetings over a two-week period, the interview group, which will be discussed in detail in a following section, was given an opportunity to provide input into development of the instrument. It was felt that the project would be more successful if the interviewers were personally involved. In addition, these meetings gave the interviewers thorough familiarity with the instrument and therefore confidence in it and in themselves.

During these work sessions a few items were deleted, primarily on the grounds that they were either repetitious or elicited useless information; many items were added, the final questionnaire containing 91 questions. Great effort was made to phrase the questions in such a way that they would not confuse the respondent and result in inaccurate information. There was considerable disagreement as to what "language" could best be understood by the average person being interviewed. Some felt the vocabulary should be kept simple and colloquialized as much as possible. Others felt this approach was underestimating the intelligence of the majority of the prospective respondents and might result in "insulting their intelligence." Since many of the interviewers were natives of East Tennessee they were particularly helpful here. Conversations with several professors, graduate students, and other interested persons were also helpful. A copy of the questionnaire is included in Appendix B.

## IV. PROCEDURES FOR COLLECTING DATA

The interviewers were recruited from Anthropology 4240, Applied Anthropology, taught by Dr. Harry Lindquist, Associate Professor of

Anthropology at the University of Tennessee. As partial fulfillment of the course requirements, the students were given a choice of projects, one of which was the health attitude survey. Eighteen students volunteered, stating a personal interest in the project goals.

Three teams were formed to cover each of the communities. Although the areas to be canvassed were selected for them, the students were given their choice, as far as possible, as to which area they preferred to work and who they wished to work with. It was strongly suggested that they work in pairs but this was not insisted upon.

It is significant to note that none of these 18 students had ever been involved in actual survey work. For the most part they performed more than adequately and accomplished the research goals. This lack of experience may account for the high percentage of "No Answer" responses which were reflected in the computer analysis.

As expected, the students began to encounter difficulties soon after the actual interviewing began. Although some had been anticipated more than others, these problems were consistently found in all three areas and by all of the interviewers.

A certain amount of suspicion had to be overcome at the beginning of each interview. Considering the very personal nature of many of the questions (income, number of previous marriages, personal health problems, etc.), this was hardly surprising. Several of the students said they found it helpful to assure the respondent that the information was to be impersonally used by a

computer. Others found that simply explaining that the survey was intended to improve their community's health care made the respondents more willing to be interviewed.

All of the students agreed that they found men far less willing to be interviewed than women. Even if the husband was at home, whenever possible he referred the interviewers to his wife. This is regrettable as the low percentage of male respondents undoubtedly affected the final results of the survey. On the other hand, it may simply reflect that family health and health care is the domain of the female rather than the male.

Among the isolated families, especially in the more remote portions of Wear Valley, there was a much greater tendency to refuse or avoid being interviewed than there was in the communities where the houses were closer together and where the inhabitants left the immediate area to work, such as the town of Walland.

Another factor which may account for the number of "refused interviews" and which presented a problem in many of the interviews which were completed was a fear on the part of the respondents, especially those with less education, that they would appear ignorant if they did not answer "correctly." The source of this problem could lie in the wording of the questions themselves, in the approach of the interviewers, or perhaps both. Possibly this fear of embarrassment is simply unavoidable and must be accepted and dealt with much as the problem of suspicion.

A difficulty of less importance but noted by several of the students in all three areas was a tendency for the respondents to avoid discussing their "community" in negative terms--almost as though

it would constitute an act of disloyalty. The students felt this had a definite effect on that part of the questionnaire which dealt with the presence or absence of specific problems within the community. Some of the students suggested that in all of the areas, with the exception of Walland, there was very little feeling among the inhabitants of belonging to any community and that most respondents had little or no actual knowledge of what problems did exist.

## V. TREATMENT OF DATA

As the interviews were completed, the questionnaires were coded by use of a code sheet provided for each interviewer (see Appendix C). Raw data from the survey were converted to machine-usable form and punched in the appropriate IBM cards for computer use. Each subject was identified by a three-digit combination, and further identified by his community with the use of a single digit. Additional digits or digit combinations were used to designate the ensuing variables.

Using SPSS (Statistical Package for the Social Sciences) Subprogram, *Codebook*, a one-way descriptive analysis provided frequency tabulations and percentage counts on the 117 classes of variables.

Because the primary purpose of this thesis is to go beyond description of the survey results, no detailed description of the findings will be given here. The results of the *Codebook* analysis are shown in Appendix D.

# VI. STATISTICAL TOOLS

The entire body of data includes 164 cases with 117 variables. Of these variables, 93 were selected for analysis (see Appendix E). The first 12 variables are measures of biographic characteristics and the remainder are measures of attitudes toward health and health care.

The initial effort to determine the relationship between biographic and attitude factors was through a comparison of the three communities. A one-way descriptive analysis provided percentages of responses for the variables in each of the areas. It was hoped that by revealing differences in the attitude responses, some relationships might be suggested. Considerable differences were found to exist between the three communities in biographic factors. However, responses to the attitude variables fail to show marked differences which could be interpreted as possible associations.

The data were then analyzed using Spearman rank-order correlations. Each biographic variable was correlated with all of the others. To further examine the specific relationship between certain variable pairs, cross-tabulations were performed and the chi-square analysis computed for each.

The results of these procedures are discussed in Chapter IV.

# CHAPTER IV

# ANALYSIS OF THE DATA

## I. INTRODUCTION

The purpose of this chapter is to analyze questionnaire data describing those findings which bear on the hypotheses proposed as guidelines for this study. This analysis was accomplished by two main statistical techniques, correlation analysis and crosstabulations. The findings of each of these techniques or procedures will be presented in tabular form and discussed. Each hypothesis will then be considered and accepted or rejected in view of the data obtained.

## II. CORRELATION ANALYSIS (SPEARMAN'S RHO)

In correlation analysis the strength of association between two variables is indicated by a single summary statistic--the coefficient ($r$). Spearman's rho is a non-parametric statistic for ordinal data. The coefficient varies from -1.0 to +1.0. A coefficient of 0 always indicates that no linear relationship exists; a +1.0 coefficient implies a "perfect" positive relationship (i.e., an increase in one variable is always associated with an increase in the other variable); and a coefficient of -1.0 indicates a "perfect" negative relationship (i.e., an increase in one variable is always associated with a decrease in the other variable) (Nie, 1970:144). McNemar suggests six methods for interpreting the correlation coefficient. One of these, used in this study, is ". . . $r^2$ gives the

proportion of variance in Y predictable from, or attributable to, variance in X. This assumes linearity for the regression of X on Y and requires caution in assuming the direction of cause and effect" (McNemar, 1969:152).

In addition to the correlation coefficient, Spearman *r* provides a level of significance figure. Given an N of 164, a significance level of .05 or less was used as a criterion for determining significant associations. The values of the correlation coefficients themselves were judged on the basis of figures presented in Table A.11A, "Confidence Belts for the Correlation Coefficient p:p=.95," from Steele and Torrie's *Principles and Procedures of Statistics*. These figures vary primarily on the basis of sample size and level of significance desired.

After calculating Spearman coefficients for all variable pairs, associations which met the .05 or less significance level were indicated on a chart. Total numbers of significant associations were then calculated for each of the 12 biographic variables. The five variables of the original 12 which showed the highest number of associations are: age (32); husband's occupation (28); average annual income (28); marital status (27); and wife's education (25).

In order to examine more closely the implication of these totals, the attitude variables thought to be valuable to health care planning were chosen and separated into five groups. Tables were then drawn to show how each of the five biographic variables correlated with attitude variables in each group.

Group 1 includes the following variables:

"Did you learn about staying healthy from any of the following sources?"

| | | |
|---|---|---|
| Var. 026-Mother | Var. 029-Television | Var. 032-Magazines |
| Var. 027-Grandmother | Var. 030-Radio | Var. 033-Newspapers |
| Var. 028-School | Var. 031-Books | Var. 034-Other |

Table 1 indicates that age is significantly associated with five of these variables; husband's occupation and wife's education are associated with three each; and marital status and income show no significant associations.

Table 1. Correlation Coefficients--Biographic Variables with Group 1 Attitude Variables[a]

| | 026 | 027 | 028 | 029 | 030 | 031 | 032 | 033 | 032 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | | | .2751 | .1543 | | .1588 | .1971 | | -.1657 | 5 |
| Marital status | | | | | | | | | | 0 |
| Husband's occupation | .1368 | .1371 | .1983 | | | | | | | 3 |
| Income | | | | | | | | | | 0 |
| Wife's education | | | -.2223 | | | -.1674 | | | .1653 | 3 |

[a] $\leq$ .05 level of significance. Spaces left blank were not significant at .05 level.

Group 2 includes eight variables which deal with the respondents' attitudes toward health problems and health care in general within the community.

"In your opinion, are any of the following problems in your community?"

Var. 046-Venereal disease

Var. 047-Drug abuse and addiction

Var. 048-Mental illness

Var. 049-Lack of proper food

Var. 050-Hunger

Var. 104-"Do you think you, your family and community are getting adequate health care?"

Var. 106-"Can you suggest ways that your community might get getter health care?"

Var. 107-"What has been, if any, your biggest problem regarding health care?

In Table 2 age shows significant associations with four variables; marital status, husband's occupation and wife's education with one each; and income shows no significant associations.

Table 2. Correlation Coefficients--Biographic Variables with Group 2 Attitude Variables[a]

| | 046 | 047 | 048 | 049 | 050 | 104 | 106 | 107 | Total |
|---|---|---|---|---|---|---|---|---|---|
| Age | .1508 | .2225 | | | .1297 | .1405 | | | 4 |
| Marital status | | | | | .1505 | | | | 1 |
| Husband's occupation | | .2321 | | | | | | | 1 |
| Income | | | | | | | | | 0 |
| Wife's education | | | | -.1502 | .1303 | | | | 2 |

[a] $\leq$ .05 level of significance. Spaces left blank were not significant at .05 level.

Group 3 includes nine variables which deal with the respondents' attitudes toward the hospital and the doctor. More specifically they deal with possible problems the respondent may encounter. These variables are listed below.

Var. 067-"Would you avoid going to the hospital because of fear?"

Var. 068-"Would you avoid going to the hospital because of expense?"

Var. 069-"Do you hesitate to go to the doctor because he might hospitalize you?"

Var. 070-"Do you hesitate to go to the doctor because of the expense?"

Var. 071-"Do you ever need to see a doctor but find you have no way to get there?"

Var. 072-"Have you ever been turned away because the doctor was too busy or because you would have to wait too long?"

Var. 073-"Do you ever avoid going to the doctor because you feel that he will not take you seriously?"

Var. 074-"Do you ever hesitate going to the doctor because of embarrassment?"

Var. 075-"Do you ever have trouble understanding what the doctor says is wrong with you?"

In Table 3 four of the biographic variables, age, marital status, husband's occupation, and wife's education, all show two significant associations. Income shows one significant association.

Table 3. Correlation Coefficients--Biographic Variables with Group 3 Attitude Variables[a]

| | 067 | 068 | 069 | 070 | 071 | 072 | 073 | 074 | 075 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | | .1683 | | | | | | .1336 | | 2 |
| Marital status | | | | | | .1375 | | .1438 | | |
| Husband's occupation | | | | | -.1435 | | .1636 | | | 2 |
| Income | | | | | .1370 | | | | | 1 |
| Wife's education | | | | -.1502 | .1303 | | | | | 2 |

[a] $\leq$ .05 level of significance. Spaces left blank were not significant at .05 level.

Group 4 includes seven variables which attempt to determine what persons or organizations the respondent would turn to within his community for help with health problems. These variables are listed below.

Var. 078-"Who in your community, other than the doctor, would you most likely ask for advice about illness?"

Var. 079-"If you wanted to help a drug addict, who could you contact for assistance?"

Var. 080-"If you wanted to help a person who drinks too much, who could you go to for help?"

Var. 081-"If you knew someone with a mental problem, what could you do?"

Var. 082-"Are there any organizations in your community who could help you with health problems?"

Var. 083-"Have you ever turned to any of these?"

Var. 084-"For what reasons?"

Table 4 indicates that age, marital status, and husband's occupation are significantly associated with two variables each; income and wife's education show one significant association each.

Table 4. Correlation Coefficients--Biographic Variables with Group 4 Attitude Variables[a]

| | 078 | 079 | 080 | 081 | 082 | 084 | 084 | Total |
|---|---|---|---|---|---|---|---|---|
| Age | .1863 | | | | | | .1622 | 2 |
| Marital status | .1537 | | | | | .1413 | | 2 |
| Husband's occupation | .2607 | | | | | | .1413 | 2 |
| Income | | | | -.1339 | | | | 1 |
| Wife's education | | | .1312 | | | | | 1 |

[a] $\leq$ .05 level of significance. Spaces left blank were not significant at .05 level.

Group 5 contains seven variables which attempt to ascertain how receptive the respondent is to certain innovations or changes in health care delivery. These variables are listed below.

Var. 086-"If a clinic were nearby where you could receive physical examinations free of charge, would you use it?"

Var. 087-"If it meant faster, less expensive service, would you be willing to give up your family doctor and see several different doctors in a clinic sort of arrangement?"

Var. 088-"Would you be willing to pay a small monthly sum if it would entitle you and your family to less expensive medical care?"

Var. 097-"Do you think a person trained to assist the doctor could take care of people who aren't too sick?"

Var. 098-"Would you use such a person?"

Var. 099-"Do you think trained mid-wives could deliver babies as well as doctors?"

Var. 100-"Would you use a mid-wife yourself?"

Table 5 shows that all the biographic variables with the exception of income show one significant association. Income shows two significant associations.

Table 5. Correlation Coefficients--Biographic Variables with Group 5 Attitude Variables[a]

| | 086 | 087 | 088 | 097 | 097 | 099 | 100 | Total |
|---|---|---|---|---|---|---|---|---|
| Age | | | .1661 | | | | | 1 |
| Marital status | | -.1509 | | | | | | 1 |
| Husband's occupation | | | | | | | -.1550 | 1 |
| Income | | .1700 | | | | | -.1328 | 2 |
| Wife's education | | | -.1333 | | | | | 1 |

[a] $\leq$ .05 level of significance. Spaces left blank were not significant at .05 level.

Table 6 shows the total number of significant associations of each biographic variable for each group of attitude variables. Age, with a total of 14, showed the highest number of significant associations. Husband's occupation shows 9, wife's education shows 8, marital status shows 6, and income shows the lowest number, 4.

Table 6. Total Number of Significant Correlation Coefficients--Biographic Variables with Each Group of Attitude Variables

| | Group 1 | Group 2 | Group 3 | Group 4 | Group 5 | Total |
|---|---|---|---|---|---|---|
| Age | 5 | 4 | 2 | 2 | 1 | 14 |
| Marital status | 0 | 1 | 2 | 2 | 1 | 6 |
| Husband's occupation | 3 | 1 | 2 | 2 | 1 | 9 |
| Income | 0 | 0 | 1 | 1 | 2 | 4 |
| Wife's education | 3 | 1 | 2 | 1 | 1 | 8 |

## III. CROSSTABULATIONS (CHI SQUARE)

Statistical Packages for the Social Sciences (SPSS) contains three programs which permit the user to examine relationships in a table-type format. The joint frequency distributions provided by this program can be statistically analyzed by certain tests of significance, such as the chi-square statistic used here. As explained in the SPSS Manual, "Chi-square tests the independence (or lack of statistical association) between two variables. It indicates the likelihood of having a distribution as different from statistical independence by chance alone as the observed distribution" (Nie, 1970:275).

In order to determine the relationship between the age and income

of respondents and their willingness to accept change or innovation in health care delivery, certain crosstabulations were performed.

The following seven variables were selected as indicators of willingness to accept change or innovation and crosstabulated separately with age and income:

1. "If a clinic were nearby where you could receive physical examinations free of charge, would you use it?"
2. "If it meant faster, less expensive service, would you be willing to give up your family doctor and see several different doctors in a clinic sort of arrangement?"
3. "Would you be willing to pay a small monthly sum if it would entitle you and your family to less expensive medical care?"
4. "Do you think a person trained to assist the doctor could help people who aren't too sick?"
5. "Would you use such a person?"
6. "Do you think trained mid-wives could deliver babies as well as doctors?"
7. "Would you use a mid-wife yourself?"

Table 7 indicates that in each age group, the highest percentage responses was "always" and the lowest percentage of responses was "never." The 41-50 age group showed the highest proportion of "always" and "never" responses, while the 51-60 group showed the highest proportion of "sometimes" responses.

While some inferences could be drawn from these proportions, the chi-square statistic indicates a low level of association between these two variables.

The data in Table 8 indicates that excluding interviewees in the 31-40 age group, the highest percentage of respondents in each age group answered "never." In the 31-40 group, the highest percentage

Table 7. Crosstabulation of "Age" by "If a Clinic Were Nearby Where You Could Receive Physical Examinations Free of Charge, Would You Use It?"

| Age | Sometimes | Always | Never | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 30.0 | 50.0 | 20.0 | 0.0 |
| 21-30 | 36.4 | 40.9 | 22.7 | 0.0 |
| 31-40 | 30.4 | 34.8 | 21.7 | 13.0 |
| 41-50 | 18.5 | 51.9 | 29.6 | 0.0 |
| 51-60 | 38.7 | 41.9 | 16.1 | 3.2 |
| 60+ | 37.5 | 31.3 | 27.1 | 4.2 |

Chi-square = 16.29 with 21 degrees of freedom (significant at .75).

Table 8. Crosstabulation of "Age" by "If It Means Faster, Less Expensive Service, Would You Be Willing to Give Up Your Family Doctor and See Several Different Doctors in a Clinic Sort Of Arrangement?"

| Age | Sometimes | Always | Never | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 30.0 | 30.0 | 40.0 | 0.0 |
| 21-30 | 22.7 | 31.8 | 45.5 | 0.0 |
| 31-40 | 30.4 | 39.1 | 17.4 | 13.0 |
| 41-50 | 25.9 | 33.3 | 40.7 | 0.0 |
| 51-60 | 16.1 | 25.8 | 54.8 | 3.2 |
| 60+ | 29.2 | 27.1 | 35.4 | 8.3 |

Chi-square = 19.15 with 21 degrees of freedom (significant at .60).

answered "always." This represented the largest proportion of the "always" responses. The largest proportion of "never" responses was found in the 51-60 age group, while the largest proportion of "sometimes" responses was in the 31-40 group.

As in the previous table, the chi-square statistic indicates a low level of significance for the distribution seen in Table 8.

The variable pair relationship seen in Table 9 has a considerably higher level of significance than those seen in the previous two tables.

The largest percentage of responses in all age groups was "yes." The largest proportion of "yes" answers was given by the 1-20 age group; the 21-30 group had the largest proportion of "no" responses; and the 51-60 group had the largest proportion of "uncertains."

In Table 10 the responses seem to show little relationship to the respondents' ages. The chi-square statistic indicates a low level of significance for the distribution seen in this table.

The overwhelming majority of responses were "yes" regardless of the age of the respondent. There is a definite tendency for the percentage of "no" responses to decrease as the age of the respondents increased. The largest proportion of "yes" responses was found among those aged 60 and over while the largest proportion of "no" responses was given by those aged 1-20.

The attitude variable crosstabulated with age in Table 11 is closely related to that shown in Table 10 and the responses patterns are accordingly similar. The chi-square statistic indicates, as in the last distribution, a low level of significance.

Table 9. Crosstabulation of "Age" by "Would You Be Willing to Pay a Small Monthly Fee If It Would Entitle You and Your Family to Faster, Less Expensive Service?"

| Age | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 80.0 | 0.0 | 20.0 | 0.0 |
| 21-30 | 63.6 | 27.3 | 9.1 | 0.0 |
| 31-40 | 60.9 | 17.4 | 17.4 | 4.3 |
| 41-50 | 63.0 | 14.8 | 22.2 | 0.0 |
| 51-60 | 64.5 | 6.5 | 29.0 | 0.0 |
| 60+ | 45.8 | 20.8 | 20.8 | 12.5 |

Chi-square = 24.44 with 21 degrees of freedom (significant at .25)

Table 10. Crosstabulation of "Age" by "Do You Think a Person Trained to Assist the Doctor Could Take Care of People Who Aren't Too Sick?"

| Age | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 80.0 | 20.0 | 0.0 | 0.0 |
| 21-30 | 77.3 | 18.2 | 4.5 | 0.0 |
| 31-40 | 78.3 | 8.7 | 13.0 | 0.0 |
| 41-50 | 81.5 | 7.4 | 7.4 | 3.7 |
| 51-60 | 80.6 | 6.5 | 12.9 | 0.0 |
| 60+ | 83.3 | 2.1 | 8.3 | 6.3 |

Chi-square = 15.41 with 21 degrees of freedom (significant at .80).

Table 11. Crosstabulation of "Age" by "Would You Use Such a Person?" (One Trained to Assist the Doctor)

| Age | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 60.0 | 40.0 | 0.0 | 0.0 |
| 21-30 | 63.6 | 22.7 | 13.6 | 0.0 |
| 31-40 | 73.9 | 21.7 | 4.3 | 0.0 |
| 41-50 | 70.4 | 11.1 | 11.1 | 7.4 |
| 51-60 | 64.5 | 16.1 | 16.1 | 3.2 |
| 60+ | 72.9 | 14.6 | 6.3 | 6.3 |

Chi-square = 14.25 with 21 degrees of freedom (significant at .85).

As in Table 10, the majority of responses was "yes" regardless of age and the percentage of "no" responses decreased as age increased. The largest proportion of "yes" responses was given by those aged 31-40, and the largest proportion of "no" answers by those aged 1-20.

The crosstabulation shown in Table 12 has a low level of significance as indicated by the chi-square statistics.

With the exception of responses given by the 51-60 age group, the majority of responses in each age category was "yes." The highest percentage of "yes" responses was given by respondents in the 1-20 age group and the highest percentage of "no" responses was given by those aged 51-60.

While the attitude variables crosstabulated with age in Tables 12 and 13 are closely related, the response pattern distributions are quite different and the level of significance indicated for Table 13 are considerably lower than that for the preceding table.

Table 12. Crosstabulation of "Age" by "Do You Think Trained Mid-Wives Could Deliver Babies As Well As Doctors?"

| Age | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 60.0 | 40.0 | 0.0 | 0.0 |
| 21-30 | 40.9 | 36.4 | 22.7 | 0.0 |
| 31-40 | 52.2 | 39.1 | 8.7 | 0.0 |
| 41-50 | 51.9 | 33.3 | 11.1 | 3.7 |
| 51-60 | 41.9 | 48.4 | 9.7 | 0.0 |
| 60+ | 54.2 | 31.3 | 8.3 | 6.3 |

Chi-square = 17.56 with 21 degrees of freedom (significant at .60).

Table 13. Crosstabulation of "Age" by "Would You Use Such a Person?" (Mid-Wife)

| Age | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| 1-20 | 40.0 | 50.0 | 10.0 | 0.0 |
| 21-30 | 22.7 | 63.6 | 13.6 | 0.0 |
| 31-40 | 26.1 | 69.6 | 4.3 | 0.0 |
| 41-50 | 14.8 | 63.0 | 14.8 | 7.4 |
| 51-60 | 29.0 | 54.8 | 12.9 | 3.2 |
| 60+ | 33.3 | 41.7 | 14.6 | 10.4 |

Chi-square = 15.42 with 21 degrees of freedom (significant at .85).

In each age group the highest percentage of responses was "no." The largest proportion of "yes" responses was given by the 1-20 age group and the largest proportion of "no" responses was given by the 31-40 group.

Although the distribution of responses shown in Table 14 has a low level of significance as indicated by the chi-square statistic, some trends do seem to be discernible. The percentage of "always" responses tends to decrease as income level increases. The percentage of "never" responses, on the other hand, increases as income level increases.

The largest proportion of "always" responses was found in the Under $3,000 income group. The largest proportion of "never" responses was found in the two highest income level categories, $10,000-$15,000 and Over $15,000. The largest proportion of "sometimes" responses was found in the middle income group, $4,000-$10,000.

Table 14. Crosstabulation of "Income" by "If a Clinic Were Nearby Where You Could Receive Physical Examinations Free of Charge, Would You Use It?"

| Income | Sometimes | Always | Never | No Answer |
|---|---|---|---|---|
| | | % | | |
| Under $3,000 | 39.0 | 43.9 | 14.6 | 2.4 |
| $3,000-$6,000 | 30.4 | 42.9 | 23.2 | 3.6 |
| $6,000-$10,000 | 42.4 | 30.3 | 24.2 | 3.0 |
| $10,000-$15,000 | 8.3 | 33.3 | 50.0 | 8.3 |
| Over $15,000 | 25.0 | 25.0 | 50.0 | 0.0 |

Chi-square = 13.59 with 15 degrees of freedom (significant at .60).

The chi-square statistic indicates a considerably higher level of significance for the distribution of responses seen in Table 15 than in previous tables. The trend in responses, however, is less clear cut than those observed in Table 14. The percentage of "always" responses seems to be fairly evenly distributed with the exception of the $6,000-$10,000 income group where the percentage drops to 24.2% and the Over $15,000 group where it increases to 50%. The percentage of "never" responses shows a definite tendency to increase as income increases. The largest proportion of "sometimes" responses was in the Under $3,000 level; the largest proportion of "always" responses was found in the Over $15,000 income group; and the largest proportion of "never" responses went to the $10,000-$15,000 group.

Again the level of significance indicated by the chi-square statistic is high for this distribution pattern. However, only one trend in responses is obvious in Table 16. The percentage of "no" responses increases as income level increases.

The largest proportion of both "yes" and "no" responses was found in the $10,000-$15,000 income group. The largest proportion of "uncertain" responses was found in the highest income level, Over $15,000. In all income groups the highest percentage of responses was "yes."

The level of significance indicated for the crosstabulation in Table 17, .45, is lower than that for the previous two tables. No uninterrupted trends, however, can be seen in the patterns of "yes" and "no" responses. The percentage of "uncertain" responses decreases as income level increases.

Table 15. Crosstabulation of "Income" by "If It Meant Faster, Less Expensive Service, Would You Be Willing to Give Up Your Family Doctor and See Several Different Doctors in a Clinic Sort of Arrangement?"

| Income | Sometimes | Always | Never | No Answer |
|---|---|---|---|---|
| | | % | | |
| Under $3,000 | 34.1 | 34.1 | 26.8 | 4.9 |
| $3,000-$6,000 | 25.0 | 33.9 | 37.5 | 3.6 |
| $6,000-$10,000 | 27.3 | 24.2 | 45.5 | 3.0 |
| $10,000-$15,000 | 0.0 | 33.3 | 66.7 | 0.0 |
| Over $15,000 | 0.0 | 50.0 | 50.0 | 0.0 |

Chi-square = 18.00 with 15 degrees of freedom (significant at .25).

Table 16. Crosstabulation of "Income" by "Would You Be Willing to Pay a Small Monthly Fee If It Would Entitle You and Your Family to Faster, Less Expensive Medical Care?"

| Income | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| Under $3,000 | 53.7 | 12.2 | 19.5 | 14.6 |
| $3,000-$6,000 | 58.9 | 17.9 | 23.2 | 0.0 |
| $6,000-$10,000 | 57.6 | 18.2 | 21.2 | 3.0 |
| $10,000-$15,000 | 66.7 | 25.0 | 8.3 | 0.0 |
| Over $15,000 | 50.0 | 25.0 | 25.0 | 0.0 |

Chi-square = 18.99 with 15 degrees of freedom (significant at .25).

Table 17. Crosstabulation of "Income" by "Do You Think a Person Trained to Assist the Doctor Could Take Care of People Who Aren't Too Sick?"

| Income | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | | % | |
| Under $3,000 | 78.0 | 2.4 | 12.2 | 7.3 |
| $3,000-$6,000 | 76.8 | 10.7 | 10.7 | 1.8 |
| $6,000-$10,000 | 90.9 | 3.0 | 6.1 | 0.0 |
| $10,000-$15,000 | 83.3 | 16.7 | 0.0 | 0.0 |
| Over $15,000 | 100.0 | 0.0 | 0.0 | 0.0 |

Chi-square = 15.56 with 15 degrees of freedom (significant at .45).

The highest percentage of "yes" responses is found in the Over $15,000 income group; the highest percentage of "no" responses is found in the $10,000-$15,000 income groups; and the highest percentage of "uncertain" responses is in the Under $3,000 income group. As in Table 16, the highest percentage of all responses was "yes."

The attitude variable crosstabulated with income in Table 18 is closely related to that shown in the preceding table. The chi-square statistic indicates a rather high level of significance, .25, for this distribution. No trend in responses is clearly suggested, however. With the exception of the middle income level, $6,000-$10,000, the percentage of "no" responses shows a tendency to increase as income level increases.

The largest proportion of "yes" responses fell into the Over $15,000 income group; the highest proportion of "no" responses was in the $10,000-$15,000 group; and the most "uncertain" responses were in the $3,000-$6,000 group. Within each income group, the majority of responses was "yes."

Table 18. Crosstabulation of "Income" by "Would You Use Such a Person?" (One Trained to Assist the Doctor)

| Income | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | | % | |
| Under $3,000 | 68.3 | 14.6 | 7.3 | 9.8 |
| $3,000-$6,000 | 62.5 | 19.6 | 16.1 | 1.8 |
| $6,000-$10,000 | 81.8 | 9.1 | 6.1 | 3.0 |
| $10,000-$15,000 | 66.7 | 33.3 | 0.0 | 0.0 |
| Over $15,000 | 100.0 | 0.0 | 0.0 | 0.0 |

Chi-square = 17.95 with 15 degrees of freedom (significant at .25).

The distribution of responses shown in Table 19 has the highest level of significance, .02, noted for all of the crosstabulations performed. As in Table 18, there are no clear, uninterrupted trends in responses. Again, with the exception of the $6,000-$10,000 income group, the "no" responses tend to increase as income level increases.

The largest proportion of "yes" responses falls into the $10,000-$15,000 group and the largest proportion of "uncertain" responses falls into the $3,000-$6,000 group. With the exception of the $10,000-$15,000 income group where 91.7% of all responses were "no," the majority of responses given in all income categories was "yes."

Although closely related to the crosstabulation in the preceding table, the distribution shown in Table 20 has a lower level of significance, .40.

If the Over $15,000 income group is excluded, definite trends can be seen. The percentage of "yes" responses decreases as income increases and the percentage of "no" responses increases as income

Table 19. Crosstabulation of "Income" by "Do You Think Trained Mid-Wives Could Deliver Babies As Well As Doctors?"

| Income | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| Under $3,000 | 51.2 | 29.3 | 12.2 | 7.3 |
| $3,000-$6,000 | 46.4 | 37.5 | 16.1 | 0.0 |
| $6,000-$10,000 | 60.6 | 33.3 | 3.0 | 3.0 |
| $10,000-$15,000 | 8.3 | 91.7 | 0.0 | 0.0 |
| Over $15,000 | 100.0 | 0.0 | 0.0 | 0.0 |

Chi-square = 30.91 with 15 degrees of freedom (significant at .02).

Table 20. Crosstabulation of "Income" by "Would You Use Such a Person?" (Mid-Wife)

| Income | Yes | No | Uncertain | No Answer |
|---|---|---|---|---|
| | | % | | |
| Under $3,000 | 29.3 | 41.5 | 19.5 | 9.8 |
| $3,000-$6,000 | 25.0 | 58.9 | 10.7 | 5.4 |
| $6,000-$10,000 | 21.2 | 63.6 | 12.1 | 3.0 |
| $10,000-$15,000 | 16.7 | 75.0 | 8.3 | 0.0 |
| Over $15,000 | 75.0 | 25.0 | 0.0 | 0.0 |

Chi-square = 15.87 with 15 degrees of freedom (significant at .40).

increases. Also with the exception of the Over $15,000 group, the highest percentage of responses in each income group was "no." The largest proportion of "yes" responses was in the Over $15,000 income group with the second largest proportion in the Under $3,000 group. The largest proportion of "no" responses falls into the $10,000-$15,000 income group and the largest proportion of "uncertains" in the Under $3,000 group.

## IV. SUMMARY

Data pertinent to the four hypotheses which served as guide-lines in this study have been presented in descriptive and tabular form in this chapter. A summary of each of these hypotheses follows.

*Hypothesis I*

Hypothesis I predicted that health attitudes would show significant associations with biographic factors. Tables 1-5, pages 44-47, indicate significance in 42 correlations. Since all of these correlations met the .05 or less level of significance, this hypothesis is accepted.

*Hypotheses II and III*

The second hypothesis predicted that some biographic factors would be significantly associated with attitude variables more frequently than others. The third hypothesis predicted that age would show the highest number of significant associations with attitude variables.

Table 6, page 48, indicates that each of the biographic variables shows a different number of significant associations. Age shows the

highest number of significant associations, 14. Husband's occupation shows 9; wife's education shows 8; marital status shows 6; and income shows 4.

Both of these hypotheses are accepted.

*Hypothesis IV*

This hypothesis predicts that a respondent's willingness to accept change or innovation in health care delivery will show a direct relationship to his age and income.

Though some significance was noted in part of this hypothesis which dealt with income and willingness to accept change or innovation, this significance was not of sufficient magnitude as to suggest this hypothesis be accepted. It should be noted that the required level of significance, .05 or less, appeared in only 1 of 14 crosstabulations between age and income and variables indicating willingness to accept change or innovation in health care delivery. This significant association is presented in Table 19, page 60. Tables 7-20, pages 50, 52, 53, 54, 55, 57, 58, 59, and 60, illustrate the specific relationships between age, income and the attitude variables selected.

Because the .05 level of significance was not met, this hypothesis is rejected.

# CHAPTER V

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## I. SUMMARY

The general objective of this research was divided into three specific phases: (1) to ascertain health attitudes of a sample population; (2) to determine the relationship between biographic and attitude factors within the sample population; and (3) to evaluate the above in terms of its significance to health care planning.

The writer surveyed the literature, defined hypotheses and developed a questionnaire. A community in each of three East Tennessee counties was selected for surveying. A total of 164 interviews was conducted, 44 in Knox County, 53 in Blount County, and 67 in Sevier County. An interview team of 18 students administered the questionnaire over an eight week period. Data were gathered by means of a verbally administered questionnaire and recorded manually. Frequency counts and percentage distributions were used to describe the data. Correlation analysis and crosstabulations with the chi-square statistic to determine level of significance were used to evaluate the relationship between certain variable pairs.

Findings drawn from the tabulation and analysis of the responses are described below as they relate to the four hypotheses proposed for this study. For the reader's convenience, each of these hypotheses is restated below in the paragraph prior to the discussion related to it.

*Hypothesis I*

Health attitudes do show significant associations with biographic factors.

Of the 12 variables considered to be measures of biographic characteristics (see Appendix E), all showed significant associations with attitude variables. Tables 1-5, pages 43-47, show 42 correlations with a .05 or less level of significance. Hypothesis I is accepted.

*Hypothesis II*

Some biographic factors are significantly associated more frequently with attitudes than others.

As indicated in Table 6, page 48, each biographic variable shows a different number of significant associations with attitude variables. Age shows 14; husband's occupation shows 9; wife's education shows 8; marital status shows 6; and income shows 4. Hypothesis II is accepted.

*Hypothesis III*

Age is significantly associated more frequently with health attitudes than any other biographic factor.

Table 6 indicates that age, with 14, shows more associations at the .05 or less level of significance than any other biographic variable. Hypothesis III is accepted.

*Hypothesis IV*

Willingness to accept change or innovation in health care delivery shows a direct relationship to respondent's age and income.

Tables 7 through 13, pages 50, 52, 53, and 54, showing crosstabulations of "Age" by certain attitude variables, indicate no relationship between age and willingness to accept change or innovation. Only one of these six distributions had a level of significance worth noting. Table 9, showing crosstabulation of "Age" by "Would you be willing to pay a small monthly fee if it would entitle you and your family to faster, less expensive medical care," was significant at .25.

Some significance was noted between "Income" and willingness to accept change or innovation. Four distributions, shown in Tables 15, 16, 18 and 19, pages 57, 59 and 60, were significant at .25 or less. Only one of these, however, showed a level of significance of .05 or less. Table 19, showing crosstabulation of "Income" by "Do you think trained mid-wives could deliver babies as well as doctors?" was significant at .02. This distribution shows a tendency for the percentage of respondents answering "no" to decrease as income level decreases.

Considering the .05 or less level of significance as a criterion for acceptance, Hypothesis IV is rejected.

## II. CONCLUSIONS

This study, begun in the spring of 1972 and concluded in the spring of 1973, has presented certain findings concerning the health attitudes of people in three East Tennessee counties. On the basis of these findings, the following conclusions seem justified and significant:

1. The three communities exhibited a definite need for improved health programs, to include additional medical personnel, clinics, transportation and health education programs.

2. The majority of respondents reported favorable attitudes toward their present health care delivery system.

This stands in sharp contrast to Carlton's findings in his study in Southeastern Kentucky (Chapter II). Carlton described his study population as unhappy and pessimistic about their state of health and cited numerous specific complaints about their health care system. The population surveyed in the present study might best be described as complacent, with 63% reporting that they and their community were receiving adequate health care. When asked about specific problems, 70 to 80 percent responded that they "never" encountered them.

It should be noted here that while the two study areas, one in southeastern Kentucky and one in East Tennessee, are very similar in many respects (such as high percentage of elderly, low-income levels, and high unemployment), there is one major difference. Carlton's study area is in one of Appalachia's mining regions. The major portion of the population either are or were employed in the mining industry and have been involved with federal programs offering aids to miners for a number of years. The East Tennessee population, on the other hand, is predominantly laborers and few have had any contact with federal assistance programs.

3. Any impetus for change or improvement in the health care delivery system will have to come from outside these communities themselves.

While some 42% of the respondents reported some specific problem regarding health care, only 18% expressed that they were not getting adequate health care. This suggests that the respondents either fail to see their problems as "problems" or that they accept these problems as unavoidable.

4. While health (or illness) is a topic of much interest and concern to those interviewed, very little thought seems to have been given to the subject of health care delivery.

This may account for the high percentage of "no opinion" and "no answer" responses tabulated. It may also suggest that the much talked about "health care crisis" may exist more in the minds of legislators and administrators than in the minds of the people themselves.

5. The biographic characteristics of the study population were significantly associated with their attitudes toward health and health care delivery.

6. Age of respondents was significantly associated with their attitudes toward health more frequently than any other biographic characteristic.

7. No relationship was demonstrated between the respondents' age and their attitudes toward change or innovation in health care delivery.

8. Some relationship was exhibited between respondents' income and their willingness to accept change or innovation in health care delivery.

Resistance to change decreased as income level decreased. Since 58.5% of those interviewed had annual incomes below $6,000, it is

suggested that resistance to new methods for dealing with old problems would be less in the study area than in areas with higher average income levels.

9. In conjunction with the preceding conclusion, it is noted that while a large percentage of respondents reported favorable attitudes toward new health services, such as physicians' assistants and mid-wives, a smaller percentage reported that they would use such services if available.

10. Many respondents are unaware of the many available sources for medical care, other than their family physician.

## III. RECOMMENDATIONS

The following recommendations are offered based on the study's findings and conclusions:

1. Health education programs should be provided to assure that available health services are utilized.

The Knoxville-Oak Ridge area has an abundance of agencies and programs available to deal with various health and social problems. A few of these are: Child and Family Services; Dale Avenue Settlement House; Florence Crittendon Agency; Knox Area Mental Health Association; Eastern State Psychiatric Hospital; Alcoholics Anonymous; Helen Ross McNabb Mental Health Center; and Planned Parenthood Association. The three communities surveyed in this study are all within servicing distance of these agencies, the furthest being only 30 miles from Knoxville. And yet, when asked what a person with a drug, alcohol or mental problem could do, 40% responded "don't know" and none

expressed any knowledge of the above named resources. Additionally, only 27% reported that they had used the County Health Department for any service.

2. Additional medical personnel should be made available to work in rural areas such as those surveyed in this study. This would include physicians, nurses, health educators and para-professionals.

While these communities are within a reasonable service area for resources such as those discussed above, both the Blount and Sevier County area are from 10 to 15 miles from the nearest hospital and/or physician's office.

3. Community clinics would be well received by the population of the study area, are needed, and should be provided.

When asked to suggest ways their community might get better health care, 10.4% percent suggested a clinic. When asked if they would use a clinic if one were available, 40% responded "always" and 33% responded "sometimes." Clinics would provide a base of operations for the additional medical personnel recommended above.

4. Any effort to improve the health care delivery system should be built upon the traditional family-physician health care concept.

While only a small percentage of respondents expressed opposition to innovations such as trained para-professionals (i.e., physicians' assistants and mid-wives) or pre-paid medical care, only 31% reported that they would be willing to give up their family physician to obtain faster, less expensive medical care. Of those interviewed, 87% reported that they have a family doctor, and of

these, 43% reported that he had been their family doctor for over 10 years.

5. Some attempt should be made to quantitatively assess the health condition of the individuals in the study population to determine which needs the present health care delivery system is adequately meeting and which needs it is not meeting.

This could be accomplished by a project such as that described by Jesse Tapp (Chapter II) in which a team of physicians completed medical histories, physicals and laboratory examinations on a sample population.

6. A follow-up study should be conducted to determine the specific nature of the relationship between age and those attitude variables with which age showed significant associations.

# REFERENCES

# REFERENCES

## A. REFERENCES CITED


Area Health Education Center Planning Group. "Draft Proposal for the Knoxville Area Health Education Center and Fourth Quarter Report," to The Carnegie Corporation of New York, The Commonwealth Fund, The Tennessee Midsouth Regional Medical Program. Knoxville, March, 1973. (Xerox copy.)

Campbell, Paul M., et al. "A Descriptive Study of Health and Related Socio-Economic Conditions, Clearfork Valley, Tennessee." Unpublished Master's thesis, University of Tennessee, Knoxville, 1970.

Carlton, Bill. "Adults' Knowledge of, Needs For, Attitudes Toward, and Utilization of Health and Medical Resources in Two Southeastern Kentucky Counties." Unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1973.

Carnegie Commission for Higher Education. *Higher Education and the Nation's Health.* New York: Carnegie Commission for Higher Education, 1970.

Caudill, Harry M. *Night Comes to the Cumberlands: A Biography of a Depressed Area.* Boston: Little, Brown and Co., 1963.

East Tennessee Development District. "The Bed Need in East Tennessee Development District in 1980. Preliminary Draft." Report #ET-20-73, April, 1973.

Engels, Richard A., et al. *Projections of Population and Labor Force, Tennessee Regions and Counties: 1975-2000.* Center for Business and Economic Research; Knoxville: University of Tennessee, 1972.

Ford, Thomas R. (ed.). *The Southern Appalachian Region: A Survey.* Lexington: University of Kentucky Press, 1962.

Funk, Fanchon Felice. "Health Attitudes and Practices in an Isolated Appalachian Valley." Unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1970.

Grimm, Pamela R., and Jerry Risenhoober. *Health in the East Tennessee Development District, An Appraisal and Program.* Knoxville: East Tennessee Development District, 1969.

Hamilton, C. Horace. "Health and Health Services," in *The Southern Appalachian Region: A Survey*, Thomas R. Ford, ed. Lexington: University of Kentucky Press, 1962.

Hanlon, John J. *Principles of Public Health Administration.* St. Louis: The C. V. Mosby Company, 1969.

Lerner, Monroe and Odin Anderson. *Health Progress in the United States.* Chicago: University of Chicago Press, 1963.

Lewis, Helen M. and Edward E. Knipe. "The Colonialism Model: The Appalachian Case," *An Uncertain America: Anthropological Approaches to Domestic Crises,* Edward Storey, ed. Boston: Little, Brown and Co., 1971.

Mayshark, Cyrus and Charles E. Richardson. "Health Attitudes as Related to Behavioral Change," *Synthesis of Research in Selected Areas of Health Instruction.* Washington, D.C.: School Health Education Study, 1963.

McNemar, Quinn. *Psychological Statistics.* New York: John Wiley and Sons, Inc., 1969.

Nie, Norman, Dale H. Hunt and C. Hadlai Hull. *Statistical Package for the Social Sciences* New York: McGraw-Hill Book Company, Inc., 1970.

Nesius, Ernest J. "The People of Appalachia," *Manpower Development in Appalachia* Frederick Zeller and Robert Miller, eds. New York: Praeger, 1968.

Peoples' Appalachian Research Collective. *Appalachia's People, Problems and Alternatives.* Vol. I; Morgantown, West Virginia: Peoples' Appalachian Research Collective, March, 1971.

Steel, Robert G. D. and James H. Torrie. *Principles and Procedures of Statistics* New York: McGraw-Hill Book Company, Inc., 1960.

Tapp, Jesse W., Rena Gazaway and Kurt W. Deuschle. "Community Health in a Mountain Neighborhood," *Archives of Environmental Health,* VIII, No. 4 (April, 1964).

Tennessee Higher Education Commission. *A Study of Medical Education in Tennessee.* Nashville: Tennessee Higher Education Commission, December, 1970.

*Tennessee Vital Statistics.* Nashville: Department of Public Health, 1972.

Trabue, Charles C. and Richard Sacks. "The Crisis in Physician Distribution in Tennessee," *Journal of the Tennessee Medical Association,* LXIII, No. 4 (April, 1970).

U.S. Department of Health, Education and Welfare. *Origin, Program and Operation of the U.S. National Health Survey.* Reprt.; Washington, D.C.: Government Printing Office, 1965.

Wallace, Bill C. "Relationship of Health Attitudes to Physical Fitness Levels in Grades VII, IX and XI." Unpublished Doctoral dissertation, Colorado State University, Denver, 1966.

Willard, W. R., John E. Ives, and James L. Dennis. "The Tennessee Medical Education Study." Report to Governor Winfield Dunn, Nashville, January 18, 1972.

## B. REFERENCES FOR FURTHER RESEARCH

Alleger, Daniel E. "The Anomia of Rural People, Its Measurement and Correlates," *Agricultural Science Review*, IV (First Quarter, 1966), 1-9.

Anderson, Odin W. "The Utilization of Health Services," in *Handbook of Medical Sociology* Howard Freeman, ed. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968.

"Appalachia and the American Future, Toward a Policy for National Development," *Appalachia*, I (June/July, 1968), 1-54.

Barney, Donald J. "Physicians in the Southern Appalachians." Unpublished Master's thesis, University of Tennessee, Knoxville, 1970.

Chang, Kwang. "Relation of Level of Living to Selected Attitudinal Characteristics of Central Appalachia Rural Families. Unpublished Master's thesis, University of Tennessee, Knoxville, 1965.

Chick, Ernest W., et al. "Health Profiles of Three Hollows in West Virginia," *West Virginia Medical Journal*, LXV (May, 1969), 145-152.

Cowell, Charles C. "Attitude Scales," *Research Methods in Health, Physical Education, and Recreation*. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1959.

Feldstein, Paul J. "Research on the Demand for Health Services," *Milbank Memorial Fund Quarterly*, XLIV, No. 3 (July, 1966), 124-131, pt. 2.

Foster, George M. "Guidelines to Community Development Programs," *Public Health Reports*, LXX, No. 1 (January, 1955).

Gerstel, Eva. "Health, Education and Income as Correlates of Demand for Hospital Care in the Southern Appalachians." Unpublished Master's thesis, North Carolina State College, Columbia, 1963.

Greenhill, Stanley and Harry J. Singh. "Comparison of the Professional Functions of Rural and Urban General Practitioners," *Journal of Medical Education*, XL (September, 1965).

Hochstrasser, Donald, G. S. Nickerson and Hurt W. Deuschle. "Socio-medical Approaches to Community Health Programs," *Milbank Memorial Fund Quarterly*, XLIV, No. 3 (July, 1966), 345-359, pt. 1.

Irelan, Lola M. (ed.). *Low-Income Life Styles*. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1967.

Jarvis, Marilyn A., et al. "Health in a Semi-Isolated West Virginia Community," *Archives of Environmental Health*, XIII (October, 1966).

Kaplan, Berton H. "Social Change, Adaptive Problems and Health in a Mountain Community." Unpublished Doctoral dissertation, University of North Carolina, Chapel Hill, 1962.

Katz, Alfred H. and Jean S. Felton. *Health and the Community*. New York: The Free Press, 1965.

Levine, Sol and Paul E. White. "The Community of Health Organizations," in *Handbook of Medical Sociology*, Howard Freeman, ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1968.

Long, Robert C. "Facing Rural Health Problems," *Mountain Life and Work*, XLVI (June, 1960).

Massie, William A. (Chairman, Health Committee, Council of the Southern Mountains). *Medical Services for Rural Areas*. Cambridge, Mass.: Harvard University Press, 1957.

"Medical Care, Health, Status, and Family Income." National Center for Health Statistics, Series 10, No. 9. Washington, D.C.: Department of Health, Education and Welfare, Public Health Service, May, 1964.

"Mountain Voices--Neighborhood Health, Appalachian Style," *Communities in Action*, IV (June/July, 1968), 42-47.

Pearsall, Marion, "Healthway in a Mountain County," *Mountain Life and Work*, XXXCI, No. 4 (Winter, 1960).

Rosenstock, Irwin M. "Why People Use Health Services," *Milbank Memorial Fund Quarterly*, XLIV, No. 3 (July, 1966), 94-124.

Steinman, David. "Illness in Martin County, Kentucky," *Appalachian Medicine*, I (April, 1969), 4-7.

Straus, Robert. "Poverty as an Obstacle to Health Progress in Our Rural Areas," *American Journal of Public Health*, LV (November, 1965), 1772-1779.

Susser, M. W. and W. Watson, *Sociology in Medicine*. New York: Oxford University Press, 1971.

Trapp, Joy. *Health Services and Facilities in the East Tennessee Economic Development District*. Knoxville: East Tennessee Economic Development District, May, 1968.

U.S. Health Advisory Committee. *Report of the Health Advisory Committee to the Appalachian Regional Commission*. Washington, D.C.: Government Printing Office, 1966.

U.S. Department of Health, Education and Welfare, Public Health Service. *Health Survey Procedure Concepts, Questionnaire Development, and Definitions in the Health Interview Survey*. Public Health Service Publication No. 1000--Series 1, No. 2. Washington, D.C.: Government Printing Office, May, 1964.

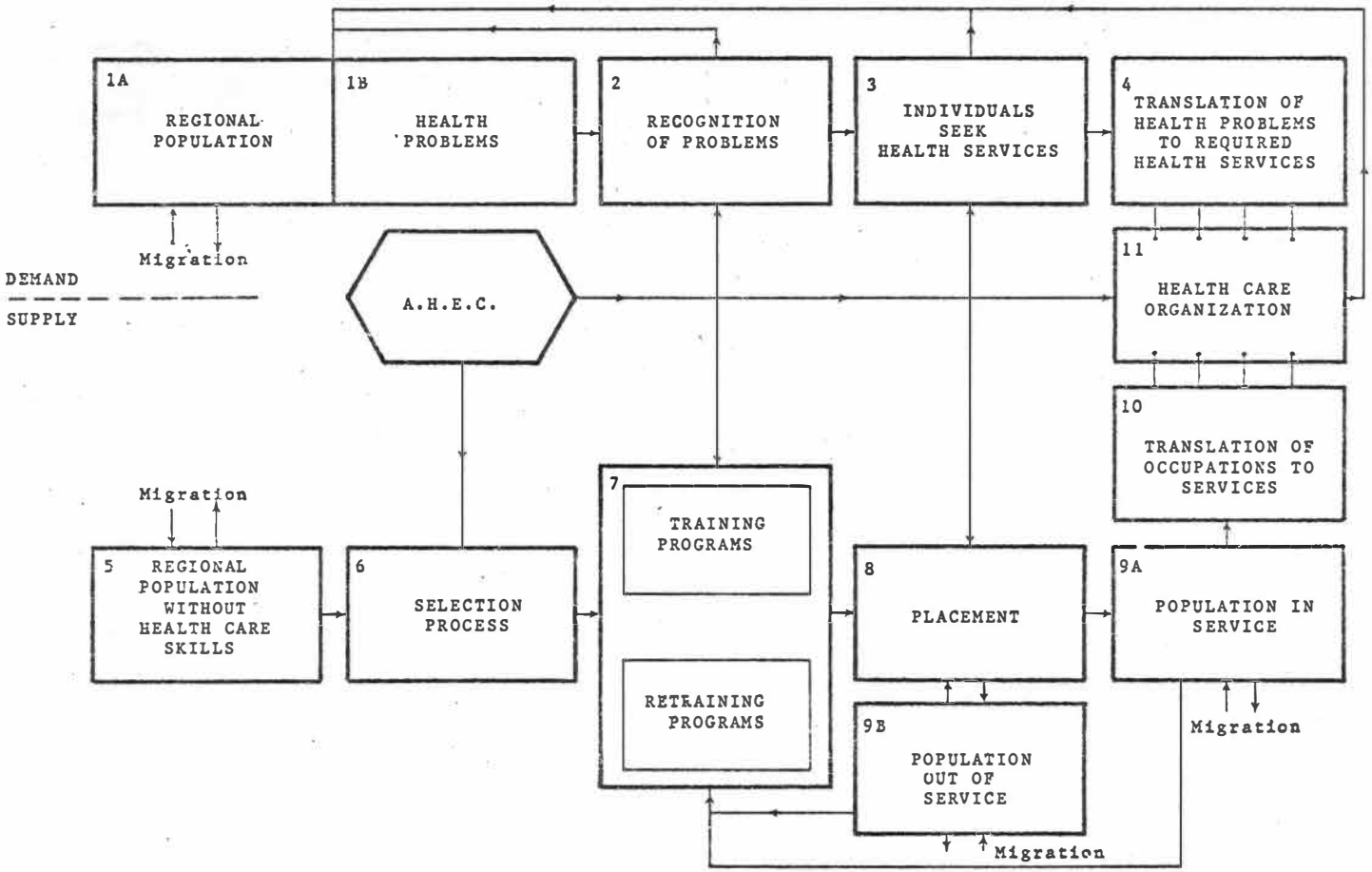
Veenker, C. Harold. "Results of Measuring the Health Knowledge, Attitudes, and Practices of School Age Children," *Synthesis of Research in Selected Areas of Health Education*. Washington, D.C.: School Health Education Study, 1963.

Wilson, Robert N. "Patient-Practitioner Relationships," in *Handbook of Medical Sociology*, Howard Freeman, ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1968.

# APPENDICES

# APPENDIX A

# REGIONAL HEALTH MANPOWER PLANNING MODEL




REGIONAL HEALTH MANPOWER PLANNING MODEL

# APPENDIX B

## INTERVIEW SCHEDULE

## QUESTIONNAIRE FOR KNOXVILLE AREA HEALTH EDUCATION CENTER PLANNING PROJECT

Spring 1972

## APPENDIX B

### INTERVIEW SCHEDULE

Area Health Education Center Survey Questionnaire
AHEC Anthropology Fieldwork Project

(BIOGRAPHICAL DATA)

1. Name:
2. Address:
3. Date of Birth: 4. Race: (Interviewers' observation)____
5. Place of Birth: (Town, county, state)
   Husband _____
   Wife _____
6. Marital Status: Married, living with spouse _____
   Married, separated from spouse _____
   Divorced _____
   Single _____
   Widowed _____
7. Number of previous marriages: _____
8. Number of children: (names and birthdates)
9. Other dependent family members:
10. Occupation: Husband _____
    Wife _____
    Other (immediate family members) _____
    _____
11. Average annual income: Under 3,000 _____
    3,000 to 6,000 _____
    6,000 to 10,000 _____
    10,000 to 15,000 _____
    Over 15,000 _____
12. Husband's educational background: (Highest number of years completed. Include any college, professional, or technical training)
13. Wife's educational background: (Same as above)
14. Children's educational background: (Use back if necessary)
    a.
    b.
    c.
    d.

15. What is your religious affiliation? _____

(MIGRATION)

16. How long have you lived at your present location? (No. yrs. and mos.)

17. How many times have you moved in the last 5 years? Outside county __
Inside county ___
Outside state ___

(HEALTH PROBLEMS)

18. In your opinion, is your own health poor __; fair __; good __; or excellent __? (Does interviewer have reason to disagree? If so, explain.

19. How would you evaluate the health of your family as a whole?
Poor __; Fair __; Good __; Excellent __
(Does interviewer have reason to disagree? Explain)

20. Have you or any member of your immediate family had any serious illnesses or accidents? (Elaborate, when, what, etc.) (Use back if necessary)

21. In your opinion, are you underweight __, right weight __, overweight __. (Does interviewer agree __ or disagree __?)

22. What illnesses bother you or your family most often? (colds, flu, allergy, etc.) Do you know why?

23. Does anyone in your family have problems with his teeth, eyes, or hearing? (Explain)

(RECOGNITION OF HEALTH PROBLEMS)

24. Did you learn about staying healthy and how to deal with illness from any of the following sources:

| | |
|---|---|
| Mother _____ | Books _____ |
| Grandmother _____ | Magazines _____ |
| School _____ | Newspapers _____ |
| Television _____ | Other _____ |
| Radio _____ | _____ |

25. Do you have a medical dictionary, an almanac, or any other type of book in the house that deals with health and health problems?
Yes __; No __ What are they? Do you use them? Yes __; No __

26. When you are ill, do you usually know what is wrong? Yes __; No __

27. Do you think pain is a symptom of serious illness? Yes __; No __

28. Do you admire people who can endure pain without complaining? Why or why not?

29. How sick do you have to be before you call a doctor? (Fever, pain, length of illness, etc.)

30. Who do you think is sick most often, young children __ or very old people __?

31. Do you think young adults and middle age people tend to overlook their own health problems? Yes __; No __ (Do they take their health for granted?)

32. Are women sick more often than men? Yes __; No __ Why?

33. Do you think the foods you eat affect your health? Yes __; No __

34. What food and drink do you need to be healthy?

35. Where do you learn about food?
T.V. _____: Radio _____: Telephone_____;
Daily newspaper _____; Weekly newspaper _____;
Other _____

36. Do you think everyone has the same food needs? Yes __; No __

37. Do you think any one food has all the nutrients? Yes __; No __
Which one?

38. Do you think everyone needs vitamin pills? Yes __; No __
Does your family take vitamin pills? Yes __; No __

39. In your opinion, are any of the following problems in your community?
Venereal disease _____ Lack of proper food _____
Drug abuse and addiction _____ Hunger _____
Mental illness _____

(INDIVIDUALS SEEK HEALTH SERVICES)

40. Do you attempt remedies for illness before you go to the doctor?
Sometimes __; Always __; Never __

41. Describe these remedies. Where did you learn of them?

42. Do you use herbs or home-made potions to treat illness?
Yes __; No __ What are they? (Ask for a sample)

43. Do you grow these ingredients in a home garden? Yes __; No __

44. Do you drink orange juice or take vitamin C to prevent colds?
Yes __; No __

45. Have you ever been healed by a preacher? Your friends?
Yes __; No __ (Explain)

46. Do you have a "family" doctor? Yes __; No __. Dentist? Yes __ No __
Any other kind of doctor (specify)? Yes __; No __

47. How long has he (they) been your doctor?

48. How did you become acquainted with him (them)?

49. What do you like (or dislike) about him (them)?

50. How many times in the past year have you or your family seen a doctor? Regularly scheduled appointment _____
Checkup _____
Illness _____
Accident _____

51. How many times have you or your family seen a dentist in the past year? (Approximately) _____

52. Would you avoid going to the hospital because of fear __, expense __, other _____

53. Do you hesitate to go to the doctor because he might hospitalize you? Sometimes __; Always __; Never __

54. Do you hesitate to go to the doctor because of the expense? Sometimes __; Always __; Never __

55. Do you ever need to see a doctor but find you have no way to get there? Sometimes __; Always __; Never __

56. Have you ever been turned away because the doctor was too busy or because you would have to wait too long? Sometimes __; Always __; Never ___

57. Do you ever avoid going to the doctor because you feel that he will not take you seriously? Sometimes __; Always __; Never __

58. Do you ever hesitate to go to the doctor because of embarrassment? Sometimes __; Always __; Never __

59. Do you ever have trouble understanding what the doctor says is wrong with you? Sometimes __; Always __; Never __

60. How much medicine do you take? A lot __; Average amount __; None __. Prescription__ or other __

61. Would you take another person's medicine? Yes __; No __

62. Has a doctor ever put you on a diet? Yes __; No __
For what reasons?

63. Do you ever put yourself on a diet without seeing a doctor? Yes __; No __ What kind of diet?

64. Who in your community (other than the doctor) would you most likely ask for advice about illness?

65. If you wanted to help a drug addict, who could you contact for assistance?

66. If you wanted to help a person who drinks too much, who could you go to for help?

67. If you knew someone with a mental problem, what could you do?

(TRANSLATION OF HEALTH PROBLEMS TO SERVICES)

68. Are there any organizations in your community who could help you with health problems? (e.g., church, county health department, welfare, etc.)

69. Have you ever turned to any of these? Yes __; No __

70. Does your child (children) receive adequate health care at school? Yes __; No __; Don't know __
Is there a school nurse? Yes __; No __; Don't know __
Do they check eyes, teeth, hearing? Yes __; No __; Don't know __
Do they give immunizations at school? Yes __; No __; Don't know __
Are they provided with lunch __ or take their own __?

71. Have you ever been to the County Health Dept. for chest x-rays, immunizations, or a TB skin test? Yes __; No __ If so, which?

72. If a clinic were nearby where you could receive physical examinations free of charge, would you use it?
Sometimes __; Always __; Never __

73. If it meant faster, less expensive service, would you be willing to give up your family doctor and see several different doctors in a clinic sort of arrangement? Sometimes __; Always __; Never __

74. Would you be willing to pay a small monthly sum if it would entitle you and your family to free medical care?
Yes __; No __; Uncertain __

75. What do you think happens to people who have no money and are sick? Can they get health care? Yes __; No __; Uncertain __
If yes, how?

76. Do white people get better health care than black people?
Sometimes __; Always __; Never __; Don't know __ Why?

77. Would you object to having a black doctor take care of your family? (For black families: Would you prefer to have a black doctor take care of your family?) Yes __; No __; No preference --

78. Do you think women doctors are as good as men doctors? Yes __; No __; Uncertain __. Which would you prefer, woman __ or man __?
Why?

79. Do you think a person trained to assist the doctor could take care of people who aren't too sick? Yes __; No __; Uncertain __
Would you use such a person? Yes __; No __; Uncertain __

80. Do you think trained mid-wives could deliver babies as well as doctors? Yes __; No __; Uncertain __
Would you use a mid-wife yourself? Yes __; No __; Uncertain

81. Have you had any experiences in your family with medicare? (Explain)

82. Do you think health insurance is necessary? Yes __; No __; Uncertain __. Does your family have health insurance? Yes __; No __; Uncertain __

83. Do you think you, your family, and community are getting adequate health care? Yes __; No __; Uncertain __ Why or why not?

84. Can you suggest ways that your community might get better health care?

85. What has been, if any, your biggest problem regarding health care?

(MISC.--ATTITUDES ABOUT HEALTH)

86. What do you think "preventive medicine" means?

87. What do you think "socialized medicine" means?

88. Do you believe in birth control? Yes __; No __; Uncertain __
Why or why not?

89. Do you believe in legal abortion? Yes __; No __; Uncertain __
Why or why not?

90. Do you think fluoride in the water is good for people? Yes __; No __; Uncertain __. Is there fluoride in your water? Yes __; No __; Uncertain __

91. Do you believe a person who has no hope of recovery should be permitted to request death? Yes __; No __; Uncertain __
Explain.

# APPENDIX C

## CODE SHEET FOR AREA HEALTH EDUCATION CENTER QUESTIONNAIRE

## APPENDIX C

## CODE SHEET FOR AREA HEALTH EDUCATION CENTER QUESTIONNAIRE

1-3 Assigned Number

Address:

4 County: 1) Knox 2) Blount 3) Sevier

5 Area: 1) North Knoxville 2) Miller's Cove 3) Wear Valley

6 Road: 1) Andersonville Rd. 2) Beeler Rd. 3) West Miller Cove 4) East Miller's Cove 5) North Wear Valley 6) South Wear Valley

7 Age: 1) 1-20 2) 21-30 3) 31-40 4) 41-50 5) 51-60 6) Over 60

8 Race: 1) White 2) Black 3) Other

9-16 Place of Birth--Husband: 9-10 State (see attached listing for no.)
11-12 County (If in Tenn., see attached list)
13-14 State (If in Tenn., see attached list)
15-16 County (If in Tenn., see attached list)

Place of Birth--Wife: (Same as above)

17 Marital status: 1) Married, living with spouse
2) Married, separated from spouse
3) Divorced
4) Separated
5) Widowed
6) Single
7) No answer

18 Number of previous marriages: (Fill in actual number; if husband and wife both respond, average the two)

19 Number of children: (Fill in actual number)

20 Number of other dependent family members: (Fill in actual number)

21 Occupation--Husband: 1) Technical 2) Laborer 3) Professional
4) Farmer 5) Combination 6) Unemployed
7) Other 8) No Answer

22 Occupation--Wife: (Same as above)

23 Other dependent family members: (Same as above)

24 Average annual income: 1) Under 3,000 2) 3,000-6,000
3) 6,000-10,000 4) 10,000-15,000
5) Over 15,000 6) No answer

25 Education--Husband: 1) Grade School 2) High School 3) College
4) Technical 5) Other 6) No answer

26 Education--Wife: (Same as above)

27 Education--Male children: (Average) (Same as above)

28 Education--Female children: (Average) (Same as above)

29 Religious Affiliation: 1) Baptist 2) Methodist 3) Catholic
4) Other 5) None 6) No answer

30 Lived in Present Location: 1) 1-5 years 2) 5-10 years
3) 10-20 years 4) Over 20

31 Times moved outside county in last 5 years: (Fill in actual number)

32 Times moved inside county in last 5 years: (Fill in actual number)

33 Times moved outside the state in last 5 years: (Same as above)

34 In your opinion is your own health: 1) Poor 2) Fair 3) Good
4) Excellent 5) No answer

35 Your families' health: (Same as above)

36 Have you or your family had any serious illnesses: 1) Yes 2) No
3) No opinion 4) No answer

37 Have you or your family had any serious accidents: (Same as above)

38 In your opinion are you: 1) Underweight 2) Right weight
3) Overweight 4) No answer

39 What illnesses bother you most often: 1) Colds 2) Flu 3) Allergy
4) Arthritis 5) Other 6) Combination
7) No answer

40 Does anyone in your family have trouble with his teeth: 1) Yes
2) No 3) No opinion 4) No answer

41 Does anyone in your family have trouble with his eyes: (Same as above)

42 Does anyone in your family have trouble with his hearing: (Same as above)

43 Did you learn about staying healthy from your mother: (Same as above)

44 Did you learn about staying healthy from your grandmother: (Same as above)

45 Did you learn about staying healthy from school: (Same as above)

46 Did you learn about staying healthy from television: (Same as above)

47 Did you learn about staying healthy from radio: (Same as above)

48 Did you learn about staying healthy from books: (Same as above)

49 Did you learn about staying healthy from magazines: (Same as above)

50 Did you learn about staying healthy from newspapers: (Same as above)

51 Did you learn about staying healthy from Other: (Same as above)

52 Do you have a medical dictionary:

53 Do you have an almanac:

54 Do you have other type of book which deals with health problems:

55 Do you use these books:

56 When you are ill, do you usually know what is wrong:

57 Do you think pain is a symptom of serious illness:

58 Do you admire people who can endure pain without complaining:

59 How sick do you have to be before you call a doctor? Fever:

60 How sick do you have to be before you call a doctor? Pain:

61 How sick do you have to be before you call a doctor? Length of illness:

62 How sick do you have to be before you call a doctor? Other:

63 Who is sick most often, young people:

64 Who is sick most often, old people:

65 Do you think young adults and middle age people overlook their own problems: 1) Yes 2) No 3) No opinion 4) No answer

66 Are women sick more often than men: (Same as above)

67 Do the foods you eat affect your health: (Same as above)

68 What food do you need to be healthy: 1) Meat 2) Vegetable 3) Combination 4) Other 5) No answer

69 What drink do you need to be healthy: 1) Milk 2) Tea 3) Coffee 4) Combination 5) Other 6) No answer

70 Where did you learn about foods? Television: 1) Yes 2) No 3) No opinion 4) No answer

71 Where did you learn about foods? Radio: (Same as above)

72 Where did you learn about foods? Telephone: (Same as above)

73 Where did you learn about foods? Daily newspaper: (Same as above)

74 Where did you learn about foods? Weekly newspaper: (Same as above)

75 Where did you learn about foods? Other: (Same as above)

76 Does everyone have the same food needs: 1) Yes 2) No 3) No opinion 4) No answer

77 Does any one food have all the nutrients: (Same as above)

78 Do any of the following foods have all the nutrients? 1) Meat 2) Vegetable 3) Milk 4) Other 5) No opinion 6) No answer

79 Does everyone need vitamin pills: 1) Yes 2) No 3) No opinion 4) No answer

80 Do you take vitamin pills: (Same as above)

81 Is venereal disease a problem in your community:

82 Are drugs a problem in your community:

83 Is mental illness a problem in your community:

84 Is lack of food a problem in your community:

85 Is hunger a problem in your community:

86 Do you attempt remedies before you go to the doctor: 1) Sometimes 2) Always 3) Never 4) No answer

87 What remedies do you use before you go to the doctor:
1) Non-prescription drugs 2) First Aid 3) Herbs 4) Wart cures 5) Dieting 6) Other 7) No answer

88 Where did you learn of these: 1) Parents 2) Friends 3) T.V. ads 4) Radio ads 5) Other advertising 6) Other 7) No answer

89 Do you use herbs or home-made potions: 1) Yes 2) No 3) No opinion 4) No answer

90 Do you grow these in a home garden: (Same as above)

91 Do you drink orange juice or take vitamin C to prevent colds: (Same as above)

92 Have you ever been healed by a preacher: (Same as above)

93 Have any of your friends ever been healed by a preacher: (Same as above)

94 Do you have a family doctor: (Same as above)

95 Do you have a family dentist: (Same as above)

96 Do you have other kind of doctor: (Same as above)

97 How long has your family physician been your doctor: 1) 1-5 years 2) 5-10 years 3) 10+ years 4) No answer

98 Your dentist: (Same as above)

99 Other doctor: (Same as above)

100 How did you become acquainted with your doctor: 1) Friends 2) Hospital 3) Another doctor 4) Other 5) No answer

101 What do you like about your family doctor: 1) Friendly 2) Nearby 3) Inexpensive 4) Trust him 5) Other 6) No answer

102 How many times in the last year have you seen a doctor: 1) 0 2) 1-5 3) 6-10 4) Over 10 5) No answer

103 How many times have you seen your dentist: (Same as above)

104 Would you avoid going to the hospital because of fear: 1) Yes 2) No 3) No opinion 4) No answer

105 Would you avoid going to the hospital because of expense: (Same as above)

106 Do you hesitate going to the doctor because he might hospitalize you: 1) Sometimes 2) Always 3) Never 4) No answer

107 Do you hesitate going to the doctor because of expense: (Same as above)

108 Do you ever need to see a doctor but find you have to way to get there: (Same as above)

109 Have you ever been turned away because the doctor was too busy: (Same as above)

110 Have you ever felt the doctor wouldn't take you seriously: (Same as above)

111 Have you ever not gone because of embarrassment: (Same as above)

112 Have you ever had trouble understanding what the doctor ways is wrong with you: (Same as above)

113 How much medicine do you take: 1) A lot 2) Average amount 3) None 4) No opinion 5) No answer

114 Is this medicine: 1) Prescription 2) Non-prescription 3) No answer

115 Would you take another person's medicine: 1) Yes 2) No 3) No opinion 4) No answer

116 Has a doctor ever put you on a diet: (Same as above)

117 For what reasons: 1) To lose weight 2) Diabetic 3) Ulcers 4) Pregnancy 5) Other 6) No answer

118 Have you ever put yourself on a diet: 1) Yes 2) No 3) No opinion 4) No answer

119 What kind of diet do you put yourself on: 1) Less food in general, 2) Less of certain foods 3) Weight Watcher's 4) No answer

120 Who in your community other than the doctor would you ask for help: 1) Family members 2) Friends 3) A nurse 4) Preacher 5) No one 6) the druggist 7) Don't know 8) Other 9) No answer

121 Who could you ask if you wanted to help an addict: 1) The church 2) a doctor 3) No one 4) Don't know 5) Other 6) No answer

122 Who could you ask if you wanted to help someone who drinks too much: (Same as above)

123 Who could you ask if you wanted to help someone with a mental problem: (Same as above)

124 Are there any organizations in your community that you could turn to for help: 1) Church 2) Health Dept. 3) Welfare 4) Combination 5) Other 6) No opinion 7) No answer

125 Have you ever turned to any of these for help: 1) Yes 2) No 3) No answer

126 For what reasons: 1) Immunizations 2) Specific disease 3) Medications 4) TB test 5) X-Rays 6) Combination 7) Other 8) No answer

127 Does you child receive adequate health care at school: 1) Yes 2) No 3) No opinion 4) No answer

128 Is there a school nurse: (Same as above)

129 Do they check eyes, teech, and hearing: (Same as above)

130 Do they give immunizations: (Same as above)

131 School lunches: 1) Taken from home 2) Provided by school 3) Both 4) No answer

132 Have you ever been to the County Health Dept. for any of these reasons: 1) Immunizations 2) X-Rays 3) TB Test 4) Combination 5) Other 6) No answer

133 If a cinlic were nearby would you use it: 1) Sometimes 2) Always 3) Never 4) No answer

134 If you could receive faster, less expensive service would you be willing to give up your family doctor: (Same as above)

135 Would you be willing to pay a small monthly fee to receive faster, less expensive care: 1) Yes 2) No 3) Uncertain 4) No answer

136 Can people without money get health care: (Same as above)

137 How: 1) Welfare 2) Church 3) Other 4) Don't know 5) No answer

138 Do white people get getter care than black people: 1) Sometimes 2) Always 3) Never 4) Don't know

139 If whites get better care, why: 1) Racial prejudice 2) Money 3) Don't know 4) Other 5) No answer

140 Would you object to a black doctor: 1) Yes 2) No 3) Don't know 4) No answer

141 Do you think women doctors are as good as men: (Same as above)

142 Which of the following would you prefer: 1) Man 2) Woman 3) Neither 4) Don't know 5) No answer

143 Why: 1) No reason 2) Women smarter 3) Men smarter 4) Feel more comfortable with my preference 5) Other 6) No answer

144 Do you think a trained P.A. could help care for people: 1) Yes 2) No 3) No opinion 4) No answer

145 Would you use such a person: (Same as above)

146 Do you think mid-wives could deliver babies as well as doctors: (Same as above)

147 Would you use a mid-wife: (Same as above)

148 Have you had any experience with medicare: (Same as above)

149 Do you think health insurance is necessary: (Same as above)

150 Do you have health insurance: (Same as above)

151 Do you think you and your community are getting adequate health care: (Same as above)

152 Why is or why isn't your community getting adequate care:
1) Facilities and/or doctor not close enough 2) No enough doctors
3) Too expensive 4) Other 5) No opinion 6) No answer

153 Can you make suggestions: 1) More doctors 2) More nurses 3) More hospitals 4) A clinic 5) Closer doctor 6) Educate public
7) Other 8) No answer

154 What has been your biggest problem: 1) Seeing a doctor 2) Expense
3) Specific disease 4) Transportation 5) Other
6) No answer

155 Preventive medicine: 1) Good understanding 2) Some understanding
3) No understanding 4) No answer

156 Socialized medicine: (Same as above)

157 Do you believe in birth control: 1) Yes 2) No 3) Don't know
4) No answer

158 Why or why not: 1) Too many people 2) The Lord will handle it
3) Can't afford too many kids 4) It will injure health
5) Other 6) No opinion 7) No answer

159 Do you believe in legal abortion: 1) Yes 2) No 3) Don't know
4) No answer

160 Why or why not: 1) It's murder 2) The Lord will handle it
3) Only to save the mother 4) Make legal so safe 5) It should be up to the individual 6) Just not right 7) Too dangerous
8) Other 9) No answer

161 Is fluoride good for people: 1) Yes 2) No 3) Don't know
4) No answer

162 Is there fluoride in your water: (Same as above)

163 Do you believe a person who has no hope of recovery should be permitted to request death: (Same as above)

164 Why or why not: 1) Up to the individual 2) Up to the Lord
3) It's murder 4) Other 5) No opinion 6) No answer

STATES:

1. Alabama
2. Alaska
3. Arizona
4. Arkansas
5. Calif.
6. Colorado
7. Conn.
8. Delaware
9. Dist. of Col.
10. Florida
11. Georgia
12. Hawaii
13. Idaho
14. Illinois
15. Indiana
16. Iowa
17. Kansas
18. Kentucky
19. Louisiana
20. Maine
21. Maryland
22. Mass.
23. Michigan
24. Minnesota
25. Missouri
26. Mississippi
27. Montana
28. Nebraska
29. Nevada
30. New Hamp.
31. New Jersey
32. New Mexico
33. New York
34. North Carolina
35. North Dakota
36. Ohio
37. Oklahoma
38. Oregon
39. Penn.
40. Rhode Island
41. South Carolina
42. South Dakota
43. Tennessee
44. Texas
45. Utah
46. Vermont
47. Virginia
48. Washington
49. West Virginia
50. Wisconsin
51. Wyoming

COUNTIES IN EAST TENNESSEE:

1. Scott
2. Campbell
3. Claiborne
4. Hancock
5. Hawkins
6. Sullivan
7. Johnson
8. Carter
9. Washington
10. Greene
11. Hamblen
12. Grainger
13. Union
14. Anderson
15. Morgan
16. Cumberland
17. Roane
18. Knox
19. Jefferson
20. Cocke
21. Unicoi
22. Sevier
23. Blount
24. Loudon
25. Meigs
26. Rhea
27. Bledsoe
28. Sequatchie
29. McMinn
30. Monroe
31. Polk
32. Bradley
33. Hamilton
34. Marion

# APPENDIX D

## CODEBOOK ANALYSIS

## PERCENTAGE COUNTS FOR VARIABLES

## APPENDIX D

### CODEBOOK ANALYSIS

### Percentage Counts for Variables

Prepared by: Georgianne Washington
Date: June 23, 1972

(BIOGRAPHICAL DATA)

| | | No. | % of Total |
|---|---|---|---|
| 1. | Number of interviews in each area | | |
| | Knox County | 44 | 26.8 |
| | Blount County | 53 | 32.3 |
| | Sevier County | 67 | 40.9 |
| 2. | Age range and percentage | | |
| | 1-20 - 6.1 | | |
| | 21-30 - 14.0 | | |
| | 31-40 - 14.0 | | |
| | 41-50 - 16.5 | | |
| | 51-60 - 18.9 | | |
| | 60+ - 28.7 | | |
| 3. | Race | | |
| | 98.8% white | | |
| 4. | Birthplace | | |
| | Husbands: | | |
| | Born in Tennessee | | 81.7 |
| | Born in East Tennessee | | 78.0 |
| | Born in Knox, Blount, or Sevier County | | 70.7 |
| | Wives: | | |
| | Born in Tennessee | | 89.6 |
| | Born in East Tennessee | | 87.2 |
| | Born in Knox, Blount, or Sevier County | | 72.0 |
| 5. | Marital status | | |
| | Married, living with spouse | | 78.7 |
| | Married, separated from spouse | | 1.2 |
| | Divorced | | 2.4 |
| | Separated | | 1.2 |
| | Widowed | | 12.8 |
| | Single | | 3.7 |
| 6. | Number of previous marriages | | |
| | 0 - 86.6 | | |
| | 1 - 12.2 | | |

7. Number of children

| | |
|---|---|
| 0 - 13.4 | 5 - 5.5 |
| 1 - 14.0 | 6 - 4.3 |
| 2 - 24.4 | 7 - 3.7 |
| 3 - 15.2 | 8 - 3.7 |
| 4 - 12.2 | 9 - 3.7 |

8. Occupation

| | |
|---|---|
| Husband: | |
| Technical | 14.6 |
| Laborer | 33.5 |
| Unemployed | 19.5 |
| Farmer | 7.3 |
| Professional | 4.3 |
| Combination | 4.3 |
| Other | 4.3 |
| No answer | 12.2 |
| Wife: | |
| Technical | 1.8 |
| Laborer | 12.8 |
| Professional | 3.7 |
| Farmer | 1.2 |
| Unemployed | 68.3 |
| Other | 5.5 |
| No answer | 6.7 |

9. Average annual income

| | |
|---|---|
| Under 3,000 | 24.4 |
| 3,000 - 6,000 | 34.1 |
| 6,000 - 10,000 | 20.1 |
| 10,000 - 15,000 | 7.9 |
| 15,000 and over | 2.4 |
| No answer | 11.0 |

10. Education

| | |
|---|---|
| Husband: | |
| Grade school | 45.1 |
| High school | 31.1 |
| College | 6.1 |
| Technical | 4.1 |
| Other | 1.8 |
| No answer | 11.6 |
| Wife: | |
| Grade school | 40.9 |
| High school | 42.1 |
| College | 6.7 |
| Technical | 2.4 |
| Other | 1.2 |
| No answer | 6.1 |

10. Education

| | |
|---|---|
| Male children: | |
| Grade school | 17.7 |
| High school | 34.8 |
| College | 6.7 |
| Technical | 1.8 |
| Other | 1.8 |
| No answer | 36.0 |
| Female children: | |
| Grade school | 12.8 |
| High school | 37.8 |
| College | 6.7 |
| Technical | 3.0 |
| Other | 1.2 |
| No answer | 36.6 |

11. Religion

| | |
|---|---|
| Baptist | 72.0 |
| Methodist | 20.7 |
| Other | 2.4 |
| None | 3.0 |
| No answer | 1.8 |

(MIGRATION)

12. Number of years in present location
    - 1-5 - 26.8
    - 5-10 - 11.0
    - 10-20 - 25.0
    - 20+ - 37.2

13. Number of times moved out of county in last 5 years
    - 0 - 93.9
    - 1 - 3.7
    - 2 - 0.6
    - 3 - 1.8

14. Number of times moved within county in last 5 years
    - 0 - 81.7
    - 1 - 11.0
    - 2 - 4.3
    - 3 - 2.4

15. Number of times moved outside Tennessee in last 5 years
    - 0 - 95.1
    - 1 - 2.4

(HEALTH PROBLEMS)

16. Respondent's opinion of his own health

| | |
|---|---|
| Poor | 16.5 |
| Fair | 29.9 |
| Good | 36.0 |
| Excellent | 17.7 |

17. Respondent's opinion of his family's health

| | |
|---|---|
| Poor | 5.5 |
| Fair | 17.1 |
| Good | 51.8 |
| Excellent | 7.9 |

18. Number of families which have had serious illnesses
38.4

19. Number of families which have had serious accidents
15.2

(RECOGNITION OF HEALTH PROBLEMS)

20. Where respondents learned about staying healthy and dealing with illness

| | % Yes Responses |
|---|---|
| Mother | 49.4 |
| Grandmother | 14.6 |
| School | 45.1 |
| Television | 30.5 |
| Radio | 15.9 |
| Books | 30.5 |
| Magazines | 28.7 |
| Newspapers | 22.6 |
| Other | 26.8 |

21. Do you usually know what is wrong when you are ill?

| | |
|---|---|
| Yes | 73.8 |
| No | 24.4 |

22. Do you think pain is a symptom of serious illness?

| | |
|---|---|
| Yes | 42.1 |
| No | 41.5 |

23. Do you admire people who can endure pain without complaining?

| | |
|---|---|
| Yes | 78.7 |
| No | 15.2 |

24. Are any of the following indications that you should call a doctor?

| | % Yes Responses |
|---|---|
| Fever | 28.0 |
| Pain | 21.3 |
| Length of Illness | 22.6 |
| Other | 57.9 |

25. Who is sick most often:

| | |
|---|---|
| Young people | 36.0 |
| Old people | 43.9 |
| Don't know | 20.1 |

26. Do young adults and middle age people overlook health problems?

| | |
|---|---|
| Yes | 82.9 |
| No | 7.9 |

27. Are women sick more often than men?

| | |
|---|---|
| Yes | 54.9 |
| No | 23.2 |

28. Are any of the following problems in your community?

| | Yes | No | Don't Know |
|---|---|---|---|
| Venereal disease | 5.5 | 78.7 | 11.0 |
| Drugs | 9.1 | 76.8 | 9.8 |
| Mental illness | 13.4 | 75.0 | 6.7 |
| Lack of proper food | 32.3 | 51.2 | 6.1 |
| Hunger | 6.1 | 80.5 | 8.5 |

(INDIVIDUALS SEEK HEALTH SERVICES)

29. Do you attempt home remedies before going to the doctor?

| | |
|---|---|
| Sometimes | 52.4 |
| Always | 26.8 |
| Never | 20.7 |

30. What are these remedies?

| | |
|---|---|
| Non-prescription drugs | 64.6 |
| Other | 9.8 |
| No answer | 23.8 |

31. Do you use herbs or home-made potions to treat illness?

| | |
|---|---|
| Yes | 11.6 |
| No | 86.0 |

32. Have you ever been healed by a preacher?

| | |
|---|---|
| Yes | 6.7 |
| No | 92.7 |

33. Have any of your friends ever been healed by a preacher?

| | |
|---|---|
| Yes | 7.3 |
| No | 90.2 |

34. Do you have a family doctor?

| | |
|---|---|
| Yes | 86.6 |
| No | 13.4 |

35. Do you have a family dentist?

| | |
|---|---|
| Yes | 64.6 |
| No | 34.8 |

36. Do you have any other kind of doctor? (Specialist)

| | |
|---|---|
| Yes | 29.9 |
| No | 67.7 |

37. How long have you been seeing your family doctor? (Years)

| | |
|---|---|
| 1- 5 | 20.7 |
| 6-10 | 17.7 |
| Over 10 | 42.7 |
| No answer | 18.0 |

38. How long have you been seeing your dentist? (Years)

| | |
|---|---|
| 1- 5 | 13.4 |
| 6-10 | 9.8 |
| Over 10 | 25.0 |
| No answer | 50.6 |

39. How did you become acquainted with your family doctor?

| | |
|---|---|
| Friends | 28.7 |
| Hospital | 3.7 |
| Another doctor | 7.9 |
| Other | 45.1 |
| No answer | 14.0 |

40. What do you like about your family doctor?

| | |
|---|---|
| Friendly | 11.0 |
| Nearby | 1.2 |
| Inexpensive | 1.2 |
| Trust him | 17.1 |
| Other | 32.3 |
| No answer | 37.2 |

41. How many times in the last year have you or your family seen a doctor?

| | |
|---|---|
| 0 | 12.8 |
| 1-5 | 42.1 |
| 6-10 | 22.6 |
| Over 10 | 19.5 |

42. How many times in the last year have you or your family seen a dentist?

| | |
|---|---|
| 0 | 42.7 |
| 1-5 | 38.4 |
| 6-10 | 8.5 |
| Over 10 | 5.5 |

43. Would you avoid going to the hospital for any of these reasons?

| | Yes | No |
|---|---|---|
| Fear | 10.4 | 85.4 |
| Expense | 22.2 | 73.2 |

44. Do you hesitate to go to the doctor because he might hospitalize you?

| | |
|---|---|
| Sometimes | 7.9 |
| Always | 6.1 |
| Never | 84.8 |

45. Do you hesitate going to the doctor because of the expense?

| | |
|---|---|
| Sometimes | 18.9 |
| Always | 4.9 |
| Never | 73.8 |

46. Do you ever need to see a doctor but find you have no way to get there?

| | |
|---|---|
| Sometimes | 15.2 |
| Always | 1.2 |
| Never | 82.3 |

47. Have you ever been turned away because the doctor was too busy?

| | |
|---|---|
| Sometimes | 20.7 |
| Always | 0.6 |
| Never | 77.4 |

48. Ever avoid going because the doctor won't take you seriously?

| | |
|---|---|
| Sometimes | 8.5 |
| Always | 0.6 |
| Never | 89.6 |

49. Ever avoid going because of embarrassment?

| | |
|---|---|
| Sometimes | 11.6 |
| Always | 3.0 |
| Never | 84.8 |

50. Ever have trouble understanding what the doctor says is wrong with you?

| | |
|---|---|
| Sometimes | 22.0 |
| Always | 7.3 |
| Never | 70.7 |

51. How much medicine do you take?

| | |
|---|---|
| A lot | 13.4 |
| Average amount | 43.9 |
| None | 40.2 |

52. What kind of medicine?

| | |
|---|---|
| Prescription | 45.1 |
| Non-prescription | 13.4 |
| No answer | 41.5 |

53. Who in your community other than the doctor would you ask for advice about illness?

| | |
|---|---|
| Family member | 15.9 |
| Friend | 4.3 |
| A nurse | 4.3 |
| No one | 57.3 |
| Preacher | 3.0 |
| Druggist | 1.2 |
| Don't know | 6.1 |
| Other | 6.1 |
| No answer | 1.8 |

54. If you wanted to help a drug addict, who could you ask for assistance?

| | |
|---|---|
| The church | 4.3 |
| A doctor | 24.4 |
| No one | 2.4 |
| Don't know | 47.0 |
| Other | 18.9 |
| No answer | 2.4 |

55. If you wanted to help a person who drinks too much, who could you ask for assistance?

| | |
|---|---|
| The church | 11.6 |
| A doctor | 11.6 |
| No one | 4.3 |
| Don't know | 42.7 |
| Other | 23.8 |
| No answer | 4.3 |

56. If you knew someone with a mental problem what could you do?

| | |
|---|---|
| The church | 3.7 |
| A doctor | 30.5 |
| No one | 3.7 |
| Don't know | 40.9 |
| Other | 17.1 |
| No answer | 3.0 |

(TRANSLATION OF HEALTH PROBLEMS TO SERVICES)

57. Are there any organizations in your community who could help you with health problems?

| | |
|---|---|
| Church | 14.0 |
| Health dept. | 23.8 |
| Welfare | 2.4 |
| Combination | 4.9 |
| Other | 7.3 |
| Don't know | 24.4 |
| No answer | 22.6 |

58. Have you ever turned to any of these?

| | |
|---|---|
| Yes | 17.1 |
| No | 60.4 |
| No answer | 22.0 |

59. For what reasons?

| | |
|---|---|
| Immunizations | 10.4 |
| Specific disease | 1.2 |
| Medications | 0.6 |
| TB test | 1.2 |
| X-rays | 0.6 |
| Other | 3.0 |
| No answer | 82.3 |

60. Do your children get adequate health care at school?

| | |
|---|---|
| Yes | 29.2 |
| No | 6.7 |
| Don't know | 7.3 |
| No answer | 56.1 |

61. Have you been to the Health Dept. for any of these reasons?

| | |
|---|---|
| Immunications | 12.2 |
| X-rays | 15.2 |
| TB test | 9.8 |
| Combination | 26.8 |
| Other | 4.9 |
| No answer | 31.1 |

62. If a clinic were nearby where you could receive physical examinations free of charge, would you use it?

| | |
|---|---|
| Sometimes | 32.9 |
| Always | 40.2 |
| Never | 23.2 |
| No answer | 3.7 |

63. If it meant faster, less expensive service, would you be willing to give up your family doctor and see several different doctors in a clinic sort of arrangement?

| | |
|---|---|
| Sometimes | 26.2 |
| Always | 31.1 |
| Never | 37.8 |
| No answer | 4.9 |

64. Would you be willing to pay a small monthly fee if it would entitle you and your family to faster, less expensive medical care?

| | |
|---|---|
| Yes | 59.8 |
| No | 15.9 |
| Uncertain | 20.1 |
| No answer | 4.3 |

65. Can people without money get health care?

| | |
|---|---|
| Yes | 57.3 |
| No | 15.2 |
| Uncertain | 27.4 |

66. How can they get health care?

| | |
|---|---|
| Welfare | 26.2 |
| The church | 3.7 |
| Other | 25.0 |
| Don't know | 17.7 |
| No answer | 27.4 |

67. Do white people get better health care than black people?

| | |
|---|---|
| Sometimes | 6.7 |
| Always | 3.0 |
| Never | 47.0 |
| Don't know | 42.7 |

68. If whites get better care, why?

| | |
|---|---|
| Racial prejudice | 3.7 |
| Money | 2.4 |
| Don't know | 3.0 |
| Other | 1.8 |
| No answer | 89.0 |

69. Would you object to having a black doctor take care of your family?

| | |
|---|---|
| Yes | 26.8 |
| No | 62.8 |
| Don't know | 9.1 |
| No answer | 1.2 |

70. Do you think women doctors are as good as men doctors?

| | |
|---|---|
| Yes | 61.6 |
| No | 22.6 |
| Don't know | 13.4 |
| No answer | 2.4 |

71. Which would you prefer?

| | |
|---|---|
| Woman | 10.4 |
| Man | 51.8 |
| Neither | 28.7 |
| Don't know | 4.3 |
| No answer | 4.3 |

72. Reason for your preference?

| | |
|---|---|
| No reason | 20.1 |
| Men smarter | 7.9 |
| Feel more comfortable with my preference | 15.2 |
| Other | 20.7 |
| No answer | 36.0 |

73. Could a person trained to assist the doctor take care of people who aren't too sick?

| | |
|---|---|
| Yes | 80.5 |
| No | 7.9 |
| Don't know | 8.5 |
| No answer | 2.4 |

74. Would you use such a person?

| | |
|---|---|
| Yes | 69.5 |
| No | 17.7 |
| Don't know | 9.1 |
| No answer | 3.7 |

75. Do you think trained mid-wives could deliver babies as well as a doctor?

| | |
|---|---|
| Yes | 49.4 |
| No | 37.2 |
| Don't know | 11.0 |
| No answer | 2.4 |

76. Would you use a mid-wife?

| | |
|---|---|
| Yes | 26.8 |
| No | 56.1 |
| No opinion | 12.2 |
| No answer | 4.9 |

77. Have you have any experiences in your family with medicare?

| | |
|---|---|
| Yes | 29.2 |
| No | 68.9 |
| No answer | 1.2 |

78. Do you think health insurance is necessary?

| | |
|---|---|
| Yes | 88.4 |
| No | 5.5 |
| No opinion | 5.5 |
| No answer | 0.6 |

79. Do you have health insurance?

| | |
|---|---|
| Yes | 75.0 |
| No | 24.4 |

80. Do you think you and your community are getting adequate health care?

| | |
|---|---|
| Yes | 62.8 |
| No | 17.7 |
| No opinion | 14.0 |
| No answer | 5.5 |

81. Why or why not?

| | |
|---|---|
| Facilities and/or doctors not close enough | 4.3 |
| Not enough doctors | 6.1 |
| Too expensive | 6.1 |
| Other | 30.5 |
| No opinion | 10.4 |
| No answer | 42.1 |

82. Can you suggest ways that your community might get better health care?

| | |
|---|---|
| More doctors | 9.1 |
| More nurses | 0.6 |
| More hospitals | 1.2 |
| A clinic | 10.4 |
| Closer doctors | 4.9 |
| Educate public | 4.3 |
| Other | 7.3 |
| No answer | 62.2 |

83. What has been, if any, your biggest problem regarding health care?

| | |
|---|---|
| Seeing a doctor | 4.9 |
| Expense | 10.4 |
| Specific disease | 10.4 |
| Transportation | 2.4 |
| Other | 13.4 |
| No answer | 58.5 |

84. Respondent's understanding of preventive medicine?

| | |
|---|---|
| Good understanding | 14.6 |
| Some understanding | 21.3 |
| No understanding | 56.1 |
| No answer | 7.9 |

85. Respondent's understanding of socialized medicine?

| | |
|---|---|
| Good understanding | 6.7 |
| Some understanding | 11.0 |
| No understanding | 72.6 |
| No answer | 9.8 |

86. Do you believe in birth control?

| | |
|---|---|
| Yes | 67.7 |
| No | 22.6 |
| Don't know | 8.5 |

87. Why or why not?

| | |
|---|---|
| Too many people | 17.7 |
| Up to the Lord | 4.9 |
| Can't afford a large family | 28.7 |
| Bad for health | 4.3 |
| Other | 22.6 |
| No opinion | 3.0 |
| No answer | 18.9 |

88. Do you believe in legal abortions?

| | |
|---|---|
| Yes | 22.6 |
| No | 61.0 |
| Don't know | 14.6 |
| No answer | 1.2 |

89. Why or why not?

| | |
|---|---|
| It's murder | 18.3 |
| Lord will handle it | 3.0 |
| Only to save mother's life | 12.2 |
| Up to the individual | 9.1 |
| Just not right | 6.7 |
| Too dangerous | 1.8 |
| Other | 20.1 |
| No answer | 28.0 |

90. Should a person who has no hope of recovery be permitted to request death?

| | |
|---|---|
| Yes | 20.7 |
| No | 54.9 |
| Don't know | 22.0 |
| No answer | 2.4 |

91. Why or why not?

| | |
|---|---|
| Up to the individual | 9.8 |
| Up to the Lord | 21.3 |
| Murder | 4.3 |
| Other | 32.9 |
| No opinion | 4.3 |
| No answer | 26.8 |

# APPENDIX E

## LIST OF VARIABLES

## APPENDIX E

## LIST OF VARIABLES

Listed below are the 117 variables for which a one-way descriptive analysis providing frequency tabulations and percentage counts was performed. Those variables which were selected for correlation analysis are marked with asterisks.

| Variable No. | Name Title |
|---|---|
| *001 | Age |
| *002 | Marital status |
| *003 | Number of children |
| 004 | Number of other dependent family members |
| *005 | Occupation of husband |
| *006 | Occupation of wife |
| 007 | Occupation of other dependent family members |
| *008 | Average annual income |
| *009 | Education, husband |
| *010 | Education, wife |
| 011 | Education, male children |
| 012 | Education, female children |
| 013 | Religious affiliation |
| *014 | Number of years in present location |
| *015 | Number of times moved outside county in last 5 years |
| *016 | Number of times moved inside county in last 5 years |
| *017 | Number of times moved outside state in last 5 years |
| 018 | Respondent's opinion of own health |
| 019 | Respondent's opinion of family's health |
| 020 | Have you or any member of your family had any serious illnesses? |
| 021 | Have you or any member of your family had any serious accidents? |
| 022 | What illnesses do both you or your family have most often? |
| 023 | Does anyone in your family have trouble with their eyes? |
| 024 | Does anyone in your family have trouble with their teeth? |
| 025 | Does anyone in your family have trouble hearing? |
| | Did you learn about staying healthy from any of the following: |
| *026 | Mother |
| *027 | Grandmother |
| *028 | School |
| *029 | Television |
| *030 | Radio |
| *031 | Books |

| Variable No. | Name Title |
|---|---|
| *032 | Magazines |
| *033 | Newspapers |
| *034 | Other |
| 035 | When you are ill, do you usually know what is wrong? |
| 036 | Do you think pain is a symptom of serious illness? |
| 037 | Do you admire people who can endure pain without complaining? |
| | Are any of the following reasons you should call a doctor? |
| 038 | Fever |
| 039 | Pain |
| 040 | Length of illness |
| 041 | Other |
| | Who is sick most often? |
| *042 | Young people |
| *043 | Old people |
| *044 | Do young adults and middle-aged people tend to overlook health problems? |
| *045 | Are any of the following problems in your community? |
| *046 | Venereal disease |
| *047 | Drugs |
| *048 | Mental illness |
| *049 | Lack of proper food |
| *050 | Hunger |
| 051 | Do you attempt home remedies before you go to the doctor? |
| 052 | What are these remedies? |
| 053 | Where did you learn about them? |
| 054 | Do you use herbs or home-made potions? |
| *055 | Have you ever been healed by a preacher? |
| *056 | Have any of your friends? |
| *057 | Do you have a family doctor? |
| *058 | Do you have a family dentist? |
| *059 | Do you see any other kind of doctor? |
| *060 | Have long has this physician been your family doctor? |
| *061 | How long have you been seeing this dentist? |
| *062 | How long have you been seeing the other doctor? |
| *063 | How did you become acquainted with him (them)? |
| *064 | What do you like about your family doctor(s)? |
| *065 | How many times in the last year have you seen a doctor? |
| *066 | How many times in the last year have you seen a dentist? |
| *067 | Would you avoid going to the hospital because of fear? |
| *068 | Would you avoid going to the hospital because of expense? |
| *069 | Do you hesitate to go to the doctor because he might hospitalize you? |
| *070 | Do you hesitate to go to the doctor because of expense? |
| *071 | Do you ever need to go to the doctor but find you have no way to get there? |
| *072 | Have you ever been turned away because the doctor was too busy? |
| *073 | Do you ever avoid going to the doctor because you feel that he will not take you seriously? |

| Variable No. | Name Title |
|---|---|
| *074 | Do you ever hesitate to go to the doctor because of embarrassment? |
| *075 | Do you ever have trouble understanding what the doctor says is wrong with you? |
| *076 | How much medicine do you take? |
| *077 | What kind of medicine do you take? |
| *078 | Who in your community (other than the doctor) would you most likely ask for advice about illness? |
| *079 | If you wanted to help a drug addict, who could you contact for assistance? |
| *080 | If you wanted to help a person who drinks too much, who could you go to for help? |
| *081 | If you knew someone with a mental problem, what could you do? |
| *082 | Are there any organizations in your community who could help you with health problems? |
| *083 | Have you ever turned to any of these? |
| *084 | For what reasons? |
| *085 | Have you ever been to the County Health Department? |
| *086 | If a clinic were nearby where you could receive physical examinations free of charge, would you use it? |
| *087 | If it meant faster, less expensive service, would you be willing to give up your family doctor and see several different doctors in a clinic sort of arrangement? |
| *088 | Would you be willing to pay a small monthly fee if it would entitle you and your family to less expensive medical care? |
| *089 | Can people who have no money get health care? |
| *090 | If yes, how? |
| *091 | Do white people get better health care than black people? |
| *092 | If yes, why? |
| *093 | Would you object to having a black doctor take care of your family? |
| *094 | Do you think women doctors are as good as men doctors? |
| *095 | Which would you prefer? |
| *096 | Reason for your preference? |
| *097 | Do you think a person trained to assist the doctor could take care of people who aren't too sick? |
| *098 | Would you use such a person? |
| *099 | Do you think trained mid-wives could deliver babies as well as doctors? |
| *100 | Would you use a mid-wife? |
| *101 | Have you have any experiences in your family with medicare? |
| *102 | Do you think health insurance is necessary? |
| *103 | Does your family have health insurance? |
| *104 | Do you think you, your family and community are getting adequate health care? |
| *105 | Why or why not? |
| *106 | Can you suggest ways your community might get better health care? |

| Variable No. | Name Title |
|---|---|
| *107 | What has been your biggest problem regarding health care? |
| *108 | What do you think "preventive medicine" means? |
| *109 | What does "socialized medicine" mean? |
| *110 | Do you believe in birth control? |
| *111 | Why or why not? |
| *112 | Do you believe in legal abortion? |
| *113 | Do you think fluoride in water is good for people? |
| *114 | Why or why not? |
| *115 | Is there fluoride in your water? |
| *116 | Do you believe a person who has no hope of recovery should be permitted to request death? |
| *117 | Why or why not? |

# VITA

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She is married, has one daughter, and resides in Knoxville, Tennessee.