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GRADUATE COLLEGE

HOW RESIDENTS OF RURAL COMMUNITIES DECIDE WHERE
AND TO WHOM THEY WILL GO FOR HEALTH CARE

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirement for the
degree of
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BY
W. EUGENE BAXTER
Oklahoma City, Oklahoma
1973

HOW RESIDENTS OF RURAL COMMUNITIES DECIDE WHERE
AND TO WHOM THEY WILL GO FOR HEALTH CARE

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HOW RESIDENTS OF RURAL COMMUNITIES DECIDE WHERE
AND TO WHOM THEY WILL GO FOR HEALTH CARE

CHAPTER I

INTRODUCTION

Statement of the Problem

The future of the health care delivery system in the United States is uncertain at this time. There have been tremendous advances in recent years in health care and medical knowledge, yet there is a public cry that many needs are going unmet. The cry comes from both urban and rural areas of the shortage of personnel to care for daily and emergency health needs.

Dr. Robert R. Cadmus, former president of New Jersey College of Medicine and Dentistry, summed up our current health status in the following way:

We know more about disease and the maintenance of health than we have the personnel, the facilities or the money to deliver. It is doubtful whether every hospital will be able to take advantage during these inbetween years of the scientific advances now existing or of those forthcoming in the immediate future.

I just alluded to the fact that new scientific advances may not reach everybody. Unfortunately, even the most basic care does not currently reach everybody. There is no way of knowing the extent of unmet medical needs. We know it exists and that it varies from place to place, not only because of economics but also because of the lack of health awareness of many people (?).

While it is recognized that there are health care vacuums, in urban areas it is also recognized that a real crisis is developing in the rural areas. This emerging crisis was the basis for the selection of this study. Of particular concern is the availability of high quality health care to the rural population.

It is generally considered that more sophisticated diagnostic services are available in the cities because of the high cost of equipment and availability of technical personnel.

Assuming this to be true, a plan must be designed to make those services available to the rural population when they are needed if they are to receive care equal to that available in the cities. If this is to be done, there must be a thorough understanding by those who are to make the services available of the willingness of the rural population to accept them. This study will focus on the health attitudes and practices of a group of residents in three rural northwestern Oklahoma communities.

The study seeks the answers to several broad, basic questions concerning the use of local health services and the need to go out of the community.

To be considered are: 1) where the resident goes now for health care, 2) his willingness to seek an out-of-town specialist without being referred, 3) his opinion of the local hospital, 4) his desire to see the same physician each time, 5) his reasons for selecting a particular physician, and 6) how he decides where to go for health care.

From the responses to the questions, it should be possible to interpret the willingness of this group of the rural population to seek

health care out of the community. This will then serve as an aide in planning for health services in the rural areas. D. F. Phillips, in Hospitals, Journal of the American Hospital Association, cites David E. Vogel, planning director for the Presbyterian Medical Service in Santa Fe, New Mexico, as stating: "For a person to seek health care, he must perceive the need for such services. Community attitudes play an important role in shaping these needs, and often times they stand in the way of the acceptance of new programs" (20).

CHAPTER II

REVIEW OF THE LITERATURE

The topic of rural health is so enormous that it would be impossible to cover it with any great degree of depth in this review of literature. An attempt has been made, however, to provide a broad discussion of the major health problems faced by the rural population. This is accomplished through the sub-topics of The Community, The Physician and Rural Hospitals, The Population and Patient-Physician Relationships.

The Community

A study of health attitudes and practices in the rural areas should begin with an understanding of at least two basic points: one, a definition of what rural means in the study, and two, an explanation of rural life as it is interpreted by the researcher.

D. F. Phillips, of the American Hospital Association's staff, defined rural as "a community of 50,000 or fewer persons within 100 miles radius . . ." (20). The Bureau of Census defines rural as "a town with a population of 2,500 or less" (32). Phillips also stated that James B. Bernstein, of the Health Services Research Center of the University of Carolina, sees the term rural as two factors, "relative isolation and life style . . . one without the other doesn't mean much" (20).

The definition used in this paper must be a combination of these factors including population, isolation, and life style. There appears to be a direct relationship between population of the community and distance from a city. The further a community is from a city, the larger it may be and still be considered rural. Life style may be basically rural even in communities of 10,000 and 15,000 if those communities are located a great distance from an urban center.

There must now be an understanding of life as it exists in the small community. There is a feeling of pride and loyalty that most people have in their community and a feeling of independence that most want to retain. There is usually strong support of the local football and basketball teams whether winning or losing and big turnouts for parades and county fairs. The residents of the small community have a feeling of belonging to the community and it belonging to them. Many residents have no desire to live elsewhere and cannot imagine anyone desiring to live anywhere else.

"To most men and women, the way of life in their community is its most precious possession. To outsiders who have their own habits and assumptions, this way of life or culture often appears incongruous and misguided" (5). But, most persons appear to assume that their way is the best.

"People are born into a culture and from an early age, they have to learn how to conform to its codes" (22). Health workers and others who are not social scientists often seem to that that cultural studies in depth of a particular community over-emphasize traditional practices and attitudes. But, one must realize that:

Every community has a system of beliefs and values which in the eyes of its members has been tested by time and experience and is accepted by most of them as self evident. Basic motivation factors such as survival, sex, or hunger, may be the same for all human beings, but the way in which they are seen and understood varies with the group and the individual (25).

Health workers and social scientists alike recognize that response to health services and programs in rural areas depends upon deliberate choices by people. Outsiders cannot assume that the quality of life outside of the rural setting is best. Perhaps it is only in rare cases that persons can be helped more by the knowledge possessed in the large medical centers.

The Physician and Rural Hospitals

Over the years, the physicians' symbol has been the little black bag whether carried on horse back, in a buggy, or the first Model "T" in town. The small town physician usually worked without the benefit of facilities, equipment, or auxiliary personnel. "He compounded his own drugs and gave nursing care to the sick" (24). If he had a hospital in which to practice, he had to manage it himself.

The early physician, often with little formal education but equipped with a few books, was forced to work in almost total isolation, rarely coming in contact with another physician. His continuing education was limited to "occasionally watching the work of an itinerant surgeon or dentist or glancing through one of the few medical journals of the time" (11).

"In the good old days the parson, squire, and doctor each held sway over his flock. Allegiance to the family doctor was a tie so firmly rooted that it took a crisis to break it" (2). Many residents of

the small community still have the attitude that 'if my doctor can't do it, it can't be done.'

"With his bedside manner, his nostrums, his ponderous vocabulary to conceal his perplexities, his downright devotion to duty and sacrifice of self, the family doctor was once the very epitome of the art of healing" (2).

However, it hasn't always been that way. It was not until the late nineteenth century that the physician had gained this choice position. Prior to then, he had too little sure knowledge. His science was unpopular and without basic standards in the training of physicians, medicine could not justify a more respected position. The success accomplished by medicine was not great. "It was not until about 1910 or 1912 in the United States that a random patient with a random disease, consulting a doctor chosen at random stood better than a 50-50 chance of benefiting from the encounter" (11).

In the first half of the twentieth century, the physician practiced general medicine whether he lived in the city or a rural area. Acute illness was cared for in the home with the help of the family. As public demand for hospital services increased, local hospitals were built in rural areas, many of them by the physicians who practiced in them (13).

The vital link between the community and the hospital services is still the physician since it is he who assesses the patient's medical condition and orders the necessary services. "The physician alone has the knowledge to call for the complex diagnostic and therapeutic facilities and services of the hospital for the upmost benefit to the

patient" (8).

We are experiencing, in the United States today, our greatest era of prosperity. Urbanization and transportation have provided us with greater access to everything than ever before.

Science and technology have contributed much to the "accelerating tempo of our lives. For example, it took man roughly 4,750,000 years to arrive at the agriculture revolution and another mere 25,000 years to come to the industrial revolution. In a short period, we have arrived at the atomic and space age. There have been more technological advancements in the past two decades than in the previous two centuries, and it is estimated that 90 per cent of all scientists who ever lived are living now (6).

The public has learned through news media and experience that the miracles of medical science are concentrated in the hospital (1). The community, therefore, turns to the hospital when it requires the skills and facilities of modern medicine. The hospital emergency room, regardless of community size, has become the source for primary medical care after doctor's office hours.

The rapid increases in the demands for health services and the new needs that have resulted from technological advances have far outstripped our capacity to supply adequate numbers of health workers (15). "We see a pressing need for more physicians, research workers, nurses, and other ancillary medical personnel and for a better distribution of them in our country" (26). The rural areas have been particularly hard hit because it is difficult to attract doctors, registered nurses, and other vital personnel, regardless of salary.

"Maldistribution of available manpower and the lack of a system that would insure maximum utilization of physicians, allied health personnel, and health facilities are national issues. Communications, transportation, inadequate medical service facilities, and the consumer education about health all become major problems" (15). In addition, each rural community has its own set of concerns and problems that can only be identified and dealt with on a local basis. Without a physician, the hospitals and nursing homes cannot operate.

Nurses must be considered most important also, not only for their abilities, but also for the federal requirements that make it necessary that at least one nurse be on duty 24 hours a day for the facility to be eligible to care for Medicare and Medicaid patients. In the small community, the hospital is dependent on the Medicare patients because the majority of the residents in the communities are much older than in the cities and often 75 per cent of the hospital patients are Medicare patients. Without those patients, the hospital would have to close.

Because of the Hill-Burton legislation originally passed in 1946, and later renewed, many small communities across the country now have hospitals. Unfortunately, it is much more simple to spend money for construction than it is to produce physicians and nurses who want to work and live where those facilities exist. Some of these hospitals are now vacant. The Hill-Burton legislation provided a program for hospital buildings and the Medicare program is now setting requirements that make it difficult for many of the hospitals to satisfy. Many in the rural areas are not staffed by licensed personnel as called for in

the Medicare regulations.

As medical science and knowledge were increasing, specialization became necessary. Mutt and Roemer (19) state, "From a scattering of specialists at the turn of the century, by 1928, about 26 per cent of the nation's physicians were partially or completely specialized and by 1940, over 50 per cent."

The knowledge explosion in medicine has now led to super-specialization, which will be continued and expanded. "At the same time, we are faced both in research and in medical care with the disappearance of the generalist" (26). The American Academy of General Practice reported in 1969, that only 21 per cent of the physicians were in general practice (28).

Physicians have been trained to care for the most complicated disease entities and hospitals have been equipped to provide services for their patients. Without being conscious of it, many medical schools have switched their emphasis from the patient to the concern for acute disease. This type of emphasis can only train specialists. A physician who plans to practice in a rural community must be educationally prepared to treat the whole patient. Along with the sophisticated diagnostic procedures available only in the city hospital, the young physicians are emotionally tied to the medical school and the teaching hospital because "it was in that setting that they learned the thrill of discovering interesting diseases. By comparison, community medicine of a non-complex nature is boring" (31). The young physician feels dependent upon the vast diagnostic resources of the teaching hospital.

With the increase in medical science, the solo practitioner

has found himself increasingly unable to encompass all fields of medical knowledge (13). Many physicians are, therefore, not anxious to live in a small community, practice without consultation with other physicians, and often make diagnoses with less than adequate laboratory tests. In addition, the rural physicians are also faced with a life of being on call 24 hours a day and seven days a week with little or no time for their family and continuing education. A report of a study conducted of 100 physicians who left rural practice in Kentucky showed that the most frequent reasons were:

1. Physician's wife was dissatisfied with isolation and small town life.
2. Dissatisfaction with public schools.
3. Physicians felt excessive demands on his practice with inadequate resources, resulted in deteriorating standards of care (29).

So, there is a strong movement away from general practice to one of specialization. Clearly, fewer and fewer graduates of United States medical schools are going into general practice, while some of those who did are going back into residency training. "Thus, more and more non-urban communities, though they may be growing in population or economy, are finding themselves critically short of medical resources . . . " (12).

Here then is the challenge. "The arts of medicine have advanced. The importance of medicine has been enhanced; it has become a necessity to the people. It has outgrown the organization of petty trade from which it was cast. The demand is for a vaster, more comprehensive, more reliable medical service" (2).

The Population

Persons from other parts of the world believe that we have no health problems in this country because we have so much wealth and so many resources, but, this is not so. Though part of the problems are different from those of other parts of the world, some are similar. "The familiar ones are poverty and ignorance. Even though the United States is a wealthy nation and the majority of the people are characterized as middle class, there are families with incomes too low to provide a standard of living adequate to maintain good health" (3).

According to the National Health Survey, the average person in the United States today experiences between two and three acute illnesses per year. Respiratory illness accounts for much of this and about two out of every five persons report some form of chronic disease. "Injuries, arthritis, rheumatism, and cardiovascular conditions are major contributions to the total amount of chronic illnesses" (10).

Regardless of the actual health status of the nation, it is generally recognized that rural people have less access to and receive less medical care than do city dwellers. They have fewer physicians, dentists, nurses, and all other medical personnel. The major problems faced by the rural population in receiving the best health care were summarized by Milton Roemer (23):

1. Shortage of adequate number of health personnel.
2. Lack of adequate facilities and equipment with proper management.
3. Financing of health care.
4. Quality of rural medicine.

There are shortages of physicians, nurses, and other health professionals in most small towns and cities in the country. There are those who say we have no shortage because the ratios are so much better now than in years past, but the real problem is in the distribution. The perfect example is found in the comparison of physicians in New York and Mississippi in 1967. In New York, there were 199 doctors of medicine and doctors of osteopathy per 100,000 population compared to 69 per 100,000 in Mississippi. The District of Columbia reported 318 per 100,000 the same year. There are many communities over the country which had three or four physicians in the past but now have one or none.

It should not, however, be concluded that a lower ratio of physicians to population necessarily means a higher mortality ratio. The Netherlands, for example, has a lower general mortality rate and lower infant mortality rate than does the United States and they have only 117 physicians per 100,000 population. "In the United States in 1900, the physician-population ratio was 157:100,000 and the general mortality was 17.2:1,000. In 1967, the ratio had fallen to 153 physicians per 100,000 while the general mortality had reduced to 9.4:10,000" (27). It may, therefore, be the effectiveness rather than the number of physicians that influences mortality rates, in addition to many other factors.

Except in perhaps a few counties with unusually active health departments, rural communities have never had access to a wide range of health services. The classical model of health care in rural areas has been one or more solo doctors, no longer getting around by horse and buggy, but by automobile. They were sometimes supplemented by a hospital and state and local health departments to provide some preventive

services and perhaps visiting nurses. An American Medical Association (A.M.A.) survey in 1966 reported that rural communities, particularly the isolated communities, on the average have only half as much access (service is not available) to health resources as the rest of the country (34).

"Rural areas are characterized by low population density which implies relatively great distances between people. The combination of low population density and low health professional density becomes striking when one calculates that in average rural counties in the United States, there may be one doctor per 1,000 square miles, as contrasted with 30 doctors per square mile in the city" (4). Though there are many ideas, there has been no agreement on what constitutes an ideal physician-population ratio.

Over the past 20 years, a number of presidential and other commissions have examined health care in the United States and uniformly have concluded that the number of physicians should be substantially increased.

Because of the difficulty the average resident experiences in getting a physician at all hours, the public is convinced that there are too few physicians, and it may well be so since compared "to other nations of the world, the United States ranked 10th with 148 (physicians) per 100,000 (population)" (27).

A good indication of the social and health status of a country is the proportion of babies that die in the first year of life. Among 50 or so countries that report their death statistics, the United States is currently in eleventh place in infant mortality.

Infant mortality is decreasing and population over 65 continues

to increase. By January, 1970, there were 19.6 million in the over 65 age group, representing nearly 10 per cent of our population compared to only four per cent in 1900.

"The proportion of women continues to rise with the ever increasing differential between male and female longevity. Between 1920 and 1967, life expectancy for males increased 13.4 years and for females, 19.6. In 1920, there were 104 men for every 100 women but in 1967, there were only 96 men per 100 women" (3).

The total population of our nation increased from 76 million in 1900 to 205 million in 1970. "Census projections for the future are 215 million to 228 million in 1975 and 1985, 242 to 275 million." There has been a "rapid and substantial fall in the death rate for all age groups in the first half of the 20th century. Between 1900 and the mid-1960's, nearly 23 years were added to the average length of life. By the mid-1960's, life expectancy at birth was 70.2 years" (28).

Patient-Physician Relationship - Responses to Illness

Illness affects every person differently at least in some very slight way. Some persons respond to the least bit of pain or sickness by dropping their normal activities and seeking physician service while others shrug off pain and continue their daily activities.

It has been noted that illness is observed in stages. There is a "pre-illness" stage which often precedes the actual illness, particularly in cases where the onset is not sudden. In this state, symptoms may be ignored and the pace of activity may even be stepped up as if to prove a health state. In such cases, persons may turn to aspirin, alcohol, and patent medicine in the attempt to ward off the illness.

In addition, Suchman reports from a New York study that three-fourths of all respondents reported that they usually discussed their symptoms with some other person before seeking care (30).

The next stage may occur when the person realized by the fact of sickness or accident that he needs help in coping with his condition. He is not able to handle it alone. He next moves directly into the stage of deciding who he will turn to for help. He may counsel with family members, friends, a pharmacist, and finally, seek the physician if he is not content with others' advice.

Mechanic and Volker (18) pointed out that persons tend to ignore or pay little attention to an illness that is common and familiar. As symptoms become more unfamiliar and less predictable, the person becomes more concerned and will seek care.'

Koos (14) observed that upper class persons were more likely than lower class persons to view themselves as ill when they had particular symptoms.

People everywhere respond to symptoms in many different ways. They respond as a direct result of experience they have, the intensity of pain, discomfort, and persistence of symptoms. Often, the patient has little alternative but to accept the illness and seek medical care. Suchman (30) found in a New York survey that pain was "clearly the most important initial sign that something was wrong and pain was mentioned by two-thirds of the respondents."

Most people have some physical complaints most of the time. How much a person is willing to tolerate depends a lot on what he is accustomed to. Mechanic (16) states that being ill is not an unusual

state of being and much illness is ignored and tolerated.

With such a broad difference in the way people respond to illnesses, it is obvious how difficult it may be for the doctor to determine the seriousness of the problem. To the patient, his illness is the most important thing in the world to him. However, the physician sees each illness as one among many. The physician must be able to see beyond the expressed pain of the problem to the heart of the illness (33).

When the patient comes to visit a physician, he comes with an image of the physician's role. This image has been developed from the patient's cultural background. Contributing to this is his previous experience with a physician, what others have told him, his age, income, and education. All of these factors and others contribute to the evaluation process the patient goes through as he measures the qualifications of the physician and speculates on the result he can expect from treatment (9).

In a 1962 survey of 350 mothers in Madison, Wisconsin, the mother selected the qualities of a good physician. "Competent and qualified" were considered by over 13 per cent of the group as the most important. About 12 per cent considered "takes a personal interest in the patient" as the most important and his "concerned, sympathetic manner" was considered most important by about 10 per cent (17).

The competence of a physician may be determined from other factors than technical ability and knowledge since these cannot really be assessed by most patients. "Interest in the patient" is the most common gauge used. Mechanic and Volker (18) say, "The doctor's willingness

to make home calls may be seen as an index of his interest; his confidence and authority may be perceived as an indication of his expertise; and a rapid diagnosis and treatment plan may be viewed as evidence of his competence."

The patient must have complete trust in his physician, turning his well-being entirely into his physician's hands. The physician then must merit that trust showing the patient that he is capable of making the appropriate decisions to help him recover. They must have mutual understanding.

The very success or failure of the physician-patient relationship is dependent on whether they are able to communicate satisfactorily.

CHAPTER III

DESIGN OF THE STUDY AND HYPOTHESES

This study was designed to examine the health practices of the residents of three rural communities. Some of the questions to be answered are:

1. With the highly publicized advances in health service, are the residents of smaller communities still satisfied to receive their care by their family doctor in their local community?
2. If they go out of town for this care, what influenced their decision to go?
3. Is specialty training considered important to rural residents?
4. What is the resident's perception of the quality of care available in his community hospital?

To be eligible for the study, it was necessary that each community to be studied have a physician, a hospital, and have approximately the same population. The communities of Cherokee, Fairview, and Okeene, located a few miles from each other in northwestern Oklahoma, were selected.

In the interest of time, it was determined that the data from the communities would be gathered by a mail questionnaire. The sample was selected from the phone directory of each of the communities. After removing all of the business phone numbers from the directories,

every fifth name, beginning at the first of the directory, was selected for inclusion in the sample of 20 per cent of the homes. A letter (Appendix A) from Southwestern Bell Telephone, which serves two of the communities, confirms that 99 per cent of the residents in the communities have telephones.

A visit was made to the communities. The questionnaire and study were discussed individually with each physician and hospital administrator. They all expressed interest in the study and agreed to support it if questions were received from their patients.

A letter of explanation and postage-paid return envelope was included in the mailing. The letter (Appendix B) was addressed to the male member of the household unless the telephone was listed to a female. In that case, it was addressed to her.

From a count in the telephone directories, it was determined that questionnaires (Appendix C) would be mailed to each of the communities in the following numbers: 212 to Cherokee residents, 264 to Fairview residents, and 168 to Okeene residents. The first mailing was made on November 27, 1972. Ten days after the original mailing, another questionnaire and a second letter (Appendix D), urging them to complete the questionnaire if they had not already done so, was mailed to the total group. Since questionnaires were identified only by community and residents were not asked to sign it, it was necessary to make the complete mailing twice.

Returned questionnaires were first grouped and numbered by community from the community code on each questionnaire. Responses were tabulated by community so the information could be made available to the

community and so differences between communities, if any, could be noted.

Because Okeene was smaller but had more physicians, the responses from Fairview and Cherokee were combined for comparison with Okeene's responses. There was little difference, so in most cases, all responses were pooled for a composite sample.

Any questionnaire from a respondent who stated that he sometimes used Indian or Veterans Administration hospitals was not included in the study. If free service is available to a resident, he is not likely to use local services in the same manner as one who must pay for service.

After all data were received, data process cards were punched and the data accumulated through sorting.

Pre-Test

The questionnaire was pre-tested twice to determine if it could be understood and interpreted. The first test was conducted by distributing it to a group of club women in Perry, Oklahoma. No explanation was made except that they were encouraged to complete it to assist in a study. Perry is similar in size and has a health system much like the communities studied. Thirteen questionnaires were distributed and returned. Two were found to not be usable. The only question apparently causing some problem was, "If you were going to select a physician, number 1, 2, and 3 the ones you consider most important, 2nd most important, and 3rd most important." Then listed below were eight factors from which the respondent was to select the three most important. Six of the eleven returned were improperly done. Some just had

check marks and others used the "1" after more than one reason.

The question was reworded to read: "If you were going to select a physician, which of the following facts would be most important and second most important?" The questionnaire was again distributed to a group of club women living in Cordell, Oklahoma. Cordell is also similar in size and has similar health services. Sixteen questionnaires were passed out and returned. Again, the same question caused difficulty with only 10 answering correctly. A meeting of the author's committee was held to consider the questionnaire. The numbers considered the question and revised it to read as it appears in the questionnaire (Appendix C).

The pre-test process was found to be very helpful in the evaluation of the questionnaire.

Hypotheses

One of the principle questions to be answered from this study is where the residents of rural communities that have doctors and a hospital go for health care. In reaching that goal, a set of six hypotheses were developed which asked specific questions and through tables and statistical tests were answered. In addition, some other tables are developed to point out unusual characteristics between communities.

Hypothesis I

The personal characteristics of age, income, and education are major factors in determining where a person will seek health care.

- a. There is no difference between persons under 55 and persons 55 and older when deciding whether health care will be

sought from a local physician or other source.

- b. There is no difference between persons with income less than \$5,000 and persons with income of \$5,000 or more when deciding whether health care will be sought from a local physician or other source
- c. There is no difference between persons with less than a high school education and persons with a high school education and more when deciding whether health care will be sought from a local physician or other sources.

Hypothesis II

Persons under age 35 and persons with annual income of \$5,000 or more are more likely to seek the services of a specialist without being referred.

- a. There is no difference between persons under 35 and persons 35 and over who seek the services of a specialist without being referred by their local physician.
- b. There is no difference between persons with income of under \$5,000 and persons with \$5,000 and over who seek the services of a specialist.
- c. There is no difference between persons with income of under \$5,000 and persons with \$5,000 and over who seek the services of a specialist without being referred by their local physician.

Hypothesis III

The opinion of the respondents regarding the ability of the local hospital to care for the needs of the community varies according to the age and education of the resident.

- a. Of those who consider the ability of the local hospital to care for the needs of the community to be Fair and Poor, there is no difference in the opinion between persons under 35 and persons 35 and over.
- b. Of those who consider the ability of the local hospitals to care for the needs of the community to be Fair or Poor, there is no difference in the opinions between persons with

less than high school education and those with high school or more.

- c. Of those who were Very Satisfied with hospitalization in their local hospital, there is no difference between three age groups, 0 through 34, 35 through 54, and 55 and over.
- d. Of those who were Very Satisfied with hospitalization in a larger hospital, there is no difference between the three age groups, 0 through 34, 35 through 54, and 55 and over.

Hypothesis IV

The patients' desire to see the same physician each time is governed by his income, education, and age. Persons with lower education, lower income, and 35 years of age and older desire to see the same physician each time.

- a. Of those who consider it important to see the same doctor each time, there is no difference between persons with less than high school education and persons with high school education or more.
- b. Of those who consider it important to see the same physician each time, there is no difference between persons earning less than \$5,000 annually and those earning \$5,000 and over.
- c. Of those who consider it important to see the same physician each time, there is no difference between those under age 35 and those 35 and over.

Hypothesis V

The reasons considered most important in the selection of a physician vary with the age and education of the patient.

- a. The reasons considered most important in the selection of a physician are no different for persons under 35 or 35 and over.
- b. The reasons considered most important in the selection of a physician are no different for persons with less than high school education or with high school or more.

Hypothesis VI

The patients' choice for health service is dependent on the perceived severity of his illness. The respondents were asked to select where they would go for health care for a list of 17 symptoms. Symptoms were grouped by a physician, into minor, serious, and very serious.

Each symptom is listed under the designated category below:

Minor:

Nose Bleed
Sore Throat

Indigestion
Headache

Dry Cough
Sinus

Serious:

Nerves
Low Back Pain

Swelling Leg Joints
Leg Cramps

Loss of Weight
Dizziness

Very Serious:

Shortness of Breath
Pain Over Heart

Coughing Up Blood
Blood in Urine

High Fever

CHAPTER IV

CHARACTERISTICS OF THE COMMUNITIES

One visit was made to each of the communities to meet the physicians, explain the questionnaire, and accumulate statistical data. Much of the following information was gathered on this trip to the communities. Sources of the information were newspaper employees, city clerks, a Soil Conservation District Office, as well as the Publication Profile of Regional Health Variables, published by the Office of Community Affairs and Planning, Oklahoma State Health Planning Agency (20).

Community Information

The community of Cherokee, established in 1894, received its name from having originally been a part of the Cherokee Outlet, lands assigned to the Indians. Alfalfa County was named after William H. "Alfalfa Bill" Murray, who was a former governor of the state and served also as President of the Constitutional Convention. Cherokee was originally part of Woods County that was divided at the time of statehood in 1907.

The community of Fairview, founded in 1864, received its name when one of the early settlers commented about the "fair view" that could be seen to the west of Fairview. Fairview is the county seat of

Major County, which was also a part of the original Woods County of the Cherokee Outlet and was renamed at the time of statehood.

Indian tribe names of Cherokee and Cheyenne were combined to form the name of Okeene, located in Blaine County. Okeene was established with the opening of its Post Office in 1893.

Each community is supported by several civic clubs and a Chamber of Commerce. Lions Club and Rotary Club are represented in both Cherokee and Fairview. Okeene has the Kiwanis Club and Junior Chamber of Commerce. Okeene is famous in the southwest for its annual rattlesnake hunts sponsored by the Jaycee's.

Major County, in which Fairview is located, has 945 square miles. Blaine County, the site of Okeene, has a total of 911 square miles and there are 867 square miles in Alfalfa County, the location of Cherokee.

City Governments

The local government in Cherokee consists of a five-member commission, elected by the people with a mayor and city manager. The fire protection is completely voluntary while the Police Department employs five men. Water for the community comes from wells. The assessed valuation for the city is \$2,046,173 and for the county, \$29,688,160. Three highways pass through Cherokee, located 53 miles northwest of Enid. They are U.S. Highway 64 and State Highways 8 and 58. The 1970 per capita income was \$2,592.

Fairview is quite similar to Cherokee in many ways. It also has the five-member commission, elected by the people and a city manager. Both communities have wide main streets and give the impression

of being "clean". Fire and police protection are very similar with volunteers staffing the Fire Department and four men serving as police officers. Water also comes from city owned wells and a city owned system. The 1972 assessed valuation of the city is \$2,651,701 and \$23,931,422 is the valuation of the county. U.S. Highway 60 goes through Fairview as well as State Highway 58. It is located 41 miles southwest of Enid and 88 miles northwest of Oklahoma City. The 1972 per capita income for Major County was \$2,401.

Since the community of Okeene has only about one-half the population of the other two communities, it does not have the full-time paid city government staff. It has a three-member council with one of the members serving as president. A local insurance executive serves as part-time City Clerk. As in the other communities, the Fire Department is voluntary and there are two paid policemen. The source for Okeene's water is also wells. The assessed valuation for Okeene in 1972 was \$1,260,769 and for Blaine County, \$26,732,071. There are three highways going through Okeene, U.S. 64 and Oklahoma 8 and 58. Okeene is located 68 miles northwest of Oklahoma City and 44 miles southwest of Enid. The per capita income for Blaine County in 1970 was \$2,175.

Population

As has been experienced in most rural communities, the populations have declined over recent years. Though the towns of Fairview and Okeene have experienced increases of 30 per cent and 22 per cent as reported in the 1970 census, the counties' populations have

decreased as shown in Table 1. Cherokee has experienced a decrease of 12 per cent.

TABLE 1
POPULATION OF STUDY COMMUNITIES AND
COUNTIES, 1960-1970

Location	<u>City</u>		Percent- age Increase	<u>County</u>			
	1960	1970		1910	1930	1960	1970
Cherokee Alfalfa Co.	2,410	2,119	- 12	18,139	15,253	8,445	7,224
Fairview Major Co.	2,213	2,894	+ 30	15,248	12,206	7,808	7,529
Okeene Blaine Co.	1,164	1,421	+ 22	17,960	12,452	12,077	11,794

Source: U.S. Department of Commerce, Bureau of the Census, Number of Inhabitants, Oklahoma, 1970 Census of Population, 38-10.

Alfalfa County has experienced by far the greatest decrease in population over the ten-year period with 14 per cent as compared to Major County with three per cent and Blaine County with two per cent.

Table 1 also shows the population of the counties in 1910 and 1930. As can be noted, both Alfalfa and Major Counties have less than half of the population in 1970 as they had in 1910. Blaine County had a smaller loss with only 34 per cent. Of interest also is the increase in population in Blaine County in 1930 over 1910, while the other counties registered decreases.

Table 2 shows the population of the cities in 1970 by sex and

TABLE 2
CITY POPULATION BY SEX AND RACE

Town	Total	Male		Female		White		Negro		Other	
		No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Cherokee	2,119	958	45	1,161	55	2,113	99	0	0	6	1
Fairview	2,894	1,384	48	1,510	52	2,863	98	4	1	27	2
Okeene	1,421	678	48	743	52	1,407	99	0	0	14	1

Source: U.S. Department of Commerce, Bureau of the Census, General Population Characteristics, Oklahoma, 1970 Census of Population, 38-85, 38-90.

race. As can be noted there is little difference.

The population per square mile has remained relatively unchanged over the past ten years as Table 3 will indicate.

TABLE 3
COUNTY POPULATION DENSITY PER SQUARE MILE

County	1960	1970
Alfalfa	9.74	8.33
Major	8.26	7.96
Blaine	13.25	12.94

Source: U.S. Department of Commerce, Bureau of the Census, Number of Inhabitants, Oklahoma, 1970 Census of Population, 38-10.

The distribution of the population by age indicates a similar pattern. Table 4 gives the population under 18, 18 to 65, and 65 and over, for each county. 1970 census figures were not yet available for towns with census under 2,500. Only county figures were available.

In 1960, the percentage distribution for each county for each age distribution were very similar. However, the 1970 census for those under 18 in Blaine County indicates a very sizeable decrease from 34.4 per cent of the total population down to 11.8 per cent. The number of young persons in that county has apparently decreased significantly while the percentage of persons ages 18 to 65 has decreased from 50.6 per cent to 31.7. The large increase has, therefore, occurred in the percentage of persons 65 and over.

TABLE 4
AGE DISTRIBUTION BY COUNTY

County	Percentage Under 18		Percentage 18 to 65		Percentage .65 and over		Percentage Total Population Changes	
	1960	1970	1960	1970	1960	1970	1950-1960	1960-1970
Alfalfa	29.9	28.3	52.4	49.6	17.7	22.1	21.1 loss	14.5 loss
Major	33.3	31.2	52.3	52.6	14.4	16.2	24.0 loss	3.6 loss
Blaine	34.3	11.8	50.6	31.7	15.1	51.1	19.7 loss	2.3 loss

Source: U.S. Department of Commerce, Bureau of the Census, Number of Inhabitants, Oklahoma, 1970 Census of Population, 38-10.

TABLE 4
AGE DISTRIBUTION BY COUNTY

County	Percentage Under 18		Percentage 18 to 65		Percentage 65 and over		Percentage Total Population Changes	
	1960	1970	1960	1970	1960	1970	1950-1960	1960-1970
Alfalfa	29.9	28.3	52.4	49.6	17.7	22.1	21.1 loss	14.5 loss
Major	33.3	31.2	52.3	52.6	14.4	16.2	24.0 loss	3.6 loss
Blaine	34.3	11.8	50.6	31.7	15.1	51.1	19.7 loss	2.3 loss

Source: U.S. Department of Commerce, Bureau of the Census, Number of Inhabitants, Oklahoma, 1970 Census of Population, 38-10.

Between 1960 and 1970, there was little change in the percentage of those under 18 and 18 to 65 in both Alfalfa and Major Counties. There was a small increase in the percentage of persons in the 65 and over group in Alfalfa County.

The total population percentage column indicates very great losses in all counties between 1950 and 1960, with the least loss occurring in Blaine County with 19.7 per cent up to 24.0 per cent for Major County. The losses, however, were not so great between 1960 and 1970. Alfalfa County experienced the greatest loss of 14.5 per cent while Major County lost only 3.6 per cent and Blaine County lost 2.3 per cent.

Transportation

Only one of the communities, Cherokee, has any form of public transportation into the community. Mid-Continent Bus Lines has one bus daily north and one south.

The major source of truck freight service to each of the communities is Mistletoe Express. Other small truck lines make deliveries to all the towns but only Okeene and Fairview have a regular freight terminal. Each of the communities is still served by a railroad. The Frisco Railroad and Rock Island Railroad both serve Okeene and Santa Fe Railroad serves only Cherokee and Fairview.

Employment and Economic Status

All three of the communities consider agriculture their principle source of employment and income. The largest industry in Cherokee is the Alfalfa Electric Co-op, with approximately fifty [50] employees.

Fairview has three industries, the largest of which is Mabar, Inc., which employs approximately ninety [90]. The others are Waldon, Inc., employing about ten [10] and Cheyenne Industries, with about twenty [20] employees. Mabar and Waldon are both manufacturers of heavy farm equipment.

The largest employer in Okeene is the City, with approximately one-hundred and forty [140] employees. This figure, however, includes the city hospital employees.

The income distribution by county is given in Table 5. City income data for 1970 is not yet available.

TABLE 5
INCOME DISTRIBUTION BY COUNTY

County	Percentage Under \$3,000		Percentage \$3,000-\$10,000		Percentage \$10,000 and over	
	1960	1970	1960	1970	1960	1970
Alfalfa	32	16	56	56	11	28
Major	39	18	54	56	6	26
Blaine	42	20	53	60	4	20

Source - 1960-1970 U.S. Census

As can be noted in 1960, there was a considerable difference in the family income of the three communities. At that time, 11 per cent of the Alfalfa County residents were in a group earning \$10,000 and over compared to just four per cent in Blaine County. These differences are considerably reduced, however, as the 1970 census data

indicates for those earning \$10,000 and over. It should also be noted how the income has changed in the communities. In 1960, there were over 30 per cent of the families in each community earning less than \$3,000. By 1970, the percentage had been cut in half and a much larger percentage were now earning \$10,000 or over.

The mean family income from each of the counties, according to the 1970 census is: Alfalfa, \$7,996; Major, \$7,671; and Blaine, \$6,986.

Educational System

The number of students in Cherokee and Okeene school systems are almost identical, with 452 and 450, respectively. Cherokee has 39 teachers and administrators while Okeene has 31. The Fairview system is almost twice the size of the others, with 829 students enrolled this year. They have 53 teachers and administrators. It was not possible to get dependable figures for comparison spanning several years because districts have been broadened and additional schools added.

The average number of years of formal education for the residents of each of the counties as reported in the 1970 census, was Alfalfa County, 12.2, Major County, 11.7 years, and Blaine County, 11.2 years.

Churches

Each of the communities has a large number of churches. In Cherokee, there are seven Protestant and one Catholic. In Fairview, there are 12 Protestant and one Catholic, and in Okeene, there are nine Protestant and one Catholic. There is at least one Baptist, Methodist, Christian, and Catholic church in each community with Church of Christ,

Church of God, Mennonite, Assembly of God, and Nazarene found in two communities, and Friends Church in one community.

Medical Services

The hospitals in each of the communities are very similar in size with Masonic Hospital in Cherokee having 32 beds, Fairview Hospital, 23 beds, and Okeene Hospital, 34 beds. Okeene also has 50 long term beds, and these beds are included in the admission and census figures in Table 6.

TABLE 6
COMMUNITY HOSPITAL DATA

	Cherokee	Fairview	Okeene
Number of Beds	32	23	34 + 50 long term
1971 Admissions	383	773	1,326
Average Daily Census	12	14	50

The hospital facilities at Okeene and Fairview were constructed within the past 15 years but the Cherokee hospital building is over 30 years old and does not meet the current fire code requirements.

Staffing in the hospitals is difficult most of the time. There are 29 registered nurses and licensed practical nurses in Alfalfa County, 14 in Major County, and 41 in Blaine County. Some of the 41 nurses in Blaine County are employed at the Watonga Hospital.

Okeene Hospital is the best staffed with physicians, having

three. The youngest is 34 years old and the oldest about 50. They have had four physicians in the group and all practice in the same offices, which are connected to the hospital. They share equally on call, with one on first call and one on second call each night and weekend. All of the Okeene physicians consider themselves in general family practice, though the youngest does see most of the children.

The two physicians in Fairview also office in a wing of the hospital, though they are not in group practice. One is a doctor of osteopathy and the other a doctor of medicine. Both are just under 50 years of age and both have been in Fairview since beginning their practice.

Cherokee has two physicians, both 56 years old and both have been in practice about 25 years. One is a graduate of Duke University and has had four years of training in surgery. The other physician received a Master of Public Health Degree in Bacteriology and worked in research for a short time prior to going on for his medical degree. Both of these men limit their practice to the office and hospital with little surgery. The hospital in Cherokee is not equipped for major surgery.

CHAPTER V

RESULTS AND DISCUSSION

Community Information

The percentage of returned questionnaires from the three communities were comparable with a combined total of 52.8 per cent return. The lowest percentage of responses came from Okeene with only 45.8 per cent. Fairview had the highest response with 57.2 per cent and Cherokee was the same as the mean with 52.8 per cent.

Figure 1 illustrates the number of questionnaires mailed and the responses received by community. It should be noted that responses from Okeene were the lowest while that community apparently has the most organized system of care compared to the other communities.

Table 7 shows the number of responses compared to the population of the study communities. As noted, the per cent of responses to total population are the same or very similar for all three communities, 15.6 per cent for Cherokee and Fairview, and 16.2 per cent for Okeene.

Age distribution

Responses by age in the combined information ranged from two per cent of the total responses from those under 21 years of age to 29 per cent from the 65 and over age group. Twenty per cent came from both the 55 to 64 age group and 45 to 54 group. There were 16 per cent

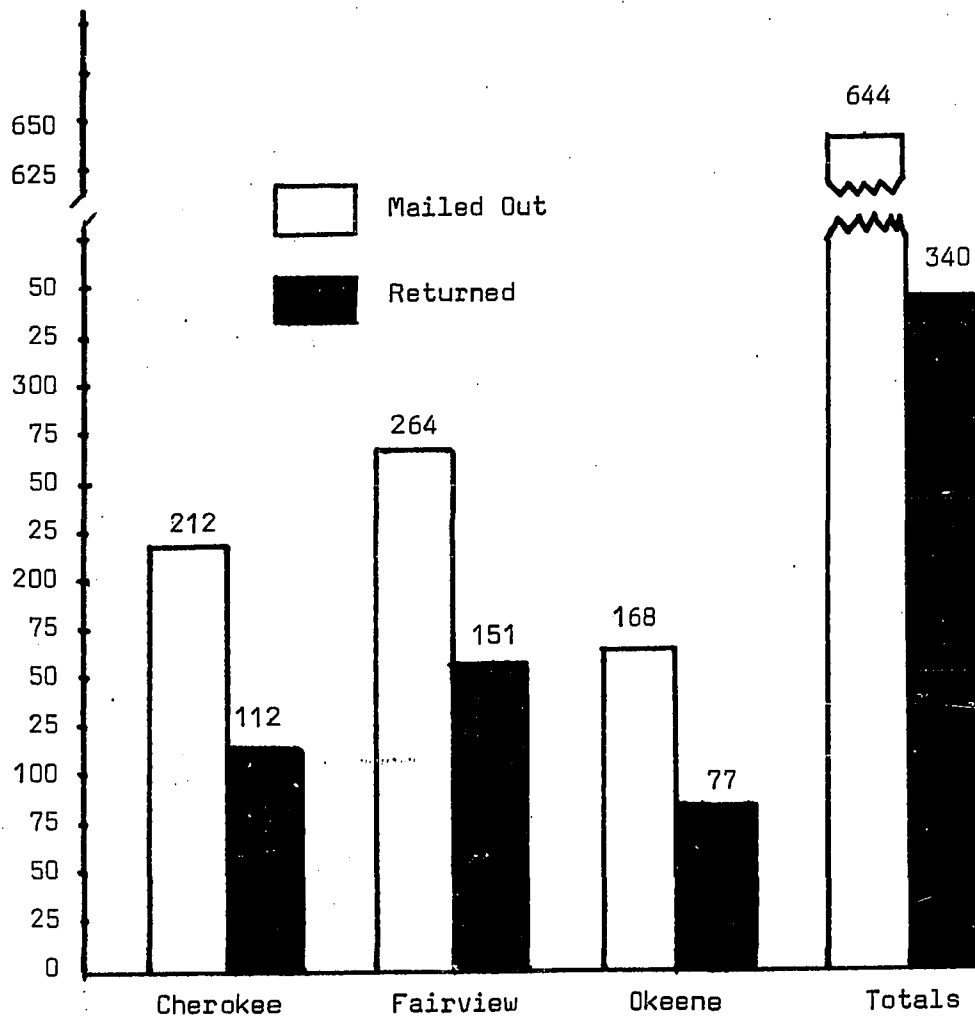


Figure 1.--Questionnaire Mailings and Returns by Community.

TABLE 7

QUESTIONNAIRE RESPONSES BY COMMUNITY

Town	1970 Population	Response		*Response Percentage to Population
		Number	Percentage	
Cherokee	2,119	112	52.8	15.6
Fairview	2,894	151	57.2	15.6
Okeene	1,421	77	45.8	16.2
Total		340	52.8	

*Based on average of three persons per family.

in the 34 to 44 age group and 13 per cent in the 21 to 34 category.

The greater percentages of responses came from those 65 and over with the second largest group in Fairview and Okeene being those in the 45 to 54 age group. The second largest group in Cherokee was the age 55 to 64 group. The average age in all communities fell in the 45 to 54 group.

Distribution by sex

The questionnaires were addressed to the male head of the household unless the telephone was listed to a woman, in which case, it was addressed to her. Sixty-three per cent of the responses were returned from men through handwriting would suggest that some were completed by women. Seventy-four per cent of the returns from Okeene indicated that they were completed by a man while only 61 per cent and

58 per cent of the returns from Fairview and Cherokee, respectively, indicated that a man had completed them.

Education distribution

The mean number of years of education of the respondents in each of the communities was: Cherokee, 12.3 years; Okeene, 11.3 years; and Fairview, 11.2 years. Sixty-seven per cent of the residents in all three communities had a high school education or higher and 24 per cent had at least some college.

The responses to the study indicated that 25 per cent of those from Cherokee had less than a high school education while 38 per cent of Fairview residents and 37 per cent of Okeene residents had less than a high school education.

However, of those replying, 74 per cent of the Cherokee residents indicated a high school education or higher while Fairview had 62 per cent and Okeene had 63 per cent. Eleven per cent of the Okeene residents indicated graduate education while the mean for the three communities was seven per cent.

Income distribution

The income distribution by individual communities was almost the same in each community at all levels. Thirty-eight per cent of the residents responding in each community indicated an annual income between \$5,000 and \$9,999. Twenty-one per cent in each of the communities were in the \$10,000 to \$14,999. The percentage variation at both the low and high ranges was only one or two per cent. This is a significant indicator of the similarity of the three communities.

Marital status and children

Of the total group responding, 82 per cent were married, three per cent were single, two per cent divorced, and 11 per cent widowed. Cherokee reported the highest number of married respondents with 87 per cent.

Sixty-eight per cent of the respondents in Cherokee reported no children living at home while 53 per cent of the respondents of Fairview and Okeene reported no children at home.

Social status

The factors of occupation and education are combined in the Hollingshead "Two Factor Index of Social Position" to develop a rating of social position. Status I is considered to hold the most respected position in the community and Status V the lowest with II, III, and IV occurring in between.

Fifty per cent of the residents in Cherokee were determined to be in Social Class IV, while Fairview had 52 per cent in that class and Okeene had 43 per cent. Cherokee had nine per cent of the sample rated in either Class I or II, while Fairview had 14 per cent and Okeene, 13 per cent. Table 8 shows total responses by community.

Hypotheses Analyzed

The previous information in this section has dealt with some of the personal characteristics of those responding to the survey. Next to be considered are the hypotheses. All have been restated in parts to develop null hypotheses for the purpose of statistical testing. For testing the hypotheses, chi-square is used since data was

TABLE 8
SOCIAL STATUS BY COMMUNITY

Town	I & II		S t a t u s III & IV		V	
	No.	Percentage	No.	Percentage	No.	Percentage
Cherokee	7	9	63	86	4	6
Fairview	14	14	79	79	6	6
Okeene	7	13	45	81	3	5

available in terms of frequencies. When age, education, and income are used, the lowest age, lowest education, and lowest income were used as the basis for determining the expected frequencies.

Hypothesis I

The personal characteristics of age, income, and education are major factors in determining where a person will seek health care.

- a. (restated) There is no difference between persons under 55 and persons 55 and older when deciding whether health care will be sought from a local physician or other source.

Table 9 reviews the responses from the group surveyed dividing them into two age groups, those under 55 and those 55 and older.

It had previously been anticipated that persons are much more inclined to seek health care at home as they grow older and that the younger persons are more likely to seek care out of the community on their own.

TABLE 9
FIRST CONTACT FOR HEALTH SERVICES BY AGE

Age Group	Local Physician		Pharmacist		Friend		Chiropractor		Out-of-Town Physician*		Other	
	Percent-		Percent-		Percent-		Percent-		Percent-		Percent-	
	No.	age	No.	age	No.	age	No.	age	No.	age	No.	age
Under 35	35	77	0	0	1	3	0	0	8	17	1	3
35 - 44	51	94	0	0	0	0	0	0	2	4	1	0
45 - 54	60	92	1	2	0	0	0	0	4	6	0	0
55 - 64	62	91	0	0	0	0	0	0	0	0	6	9
65 and over	87	89	0	0	0	0	1	1	10	10	0	0

* Out-of-town physician includes specialist

$\chi^2 = 1.58$, df = 1, P > .05

As Table 9 indicates, however, there was little difference between the percentage of those under 55 and those 55 and older who sought care from the local physician. A similar result can also be noted in the out-of-town column with 10 per cent of those under 55 going to an out-of-town physician and 13 per cent 55 and over. A chi-square was performed on the "Local Physician" column to statistically confirm that no significant difference existed. The null hypothesis was correct. There was not a significant difference between the two age groups.

There was, however, a significant difference between those under 35 and over 35. A chi-square test was done between these two age groups for both those seeking a local physician and those seeking an out-of-town physician. Results indicated the sum of the chi-squares to be 28.7 with two degrees of freedom with a level of significance of less than .05.

Next to be considered is the characteristic of income and it was restated in the following way:

- b. There is no difference between persons with income less than \$5,000 and persons with income of \$5,000 or more when deciding whether health care will be sought from a local physician or other source.

In this case, it was again anticipated that persons with less income are more likely to stay in the home community and seek care from the local physician while persons with more income would seek care at times out of the community. Persons with lower income possibly would not have adequate transportation to seek care out of the community or money to pay the physician if they go to a specialist. Table 10 records the responses by two income levels, those earning less than \$5,000 annually and those earning \$5,000 and over.

TABLE 10
FIRST CONTACT FOR HEALTH SERVICES BY INCOME

Income	Local Physician		Pharmacist		Friend		Chiropractor		Out-of-Town Physician		Other	
	No.	Percent-age	No.	Percent-age	No.	Percent-age	No.	Percent-age	No.	Percent-age	No.	Percent-age
Less than \$5,000	81	94	0	0	1	1	0	0	4	4	0	0
\$5,000 - \$9,999	93	88	1	1	0	0	1	1	10	10	1	1
\$10,000-\$14,999	63	86	0	0	0	0	0	0	10	14	0	0
\$15,000 & over	44	86	0	0	0	0	0	0	6		1	1

χ^2 = local physician = 1.18, df = 1, p > .05

χ^2 = out-of-town physician = 17.8, df = 1, p < .05

As the table indicates, there was not a significant difference between the two income levels of those who went to see the local physician. However, the difference was much greater in those who went to an out-of-town physician. Eleven per cent of those earning \$5,000 and above have gone to an out-of-town physician compared to only four per cent of those earning less than \$5,000 annually.

It can, therefore, be determined that though the difference was not statistically significant between the two groups who went to see their local physician, the difference was most significant between those who go out-of-town. However, the numbers are so small the test may not be valid. A chi-square test was done on the local physician column, out-of-town column and the total table.

Part C of the hypothesis studies the responses to the same survey questions within education as the dependent variable. In this case, it was anticipated that persons with less education are more likely to seek health care in the home community because they may be less aware of the advances in modern medicine. The opposite could, therefore, be anticipated from those with high school education or higher. The hypothesis has been restated as a null hypothesis:

- c. There is no difference between persons with less than high school education and persons with high school education and more when deciding whether health care will be sought from a local physician or other sources.

Table 11 records the responses from the survey among those with less than high school education and those with high school and over. As the table indicates, there was very little difference between those with less education and those with more. Chi-square tests were done on the

TABLE 11
FIRST CONTACT FOR HEALTH SERVICES BY EDUCATION

Educa- tion	Local Physician		Pharmacist		Friend		Chiropractor		Out-of-Town Physician*		Other	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
8th Gr. or less	45	92	0	0	0	0	0	0	4	8	0	0
8th to 12th Gr.	51	89	0	0	0	0	0	0	6	9	0	0
High School	106	88	1	1	1	1	1	1	11	8	0	0
College 1-3 yrs.	42	82	0	0	0	0	0	0	7	14	2	4
College Grad.	26	93	0	0	0	0	0	0	2	7	0	0
Post Grad.	19	100	0	0	0	0	0	0	0	0	0	0

* out-of-town physician includes specialist
 χ^2 = local physician = 0.28, df = 2, p > .05
 χ^2 = out-of-town physician = 0.53, df = 2, p > .05

local physician and out-of-town physician columns of this table and they, too, indicated no significant difference between the two. The null hypothesis is, therefore, correct.

In evaluating the three parts of Hypothesis I, we observe that the characteristic of education was not a major factor in determining where a person will go for health care. However, age and income were important factors and appeared to influence the practice of the respondents. Persons with higher income were more selective, with some using each provider while those with less income either went to the local physician or out-of-town.

Hypothesis II

This general hypothesis considers the independence with which persons will decide the type of health care they need. It is stated: "Persons under age 35 and persons with annual income of \$5,000 or more are more likely to seek the services of a specialist without being referred."

The age variable of the hypothesis has been restated as a null hypothesis so it can be tested:

- a. There is no difference between the persons under 35 and persons 35 and over who seek the services of a specialist without being referred by their local physician.

Table 12 was developed to show the age distribution of persons who sought a physician outside of their home community. As is evidenced from Table 12, 64 per cent of those under 35 have sought a physician outside of their home community while only 46 per cent of those 35 and over have. It should be noted how the percentage in each age

TABLE 12

AGE DISTRIBUTION OF THOSE WHO SOUGHT PHYSICIAN
SERVICE OUTSIDE OF THEIR HOME COMMUNITY

	A g e s							
	0 thru 34		35 thru 54		55 and over		35 and over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Yes	29	64	62	54	63	40	125	46
Total	45		115		159		274	

$$\chi^2 = 14.28, df = 1, p < .05$$

group, who sought an out-of-town physician decreases with increasing age. A chi-square test was performed on the table and it supported this conclusion with a significant difference at less than the .05 level.

Table 13 lists the survey responses to the question, "If you have gone to a physician outside of your community, is it because you were: a) referred by your physician, b) decided your condition required it, or c) were advised by a friend or other reason?"

From the tables it is observed that there are differences in the percentage of those under 35 and those 35 and over. It can be noted that the percentage is twice as high in the 35 and over column for those who sought a physician out of the community but is just half as large in the personally decided column. If the reasons other than physician referred are grouped it is noted that 67 per cent of those under 35 went to a physician for some other reason than being referred while this was

TABLE 13

REASONS PERSONS SOUGHT A PHYSICIAN
OUT OF THEIR COMMUNITY BY AGE

	A g e s							
	Under 35		35-54		55-64		35 and over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Physician Referred	12	33	61	63	87	70	148	67
Personally Decided	11	31	16	16	19	15	35	16
Advised by Friend	2	5	6	6	9	7	15	7
Other	11	31	14	14	10	8	24	10
Total	36		97		125		122	

Physician referred all other: $\chi^2 = 41.8$, $df = 1$, $p < .05$

true for only 33 per cent of those 35 and over.

A chi-square statistical test was done between the two physician referred and personally decided categories. It indicated a significant difference between how the decisions were made in the two age groups. The null hypothesis is, therefore, not correct. The younger age groups sought out-of-town physician care without being referred, while the older group waited to be referred.

Income is considered next and the null hypothesis is stated as follows:

- b. There is no difference between persons with income of under \$5,000 and persons with \$5,000 and over who seek the services of a specialist.

First to be determined is whether there is a difference between the two income groups who do seek a physician outside of their community. Table 14 carries the responses to a survey question inquiring

TABLE 14
INCOME DISTRIBUTION OF THOSE WHO SEEK PHYSICIAN
SERVICES OUTSIDE OF THEIR HOME COMMUNITY

	Less than \$5000		\$5000-\$9999		\$10000-\$14999		\$15000 & over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Yes	33	39	52	52	29	41	32	64
No	51	61	49	48	41	59	18	36
Total	84		101		70		50	

$$\chi^2 = 8.48, df = 1, p < .05$$

whether the respondent had sought a physician outside the community.

As the table indicates, only 39 per cent of persons earning less than \$5,000 annually have sought a physician outside the community while 51 per cent of those earnings over \$5,000 have. A chi-square test was made of the table which also indicated a significant difference between the number earning less than \$5,000 and those earning \$5,000 and over.

The hypothesis based on income and referral is restated as a null hypothesis as follows:

- c. There is no difference between persons with annual income of under \$5,000 and persons with \$5,000 and over who seek

the services of a specialist without being referred by their local physician.

Table 15 gives the responses by income to the question: "If you have gone to a physician outside of your community, is it because you were: a) referred by your physician, b) decided your condition required it, or c) were advised by a friend or other reason?"

TABLE 15
REASONS PERSONS SOUGHT A PHYSICIAN OUT
OF THEIR COMMUNITY BY INCOME

	Less than \$5000		\$5000-\$9999		\$10000-\$14999		\$15000 & over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Physi- cian Re- ferred	42	68	46	56	34	62	30	63
Person- ally Decided	10	16	16	20	10	18	8	17
Other	10	16	20	24	11	20	10	20
Total	62		82		55		48	

$$\chi^2 = 4.34, df = 2, p < .05$$

In this case, a review of the percentages shows little difference but by combining "personally decided" with "other", there is a significant difference between the two income groups. Forty per cent of those earning \$5,000 and over went to an out-of-town physician without being referred while only 32 per cent of those earning under

\$5,000 did. This is probably to be expected since more persons in the lower income group see their local physician for first contact. The $\chi^2 = 4.34$ with two degrees freedom with level of significance of less than .05.

In review of Hypothesis II, it can now be determined that age and income are significant factors in determining whether a person will seek health care out of the community without being referred.

Hypothesis III

This hypothesis looks at the opinions of persons with various age and education characteristics and how they evaluate their local hospital. The hypothesis is: "The opinion of the respondents regarding the ability of the local hospital to care for the needs of the community varies according to the age and education of the resident."

This hypothesis has been divided into four more specific null hypotheses, the first of which is:

- a. Of those who consider the ability of the local hospital to care for the needs of the community to be fair and poor, there is no difference in the opinion between persons under 35 and persons 35 and over.

Table 16 was developed to record the responses to the question which asked the respondents to state what they thought of their local hospital's ability to care for the needs of the community. As the table indicates, 37 per cent of those persons under 35 rated the hospitals Fair or Poor while 23 per cent of those 35 and over rated their hospitals as Fair or Poor. A chi-square test was done in the two age groups who responded with rating of Fair or Good. Of additional importance is the 44 per cent of those 35 and over who rated the hospital

TABLE 16

RESPONDENTS OPINION OF THE LOCAL HOSPITAL'S ABILITY TO
CARE FOR THE COMMUNITY'S HEALTH NEEDS, BY AGE

Rating	Under 35		35 and over	
	No.	Percent- age	No.	Percent- age
Excellent	9	20	122	44
Good	19	42	91	33
Fair	11	24	37	13
Poor	6	13	26	10
Total	45		276	

Rated Fair or Poor, Under 35 and 35 and over
 $\chi^2 = 14.91$, $df = 1$, $p < .05$

Excellent compared to just 20 per cent of those under 35. The test demonstrated a significant difference in ratings by the two age groups. The null hypothesis is, therefore, incorrect.

The responses to the same question were next studied for two broad educational levels, those with less than high school education and those with high school or more. The hypothesis restated as null is as follows:

- b. Of those who consider the ability of the local hospital to care for the needs of the community to be Fair or Poor, there is no difference in the opinions between persons with less than high school education and those with high school or more.

Table 17 was designed to record the survey responses of the

TABLE 17

OPINION OF THEIR LOCAL HOSPITAL'S ABILITY TO CARE FOR
THE COMMUNITY'S NEEDS BY EDUCATIONAL LEVEL

Rating	Less than High School		High School and Over	
	Number	Percentage	Number	Percentage
Excellent	51	47	76	36
Good	40	37	72	34
Fair	11	10	36	17
Poor	5	6	15	13
Total	107		209	

$$\chi^2 = 29.03, df = 1, p < .05$$

two broad educational levels.

A chi-square test was done on those rating the hospital as Fair or Poor for the two education groups. The test proved a significant difference between the two education groups.

As the table indicates, there are differences in the confidence placed in the hospital according to the level of education. Forty-seven per cent of those with under 12th grade education rated the hospital as Excellent while 36 per cent of the higher educated group rated it as Excellent. Sixteen per cent of those with less than high school completion rated them as Fair or Poor while 30 per cent of the high school educated group rated them as such. These figures indicate a higher confidence in the local hospital by the persons with

lesser education, although both groups show high percentages in the excellent and good categories, 84 per cent and 70 per cent.

The question of satisfaction with hospitalization in the local hospital is next considered. The null hypothesis to consider this problem is as follows:

- c. Of those who were Very Satisfied with hospitalization in their local hospital, there is no difference between three age groups, 0 through 34, 35 through 54, and 55 and over.

Table 18 records the responses to the survey which asked the respondents to state a degree of satisfaction with local hospitalization.

TABLE 18
SATISFACTION WITH LOCAL HOSPITALIZATION BY AGE

Rating	0-34		35-54		55 and over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Very Satisfied	15	65	43	88	70	80
Satisfied	7	30	4	8	16	18
Not Satisfied	1	4	2	4	1	1
Total	23		49		87	

$$\chi^2 = 7.10, df = 1, p < .05$$

Only 65 per cent of those under 35 were Very Satisfied whereas 80 per cent or higher of those 35 and over were Very Satisfied.

A chi-square test was performed on the Very Satisfied row, indicating a significant difference among the different ages. This

hypothesis is, therefore, incorrect. It should be pointed out there were only four persons who were not satisfied with local hospitalization; 97 per cent were satisfied.

Next to be considered is the satisfaction received from hospitalization in a city hospital. The null hypothesis developed for this question is as follows:

- d. Of those who were Very Satisfied with hospitalization in a larger hospital, there is no difference between the three age groups, 0 through 34, 35 through 54, and 55 and over.

Table 19 reports the responses to the survey which asked the

TABLE 19
SATISFACTION RECEIVED FROM CITY HOSPITALIZATION BY AGE

Rating	Under 35		35-54		55 and over	
	No.	Percent-age	No.	Percent-age	No.	Percent-age
Very Satisfied	6	43	18	47	31	48
Satisfied	8	57	16	42	33	52
Not Satisfied			4	11		
Total	14		38		64	

$$\chi^2 = 1.19, df = 1, p > .05$$

$$\chi^2 = 3.94, df = 2, p > .05$$

respondents to state a degree of satisfaction with city hospitalization.

It was anticipated that persons under 35 would be more satisfied with treatment received in the larger hospital because they may

not yet be as closely tied to the smaller community.

As the table indicates, there are no notable differences between the various ages in the very satisfied row. A chi-square test was done on the table and it also indicated no significant differences. Therefore, the null hypothesis is correct. One notable difference occurs in the 35-54 column. They were the only group expressing any feeling of dissatisfaction with city hospitalization.

Hypothesis IV

This hypothesis deals with the desire of the patient to see the same doctor each time. The first null hypothesis is as follows:

- a. Of those who consider it important to see the same doctor each time, there is no difference between persons with less than high school education and persons with high school education or more.

Table 20 reports the response to the question, asking, "How important to you is it that you see the same doctor each time?"

TABLE 20
IMPORTANCE PLACED ON SEEING THE SAME PHYSICIAN
EACH TIME BY EDUCATION

Rating	<u>Less than High School</u>		<u>High School & over</u>	
	No.	Percent- age	No.	Percent- age
Very Important	61	56	92	43
Important	44	40	99	47
Not Important	4	4	21	10
Total	109		212	

$$\chi^2 = 0.35, df = 1, p > .05 \quad (\text{Very Important and Important})$$

The percentages for each group should be noted. Ninety-six per cent of those with less than a high school education consider it very important or important to have the same physician each time compared to 90 per cent of those with more education. A chi-square test was done on the very important and important rows of the table which indicated the difference to not be significant.

It was anticipated that persons with less education would consider it more important to see the same doctor each time which proved to be the case though there was not a statistically significant difference. The null hypothesis must, therefore, be considered true.

The same question was considered next on the basis of income, this time anticipating that persons with more income may be independently more selective about their physicians. They would have more resources to pay for another physician while the person with less resources may not feel they can afford to seek special care. A null hypothesis was developed for this:

- b. Of those who consider it important to see the same doctor each time, there is no difference between persons earning less than \$5,000 annually and those earning \$5,000 and over.

Table 21 reports the responses to the survey asking, "How important to you is it that you see the same doctor each time?"

The percentage differences are very small this time and the chi-square test proved them to not be statistically significant. There were 91 per cent of those earning less than \$5,000 annually who felt it was very important or important compared to 93 per cent of those earning over \$5,000. The null hypothesis is correct.

The last characteristic to be considered under the topic of

TABLE 21

IMPORTANCE PLACED ON SEEING THE SAME
PHYSICIAN EACH TIME BY INCOME

Rating	<u>Less than \$5,000</u>		<u>\$5,000 and over</u>	
	No.	Percent- age	No.	Percent- age
Very Important	48	56	103	46
Important	30	35	105	47
Not Important	8	9	16	7
Total	86		224	

$$\chi^2 = 0.08, df = 1, p > .05$$

the importance of seeing the same physician each time is age. It is anticipated that persons 35 and over are more likely to want to see the same physician each time because they have probably been going to the same physician for years and he has the records and is more familiar with their problems. The null hypothesis is restated as follows:

- c. Of those who consider it important to see the same doctor each time there is no difference between those under age 35 and those 35 and older.

Table 22 records the responses by age to the question, "How important to you is it that you see the same doctor each time?"

As the table indicates, there is a very noticable difference between the two age groups. Forty-nine per cent of those over 35 felt it very important to see the same doctor each time while only 33 per cent of those under 35 did. Fifteen per cent of those under 35 felt

TABLE 22

IMPORTANCE PLACED ON SEEING THE SAME DOCTOR EACH TIME BY AGE

Rating	A g e s									
	0 - 34		35 - 44		45 - 54		55 - 64		65 and over	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Very Important	15	33	14	27	34	52	31	48	60	62
Important	23	52	30	58	29	45	32	49	30	31
Not Important	6	15	8	15	2	3	2	3	7	7
Total	44		52		65		65		97	

$$\chi^2 = 73.2, df = 3, p < .05$$

it was not important while only six per cent of those 35 and over felt it not important.

A chi-square test performed on the table showed $\chi^2 = 73.2$, with three degrees of freedom with level of significance of less than .05. The null hypothesis was not correct.

Hypothesis V

The reasons considered most important in the selection of a physician are studied next. A survey question asked the residents which of the following they considered most important in the selection of a physician: ability, sympathetic manner, personal interest in patient, graduate of a well-known school, sex, special training, office charge, or waiting time in office. The hypothesis is "the reasons considered most important in the selection of a physician vary with age and education of the patient."

A null hypothesis was developed to test the responses. The responses are recorded in Table 23.

- a. The reasons considered most important in the selection of a physician are no different for persons under 35 or 35 and over.

The percentages in Table 23 indicated no appreciable difference between the two age groups. This question was placed in the survey to learn the importance patients place in characteristics like ability, personal interest, and others. Both age groups considered ability to be the most important characteristic followed by personal interest and graduate of a "known" school as third. The null hypothesis was correct.

Education was the second characteristic to be examined in

TABLE 23

REASONS IMPORTANT IN SELECTION OF
A PHYSICIAN BY AGE

Reason	<u>Under 35</u>		<u>35 and over</u>	
	No.	Percent- age	No.	Percent- age
Ability	28	78	163	75
Personal Interest	5	14	33	15
Known School	2	5	7	3
Other	1	3	14	6
Total	36		217	

$$\chi^2 = 8.92, df = 3, p < .05$$

regard to the reasons considered important in the selection of a physician. The null hypothesis is as follows:

- b. The reasons considered most important in the selection of a physician are no different for persons with less than high school education or with high school or more.

Table 24 records the responses organized by education level. There are some notable differences in percentages in this table, particularly in the ability and personal interest rows. Those with more education relied more on ability while those with less education rated personal interest quite strong. This was just as anticipated. Persons with less education place higher importance on the physician taking a personal interest in them and less on his ability than do those with more education. The chi-square test on the table supported the

TABLE 24

REASONS IMPORTANT IN SELECTION OF
A PHYSICIAN BY EDUCATION

Reason	<u>High School & under</u>		<u>High School & over</u>	
	No.	Percent- age	No.	Percent- age
Ability	51	64	141	81
Personal Interest	17	22	20	11
Known School	3	4	6	3
Training	5	6	2	1
Other	3	4	5	3
Total	79		174	

$$\chi^2 = 23.75, df = 5, p < .05$$

percentage by being significant. The null hypothesis was in error.

Hypothesis VI

This hypothesis deals with who the patient will seek for health care if he perceives his illness to be minor, serious, or very serious. The hypothesis has been restated as null so a chi-square test can be performed on it: "The patient's choice of health care services is no different regardless of the perceived severity of the illness."

Table 25 carries the responses from the survey. It was anticipated that the patient would seek more specialized health advice

TABLE 25

PATIENT'S PERCEIVED SEVERITY OF ILLNESS
DETERMINES CHOICE OF PROVIDER

	<u>Minor</u>		<u>Serious</u>		<u>Very Serious</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Would not seek care	97	31	52	17	14	4
Specialist	12	4	20	6	31	10
Local physician	193	62	232	74	267	85
Chiropractor	2	1	8	2	1	0
Pharmacist	9	3	1	1	1	0
Total	313		313		313	

Serious - $\chi^2 = 59.2$, df = 5, p < .05

Very Serious - $\chi^2 = 45.2$, df = 5, p < .05

depending on how serious he perceived his illness. The survey listed 16 symptoms for which the respondent was asked to which of the four sources he would turn for care.

As can be noted from Table 25, 31 per cent would not seek care for a minor symptom. This dropped to 17 per cent for the serious symptom and on to four per cent for the very serious symptoms.

Looking down the Table in the minor column, it can be observed that four per cent would go to see the specialist for the minor symptom but six per cent would see him for the serious symptoms and 10 per cent

for the very serious.

The same type of increase is true also for seeing the local physician. Sixty-two per cent go to him for the minor symptom increasing to 74 per cent for serious and 85 per cent for very serious.

A chi-square test was done on the minor and serious columns with a result of $X^2 = 45.2$ with four degrees freedom with level of significance of less than .05.

This null hypothesis was, therefore, not correct. People do seek care according to the perceived seriousness of the symptom.

Additional Survey Findings

In addition to questions on the survey designed to answer the hypotheses, there were also a number of other questions inserted to use as supporting data. The responses on several of these will be discussed on the following pages.

As a companion question to the one previously discussed about where the resident usually turns on matters relating to his health, it was also asked where they actually went for their most recent health need. It was considered that the respondent might reply to the first question in the way he thought he would be expected to reply but would be more accurate when he said where he actually went for the last need. Table 26 indicates the responses to both questions.

There is not a great difference in those who said they go to the local physician and actually did but there is a significant difference in those who go out-of-town. Only nine per cent said they go out-of-town but of those surveyed, 15 per cent went out-of-town for their last health need. A chi-square test was done on the out-of-town portion

TABLE 26

WHERE RESPONDENTS SAID THEY GO FOR HEALTH CARE AND
WHERE THEY WENT FOR THEIR MOST RECENT NEED

	<u>Said They Would Go</u>		<u>Where They Went</u>	
	Number	Percentage	Number	Percentage
Local Physician	301	89	279	82
Out-of-town Physician *	32	9	51	15
Other	5	1	10	3
Total	338		340	

*Out-of-town physician includes specialist
 $\chi^2 = 12.9$, $df = 1$, $p < .05$ (out-of-town physician)

of the table and it was $\chi^2 = 12.9$ with one degree of freedom with significance level less than .05, indicating a significant difference between what they say they do what they did.

It was particularly interesting to note how the practices of seeking care differ between communities. Table 27 shows where residents of the communities last went for health care. Of particular importance is the 94 per cent who went to their local physician in Okeene compared to 80 per cent in Fairview and 77 per cent in Cherokee. The same trend also appears in the out-of-town physician column with only three per cent from Okeene going out-of-town while 17 per cent from Fairview and 19 per cent from Cherokee went out-of-town.

This experience correlates with the statement made in the

TABLE 27

WHERE RESIDENTS WENT FOR LAST HEALTH NEED BY COMMUNITY

Location	<u>Local Physician</u>		<u>Pharmacist</u>		<u>Friend</u>		<u>Chiropractor</u>		<u>Out-of-town Physician</u>		<u>Other</u>	
	Percent-		Percent-		Percent-		Percent-		Percent-		Percent-	
	No.	age	No.	age	No.	age	No.	age	No.	age	No.	age
Cherokee	87	77	2	2			2	2	22	19	1	1
Fairview	120	80					3	2	26	17	2	1
Okeene	72	94	1	1			1	1	3	3		

characteristics of the communities that Okeene appears to have the best organized system of care. There are three physicians in Okeene who practice as a group and office in a part of the hospital building. One of the physicians is on first call and another on second call each night. The system appears to work to the satisfaction of the community because the residents rely on them so strongly for health care.

Additional support for this theory comes from the responses to another part of the survey. Residents from each community were asked where their family doctor was located.

Residents from Cherokee reported 84 per cent in Cherokee and the remainder from Kiowa, Kansas; Alva; Oklahoma City, and other. Fairview respondents reported 87 per cent from Fairview, 10 per cent in Enid and six per cent from Cherokee, Okeene, and other. Okeene residents, however, reported that 99 per cent had their family doctor in Okeene. This confirms quite strongly the theory on the health coverage in Okeene.

Next to be considered are the practices of the communities in seeking health care out of the community. The survey sought to identify those who had gone out of their home community for care during the past three years. Fifty-seven per cent from Cherokee had received care outside the community, 50 per cent from Fairview, but only 32 per cent from Okeene had gone out of the community for care. Table 28 was designed to compare the seriousness of the various problems that made the visits out of the community for health care necessary.

This table is important because it "may" show the type of cases going on their own or being referred to an out-of-town physician.

TABLE 28

SERIOUSNESS OF PROBLEM THAT MADE OUT-OF-TOWN
HEALTH VISIT NECESSARY

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	11	19	15	26	30	54
Fairview	18	30	15	25	27	45
Okeene	5	19	12	46	9	34

Consider first the "minor" column and the percentage of respondents from each community. Note the smaller percentage [34] that were minor from Okeene and the 54 per cent minor from Cherokee. The majority of the problems going out-of-town from Okeene were treated as "serious" and only 19 per cent "very serious". There is no apparent explanation for the 30 per cent in the "very serious" column for Fairview unless their doctors are referring most of their very serious problems. They do no major surgery in Cherokee so all of those cases are going elsewhere either by referral or by personal decision.

Another very important difference appears in the tabulation of responses to the survey which asked if they see their local physician first when they go out-of-town to a doctor. Table 29 records the responses. Again, the residents of Okeene showed their loyalty to their local physicians. Eighty-one per cent of Okeene residents see

TABLE 29

RANKING OF WHETHER PATIENTS SEE LOCAL PHYSICIAN FIRST
BEFORE GOING TO OUT-OF-TOWN PHYSICIAN

Community	<u>Always</u>		<u>Nearly Always</u>		<u>Sometimes</u>		<u>Never</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	41	43	24	25	15	15	14	14
Fairview	64	51	28	22	27	21	7	6
Okeene	58	81	7	10	4	6	2	3
Total	163	56	59	20	46	15	23	9

their local physician before going out-of-town whereas only 51 per cent from Fairview and 43 per cent from Cherokee do. At the opposite end of the table, there are 14 per cent from Cherokee who never consult with their local physician.

Though there was a hypothesis which dealt with the list of symptoms used in the survey and to whom the residents would go for help, it did not deal with the apparent differences between communities.

Tables 30, 31, and 32 are summaries of several tables listed in Appendix E.

Table 30 looks at just the Very Serious symptoms and the way the various communities responded. It should be noted that 17 per cent of the residents from Cherokee state that they would go see a specialist first for the Very Serious problem while only three per cent from Okeene

TABLE 30
RESPONSES TO THE "VERY SERIOUS" SYMPTOMS BY COMMUNITY

Very Serious	<u>Would not go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiropractor</u>		<u>Pharmacist</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	6	6	17	17	75	76			1	
Fairview	6	4	12	8	125	87			1	
Okeene	2	3	2	3	67	94	1	1		
Total	14	5	31	10	267	85	1	0	2	0

went to the specialist.

Particularly noticeable are the percentages who would go to the local physician for the Very Serious problem. Ninety-four per cent from Okeene would go to their local physician first but only 76 per cent of the respondents from Cherokee would go to their local physician. This again is an apparent reflection of the differences in the services available in the communities. A higher percentage of Okeene residents regularly stay at home for health care than do those in the other communities.

In reviewing the responses in Tables 31 and 32, Cherokee has a much higher percentage who seek care from the specialist than the other two communities.

In all communities, the local physicians appear to be relied on quite heavily as the average of 61 per cent from all communities who go for minor problems would indicate.

The next survey result of importance dealt with the amount of travel time the rural resident would be willing to drive to see a physician. This is a problem that many must answer today particularly with fewer physicians living in the rural areas. Rural residents may have to choose whether they want to live on a farm some distance away from a doctor or live in town so they can be near one. Table 33 records the responses from the survey indicating the maximum amount of travel time they would be willing to drive to see a physician.

The most noticeable difference between communities appears in the "1 hour" percentage column where 18 per cent of the Fairview residents indicate they would be willing to travel an hour to see a physician

TABLE 31

RESPONSES TO THE "SERIOUS" SYMPTOMS BY COMMUNITY

Serious	<u>Would not go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiropractor</u>		<u>Pharmacist</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	15	15	11	12	67	69	4	5		
Fairview	28	20	8	6	103	72	3	2	1	0
Okeene	9	13	1	1	45	84	1	2	0	0
Total	52	16	20	7	230	74	8	3	1	

TABLE 32

RESPONSES TO THE "MINOR" SYMPTOMS BY COMMUNITY

Minor	<u>Would not go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiropractor</u>		<u>Pharmacist</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	31	32	8	8	54	55	2	2	3	3
Fairview	48	33	4	3	86	60	1	1	4	3
Okeene	19	26	1	1	50	70	0	0	2	3
Total	98	31	13	4	190	61	3	1	9	3

TABLE 33

MAXIMUM TRAVEL TIME RESIDENTS WOULD BE WILLING
TO DRIVE TO SEE A PHYSICIAN

Community	15 minutes		30 minutes		45 minutes		1 hour	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	38	39	41	42	6	6	12	12
Fairview	54	41	46	35	8	6	23	18
Okeene	34	52	20	30	6	9	6	9
Total	126	43	107	36	20	7	41	14

while only nine per cent of the Okeene residents would be willing to travel that far. Eighty-two per cent of the Okeene residents would not want to be farther away than 30 minutes. The survey should have had another time over an hour to see if any would be willing to drive farther to see a physician.

Since many residents of rural communities do, at various times, go see a specialist in Enid or other communities, the author was interested in knowing what the respondents liked the least about their visit to a specialist. Responses were sought with an open end type question so the respondent would not be restricted in his response. Fourteen different responses were received from 115 respondents. The six most frequent objections expressed were as stated in Table 34.

However, seventeen per cent of the respondents replied that

TABLE 34

OBJECTIONS TO SEEING A SPECIALIST

Reason	Per Cent
Long Drive	16
Impersonal Attitude	10
Waiting Time in the Office	10
Cost of Visit	6
Physician too Rushed	6
Unconcerned Attitude	5

they had no complaints with their visit to a specialist. Considering that many residents of small communities know their physician personally, it is surprising that there were so many completely satisfied with their visit.

The next topic deals with the satisfaction experienced with the local hospitalization. As was mentioned earlier, the facilities at Fairview and Okeene are relatively new and well equipped while the building at Cherokee is quite old. These points are emphasized in the following two tables. Table 35 noted that only eight per cent were admitted to the local hospital with the very serious illness in Cherokee while over 35 per cent of the respondents from the other two communities were admitted for illnesses classified as very serious. The Cherokee hospital was not used for very serious illness. Table 36 indicates the satisfaction enjoyed by persons locally hospitalized. As can be noted, 99 and 100 per cent of those hospitalized in Fairview and Okeene were very satisfied or satisfied while only 93 per cent of

TABLE 35

DEGREE OF SERIOUSNESS OF ILLNESS FOR WHICH
RESIDENTS WERE HOSPITALIZED LOCALLY

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	2	8	17	65	7	27
Fairview	21	38	26	46	9	16
Okeene	13	36	14	39	9	25

TABLE 36

SATISFACTION EXPERIENCED WITH
LOCAL HOSPITALIZED

Community	<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not Satisfied</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	29	69	10	24	3	7
Fairview	58	82	12	17	1	1
Okeene	31	84	6	16	0	0

those from Cherokee were. None of the residents from Okeene were not satisfied with their stay compared to seven per cent in Cherokee who were not satisfied. This is probably because the hospital building is old though clean and well kept. Since little surgery is done in Cherokee, there may be a general community feeling of needing to leave town to have good care.

A response was solicited from the residents concerning the satisfaction they have experienced if hospitalized in an Enid or other large hospital. Table 37 reports these responses.

TABLE 37
SATISFACTION EXPERIENCED WITH HOSPITALIZATION
IN A LARGER HOSPITAL

Community	<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not Satisfied</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	19	48	20	50	1	2
Fairview	28	48	29	50	1	2
Okeene	9	41	10	45	3	14

As can be noted, the residents of Okeene had a lower percentage who were very satisfied and a very high percentage who were not satisfied with their large hospital stay. Okeene also has fewer people hospitalized in larger hospitals, possibly indicating admission to the hospital more on a basis of need.

The last table of special importance is Table 38, which illustrates by community the respondent's perception of the ability of the

TABLE 38

RESIDENTS' RATING OF LOCAL HOSPITAL'S ABILITY
TO CARE FOR COMMUNITY NEEDS

Community	<u>Excellent</u>		<u>Good</u>		<u>Fair</u>		<u>Poor</u>	
	No.	Percent- age	No.	Percent- age	No.	Percent- age	No.	Percent- age
Cherokee	13	13	27	26	32	31	31	30
Fairview	57	39	73	50	16	11	1	0
Okeene	61	82	12	16	1	2	0	0

hospital to care for the community's needs. As can be quickly noted, only 13 per cent from Cherokee rated their hospital as excellent with 26 per cent more rating it as good. Eighty-nine per cent of the Fairview residents felt their hospital was excellent or good while 98 per cent of the Okeene residents felt their hospital was excellent or good.

Repeatedly, the responses indicated the strong support the Okeene residents have for their local health services. They appeared to have confidence in their local doctors and hospital and were not as satisfied with services received elsewhere.

CHAPTER VI

SUMMARY AND CONCLUSIONS

This study has looked into the health care practices of the residents of three rural communities. Each of the communities, all located within a few miles of each other in Northwestern Oklahoma, has at least two physicians and a hospital.

A questionnaire mailed to twenty per cent of the homes in Cherokee, Fairview, and Okeene served as the tool to collect the survey information. Responses were received from 52.8 per cent of those receiving the questionnaire.

The communities were found to be quite similar. The largest percentage of responses were received from persons 65 and over in all communities. The mean educational level in the three communities was close with Okeene and Fairview averaging just under a high school education and Cherokee averaging high school or higher. Eleven per cent from Okeene indicated graduate education while the mean for the three communities was considerably less.

Average income from the three communities was also quite similar with 38 per cent of the respondents from all communities in the \$5,000 to \$9,999 earnings category.

Included in the results of the study were six hypotheses,

covering various health activities. Several of the activities were examined on the basis of age, income, and educational levels.

Hypothesis I was concerned with determining if there were differences among various age groups, levels of income and levels of education in where persons sought health care. The study considered those under 55 and those 55 and older. It was anticipated that persons under 55 would be less likely to seek a physician in their home community than an older person. This did not prove true, but showed that there was approximately the same percentage of persons under 55 as 55 and older who sought care at home and out-of-town. A significant difference did occur between the groups under 35 and 35 and over. Seventeen per cent of those under 35 sought a physician out of the community, whereas a total of only 20 per cent of all other age groups combined sought care from an out-of-town physician. The younger person apparently is less bound by tradition and has less confidence in the local health services.

The same hypothesis was also tested with income as the dependent variable. It was expected that persons with higher incomes are more likely to seek physician services out of the community. This section of the hypothesis proved to be true with a significant group who earned \$5,000 and over per year going out-of-town to a physician. It could be assumed that persons with lesser income don't go out-of-town because they cannot afford the travel expense, time off the job, cost of making the appointment or possibly the extra cost of a specialist office visit. Under our present health system, finances can be a limiting factor as this test illustrates.

The characteristic of education was also considered with the analysis conducted for those with less than high school education and those with high school education or higher. It was anticipated that persons with higher education would be more likely to seek health care out of the community. The study indicated that there is no significant difference in where persons go for health care regardless of whether they have less than high school education or high school education or higher. The percentages seeking the local physician were quite similar for all levels of education. The most notable difference occurred in the out-of-town physician column for those persons with 1 to 3 years of college. Fourteen per cent of them indicated they go out-of-town to a physician while the next highest percentage in that column was nine for those with 8th to 12th grade education.

It was determined, therefore, that age and level of education were not factors in determining where persons go for care but that income appears to be important.

Hypothesis II examined age and income as factors in determining if persons will seek the services of a specialist without being referred by a local physician.

First considered were those persons under 35 and those 35 and over. It was expected that those under 35 would be more likely to seek a physician out of the community without being referred. The study confirmed the hypothesis with a higher percentage of persons under 35 seeking a physician outside the community and a lower percentage who were referred. Only about one-third of those under 35 were referred while two-thirds of those 35 and over were referred. Again, it can be

speculated that persons under 35 are not so tightly bound by tradition and are possibly less patient with the local physician and services. Older residents can witness to how effective the local physician has been over the years and they have greater confidence.

Income was the next consideration to be applied to the question of whether the services of a specialist might be sought. It was anticipated that persons with income of \$5,000 and over were more likely to seek a physician outside the community without being referred. The data confirmed this by showing a larger percentage of those with earnings of \$5,000 and over seeking a specialist than for those with income less than \$5,000. In this case, lack of money is again apparently a deterrent in seeking specialist services indicating a better system is needed, perhaps, if all citizens are to have equal opportunity for care. In addition, the survey also quizzed respondents about how the decision to go to a specialist was made. Sixty-eight per cent of those earning less than \$5,000 were referred by a physician while 59 per cent of those earning \$5,000 and over were referred. Statistical tests of the data proved the hypothesis correct. This indicates that the persons earning less are more careful about seeking care from a specialist without being referred.

Hypothesis III was concerned with the respondent's opinion of the local hospital to care for community needs and tested age and education as factors influencing this opinion.

Thirty-seven per cent of those under 35 rated it as Fair or Poor while only 23 per cent of those 35 and over so rated it. This indicates a lack of confidence in the local hospital for the younger

group as compared to those 35 and over. As will be shown in a later test, however, the younger patient also is not satisfied with hospitalization in the city hospital or local hospital.

The opinions of those with less than high school education and those with high school or over were sought concerning the local hospital. It was anticipated that persons with less education would have a higher opinion of the local hospital. Survey responses confirmed this with 84 per cent of those with less than high school education rating their local hospital as excellent or good, while only 70 per cent of those with high school or higher rating it as excellent or good.

Another section of Hypothesis III looked at the satisfaction experienced by different age groups to hospitalization in the local hospital and a larger hospital. It was anticipated that younger persons would be less satisfied with local hospitalization than older persons and older persons would be less satisfied than younger persons with stays in larger hospitals.

The survey indicated that the assumption was true for the local hospital but untrue for the larger hospital. The younger person expressed less satisfaction than older persons for both types of hospitalization. He does not have the personal knowledge of the care provided by both types of facilities as does the older person. Younger persons are also harder to please than older. The principle difference occurs in the 35-54 age group where 11 per cent were not satisfied with city hospitalization.

Hypothesis IV deals with the desire of the patient to see the same physician each time and analyzes the responses on the basis of

various ages, income levels, and educational levels.

It was anticipated that persons with lower income, lower education, and older age would be more desirous of seeing the same doctor each time.

First considered were those with below high school and high school education or more. The expectation proved true with a smaller percentage of those with less than high school education considering it "not important" to see the same doctor each time, compared to those with a high school education. The chi-square test proved the difference to not be significantly different.

The hypothesis was next considered on the basis of income. A smaller percentage of those earning less than \$5,000 considered it "very important" than those earning \$5,000 and over. A statistical test did not prove the difference significant though it was very close.

The characteristic of age was the last consideration of this hypothesis. The survey proved the hypothesis to be true with a smaller percentage of those 35 and over considering it not important to see the same doctor each time compared to the percentage of those under 35 considering it not important. All sections of this hypothesis proved to be true.

Hypothesis V considers the reasons thought to be important in the selection of a physician. Age was the first variable tested. It was anticipated that there would be a significant difference in the reasons for selecting a physician between those under 35 and 35 and over. The survey indicated that there was not a significant difference. Approximately the same percentage in both age groups selected physician

ability as the most important and personal interest in the patient as second most important.

The reasons considered most important in the selection of a physician were next considered on the basis of education. It was expected that persons with less education might place less emphasis on ability and more on personal interest in the patient than those with more education. The survey showed the expectation to be correct, 81 per cent of those with high school education or more rated ability as most important while only 64 per cent of those with less than high school rated it in that way. It should be noted, however, that all groups express the feeling that ability is the most important characteristic.

Hypothesis VI studies the question of who the patient will seek for health care if he perceives his illness to be minor, serious, or very serious. It was hypothesized that as the perceived symptoms became more serious, the patient would seek more specialized care. This proved true from the survey with the exception that fewer than anticipated went on to see the specialist. People do seek care according to the perceived seriousness of the symptom.

Another section of the results evaluated some additional survey findings. The first subject compared the responses of two questions on the survey; one asked where they would go for a health need and the second asked where they went for the last need. A larger percentage said they would go to the local physician than actually did, for their most recent health care need. More persons actually went out-of-town to see a physician than said they would. The responses to several

questions were separated by communities to observe the differences between communities. The first were responses from persons stating where they went for their last health needs. The most notable difference is the small percentage of Okeene residents who went out-of-town to a physician compared to those in the other communities.

Another such question studied the degree of seriousness that made an out-of-town visit to a physician necessary. In this problem, only 34 per cent of those from Okeene went out-of-town for a minor problem while 45 per cent of the Fairview and 54 per cent of the Cherokee out-of-town visits were for minor problems. This may indicate some lack of confidence in the Fairview physicians while showing more confidence in Okeene physicians.

A companion problem to this, however, asked whether they saw their local physician first before going to an out-of-town physician. Ninety-one per cent from Okeene "always" or "nearly always" see their local physician while only 68 per cent from Cherokee and 73 per cent from Fairview state they "always" or "nearly always" see their local physician first.

The next topic considered was who the respondents from the various communities would go see for a "very serious" symptom. Ninety-four per cent from Okeene would see their local physician while only 87 per cent from Fairview and 76 per cent from Cherokee would see their local physician. Seventeen per cent from Cherokee would see a specialist while only three per cent from Okeene would see the specialist.

The responses to the serious symptoms and minor symptoms were quite similar with the greater percentage of the residents from Okeene

going to their local physician. A higher percentage of residents from Cherokee repeatedly stated that they would go to the specialist for care than for the other communities combined.

Residents were asked to express how many minutes they would be willing to travel to see a physician. The largest percentage expressed a willingness to live only about 15 minutes from a physician.

The next topic dealt with was what the rural resident found most objectionable about his visit to the specialist. "The drive" was the most objectionable with "impersonal attitude" and "waiting time in the office" ranking second and third.

The subject of the degree of seriousness for which a patient was locally hospitalized was discussed next. Of particular importance was the small percentage of very serious illnesses that were hospitalized in Cherokee. There was, however, a very high percentage of Cherokee hospitalizations classified as serious compared to other communities.

An additional question asked the degree of satisfaction experienced with the local hospitalization. None of the Okeene residents were "not satisfied" while 84 per cent were "very satisfied". Only 69 per cent of the Cherokee residents were "very satisfied" and, as was previously mentioned, the great majority of these illnesses were for serious or minor illnesses.

The residents were then asked to rate their stays in larger hospitals. Fourteen per cent from Okeene were not satisfied while only two per cent from both Cherokee and Fairview were not satisfied. A smaller percentage from Okeene were very satisfied or satisfied while

residents from Cherokee and Fairview were satisfied.

The final topic asked the local resident to rate his local hospital. Thirty-nine per cent from Cherokee ranked their hospital as Excellent or Good, while 89 per cent from Fairview so ranked theirs. Ninety-eight per cent of the Okeene residents rated their hospital either Excellent or Good.

It seems most evident from the results of the study that the rural residents still wish to depend on their local physician for their health needs. It is also apparent that residents form a perception of service quality care and apparently are beginning to make decisions to seek care elsewhere when they perceive their needs to be serious.

The residents of Okeene apparently have great confidence in their doctors and hospital and rely on them for most health decisions. Fairview residents were also quite loyal and supported their physicians in a great majority of the cases. Cherokee residents, however, showed less confidence in their health care system and sought both physician and hospitalization out of the community when they perceived the symptoms to be very serious.

When this study began, it was intended as a tool to help determine how aware the rural residents are of the recent strides in health knowledge. It was expected that a trend toward reliance on the out-of-town specialist might be developing. The results did not confirm it, however. In the communities where the facilities are adequate, the residents indicated a very strong reliance on them for all of their health care problems.

CHAPTER VII

SIGNIFICANCE OF THE STUDY

The area of study for this paper has long been a subject of interest for the author. Particularly, it has become more so as the availability of health care in rural communities has changed and as tremendous improvements have come about in diagnosis and treatment. There is apparently a continuously widening gap occurring between rural health care and care available in the cities. If the gap continues to widen and the rural residents are to receive health services equal to city residents, then a new system must emerge.

The questions asked in the questionnaire that went to the communities were appropriate for soliciting responses from rural residents to determine what their present health practices are and their appreciation for specialization. The results generally reported the residents to be using local services for most problems when local services were responsive to their needs.

The results generated from the study do point to several areas that are principal topics of concern in today's health care system. One of these was the present system of financing health care. In every case where the responses to a question were reported with income as the variable, persons earning less than \$5,000 did not avail themselves of

as much health care as did those with more income. This point alone supports the need for a different system of health care financing than we now have if all residents are to have the opportunity for equal care.

There were implications also of the need that will exist for health education for the older rural residents, particularly, in the new developments in health care. The younger population in many cases is taking the initiative to seek specialist services when the perceived seriousness of the problem warrants it, but older residents are not.

For over 30 years there have been recommendations from various health professionals for a regional network for health services. Several of the questions asked in this survey were appropriate to regionalization. Generally, people are not willing to drive far for health care if there is a chance that it can be available locally. If, however, more health team groups are formed in the rural areas, the residents may have access to a more comprehensive range of care than is now available in the communities. The responses to questions would indicate a desire to maintain services much as they are today in at least two of the communities studied.

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APPENDIX A

Southwestern Bell Telephone Company
Directory Confirmation



Southwestern Bell Telephone Company

102 N. ADAMS, ENID, OKLAHOMA 73701 / 405 233-0881

November 3, 1972

Gene Baxter
Bass Memorial Hospital
Market and Monroe
Enid, OK 73701

Dear Gene:

This is to verify our conversation on November 3, 1972, regarding the percentage of residential and business customers who have listings in the Cherokee and Fairview telephone directories.

By checking with the Chambers of Commerce in the respective towns to determine the total number of established residences and businesses, and then by comparing those figures against the telephone company's records, we were able to determine that approximately 99% have listings in the local directories.

If I can be of further assistance on this matter, please feel free to call at 233-0881.

Sincerely,

Mark Simms

APPENDIX B

Letter 1 to Respondents

W. E. Baxter
Health Research Project
P.O. Box 3168
Enid, Oklahoma 73701

November 27, 1972

Dear Mr. Kahn:

You are probably aware of the problem many small communities have in maintaining adequate health services (physicians, hospitals and nursing homes). You are most fortunate in having a good hospital and doctors in your community and I hope it can always be that way.

I need your help! I am gathering information from which I will write a paper about how you and others feel about the health service in your community. I have talked personally with the doctors and hospital administrator in your community and they have given their approval of the project.

Enclosed, is a questionnaire designed to learn how you decide where you go for health care. I very much need your responses. As you see, the questionnaires are not coded, and we are not interested in identifying any particular person responding. A copy of the total responses will be presented to your hospital administrator for the hospital library.

Please complete the questionnaire in the next few days and return it in the postage-paid envelope. Thank you for your help.

Sincerely,


W. E. Baxter

APPENDIX C

Letter 2 to Respondents

W. E. Baxter
Health Research Project
P.O. Box 3168
Enid, Oklahoma 73701

December 6, 1972

Dear Mr. Hoffman:

A few days ago, you should have received a letter and questionnaire from me asking you to participate in a health survey. If you have already completed the questionnaire, I want to thank you and you may discard this.

If, however, you did not, I want to encourage you now to do so. Your responses will become a part of a health study involving 20 percent of the residents of Okeene, Cherokee and Fairview.

Another questionnaire and postage-paid envelope is enclosed. Your participation will be very much appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "W. E. Baxter".

W. E. Baxter

APPENDIX D
Questionnaire

PLEASE PLACE A CHECK (✓) OR COMMENT IN THE APPROPRIATE BLANK

1. When you want advice on matters relating to your health to whom do you usually turn to first to get it? Local Physician _____ Specialist _____ Pharmacist _____ Friend _____ Chiropractor _____ Out of town physician _____ Other _____.
2. On your most recent health need to whom did you go? Local Physician _____ Specialist _____ Pharmacist _____ Friend _____ Chiropractor _____ Out of town physician _____ Other _____. When was it? _____.
3. What was the reason that made that visit necessary? _____.
4. If this was an illness, did you consider this illness - Very serious _____ Serious _____ Minor _____?
5. Do you have a family doctor? Yes _____ No _____. Where is he located? _____.
6. Have you in the past three years, sought a physician outside of your community? Yes _____ No _____. Where? _____. What was the problem that made your most recent visit necessary? _____.
7. If you sometimes go to a physician in another town, do you see your local physician first? Always _____ Nearly Always _____ Sometimes _____ Never _____.
8. If you have gone to a physician outside of your community is it because you - Were referred by your physician _____ Were advised by a friend _____ Decided your condition required it _____ Some other reason _____.
9. If you seek a physician in a larger community, is it because he is a specialist? Yes _____ No _____.
10. For the symptoms listed below to which of the four persons would you be most likely to turn first? (Check once in each line.)

SYMPTOMS:	WOULDN'T SEEK CARE	MEDICAL SPECIALIST	LOCAL PHY. M.D. OR D.O.	CHIROPRACTOR	PHARMACIST
Shortness of breath					
Nose Bleed					
Cough up blood					
Sore Throat					
Pain over heart					
Indigestion					
Headache					
Nerves					
Dry Cough					
Low back pain					
Sinus trouble					
Swelling leg joints					
Leg cramps					
Loss of weight					
High fever					
Dizziness					
Blood in Urine					

11. If you were going to select a physician which of the following two qualities would be most important and second most important. Place a 1 after the most important and a 2 after the second most important.

a. High medical ability _____	e. Male physician _____
b. Concerned sympathetic manner _____	f. Has specialist training _____
c. Takes personal interest in you _____	g. Fair office visit charge _____
d. Graduate of known medical school _____	h. Short waiting time in office _____

12. Do you consider it desirable to be personally acquainted with your physician?
Yes _____ No _____ Don't Care _____.
13. How important to you is it that you see the same physician each time?
Very important _____ Important _____ Not important _____.
14. Do you ever use Indian or Veteran Hospital facilities? Yes _____ No _____.
15. If you lived in a rural area what would be the maximum amount of travel time you would be willing to live from a physician? 15 minutes _____ 30 minutes _____
45 minutes _____ 1 hour _____.
16. If you have gone to a specialist in the past two years, were you satisfied with the results? Very Satisfied _____ Satisfied _____ Not Satisfied _____.
17. What did you like least about your visit to a specialist? _____

18. Have you or a member of your family been hospitalized in your local hospital during the past two years? Yes _____ No _____. If yes, for what reason? _____

19. How satisfied were you with the treatment received in the hospital? Very satisfied _____
Satisfied _____ Not Satisfied _____.
20. Have you or a member of your family been hospitalized in an Enid or other large hospital in the past two years? Yes _____ No _____. If yes, for what reason? _____.
21. How satisfied were you with the treatment received in the larger hospital?
Very satisfied _____ Satisfied _____ Not satisfied _____.
22. What do you think of your local hospital's ability to care for the community's health needs? Excellent _____ Good _____ Fair _____ Poor _____.
23. In what age group do you fit? Under 21 _____ 45 to 54 _____
21 to 34 _____ 55 to 64 _____
35 to 44 _____ 65 & Over _____
24. You are Male _____ Female _____.
25. What was the highest grade you completed in school?
8th grade or less _____ College 1 to 3 years _____
Between 8th and 12th _____ College graduate _____
High school graduate _____ Post Graduate _____
26. Approximate annual family income? Less than \$5,000 _____ \$10,000 to 14,999 _____
5,000 to 9,999 _____ 15,000 & over _____.
27. What is the occupation of the head of the house?
28. Are you married _____ Single _____ Divorced _____ Widowed _____?
29. Do you have children at home? Yes _____ No _____. If yes, the number _____.

Thanks very much for your help. Please place the questionnaire in the enclosed envelope and return it to us.

APPENDIX E

Raw Data
Responses to Questionnaire by Communities

Question 1.--When you want advice on matters relating to your health, to whom do you usually turn to first to get it?

Community	<u>Physician</u>		<u>Special- ist</u>		<u>Pharma- cist</u>		<u>Friend</u>		<u>Chiro- practor</u>		<u>Out-of-town Physician</u>		<u>Other</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	93	82	3	3					1	1	15	13	1	1
Fairview	132	89	2	2	1	1	1	1			11	7	1	1
Okeene	76	97							1	1	1	1		
Total	301	88	5	2	1	1	1	1	2	2	27	8	2	1

Question 2.--On your most recent health need, to whom did you go?

Community	<u>Physician</u>		<u>Special- ist</u>		<u>Pharma- cist</u>		<u>Friend</u>		<u>Chiro- practor</u>		<u>Out-of-town Physician</u>		<u>Other</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	87	77	6	5	2				2	1	16	14	1	1
Fairview	120	70	9	5					3	2	17	11	2	1
Okeene	72	94	2	2	1	1			1	1	1	1		
Total	279	82	17	5	1	1			6	2	34	10	3	1

Question 3.--What was the reason that made that visit necessary?

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	14	13	26	25	62	60
Fairview	11	8	36	28	80	60
Okeene	10	14	14	20	46	66
Total	35	12	76	25	188	62

Question 4.--If this was an illness, did you consider this illness?

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	9	11	30	32	51	57
Fairview	15	13	25	22	69	63
Okeene	11	19	22	38	24	42
Total	35	13	77	30	144	56

Question 5.--Do you have a family doctor? (part 1)

Community	Number	<u>Yes</u>	Number	<u>No</u>
		Percentage		Percentage
Cherokee	100	90	11	9
Fairview	145	98	2	1
Okeene	74	96	3	4
Total	319	95	16	5

Question 5.--Where is your family doctor located? (part 2)

Community	<u>Cherokee</u>		<u>Fairview</u>		<u>Okeene</u>		<u>Kiowa</u>		<u>Enid</u>		<u>Oklahoma City</u>		<u>Other</u>		<u>Shattuck</u>		<u>Alva</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	82	84					5	5			1	1	5	5			4	4
Fairview	1	1	117	87	5	4			10	7			1	1				
Okeene			1	1	71	99												
Total	83		118		76		5		10		1		6				4	

Question 6.--Have you in the past three years sought a physician outside of your community? (part 1)

Community	<u>Yes</u>		<u>No</u>	
	Number	Percentage	Number	Percentage
Cherokee	63	57	46	42
Fairview	72	50	72	50
Okeene	25	32	51	68
Total	160	49	169	51

Question 6.--Where? (part 2)

Community	<u>Cherokee</u>		<u>Fairview</u>		<u>Okeene</u>		<u>Kiowa</u>		<u>Enid</u>		<u>Oklahoma City</u>		<u>Other</u>		<u>Shattuck</u>		<u>Alva</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	82	84	117				2	4	40	70	3	5	8	14			4	7
Fairview	1	1	2	3	2	3			41	67	7	11	8	13	1	2		
Okeene			1	1	1	4			17	68	3	12	2	8	2	8		
Total	83	27	2	1	3	2	2	1	98	68	13	9	18	12	3	2	4	3

Question 6.--What was the problem that made your most recent visit necessary? (part three)

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	11	19	15	26	30	54
Fairview	18	30	15	25	27	45
Okene	5	19	12	46	9	34
Total	34	24	42	30	66	46

Question 7.--If you sometimes go to a physician in another town, do you see your local physician first?

Community	<u>Always</u>		<u>Nearly Always</u>		<u>Sometimes</u>		<u>Never</u>	
	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Cherokee	41	43	24	25	15	15	14	14
Fairview	64	51	28	22	27	21	7	6
Okene	58	81	7	10	4	6	2	3
Total	163	56	59	20	46	15	23	7

Question 8.--If you have gone to a physician outside of your community, is it because you -

Community	<u>Referred</u>		<u>Personally Decided</u>		<u>Friend</u>		<u>Other</u>	
	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Cherokee	57	61	14	15	6	6	16	17
Fairview	56	50	28	25	10	8	18	10
Okeene	51	83	6	10	2	3	2	3
Total	164	61	48	18	18	6	36	13

Question 9.--If you seek a physician in a larger community, is it because he is a specialist?

Community	<u>Yes</u>		<u>No</u>	
	Number	Percentage	Number	Percentage
Cherokee	78	78	21	21
Fairview	110	80	21	16
Okeene	62	91	6	8
Total	250	84	48	16

Question 10.--For the symptoms listed below, to which of the four persons would you be most likely to turn first?

VERY SERIOUS	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro-practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Shortness of Breath:</u>										
Cherokee	17	17	9	9	72	72	1	1		
Fairview	18	13	5	4	116	80				
Okeene	7	10	2	3	64	87				
TOTAL:	42	13	16	5	252	81	1	1		
<u>Cough Up Blood:</u>										
Cherokee	2	3	21	21	76	76				
Fairview	1	1	12	8	129	90			1	1
Okeene	0		4	6	66	94				
TOTAL:	3	1	37	12	271	87			1	1
<u>Pain Over Heart:</u>										
Cherokee	7	7	21	21	71	71				
Fairview	6	4	21	14	117	81				
Okeene	2	3	1	1	69	96				
TOTAL:	15	4	43	14	257	82				

Question 10.--Continued

VERY SERIOUS	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro-practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>High Fever:</u>										
Cherokee	2	2	12	12	84	84				
Fairview	6	4	3	2	133	93				
Okeene	1	1	1	1	68	96	1	1		
TOTAL:	9	3	16	5	285	92	1	1		
<u>Blood in Urine:</u>										
Cherokee	1	1	23	24	74	75				
Fairview	1	1	18	12	125	86				
Okeene	1	1	1	1	69	96	1	1		
TOTAL:	3	1	42	13	268	85	1	1		

Question 10.--Continued

SERIOUS	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro- practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Dizziness:</u>										
Cherokee	3	3	9	9	88	85	1	1		
Fairview	14	10	10	6	119	83				
Okeene	1	1	1	1	67	96	1	1		
TOTAL:	18	6	20	7	272	87	2	1		
<u>Loss of Weight:</u>										
Cherokee	23	24	11	11	61	61				
Fairview	40	27	9	6	94	65				
Okeene	11	15			60	83	1	2		
TOTAL:	74	24	20	6	215	69	1	1		
<u>Leg Cramps:</u>										
Cherokee	24	25	9	9	58	59	5	6		
Fairview	41	28	6	4	93	65	2	1	1	1
Okeene	19	27			50	50	2	3		
TOTAL:	84	27	15	4	201	65	9	4	1	1

Question 10.--Continued

SERIOUS	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro- practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Swelling Leg Joints:</u>										
Cherokee	6	7	17	18	72	72	3	3		
Fairview	8	5	11	7	124	86				
Okeene	4	6	1	1	66	92	1	1		
TOTAL:	18	5	29	9	262	83	4	3		
<u>Low Back Pain:</u>										
Cherokee	10	11	11	12	61	62	14	15		
Fairview	29	20	6	4	94	65	13	9	1	1
Okeene	7	9			63	88	2	1		
TOTAL:	46	15	17	5	218	71	29	9	1	
<u>Nerves:</u>										
Cherokee	22	22	11	11	62	62	4	4		
Fairview	36	25	8	6	97	67	2	1		
Okeene	12	16	1	2	56	80			1	1
TOTAL:	70	22	20	6	215	69	6	2	1	1

Question 10.--Continued

MINOR	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro-practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Sinus Trouble:</u>										
Cherokee	22	23	12	12	57	60	3	3	1	1
Fairview	33	23	7	5	98	69	1	1	3	2
Okeene	14	19	2	2	55	76	1	1	1	1
TOTAL:	69	22	21	6	210	68	5	2	5	2
<u>Dry Cough:</u>										
Cherokee	27	27	7	7	57	57	2	2	4	4
Fairview	40	28	7	5	90	63			4	3
Okeene	12	16	1	1	54	75		1	5	9
TOTAL:	79	26	15	5	201	65	2	1	14	4
<u>Headache:</u>										
Cherokee	42	42	6	6	42	42	4	4	5	6
Fairview	67	47	1	1	64	45	4	3	5	4
Okeene	25	33			45	62			2	5
TOTAL:	134	40	7	2	171	52	8	2	12	3

Question 10.--Continued

MINOR	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro-Practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Indigestion:</u>										
Cherokee	35	35	6	6	51	51	1	1	6	6
Fairview	58	40	1	1	80	55			5	3
Okeene	23	33			44	62			4	5
TOTAL:	116	37	7	2	175	56	1	1	15	4
<u>Nose Bleed:</u>										
Cherokee	39	39	10	10	49	49			1	1
Fairview	48	34	7	5	88	62				
Okeene	19	26			52	71				
TOTAL:	106	34	17	6	189	60			1	1
<u>Sore Throat:</u>										
Cherokee	21	21	6	6	67	67	1	1	4	4
Fairview	40	27	1	1	96	67			6	4
Okeene	21	30			49	69			1	1
TOTAL:	82	26	7	2	212	67	1	1	11	3

Question 10.--Continued

	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro- practor</u>		<u>Pharmacist</u>	
VERY SERIOUS	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Cherokee:</u>										
Shortness of Breath	17	17	9	9	72	72	1	1	0	0
Cough Up Blood	2	3	21	21	76	76	0	0	0	0
Pain Over Heart	7	7	21	21	71	71	0	0	0	0
High Fever	2	2	12	12	84	84	0	0	1	1
Blood in Urine	1	1	23	24	74	75	0	0	0	0
TOTAL:	29	7	86	17	377	76	0	0	1	1
<u>Fairview:</u>										
Shortness of Breath	18	13	5	4	116	80	0	0	0	0
Cough Up Blood	1	1	12	8	129	90	0	0	1	1
Pain Over Heart	6	4	21	14	117	81	0	0	0	0
High Fever	6	4	3	2	133	93	0	0	0	0
Blood in Urine	1	1	18	12	125	86	0	0	0	0
TOTAL:	32	4	59	8	620	87	0	0	1	1
<u>Okeene:</u>										
Shortness of Breath	7	10	2	3	64	87	0	0	0	0
Cough Up Blood	0	0	4	6	66	94	0	0	0	0
Pain Over Heart	2	3	1	1	69	95	0	0	0	0
High Fever	1	1	1	1	68	96	1	1	0	0
Blood in Urine	1	1	1	1	69	96	1	1	0	0
TOTAL:	11	3	9	3	336	94	2	0	0	0

Question 10.--Continued

SERIOUS	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro- practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Cherokee:</u>										
Dizziness	3	3	9	9	88	88	1	1	0	0
Loss of Weight	23	24	11	11	61	61	0	0	0	0
Leg Cramps	24	25	9	9	58	59	5	6	0	0
Swelling Leg Joints	6	7	17	18	72	72	3	3	0	0
Low Back Pain	10	11	11	12	61	62	14	15	0	0
Nerves	22	22	11	11	62	62	4	4	0	0
TOTAL:	88	15	68	12	402	69	27	5	0	0
<u>Fairview:</u>										
Dizziness	14	10	10	6	119	83	0	0	0	0
Loss of Weight	40	27	9	6	94	65	0	0	0	0
Leg Cramps	41	28	6	4	93	65	2	1	1	1
Swelling Leg Joints	8	5	11	7	124	86	0	0	0	0
Log Back Pain	29	20	6	4	94	65	13	9	1	1
Nerves	36	25	8	6	97	63	2	1	0	0
TOTAL:	168	20	50	6	621	72	17	2	2	1
<u>Okeene:</u>										
Dizziness	1	1	1	1	67	96	1	1	0	0
Loss of Waight	11	15	0	0	60	83	1	2	0	0
Leg Cramps	19	27	0	0	50	70	2	3	0	0
Swelling Leg Joints	4	6	1	1	66	92	1	1	0	0
Low Back Pain	7	9	0	0	63	88	2	1	0	0
Nerves	12	16	1	2	56	80	0	0	1	1
TOTAL:	54	13	2	1	262	84	7	2	1	1

Question 10.--Continued

MINOR	<u>Wouldn't Go</u>		<u>Specialist</u>		<u>Local Physician</u>		<u>Chiro-practor</u>		<u>Pharmacist</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Cherokee:</u>										
Sinus Trouble	22	23	12	12	57	60	3	3	1	1
Dry Cough	27	27	7	7	57	57	2	2	4	4
Headache	42	42	6	6	42	42	4	4	5	5
Indigestion	35	35	6	6	51	51	1	1	6	6
Nose Bleed	39	39	10	10	49	49	0	0	1	1
Sore Throat	21	21	6	6	67	67	1	1	4	4
TOTAL:	186	32	47	8	323	55	11	2	21	3
<u>Fairview:</u>										
Sinus Trouble	33	23	7	5	98	69	1	1	3	2
Dry Cough	40	28	7	5	90	63	0	0	4	3
Headache	67	47	1	1	64	45	4	3	5	4
Indigestion	58	40	1	1	80	55	0	0	5	3
Nose Bleed	48	34	7	5	88	62	0	0	0	0
Sore Throat	40	27	1	1	96	67	0	0	6	4
TOTAL:	286	33	24	3	516	60	5	1	23	3
<u>Okeene:</u>										
Sinus Trouble	14	19	2	2	55	76	1	1	1	1
Dry Cough	12	16	1	1	54	75	0	0	5	9
Headache	25	33	0	0	45	62	0	0	2	5
Indigestion	23	33	0	0	44	62	0	0	4	5
Nose Bleed	19	26	0	0	52	71	0	0	0	0
Sore Throat	21	30	0	0	49	69	0	0	1	1
TOTAL:	114	26	3	1	299	70	1	1	13	3

Question 11.--If you were going to select a physician which of the following two qualities would be most important and second most important?

Community	<u>Ability</u>		<u>Manner</u>		<u>Interest</u>		<u>School</u>		<u>Sex</u>		<u>Specialist</u>		<u>Charge</u>		<u>Waiting</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<u>FIRST CHOICE:</u>																
Cherokee	64	75	2	2	13	16	2	2	2	2	1	0	0	0	0	0
Fairview	55	66	1	0	17	20	5	6	2	0	3	0	1	0	0	0
Okeene	41	74	0	0	10	18	2	0	0	0	3	0	0	0	0	0
TOTAL:	183	74	3	0	40	16	9	4	4	0	7	3	1	0	0	0

SECOND CHOICE:

Cherokee	6	5	10	9	68	61	3	2	3	2	10	9	9	8	3	2
Fairview	8	7	10	9	56	49	4	3	6	5	19	16	10	9	2	1
Okeene	6	11	5	10	27	49	2	5	3	6	6	11	3	5	3	5
TOTAL:	20	7	25	9	151	56	9	3	12	4	25	9	22	8	8	3

Question 12.--Do you consider it desirable to be personally acquainted with your physician?

Community	<u>Yes</u>		<u>No</u>		<u>Do not care</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	65	61	21	20	20	19
Fairview	111	74	24	16	16	11
Okeene	61	82	8	11	5	7
Total	237	72	53	16	41	12

Question 13.--How important to you is that you see the same physician each time?

Community	<u>Very Important</u>		<u>Important</u>		<u>Not Important</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	53	50	45	43	7	7
Fairview	66	45	71	48	11	7
Okeene	36	48	32	43	7	9
Total	155	47	148	45	25	7

Question 14.--Do you ever use Indian or Veteran Hospital facilities?

Community	<u>Yes</u>		<u>No</u>	
	Number	Percentage	Number	Percentage
Cherokee	6	6	99	94
Fairview	2	1	145	99
Okeene	2	3	71	97
Total	10	3	315	97

Question 15.--If you lived in a rural area, what would be the maximum amount of travel time you would be willing to live from a physician?

Community	<u>15 minutes</u>		<u>30 minutes</u>		<u>45 minutes</u>		<u>1 hour</u>	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	38	39	41	42	6	6	12	12
Fairview	54	41	46	35	8	6	23	18
Okeene	34	52	20	20	6	9	6	9
Total	126	43	107	36	20	7	41	14

Question 16.--If you have gone to a specialist in the past two years, were you satisfied with the results?

Community	<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not Satisfied</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	27	48	27	48	2	4
Fairview	24	37	34	52	7	11
Okeene	16	47	16	47	2	6
Total	67	43	77	50	11	3

Question 17.--What did you like least about your visit to a specialist?

Community	1		2		3		4		5		6		7		8		9		10		11		12		13		14	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Cherokee	8	18	6	14	7	16	3	7	1	0	1	0	2	0	2	0	3	0	1	0	2	0	5	0	2	0	1	0
Fairview	8	17	4	8	5	10	5	10	0	0	6	13	7	15	4	8	2	0	2	0	1	0	1	0	2	0	1	0
Okeene	3	13	2	9	6	26	4	17	1	0	1	0	2	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0
Total	19	17	12	10	18	16	12	10	2	1	8	6	11	10	6	4	6	4	4	2	4	2	7	5	4	2	2	1

Key: 1 = nothing
2 = waiting
3 = drive
4 = impersonal
5 = had me keep coming back
6 = rushed
7 = cost

8 = time spent with me
9 = not thorough
10 = time away from home
11 = getting appointment soon
12 = unconcerned
13 = overrated
14 = assembly line

Question 18.--Have you or a member of your family been hospitalized in your local hospital during the past two years? (part 1)

Community	<u>Yes</u>		<u>No</u>	
	Number	Percentage	Number	Percentage
Cherokee	32	31	71	69
Fairview	60	41	85	59
Okeene	38	51	36	49
Total	130	40	192	60

Question 18.--If yes, for what reason? (part 2)

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Not Serious</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	2	8	17	65	7	27
Fairview	21	38	26	46	9	16
Okeene	13	36	14	39	9	25
Total	36	31	57	48	25	21

Question 19.--How satisfied were you with the treatment received in the hospital?

Community	<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not Satisfied</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	29	69	10	24	3	7
Fairview	58	82	12	17	1	1
Okeene	31	84	6	16	0	0
Total	118	78	28	19	4	3

Question 20.--Have you or a member of your family been hospitalized in an Enid or larger hospital in the past two years? (part 1)

Community	<u>Yes</u>		<u>No</u>	
	Number	Percentage	Number	Percentage
Cherokee	34	33	70	67
Fairview	48	33	93	66
Okeene	19	26	53	74
Total	101	32	216	68

Question 20.--Have you or a member of your family been hospitalized in an Enid or other large hospital in the past two years? If yes, for what reason? (part 2)

Community	<u>Very Serious</u>		<u>Serious</u>		<u>Minor</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	19	61	8	26	4	13
Fairview	21	50	19	45	2	5
Okeene	12	63	6	32	1	5
Total	52	57	33	36	7	8

Question 21.--How satisfied were you with the treatment received in the larger hospital?

Community	<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not Satisfied</u>	
	Number	Percentage	Number	Percentage	Number	Percentage
Cherokee	19	48	20	50	1	2
Fairview	28	48	29	50	1	2
Okeene	9	41	10	45	3	14
Total	56	47	59	49	5	4

Question 22.--What do you think of your local hospital's ability to care for the community's health needs?

Community	<u>Excellent</u>		<u>Good</u>		<u>Fair</u>		<u>Poor</u>	
	Number	Percent-age	Number	Percent-age	Number	Percent-age	Number	Percent-age
Cherokee	13	13	27	26	32	31	31	30
Fairview	57	39	73	50	16	11	1	0
Okeene	61	82	12	16	1	2	0	0
Total	131	40	112	35	49	15	32	10

Question 23.--In what age group do you fit?

Community	Under 21		21 - 34		35 - 44		45 - 54		55 - 64		65 & Over	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	2	2	13	12	14	13	16	15	26	24	36	34
Fairview	1	0	25	17	24	16	36	24	28	19	35	23
Okeene	0	0	5	7	16	21	16	21	14	18	25	23
Total	3	2	43	13	54	16	68	20	68	20	96	29

Question 24.--Are you male or female?

Community	Male		Female	
	Number	Percentage	Number	Percentage
Cherokee	63	58	46	42
Fairview	91	61	57	39
Okeene	56	74	20	26
Total	210	63	123	37

Question 25.--What was the highest grade you completed in school?

Community	<u>8th Grade or less</u>		<u>8 - 12</u>		<u>High School Graduate</u>		<u>1-3 years College</u>		<u>College Graduate</u>		<u>Post Graduate</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cherokee	15	14	12	11	62	57	8	7	3	3	8	7
Fairview	24	16	33	22	53	36	19	13	13	9	6	4
Okeene	15	21	12	16	27	37	8	11	3	4	8	11
Total	54	16	57	17	142	43	35	11	19	6	22	7

Question 26.--Approximate annual family income?

Community	<u>Less than \$5,000</u>		<u>\$5,000 to \$9,999</u>		<u>\$10,000 to \$14,999</u>		<u>\$15,000 & Over</u>	
	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Cherokee	18	25	28	38	15	21	12	16
Fairview	38	27	53	38	29	21	21	15
Okeene	18	25	27	38	15	21	12	17
Total	74	26	108	38	59	21	45	16

Question 27.--What is the occupation of the head of the house?

Community	1		2		3		4		5		6		7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Cherokee	5	9	6	11	15	26	12	21	12	21	6	11	1	2
Fairview	6	6	11	10	20	19	24	23	32	20	8	8	5	5
Okeene	5	9	6	10	15	26	12	21	12	21	6	10	1	2
Total	16	7	23	10	50	23	48	22	56	25	20	9	7	3

Responses ranked on the Hollingshead, "Two Factor Study of Social Position".
Positions to left require most skill and education.

Question 28.--Are you married, single, divorced, widowed?

Community	<u>Married</u>		<u>Single</u>		<u>Divorced</u>		<u>Widowed</u>	
	Number	Percent- age	Number	Percent- age	Number	Percent- age	Number	Percent- age
Cherokee	97	87	1	1	2	2	11	10
Fairview	117	80	9	6	4	3	17	12
Okeene	62	82	1	0	2	2	11	14
Total	276	82	11	3	8	2	40	11

Question 29.--Do you have children at home?

Community	Number	Percentage	Number	Percentage
Cherokee	35	32	75	68
Fairview	68	47	77	53
Okeene	35	47	40	53
Total	138	42	192	58