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Relationships of the Public to Physicians in a Rural Setting

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SUMMARY

Relationships between the public and physicians form part of the relational pattern of an area. The physician, himself, occupies a position in the locality which is quite visible, and he is the focus of more than his share of attention. With changing social conditions, adjustments are in order for both physicians and the public. Adjustments, however, are not usually uniform throughout any social situation. Three rather distinct types of public-physician relationships can be identified. They are the *personal-primary* type of relationship; the *impersonal-secondary* type of relationship; and a kind of rejection of physicians by the public termed the *alienated* type of relationships. An effort has been made in this report to inquire into public-physician relationships within a particular rural county.

Consideration was given to contacts between physicians and the open country sample of households. The concentration of physicians in the one urban center of the county has widened the physical distance between physicians and the sample population. There also appeared to be great social distance. The number of professional calls varied greatly for the survey year among households—ranging from none to over 50. Few of these calls were made in the home.

A major part of this discussion was concerned with characteristics of households that reported a family doctor. No single factor definitely separated households that reported a family doctor from those that did not. However several variables shown in the summary table were related to having a family doctor.

It appeared that position in the family-cycle when combined with certain other characteristics of the households was related to having a family doctor. For example, youthful households with three or more members were considerably more likely to report a family doctor than elderly households with a low level of living index.

It was also found that the type of public-physician relationship was related to reporting a family doctor. Generally speaking, households with *primary* orientations were most likely to report a family doctor, and those with *alienated* orientations were least likely to report a family doctor. This relationship was clearest for older households.

Alienated orientations were heavily concentrated in elderly households, especially in those with a low level of living index. It was suggested that members of these households might have been unable or unwilling to make adjustments to changing conditions and thus became alienated. In the elderly households, the extent to which members remained socially integrated apparently affected reporting a family doctor.

The final section of this report examines relationships between reporting a family doctor and other health behavior. These relationships are shown in the summary table. Reporting a family doctor tended to be associated with households having better informed health practices and opinions.

**SUMMARY OF RELATIONSHIPS BETWEEN REPORTING A FAMILY DOCTOR
AND SELECTED VARIABLES**

Relationship Reporting a Family Doctor With:	Chi Square	d.f.	Finding
			- Not Significant at 5 percent level.
			* Significant at 5 percent level.
			** Significant at 1 percent level.
1. Age of head of household	4.2	2	-
2. Number in household	8.2	2	*
3. Income	3.4	2	-
4. Level of living	3.9	1	*
5. Education of male head of household	6.4	2	*
6. Type of public-physician orientation	17.0	2	**
7. Number of doctor calls one year	18.9	2	**
8. Satisfaction with medical care	7.2	1	**
9. Report unmet medical needs	3.3	1	-
10. Opinions concerning doctor charges	2.7	1	-
11. Having health insurance	4.5	1	*
12. Frequency of physical examinations	2.1	2	-
13. Opinion concerning immunization	4.8	1	*
14. Opinion concerning polio immunization	.9	1	-

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This bulletin reports on Department of Rural
Sociology research Project 201,
Rural Health

Relationships of the Public to Physicians in a Rural Setting

EDWARD W. HASSINGER AND ROBERT L. MCNAMARA

INTRODUCTION

Health is an area of great concern for the American people. Each year American families spend over 10 billion dollars for personal health services. This is not quite as much as is spent for recreation but is three times as much as is spent for religious and welfare activities by individual families and represents between 4 and 5 percent of family expenditures.¹ It appears to be money well spent. Indices of health and longevity continue to show improvement and when viewed over the last 50 years the gains are little short of spectacular.² But expenditure of money is not the only indication of the importance of health matters among the American people. Folk-sayings concerning health are numerous; many daily papers carry columns devoted to health; health matters are common topics of conversation.

Health practices and opinions of people in a Missouri county were the focus of a study undertaken by the Department of Rural Sociology in 1955. A previous bulletin has reported health services used, and other reports will follow this one in an attempt to present a comprehensive picture of health practices and opinions in a rural county. In addition comparisons will be made with another Missouri county which was selected because it represented a different cultural area of the state.

In thinking about health, the researcher's attention is inevitably directed toward the physician. As a central figure in the maintenance of health, the physician's training and skill, the facilities with which he works, and his outlook concerning professional obligations are important in the health situation of any community. Also important, and not wholly unrelated, are the contacts that the physician has with the public. Doctor-patient relations have been studied and discussed,³ and doctors have commented on the relationships with those in their communities in numerous reminiscences.⁴ It is more rare to find accounts of

¹Health Information Foundation, *Progress in Health Services*, Vol. V, No. 7, September, 1956.

²Death rates, infant mortality rates, incidence of childhood diseases.

³J. H. Means, "Evolution of Doctor-Patient Relationship," *Bulletin of the New York Academy of Medicine*, Vol. 29, No. 9, 1953.

⁴Arthur E. Hertzler, M. D., *The Horse and Buggy Doctor*, Harper and Brothers, New York, 1938. W. Scott Nay, *The Old Country Doctor*, The Tuttle Publishing Company, Rutland, Vermont, 1937.

physician-public relationships from the public's point of view.⁵ However, contacts with physicians and the conception of those contacts are part of health behavior. It is believed that such relationships are of consequence to family and community health, and they are the subject of the following report.

FRAME OF REFERENCE

Fortunately it is not necessary to approach a study of relationships between physicians and a local population without guide posts. In setting the stage for the present inquiry, it would be foolish not to utilize what others have observed, and what the writers have learned from previous experience. On the other hand, it would be impossible to detail all that has been written and observed about the subject, and furthermore, such detail would tend to confuse more than aid in the analysis.

The relationship that a population has with physicians is, of course, only a small portion of the total relational pattern of a locality. However, it is thought that the physician occupies a special place in the locality, and that this is important in the health behavior of the population. The physician's professional role is of critical importance, and his work is highly visible. The status position he occupies sets him apart from the rank and file, but in rural areas, at least, the activities of the physician do not go unreported. The physician is one focus of local attention and the topic of many conversations. Even though direct doctor-patient contacts may be missing, few persons are outside a communication network that can give a first- or second-hand report. Thus the physician as the recipient of more than his share of attention, may be regarded as an *opinion-target* in the locality.

Interest is centered not only upon doctor-patient relationships, but also on a population's more general or indirect relations with physicians and its conception of physicians. In the following discussion, the term public-physician relations is used in a somewhat special sense to refer to a population's relationship with physicians. In the discussion of the "old" public-physician relations that follows, it is seen that these relations are largely on a community basis which in some ways conflicts with the concept, public. However, the term public is retained when speaking of the "old" as well as the "new" public-physician relationships.

There appear to be two major foci of public-physician relations. One has to do with traditional primary relationships built up at a time of poor communication and uncertain medical techniques; the other is centered about modern medicine exhibiting an efficiency in harmony with an impersonal world. One can use the terms "old" doctor and "new" doctor with little explanation and be expected to be understood. Therefore, the relationships of the "old" and "new" doctor are examined with the idea that this may give insight into those relationships existing in the county studied. The relationships are generalized in the

⁵Note that a distinction is made between patients and public.

following discussion and do not harbor the ambiguities that are certain to be found in actual situations.

While primary-personal relationships and secondary-impersonal relationships were anticipated, another type was uncovered in the course of the research which could not be interpreted in this framework. This was alienated orientation toward physicians. Each of these types is considered separately.

The "Old Doctor."

If physicians were spotted on a map with pins and changes in their location over the past 50 years could be observed in a minute, it would appear that some powerful magnet was pulling them to central points. In the United States as a whole, the concentration of physicians in urban areas has exceeded that of the population in general.⁶

Fifty years ago roads in many rural areas were little more than trails; transportation was by horse-drawn vehicles, horseback, or on foot. In time and effort distances were great. It was necessary for the doctor to be close to the home of his patient not only because of inability to cover distance easily, but because the bed of illness was in the home rather than in the hospital. Physically close to the people he served, it was often necessary for the physician to stay overnight or take meals with those he cared for.

Dr. W. W. Mayo, father of the famous Mayo Brothers, practiced for a time near Le Sueur, Minnesota in the 1850's. According to Clapesattle he usually made his calls on foot.

"At the end of the journey, he was as likely as not to find his patient in a one-room log cabin or sod hut, heated by a fireplace and lighted by a lard lamp or homemade candles. Family and friends might be assembled in stifling proximity to the sick person, or he might be alone in the cabin. Sometimes Dr. Mayo stayed a day or two to act as nurse, even on occasions splitting wood to step up the fire and stirring up a nourishing broth or gruel to help restore strength."⁷

The close physical relationships of the doctor and public were at least a contributing factor to their close social and personal relationships. It would have been difficult for a doctor to be unaware of the social and personal problems of those about him. He was located in a relatively closed community where communications were sure and in detail. His professional visits in the homes of his patients involved him in the contributing circumstances of illness. And in the days when scientific knowledge in medicine was limited, his dependence upon ingenuity and common sense (the art of medicine?) made him sensitive to surrounding conditions. A great deal of the physician's effectiveness, in fact, could be attributed to the personal confidence that the patient had in the doctor—not

⁶Frederick D. Mott and Milton I. Roemer, *Rural Health and Medical Care*, McGraw-Hill Co., New York, 1948, pp. 163-168.

⁷Helen Clapesattle, *The Doctors Mayo*, The University of Minnesota Press, Minneapolis, 1941, p. 52.

so much as a technically skillful person—but as a wise and good man.⁸

Professional relations with the physician were often of the most urgent kind. While reminiscences by old doctors point out that at times useless calls were made, by and large, doctors were not called unless the condition was considered serious.⁹ Home remedies, patent medicines, and knowledgeable neighbors, probably in about that order, generally preceded aid from the doctor. Therefore, the doctor's visit was not to be taken casually, and often it was a crisis situation. When recovery occurred his personal contribution might be remembered with awe, and when not, he was often able to comfort the family by having "done all that was possible." In either case, his presence was a significant event.

It is difficult to characterize in a word the feeling that the community had for the old doctor. While those we talk with today in reminiscing tend to view the old doctor with nostalgia, (although admitting that he did not have the technical skill or the tools of the modern practitioners), it appears that there was considerable ambiguity in the image of the doctor. They were regarded as sinners as well as saints; with great respect and great disdain.¹⁰ In a social situation in which the relationship between the doctor and public was highly personalized, it is reasonable that the confidence of the public was attached to individual practitioners rather than to the profession as a whole. While presently the tendency seems to be to submerge in the profession, the old doctor depended upon advertising, special cures, personal mannerisms, and virtuosity to establish his individuality and thus a personal following. Under such circumstances, there were many irregular practitioners and a number of schools of thought in the profession.¹¹

The "old doctor," then, was physically close to those in the community. His relations with the public were personal and professionally often involved traumatic experiences. Personal loyalties of a primary sort were established between the doctor and the public.

The "New Doctor"

The "old" physician-public relations may be contrasted with the "new." Doctors were distributed more evenly over the countryside a half-century ago than they are today. Roads and automobiles have permitted the centralization of many services, medical services being prominent among them. New techniques in medical practice have encouraged the centralization of medical facilities and personnel. Hospitals, laboratories, and specialists simply cannot be provided at

⁸Arthur E. Hertzler, M. D., *The Horse and Buggy Doctor*, Harper and Brothers, New York, 1938, p. 97.

⁹James M. Williams, *Our Rural Heritage*, Alfred A. Knopf, New York, 1925, p. 107. W. Scott Nay, *op. cit.*, p. 53.

¹⁰Arthur E. Hertzler, *op. cit.*, p. 32.

¹¹Madge E. Pickard and R. Carlyle Buley, *The Midwest Pioneers: His Ills, Cures, and Doctors*, New York, Henry Schuman, 1946, p. 169.

the crossroads center.

The rearrangement of physicians on the landscape is indicative of changes that have taken place in doctor-public relations. The system within which the "new" doctor works tends to impersonalize his relationship with the public. Even in rather simple medical surroundings, the druggist, the nurse, and the receptionist perform many duties formerly the physician's. Because of the vast knowledge available in medical science, numerous specialties have developed, representing a further division of labor in a complex system of medical care. The hospital has also been interposed between the doctor and patient adding to the impersonalization of the relationship.

However, to say that the modern physician is unaware of the importance of personal and social conditions in health would be wrong. These relations have been objectively demonstrated and the scientifically oriented practitioner is not likely to dismiss such evidence. Specialties are devoted to these areas and the modern practitioner has more verified knowledge about the connections of psycho-social factors with health than the old doctor did. The renewed interest in the role of the general practitioner in health care is a result of quite rational considerations. Emphasis appears to be more upon the rational understanding of personal problems than upon involvement in them.

By routinizing medical procedures and by working in an office or hospital, rather than in the patient's home, the physician sees more patients in a working day. The sheer number of patients and the sameness of the office or hospital environment tend to impersonalize professional contacts. Attention to routine prevention of illness also tends to impersonalize relationships. Perhaps the best example of this is the experience of children with the doctor. Pediatrics is based largely upon the routine prevention of illness—how different from calling the doctor only when other means failed. Even in death the hospital situation often intercedes between the doctor and the family, reducing the emotional involvement between them.

Technically the modern physician is competent. He knows how to use the powerful scientific tools of his profession. His education has been in a standard curriculum and at a high level of concentration. There is no withholding of information among doctors which is available in numerous professional journals. While specialization is a mark of modern medicine, differentiation on the basis of specialties is not at all the same as the older differentiation on the basis of cults or special cures. Specialization is within the profession with professional control and sanction. The general practitioner has his niche within this professional system. His special province is the treatment of more common conditions and determining when his knowledge should be supplemented by a specialist. In accepting the advantages of modern medicine, the public's attention is on the profession as a whole rather than on the doctor as an individual. The public, lacking personal loyalty, does not hesitate in its acceptance of the wonders of modern medicine.

The "new" physician, then, is located where medical facilities and other doctors are concentrated. His relationship with the public is impersonal and secondary and with the patient often routine. The public returns this secondary relationship by showing confidence in the medical profession rather than faith in the doctor.

"Alienated" Doctor-public Relations

The relationships just described were developed to serve as a frame of reference for analysis of the data. Another type of relationship became apparent as the research proceeded. This was attitudes of withdrawal from or disenchantment with physicians. Since it was assumed that both the "old" and "new" physician-public relations were functional within particular situations, the dysfunctional "alienated" relationship constitutes another aspect of physician-public relationships.

The discussion of "old", "new" and "alienated" public-physician relationships may be of interest in itself, but it has been developed primarily as an aid in understanding the relationships that existed in the county studied. Actual relationships would not be expected to fit these patterns completely. The relationships of the past do not die overnight and may remain in the attitudes of the public long after their referent has ceased to exist. The relations between public and physician are relative to the community pattern of interaction. The "new" doctor exhibiting and expecting qualities of impersonality and efficiency might expect to find a more harmonious environment in an urban situation while the "old" doctor might still find a place in certain isolated areas of the country.

The following analysis was based upon a random sample of open country households in a south Missouri county. An attempt was made to describe relationships with and conception of physicians by respondents in these households. In this manner an effort was made to appraise the public-physician relationships of this area.

THE SAMPLE

A field study was made in a county in the south-central area of Missouri during the fall of 1955. A detailed report of the area and sample was given in a previous bulletin.¹² To summarize briefly, 154 households were selected randomly from those families in the county who lived outside towns and villages. It was not possible to contact two of the households. With this exception, adult members of each household were interviewed using a schedule of questions.

¹²Robert L. McNamara and Edward W. Hassinger, *Extent of Illness and Use of Health Services in a South Missouri County*, Res. Bul. No. 647, January 1958, University of Missouri, Columbia, Missouri.

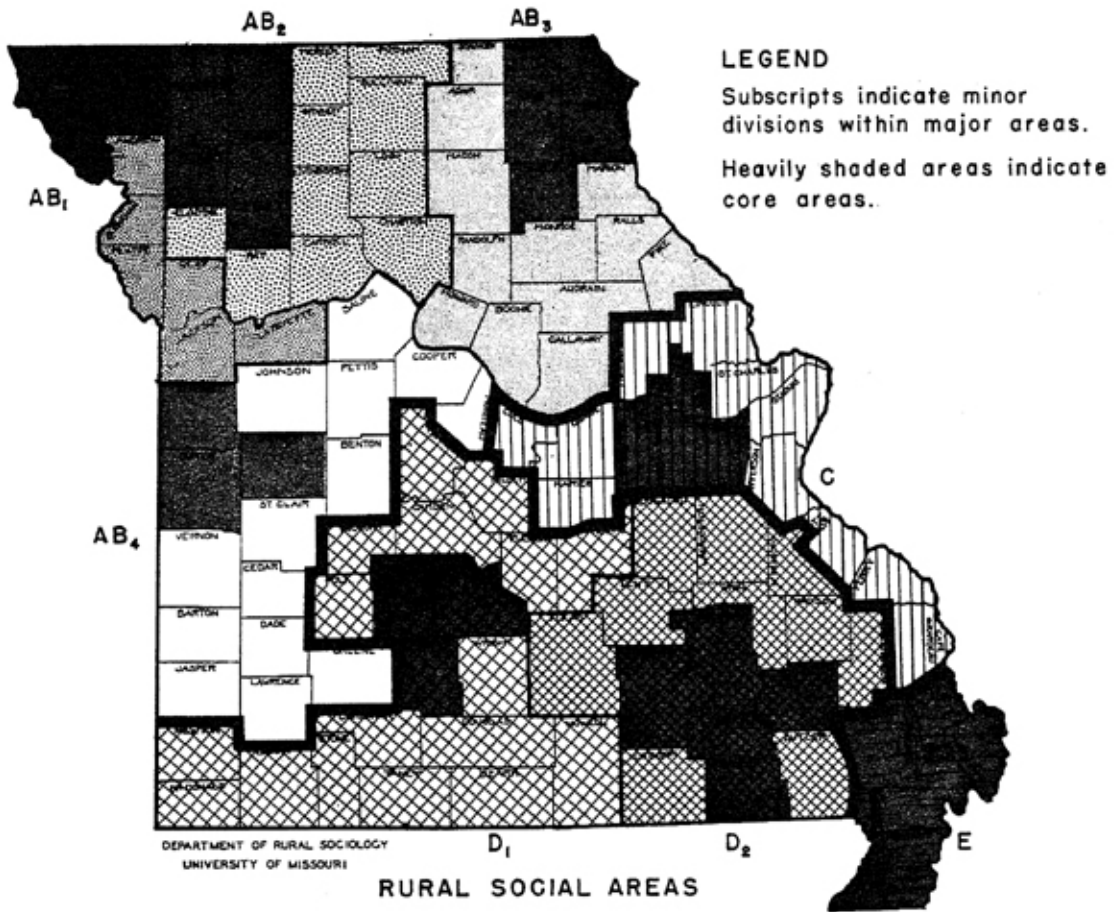


Figure 1—Map of rural social areas.

Social areas have been delineated for the state of Missouri by Charles E. Lively and Cecil L. Gregory.¹³ Through this research, counties with similar socio-economic characteristics have been grouped together into homogeneous social areas. The county studied is a "core" county in its particular social area, which means it possessed to a marked degree the social and economic characteristics of its larger social area. Because information is available about the qualities of these counties and their likeness to one another, it is possible to extend the finding to similar counties. Most confidence is shown in extending the findings to counties which show the greatest similarity to the county studied (other core counties in the same social area), but considerable confidence is placed in the findings even when extended to the borders of the social area. (Figure 1.)

The sample was drawn from a universe consisting of families living in the open-country. This excluded those residing in the one urban place, all other in-

¹³Charles E. Lively and Cecil L. Gregory, *Rural Social Areas in Missouri*, Res. Bul. 305, August 1939, University of Missouri, Columbia, Missouri. (A revision of this Bulletin is forthcoming and Figure 1 is from the revised version.)

corporated places, and one place which was not incorporated but judged not to be open-country. The universe contained all families reported in the census as rural-farm plus some of those reported as rural-nonfarm. By defining the universe in this manner a significant control is established. This has two obvious consequences. It produces a more homogeneous universe, permitting a smaller sample of cases, but at the same time it confines the analysis to the residential category delineated, thus limiting the breadth of the interpretation.

Even though the universe was limited in this way, the number of cases in the sample was not large. A test of representativeness of the sample would be highly useful in establishing the correspondence between the universe and the sample. Because the sample was not drawn from the same residential categories reported in the census, a precise comparison between a given characteristic reported in the census and shown in the sample was not possible. The sample was neither strictly farm nor nonfarm but consisted of both, and characteristics of the sample should fall somewhere between these categories reported in the census. When age, sex, education, size of household, and dwellings with running water of the sample were compared with the census, a close correspondence was evident. This gives some confidence (although not complete assurance) that the sample is representative for other factors.¹⁴

PRESENTATION OF DATA

Contacts with Physicians

Physical Distance: As indicated, this study deals with a special segment of the population consisting of only those households in the open-country. On the other hand, doctors in the county were concentrated in the county's one urban center. Seventy-seven percent of the families were 5 miles or more away from the place they would normally go for medical care, 45 percent were more than 10 miles away, and 13 percent were at least 20 miles distant. This in fact was almost coterminous with the distance of the households from the urban center. The people in the sample and their physicians were separated to a considerable extent by physical distance.

Social Distance: The distance was also great socially. The families interviewed generally showed a modest level of living score, an educational level that seldom was above high school and more often did not exceed the eighth grade, and an income level that was not high. This would contrast sharply with the attainment level of physicians, who in rural communities generally stand out in income and education. Presumably these different levels of attainment produce a social gulf difficult to bridge. And, in fact, the interviewers detected few situa-

¹⁴These comparisons are detailed in Robert L. McNamara and Edward W. Hasinger, *Extent of Illness and Use of Health Services in a South Missouri County*, *op cit.*

tions in which social relations occurred with physicians outside professional calls and casual "pass on the street" contacts.

As with most generalizations, this was more nearly true of some families than of others and applied to certain physicians more than to others. For example, two elderly physicians living outside the urban center (the only ones who did) had many non-professional contacts with rural families, and their style of life was not much different from those of the rural families. The major work of these physicians, however, was in the past; the end of their careers was clearly in sight.¹⁵

Professional Calls: For a period of one year preceding the interviews, the 152 households (532 individuals) in the sample had 1844 professional calls with physicians. This was an average of 12.1 calls per family and 3.5 calls per individual.¹⁶

The number of contacts was by no means uniform for all households; they ranged from none to more than fifty.¹⁷ Nine households (6 percent) accounted for almost one-third of the total number of doctor calls and almost one-fourth of the families had no calls at all. Routine visits for physical examinations were rare occurrences. Thus, in terms of professional contacts, the experience of families was not alike, and presumably the impact of the physician was felt to varying degrees.¹⁸

However, a visit to or from the doctor was not an unreported event. If the immediate family had not had contacts with the physician during the year, it is likely that relatives living close by or friends and neighbors had such an experience.

Location of Professional Calls: The physician did not make the rounds in the county as he once had done. Home calls appeared to be the result of emergency situations. Only 80 of the more than 1800 calls were made in homes; the remainder were in the doctor's office or in the hospital.

Place of contact has changed from the home to the doctor's office or the hospital; separation of the physician and public has occurred socially as well as geographically. In terms of the frame of reference presented earlier, this is an indication of the more impersonal public-physician relations. This particular com-

¹⁵Since the field work, one of these men has died.

¹⁶A "doctor call" refers to professional contact between individual and physician whether occurring in the patient's home, the doctor's office, or in a hospital.

¹⁷Details of the association of medical services to other factors can be found in Robert L. McNamara and Edward W. Hassinger, *Extent of Illness and Use of Health Services in a South Missouri County*, *op. cit.*

¹⁸This follows a well established pattern; see for instance, Odin W. Anderson with Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance: A Nationwide Survey*, McGraw-Hill Co., New York, 1956, pp. 36-45; Frederick D. Mott and Milton I. Roemer, *Rural Health and Medical Care*, McGraw-Hill Co., New York, 1948, pp. 85-86.

ponent of doctor-public relations is something over which the people had little control. In view of transportation and development of complex health facilities, it is reasonable for physicians to locate in larger centers. But it does not necessarily follow that this meets the approval of those living outside the center.

The Family Doctor

Another level of relationship to be examined is the one leading to the choice of a family doctor. Although it is a term in general use, the concept, family doctor, actually encompasses a bundle of relationships which do not mean the same thing to all people. For some it brings up nostalgia harkening back to the "old country doctor." The relationships that lead to reporting a family doctor also may be based upon the more impersonal world of today. A physician may be chosen as a family doctor quite deliberately in order to have services available when needed. This may take on aspects of a contractual relationship.¹⁹ Also, acquisition of a family doctor may be a matter of circumstances. Illness leads to contacts with a physician, and if the relationship is satisfactory to the family and the physician, it is likely to continue.

The common element in the concept, family doctor, regardless of the basis for the relationship, is that some degree of permanent contact is maintained between the family and the physician. But even this criterion is relative; age and mobility of both public and physician as well as decisions of a more subjective nature account for varying lengths of time that families report having a family doctor. Some families who reported no family doctor had recently moved to the area or their doctor had died or moved away. Of the 152 households interviewed, 105 reported a family doctor. Thirteen percent of these households dated the relationship back 20 years or more; for 7 percent, it had existed for less than six months. Twenty-three percent had maintained the relationship for from two to five years, and 31 percent had maintained it for from five to ten years (Table 1).

TABLE 1 -- LENGTH OF TIME PRESENT DOCTOR HAS BEEN THE FAMILY DOCTOR

Length of Time	Number of Households	Percent of Households
0-6 months	7	6.7
6 months-2 years	7	6.7
2-5 years	24	22.9
5-10 years	33	31.4
10-20 years	20	19.0
20 or more years	14	13.3
Total	105	100.0

Forty-seven households reported no family doctor.

¹⁹For instance in Lucas County, Ohio, a public relations effort was undertaken to have each family select a family physician. See Edgar A. Schuler, Robert F. Mowitz, and Albert F. Mayer, *Medical Public Relations*, Health Information Foundation, 1952, pp. 10-11.

In addition to reporting or not reporting a family doctor, inquiry was made regarding whether or not those who had family doctors talked over family and personal problems with them. Responses were obtained from 99 of the 105 households reporting a family doctor. About 31 percent of those reporting a family doctor also reported talking over family problems with the physician. Even among those with a family doctor, the physician as a confidant was a fairly infrequent behavior pattern.

Characteristics of Households Reporting Family Doctors

It is possible to describe those households reporting a family doctor and those that did not. The variables used for this description were age of head, size, income, level of living, and education of the male head. Age was used as a control with each of the other variables.

Age of Head: Age of the head of the household was regarded as an approximation of the position in the family life-cycle. Age of the male head of the household was used in all cases except the six in which there was no male head. In these cases, age of the female head was used. There was some tendency for households with a family doctor to have a larger proportion of their heads in the younger age category. Households without a family doctor had a concentration in the category, 65 years or older. While the difference in percentages appeared substantial for the number of cases in the sample it was not significant at the 5 percent level (Table 2).²⁰ The direction of the relationship is of particular interest. It has often been supposed that older families were more likely to have "family physician relationships" than younger ones. Although it cannot be said definitely that family doctors were concentrated in younger households, the

²⁰Note: The statistical tool, chi square (X^2), has been employed throughout this analysis. Since a sample of the households in the county was used, it is not always clear that differences which did occur in the sample assured that there were real differences for all of the households in the county. If differences for a sample of cases is great enough, it is reasonably certain that there will be differences of the same kind (although not necessarily the same magnitude) for the entire county. Another consideration to be taken into account is the size of the sample. As the sample size increases, the magnitude of the difference in the sample may decrease and still reasonably assure a real difference for all the cases in the county. But the question remains how large must the difference be for the size of the sample involved in order to reasonably assure a difference for the entire county. Here the statistical tool, chi square, is called into use. Essentially we are willing to accept a difference in the sample as being real for the entire county if we may expect to be wrong not more than 5 times in 100. Thus we say that the difference is significant at the 5 percent level by a chi square test. If it is significant at the 1 percent level, we would expect such a difference to reflect a real difference in the county at least 99 out of 100 times. Because a sample difference is not significant at the 5 percent level does not necessarily mean that a difference does not exist for the entire county. In fact the criterion of accepting a difference, as can be seen, is a rather stringent one.

TABLE 2 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND AGE OF HEAD*

Age of Head	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 30	8	7.6	2	4.3
30-44	31	29.5	9	19.1
45-64	51	48.6	24	51.1
65+	15	14.3	12	25.5
Total	105	100.0	47	100.0

*Age of male head in cases where there was a male head of household; in the six cases with no male head, the age of the female head of household was used. $X^2=4.2$, d.f.=2. Not significant at 5 percent level (rows 1 and 2 combined).

evidence was in that direction and virtually precluded a significant relationship in the opposite direction. The relationship of the position in the family cycle to reporting a family doctor is considered further in the summarization of characteristics of households reporting a family doctor.

Because it might affect the relationship between reporting a family doctor and the other variables to be considered, age of head was controlled. Due to the small number of cases, it was not practical to divide the sample into more than two groups. In order to have two groups approximately equal in size, the households were divided into "younger" and "older" at age 55 for heads of households.²¹ Tables showing relationships between reporting a family doctor and the variables considered in the discussion when age was controlled are in Appendix A. Reference is also made to them in the text.

Size: Size of household was related to having a family doctor. Thirty-six percent of the households reporting a family doctor had one or two members, while 56 percent of those reporting no family doctor were one or two member households. Seventeen percent of the family doctor households had five members or more; this was true for only 4 percent of the households not reporting a family doctor (Table 3). This relationship was significant at the 5 percent level by a chi square test. When age of head of the household was controlled, it was found that the relationship was significant at the 1 percent level for younger households, but did not hold true for older households (Appendix Table 1). Older households were generally small; in fact, only three had five or more

TABLE 3 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND SIZE

Persons in Household	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
1 or 2	38	36.2	27	57.4
3-5	49	46.7	18	38.3
Over 5	18	17.1	2	4.3
Total	105	100.0	47	100.0

$X^2 = 8.2$, d.f. = 2. Significant at 5 percent level.

²¹Younger household—male head of household under 55 years of age—if no male head, female head under 55 years of age. Older household—male head household 55 years of age or over—if no male head, female head 55 years of age or over.

members. The younger households with 3 or more members in most cases were families with children. These households were more likely to report a family doctor.

Net Income: Households reporting a family doctor tended to have a somewhat higher net income than households not reporting a family doctor. Note in Table 4 that among households reporting a family doctor, 35 percent had incomes of \$3000 a year or more compared with 23 percent among households not reporting a family doctor. On the other hand, only 20 percent of the households with a family doctor were in the low income category of less than \$1000 dollars compared with 32 percent of those not reporting a family doctor. Though the direction of this relationship was noticeable, the relationship was not great enough to be significant at the 5 percent level. Controlling age of the head of the household did not alter the relationship appreciably (Appendix Table 2).

TABLE 4 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND NET INCOME

Net Income	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under \$1000	21	20.0	15	31.9
\$1000-\$3000	47	44.8	21	44.7
\$3000-\$5000	29	27.6	9	19.1
\$5000+	8	7.6	2	4.3
Total	105	100.0	47	100.0

$\chi^2 = 3.4$, d.f. = 2. Not significant at 5 percent level (rows 3 and 4 combined).

Level of Living: Another economic index used was a level of living score. Households were scored according to whether or not they possessed certain material items.²² Scores ranged from a low of nine to a high of 21. Less than half of the households with a family doctor had a level of living score of 13 or less, compared with more than two-thirds of those without a family doctor. The difference was significant at the 5 percent level by a chi square test (Table 5). Con-

TABLE 5 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND LEVEL OF LIVING SCORE

Level of Living Score	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
9	2	1.9	1	2.1
10	9	8.6	1	2.1
11	13	12.4	8	17.0
12	14	13.3	14	29.7
13	13	12.4	7	14.9
14	13	12.4	6	12.7
15	16	15.2	2	4.3
16	6	5.7	2	4.3
17	9	8.6	2	4.3
18	4	3.8	2	4.3
19	3	2.9	--	----
20-21	3	2.9	2	4.3
Total	105	100.1	47	100.0

$\chi^2 = 3.9$, d.f. = 1. Significant at 5 percent level (rows 1-5 and 6-12 combined).

²²See Robert L. McNamara and Edward W. Hassinger, *Extent of Illness and Use of Health Services in a South Missouri County, op. cit.*, Appendix, for a list of material items used to determine the level of living index.

trolling by age of heads of households showed that the relationship did not hold true for younger households, but was definite for older households (Appendix Table 3). It appeared that in older households the translation of economic ability into material goods was associated with having a family doctor.

Education of Male Head: Households reporting a family doctor were less likely to be headed by a man with less than an eighth grade education than households without a family doctor. At the same time, they were also less likely to be "headed" by a man with at least a high school education. The pattern of educational attainment differed enough to be significant at the 5 percent level by chi square test (Table 6). It is somewhat difficult to interpret the finding that there is a larger proportion of households without a family doctor in both the category of low educational status (under 8 years) and the category of relatively high educational status (12 years or more). The most definite difference noted was in the educational category under eight grades. This category included 27 percent of the households with a family doctor and 43 percent of the households without a family doctor. The difference in the category of 12 years of education or more for male heads was much closer for those reporting and not reporting a family doctor.

Education of the male head of household was more closely related to having a family doctor for younger households than for older households (where there were virtually none with a high school education). However, when age was controlled the relationship between education and possessing a family doctor was not significant (Appendix Table 4).

TABLE 6 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND EDUCATION OF THE MALE HEAD

Years School Completed	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 8	28	27.4	19	43.2
8-11	58	56.9	15	34.1
12 and over	16	15.7	10	22.7
Total	102	100.0	44	100.0

Six households had no male head.

$X^2 = 6.4$, d.f. = 2. Significant at 5 percent level.

Comparison of Family Doctor Reports of Two Extreme Groupings of Households: It is clear that none of the characteristics examined definitely distinguished between households with and without family doctors. However, relationships and directions of relationships were found which appeared to be of consequence. Upon examining the relationships for direction, it appeared that position in the family-cycle (as indicated by age of head of household) was of importance when taken together with certain other variables. To pursue this idea somewhat further, extreme family-cycle positions were separated. At one end were households whose heads were under 45 years of age (termed youthful households); at the other, were those in which the head was at least 65 years of

age (termed elderly households). In addition it was previously noted that size of household in younger households (head under 55 years) was related to reporting a family doctor. The presence or absence of children in youthful households has been taken into consideration in most discussions of the effect of the family-cycle upon behavior in the family. In the present discussion, youthful households with two members were separated from those with three or more and the latter grouping was used in comparison with elderly households. Another variable, education of male head, was also considered for combination with this youthful grouping because it had been indicated previously that it was related to reporting a family doctor. However, when this variable was examined it was found that none of the male heads in the youthful grouping with three or more members had less than an eighth grade education. This particular educational categorization was without weight in addition to age for this particular age grouping.

In the elderly households, 20 of the 27 had a level of living score of 13 or less compared with 82 of 152 for the entire sample. In reporting extreme groupings only those elderly households with a low level of living score were included. Thus, two groupings are compared which represent extremes of the family-cycle and which incorporate certain factors which characterize the respective family-cycle positions—children in the case of youthful households and relatively low level of living scores in the case of elderly households.

Selection of households on this basis severely reduces the number of cases in individual categories, and any conclusions must be regarded as tentative and suggestive. There were 43 youthful households with three or more members; only eight did not report a family doctor. Compared to this, 10 of the 20 elderly households with a relatively low level of living score did not report a family doctor. This may be reported in terms of a chi square test in which case the difference between the two groupings was significant at the 1 percent level (chi square = 6.6, d.f. = 1). For the limited data available there appears to be a difference in these two groupings of households with respect to reporting a family doctor.

Youthful households with three or more members would generally exclude the newly-married couples who might not have had an opportunity or need to establish permanent relationships with a physician. The arrival of a baby or the care that children require makes the need for continuing relations with a physician more likely. The selection of a family doctor by members of the younger households may be on the basis of specific family needs and perhaps done quite rationally.

Probably the elderly households with lower level of living scores were isolated to a greater extent from many community services, including physician's services. Also, it may be that if a family doctor is lost through death, retirement, or migration, older people do not establish relations with another doctor as readily.

Orientation Toward Physicians and Reporting a Family Doctor

Primary-Secondary Orientation: To this point, the discussion has included material on contacts with physicians and the characteristics of households reporting or not reporting a family doctor. Now consideration is given to the point of view or orientation of these people regarding the physician. The image that the public has of the physician may be a factor in relationships that lead to reporting a family doctor and also to other health behavior.

The data available for assessing the public's orientation toward the physician were verbal responses to items, constituting opinions, about relationships with physicians. As a guide in constructing these items a typology of physician-public relations was formulated. It was based upon the discussion of the "old" and "new" doctor-public relationships presented earlier.

Since the orientation of households in the sample was in question, it was thought that a combination of responses would be a proper method of analysis. The Guttman scaling technique was selected and found feasible for combining separate items into an index. The technique is based upon the establishment of a pattern of responses, so that, when the individual score is known, it is possible to reconstruct (within limits of the errors in the pattern) the responses of that individual. The idea is that if the items can be arrayed along a single dimension, a person who answers an item affirmatively will also answer affirmatively an item less demanding.²³ For example, a person giving an affirmative answer to a highly personal relationship with a physician is likely to answer less demanding items affirmatively.

Four items were found dealing with physician-public orientation which formed such a pattern. Because they had been constructed with reference to the types developed in the first part of this report, the pattern of responses was judged to be along the dimension of primary-secondary orientation toward physicians. A primary orientation has the qualities of intimate personal contacts involving the whole life situation. Secondary orientation is characterized by impersonality with emphasis upon service relationships rather than personal loyalties. A high score (four) indicates a primary orientation; a low score indicates a more secondary orientation.

The items in the order in which they were arranged in the scale pattern were:

1. I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor. (Rejection indicates a primary orientation.)
2. I don't care so much what a doctor's personal life is like as long as he is a skillful doctor. (Rejection indicates a primary orientation.)
3. I think that a person should visit with the doctor about other matters

²³Samuel Stouffer *et al.*, *Studies in Social Psychology in World War II, Volume 4, Measurement and Prediction*, Princeton, New Jersey: Princeton University Press, 1950 (See especially chapters 1-5).

than health, especially about personal and family problems. (Acceptance indicates a primary orientation.)

4. I wouldn't leave a doctor for another doctor even though the other man might have more scientific knowledge. (Acceptance indicates a primary orientation.)

When the pattern of responses was examined, the items having been arranged in the order listed above, a pattern appeared to exist, but there were also discrepancies or errors in the pattern. A principal criterion for acceptance of a Guttman-type scale is the coefficient of reproducibility which is a measure of the correspondence between the empirical pattern (pattern found) and an ideal pattern (perfect pattern). It is determined by dividing the number of errors by the total number of responses and subtracting this number from one-hundred. A coefficient of reproducibility of 90 is generally regarded as satisfactory. For this pattern the coefficient of reproducibility was 90.9, just meeting the criterion.

The distribution of scores on the basis of the pattern follows:

<i>Score</i>	<i>Number Households</i>	<i>Percent of Households</i>
4	31	23.0
3	50	37.0
2	16	11.9
1	18	13.3
0	20	14.8
<hr/>		
Total	135	100.0

Three households did not respond to one or more of the four items making up the scale, and thus could not be included. In addition 14 households were classified as alienated and treated separately.

Alienated Orientation: No judgement is made concerning the desirability of a primary or secondary orientation—according to circumstances, either may be quite functional. In the course of the research, certain households showed a dysfunctional orientation toward physicians which appeared in terms of alienation or antagonism. Since provisions had not been made in the interview schedule for systematic selection of alienated households, these households were identified by the interviewers on the basis of open-end questions and informal conversations.

The most helpful question on the schedule for identifying households with an alienated view-point was, "At what point do you call a doctor for an illness in your family?" Most persons would not reject a physician's services entirely, but some thought of them only as a last resort. One man said, however, that there was no circumstance in which he would have more confidence in a physi-

cian than in his own ability to treat an illness. This person had many home remedies. He said that some people even went to the doctor for colds which he considered completely foolish.

Other comments from those who were classified as alienated from physicians were: "We kind of lost our faith in doctors; we feel doctors keep stringing you along." One person said the family would "trust in the Lord and stay away from doctors" and another thought "you better stay away from doctors because all they want is your money."

Selection of households classified as alienated was independent of family characteristics; items used to establish the primary-secondary orientation pattern; and more objective health behavior such as having a family doctor, use of physicians, opinions concerning immunizations, doctor changes and others. This was considered necessary to prevent any association which might occur between alienated orientation and health behavior from being simply an artifact of selection.

Households designated as alienated appeared to be rather clear-cut cases of this type of orientation. If this orientation had been anticipated and a systematic query had been made, perhaps more households would have been placed in this category. Fourteen of the households were so classified. Although the number was not large, it suggests a direction that may be of consequence in health behavior. Therefore, in spite of the limited number of cases, this type of orientation is considered in the analysis.

Orientation Toward Physicians and Reporting a Family Doctor: Households with primary-secondary orientation scores of 0, 1, and 2 were combined into a single category exhibiting a secondary orientation; households with scores 3 and 4 were regarded as having a primary orientation toward physicians. Households judged to be alienated in their orientation toward physicians were treated as a third type.

There was a relationship between type of orientation toward physicians and the fact of reporting a family doctor. Those judged to be alienated from the physician accounted for almost one-fourth of the households reporting no family doctor; they accounted for only 4 percent of those having a family doctor. Almost two-thirds of those reporting a family doctor had a primary orientation toward physicians while about one-third reporting no family doctor had such an orientation (Table 7).

When age was controlled, a most striking finding was that those households indicating an alienated orientation toward physicians were predominately "older" (Table 8). In fact only three of the 14 were "headed" by a person under 55 years of age.

Type of orientation was more closely related to having a family doctor in "older" than in "younger" households. In older households, 65 percent reporting a family doctor had a primary orientation; while 24 percent not reporting a

TABLE 7 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND ORIENTATION TOWARD PHYSICIANS

Type of Orientation	Family Doctor		No Family Doctor	
	Number	Percent*	Number	Percent*
Type I				
Secondary Orientation	35	33.3	19	43.2
Type II				
Primary Orientation	66	62.9	15	34.1
Type III				
Alienated Orientation	4	3.8	10	22.7
Total	105	100.0	44	100.0

*Three households were not classified according to orientation.

Chi Square Analysis

	X ²	d.f.	Significance ¹
Type I, II, and III	17.0	2	**
Type I with Type II	4.7	1	*
Type I with Type III	5.9	1	*
Type II with Type III	(Not enough cases for X ² analysis)		

¹**Significant at 1 percent level.

*Significant at 5 percent level.

-Not significant at 5 percent level.

TABLE 8 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND ORIENTATION TOWARD PHYSICIANS; AGE OF HEAD CONTROLLED

Younger Households¹

Type of Orientation	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Type I				
Secondary Orientation	23	37.1	8	42.1
Type II				
Primary Orientation	38	61.3	9	47.4
Type III				
Alienated Orientation	1	1.6	2	10.5

One household was not classified according to orientation.

Older Households¹

Type I				
Secondary Orientation	12	27.9	11	44.0
Type II				
Primary Orientation	28	65.1	6	24.0
Type III				
Alienated Orientation	3	7.0	8	32.0

Two households were not classified according to orientation.

¹Younger Household--male head of household under 55 years of age--if no male head, female head under 55 years of age.

Older Household--male head of household 55 years of age or over--if no male head, female head 55 years of age or over.

Chi Square Analysis

	Younger Households			Older Households		
	X ²	d.f.	Significance	X ²	d.f.	Significance
Type I, II, and III	Not enough cases X ² test.			10.8	2	**
Type I with Type II	.4	1	-	5.8	1	*
Type I with Type III	Not enough cases X ² test.			2.0	1	-
Type II with Type III	Not enough cases X ² test.			11.9	1	**

**Significant at 1 percent level.

*Significant at 5 percent level.

-Not significant at 5 percent level.

family doctor had a primary orientation. When the primary and secondary orientation types were considered separately from the alienated households, there was still a positive relationship between primary orientation and having a family doctor in the older households but not for the younger households (see the chi square analysis following Table 8).

Orientation for Two Extreme Groupings of Households: Type of orientation was considered for the two groupings at extreme positions in the family-cycle. (Heads of households under 45 years of age with three or more members of household. Heads of households 65 years or older with a low level of living score.)²⁴ There was considerable difference in orientation for the two groupings. In youthful households with three or more members, 16 of the 43 indicated a secondary orientation; 24 had a primary orientation and three showed an alienated orientation. Only two of the 20 elderly households with a low level of living score had a secondary orientation while 10 had a primary orientation and six had an alienated orientation. The orientation for two of these households was not determined. Six of the 14 alienated households were in this elderly grouping which constituted less than two of every 14 in the total sample. There were not enough cases to test the statistical significance of these relationships.

In the elderly grouping, it appeared that the orientation was either toward close-primary relationships or toward a kind of withdrawal. An adjustment toward a secondary orientation did not seem likely. Robert Merton has pointed out that when goals are unobtainable, one adjustment is withdrawal or his term, "retreatism"—rejection of goals as well as means of achieving the goals.²⁵ The type of orientation termed "alienated" appears to be a reaction of this kind. If it is assumed that the primary orientation is the preferred functional orientation of these elderly households, older persons, especially those in a low level of living bracket, may be precisely the ones unable to make adjustments to changing situations; thus, leading to an alienated orientation. The primary-secondary public-physician typologies developed earlier permit this interpretation.

Health Practices and Opinions of Households Reporting a Family Doctor

The characteristics of households reporting family doctors have been compared with characteristics of households reporting no family doctors. Some idea was also gained of the orientation toward physicians of households with and without family doctors. This should provide a better understanding of the kinds of situations which accompany reporting a family doctor.

Now the association between reporting a family doctor and certain health practices and opinions will be considered. It was reasoned that health practices were not completely independent of one another and that having a family doctor

²⁴See p. 18 ff.

²⁵Robert K. Merton, *Social Theory and Social Structure*, Free Press, Glencoe, Illinois, 1957, pp. 131-194 (pp. 153-155 for the term retreatism).

might be associated in definite ways with other health practices and opinions.

Professional Doctor Calls: The most direct behavior concerning physician and the population is professional service. There was a clear relationship between reporting a family doctor and reporting that a physician had been consulted professionally during the year. Of those households reporting a family doctor, someone in all but 14 percent had seen a physician professionally within the year. On the other hand, 40 percent of the households reporting no family doctor, had no professional contact with a physician during the year (Table 9). The relationship was significant at the 0.1 percent level by a chi square test.

TABLE 9 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND NUMBER OF DOCTOR CALLS FOR ONE YEAR

Number of Calls	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
0	15	14.3	19	40.5
1	7	6.7	4	8.5
2	2	1.9	4	8.5
3-4	14	13.3	7	14.9
5-6	12	11.4	4	8.5
7-9	11	10.5	--	----
10-14	10	9.5	1	2.1
15-19	9	8.6	4	8.5
20-29	12	11.4	1	2.1
30-39	5	4.8	1	2.1
40-49	1	.9	--	----
50+	7	6.7	2	4.3
Total	105	100.0	47	100.0

$\chi^2 = 18.9$, d.f. = 2. Significant at 0.1 percent level (rows 2-5 and 6-12 combined).

As might be expected, the households reporting no family doctor but having had some professional contact with a physician during the year had fewer calls than their counterparts who reported a family doctor. For example, in Table 9, 52 percent of households with family doctors had seven or more calls within the year while only 19 percent of those without a family doctor had seven or more calls. The question might be raised as to why the households reporting seven or more professional contacts with a physician did not report a family doctor. Upon examining the situations of professional contacts of these nine households, it is apparent that most of them occurred in connection with hospital experience (6 of the 9 households). Visits from the doctor may be quite impersonal under such conditions. For example, as a result of severe burns, a boy was hospitalized for some 40 days in a larger city outside the county. This was an emergency situation which demanded medical attention over a long period of time, entailing numerous contacts with several physicians. Under such conditions, a large number of calls would not necessarily bring about a family doctor relationship.

There was a more definite association between physician use and reporting a family doctor in older households than in younger ones. The relationship for

older households was significant at the 0.1 percent level. For the younger families the relationship was not so clear—it approached but did not reach the 5 percent level of significance (Appendix Table 5).

Satisfaction with Medical Care: Most of the households in which interviews were made reported satisfaction with the medical care they had received. Of the 152 households, 128 reported satisfaction; 18 reported dissatisfaction or uncertainty; and six could not answer, claiming no basis for a decision. Households having a family doctor tended to be more satisfied with medical care; 92 percent reported favorably, compared with 75 percent satisfaction for those without a family doctor (Table 10). The high proportion satisfied with medical care is probably built into the bundle of relationships termed "having a family doctor" in that if serious dissatisfaction occurred the relationship would be severed.

When older and younger households were examined separately, the percentages of those satisfied with and without a family doctor did not appear much different than when this division was not made. The numbers, however, were too small to apply a chi square test.

TABLE 10 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND SATISFACTION WITH MEDICAL CARE RECEIVED

Satisfaction With Medical Care	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Satisfied	96	92.3	32	76.2
Dissatisfied	3	2.9	5	11.9
Uncertain	5	4.8	5	11.9
Total	104	100.0	42	100.0

Six reported they had no basis for decision.

$\chi^2 = 7.2$, d.f. = 1. Significant at 1 percent level (rows 2 and 3 combined).

Unmet Needs for Medical Care: While all but 12 percent of the households reported that they were satisfied with their medical care, 22 percent said they felt that their families needed medical care they did not get during the preceding six months. The difference between those households with and without a family doctor was not significant, but the direction of the relationship was unexpected (Table 11). A larger proportion of the households reporting a family doctor also reported unmet medical needs. It may be speculated that those reporting a family doctor were more concerned about health problems, and therefore more sensitive to unattended health problems.

TABLE 11 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND REPORTING UNMET MEDICAL NEEDS

Medical need and receipt of care during a six- month period	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Unmet needs for medical care	27	26.0	6	12.8
No unmet needs for medical care	77	74.0	41	87.2
Total	104	100.0	47	100.0

One Household did not respond.

$\chi^2 = 3.3$, d.f. = 1. Not significant at 5 percent level.

Opinion Concerning Doctor Charges: When people in our society are asked if anything costs too much it is likely that a sizeable proportion will answer affirmatively. Fifty-four percent of those interviewed thought that doctors' charges were too high. A considerable proportion, 45 percent, thought them reasonable. Only one person rated charges low and nine could not answer the question, most claiming no basis for decision (Table 12). The question seemed to be well within the experience of most persons interviewed, because if the immediate family had not incurred a doctor bill recently, their relatives or neighbors had had such experiences and they knew about costs through conversations.

TABLE 12 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINIONS CONCERNING DOCTOR CHARGES

Opinions Concerning Doctor Charges	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
High	50	49.5	27	64.3
Reasonable	51	50.5	14	33.3
Low	--	----	1	2.4
Total	101	100.0	42	100.0

Nine did not answer this question.

$\chi^2 = 2.7$, d.f. = 1. Not significant at 5 percent level (rows 2 and 3 combined).

A somewhat larger proportion of households without a family doctor reported that doctor charges were high than did households with a family doctor. This difference, however, was not significant. Nor was there a significant difference when age of household was controlled (Appendix Table 8).

Health Insurance: The most farsighted means available for meeting medical care costs is provided by pre-paid health care plans, most often called health insurance. In its development, health insurance has more adequately covered hospital services than physician services. The possession of any type of health insurance, however, may indicate a mode of health behavior which is different from those not having health insurance. Forty-four percent of the households having a family doctor also had some kind of health insurance compared with 26 percent of the households with no family doctor. The relationship was significant at the 5 percent level by a chi square test (Table 13).

TABLE 13 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND HEALTH INSURANCE

Health Insurance	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Have	46	43.8	12	25.5
Do Not Have	59	56.2	35	74.5
Total	105	100.0	47	100.0

$\chi^2 = 4.5$, d.f. = 1. Significant at 5 percent level.

When older and younger households were considered separately, the relationship between having a family doctor and possessing health insurance did not hold. Appendix Table 9 shows that the percentage distribution was almost identical when age of household was controlled and when it was not controlled.

The smaller number of cases, then, accounted for the fact that the age-controlled relationship was not significant.

Opinion Concerning Regular Physical Examinations: A corner-stone of health education programs is prevention of illness, and regular physical examinations are regarded as a key to prevention. About 64 percent of those answering this question thought that a person should see a physician for an examination at least once a year; the remaining 36 percent responded to the effect that a person should see a doctor only when needed. A larger proportion of households with a family doctor thought a person should see a doctor at least once a year—68 percent, compared with 56 percent of those households having no family doctor. However, the relationship was not significant at the 5 percent level (Table 14); nor was it significant when age of head of household was controlled (Appendix Table 10).

TABLE 14 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING FREQUENCY OF PHYSICAL EXAMINATIONS

Opinion Concerning Frequency of Physical Examinations	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Every six months	27	26.2	10	23.3
Once a year	43	41.8	14	32.5
Only when needed	33	32.0	19	44.2
Total	103	100.0	43	100.0

Six did not answer this question.

$X^2 = 2.1$, d.f. = 2. Not significant at 5 percent level.

Opinion Concerning Immunization: Most persons interviewed approved of immunization; however, 18 percent were either uncertain or unfavorable. Of those households without a family doctor, 28 percent were either uncertain or unfavorable compared with 13 percent of the households that had a family doctor. This relationship proved to be significant at the 5 percent level by a chi square test (Table 15). There were not enough cases for a chi square test among younger households when age of head of household was controlled. The relationship for older households was significant at the 5 percent level (Appendix Table 11).

TABLE 15 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING IMMUNIZATION

Opinion Concerning Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	91	86.6	34	72.4
Unfavorable	7	6.7	8	17.0
Uncertain	7	6.7	5	10.6
Total	105	100.0	47	100.0

$X^2 = 4.8$, d.f. = 1. Significant at 5 percent level (rows 2 and 3 combined).

Opinion Concerning Polio Immunization: Fewer of those interviewed would have wanted a child of theirs to receive polio shots at the time of the in-

terviews than were generally favorable toward immunization. This was at a time of uncertainty as to the safety of the polio vaccine. Forty-eight percent of those interviewed would have wanted children to receive polio shots; 52 percent would have been opposed or were uncertain as to the course they would take if confronted with such a decision. The relationship was in the direction of those having a family doctor being more favorable toward polio immunization but the relationship was not statistically significant. Among the older households, when age of head of household was controlled, there was a significant relationship between having a family doctor and favoring polio immunization. The younger households were generally more favorable toward polio immunization but those with a family doctor were not quite as favorably disposed toward having polio shots as younger households without a family doctor. The relationship was not significant.

TABLE 16 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING POLIO IMMUNIZATION

Opinion Concerning Polio Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	53	50.5	20	42.6
Unfavorable	32	30.5	11	23.4
Uncertain	20	19.0	16	34.0
Total	105	100.0	47	100.0

$\chi^2 = .9$, d.f. = 1. Not significant at 5 percent level.

APPENDIX

**TABLE 1 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND SIZE;
AGE OF HEAD CONTROLLED
Younger Households***

Persons in Household	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
1 or 2	8	12.9	8	40.0
3-5	39	62.9	10	50.0
Over 5	15	24.2	2	10.0
Total	62	100.0	20	100.0

$X^2 = 7.1$, d.f. = 2. Significant at 5 percent level.

Note: expected frequency in 2 cells was under 5.

Older Households*

Persons in Household	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
1 or 2	30	69.8	19	70.4
3-5	10	23.2	8	29.6
Over 5	3	7.0	--	---
Total	43	100.0	27	100.0

$X^2 = 0$, d.f. = 1. Not significant at 5 percent level (rows 2 and 3 combined).

*Younger household--male head of household under 55 years of age--if no male head, female head under 55 years of age.

Older household--male head of household 55 years of age or over--if no male head, female head 55 years of age or over.

**TABLE 2 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR BY NET INCOME;
AGE OF HEAD CONTROLLED
Younger Households***

Net Income (Dollars)	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 1000	4	6.5	4	20.0
1000-3000	32	51.6	9	45.0
3000-5000	22	35.4	7	35.0
5000+	4	6.5	--	----
Total	62	100.0	20	100.0

$X^2 = .3$, d.f. = 1. Not significant at 5 percent level (rows 1, 2 and 3, 4 combined).

Older Households*

Net Income (Dollars)	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 1000	17	39.5	11	40.7
1000-3000	15	34.9	12	44.5
3000-5000	7	16.3	2	7.4
5000+	4	9.3	2	7.4
Total	43	100.0	27	100.0

$X^2 = 1.4$, d.f. = 1. Not significant at 5 percent level (rows 1, 2 and 3, 4 combined).

*See footnote Appendix Table 1.

TABLE 3 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND LEVEL OF LIVING SCORE; AGE OF HEAD CONTROLLED
Younger Households*

Level of Living Score	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
9	--	----	--	----
10	1	1.6	--	----
11	7	11.3	3	15.0
12	12	19.4	4	20.0
13	11	17.7	4	20.0
14	7	11.3	3	15.0
15	8	12.9	1	5.0
16	5	8.1	2	10.0
17	7	11.3	1	5.0
18	1	1.6	1	5.0
19	2	3.2	--	----
20-21	1	1.6	1	5.0
Total	62	100.0	20	100.0

$\chi^2 = .2$, d.f. = 1. Not significant at 5 percent level (rows 1 through 5 and 6 through 12 combined).

Older Households*

Level of Living Score	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
9	2	4.7	1	3.7
10	8	18.6	1	3.7
11	6	13.9	5	18.5
12	2	4.7	10	37.1
13	2	4.7	3	11.1
14	6	13.9	3	11.1
15	8	18.6	1	3.7
16	1	2.3	--	----
17	2	4.7	1	3.7
18	3	6.9	1	3.7
19	1	2.3	--	----
20-21	2	4.7	1	3.7
Total	43	100.0	27	100.0

$\chi^2 = 5.2$, d.f. = 1. Significant at 5 percent level (rows 1 through 5 and 6 through 12 combined).

*See footnote Appendix Table 1.

TABLE 4 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND EDUCATION OF THE MALE HEAD; AGE OF HEAD CONTROLLED
Younger Households*

Years School Completed	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 8	10	16.4	7	36.8
8-11	35	57.4	6	31.6
12 and over	16	26.2	6	31.6
Total	61	100.0	19	100.0

Two households had no male head.

$X^2 = 5.1$, d.f. = 2. Not significant at 5 percent level.

Older Households*

Years School Completed	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Under 8	18	43.9	12	48.0
8-11	23	56.1	9	36.0
12 and over	--	----	4	16.0
Total	41	100.0	25	100.0

Four households had no male head.

$X^2 = .1$, d.f. = 1. Not significant at 5 percent level (rows 2 and 3 combined).

*See footnote Appendix Table 1.

TABLE 5 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND NUMBER OF DOCTOR CALLS FOR ONE YEAR; AGE OF HEAD CONTROLLED
Younger Households*

Number of Calls	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
0	9	14.1	4	20.0
1	5	8.1	1	5.0
2	--	----	3	15.0
3-4	10	16.1	5	25.0
5-6	5	8.1	2	10.0
7-9	7	11.3	--	----
10-14	7	11.3	--	----
15-19	5	8.1	2	10.0
20-29	7	11.3	--	----
30-39	4	6.4	1	5.0
40-49	--	----	--	----
50+	3	4.8	2	10.0
Total	62	100.0	20	100.0

$X^2 = 5.5$, d.f. = 2. Not significant at 5 percent level (rows 2-5 and 6-12 combined).

Older Households*

Number of Calls	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
0	6	13.9	15	55.6
1	2	4.7	3	11.1
2	2	4.7	1	3.7
3-4	4	9.3	2	7.4
5-6	7	16.3	2	7.4
7-9	4	9.3	--	----
10-14	3	7.0	1	3.7
15-19	4	9.3	2	7.4
20-29	5	11.6	1	3.7
30-39	1	2.3	--	----
40-49	1	2.3	--	----
50+	4	9.3	--	----
Total	43	100.0	27	100.0

$X^2 = 15.6$, d.f. = 2. Significant at 0.1 percent level (rows 2-5 and 6-12 combined).

*See footnote Appendix Table 1.

TABLE 6 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND SATISFACTION WITH MEDICAL CARE RECEIVED; AGE OF HEAD CONTROLLED
Younger Households*

Satisfaction With Medical Care	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Satisfied	56	91.8	15	78.9
Dissatisfied	1	1.6	3	15.8
Uncertain	4	6.6	1	5.3
Total	61	100.0	19	100.0

Two households reported no basis for decision.
Not enough cases for chi square test.

Older Households*

Satisfaction With Medical Care	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Satisfied	40	93.0	17	73.9
Dissatisfied	2	4.7	2	8.7
Uncertain	1	2.3	4	17.4
Total	43	100.0	23	100.0

Four households reported no basis for decision.
Not enough cases for chi square test.

*See footnote Appendix Table 1.

TABLE 7 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND REPORTING UNMET MEDICAL NEEDS; AGE OF HEAD CONTROLLED
Younger Households*

Medical need and receipt of care during a six- month period	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Unmet needs for medical care	16	25.8	4	20.0
No unmet needs for medical care	46	74.2	16	80.0
Total	62	100.0	20	100.0

$X^2 = .4$, d.f. = 1. Not significant at 5 percent level.

Older Households*

Medical need and receipt of care during a six- month period	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Unmet needs for medical care	11	26.2	2	7.7
No unmet needs for medical care	31	73.8	25	92.3
Total	42	100.0	27	100.0

One household did not respond.

$X^2 = 3.8$, d.f. = 1. Not significant at 5 percent level.

*See foot note Appendix Table 1.

TABLE 8 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING DOCTOR CHARGES; AGE OF HEAD CONTROLLED
Younger Households*

Opinion Concerning Doctor Charges	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
High	29	48.3	12	63.1
Reasonable	31	51.7	6	31.6
Low	--	----	1	5.3
Total	60	100.0	19	100.0

Three households were uncertain.

$X^2 = 1.1$, d.f. = 1. Not significant at 5 percent level (rows 2 and 3 combined).

Older Households*

Opinion Concerning Doctor Charges	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
High	21	51.2	15	65.2
Reasonable	20	48.8	8	34.8
Low	--	----	--	----
Total	41	100.0	23	100.0

Six households were uncertain.

$X^2 = 1.1$, d.f. = 1. Not significant at 5 percent level.

*See footnote Appendix Table 1.

TABLE 9 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND HEALTH INSURANCE, AGE OF HEAD CONTROLLED
Younger Households*

Health Insurance	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Have	28	45.2	5	25.0
Do Not Have	34	54.8	15	75.0
Total	62	100.0	20	100.0

$X^2 = 2.5$, d.f. = 1. Not significant at 5 percent level.

Older Households*

Health Insurance	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Have	18	41.9	7	25.9
Do Not Have	25	58.1	20	74.1
Total	43	100.0	27	100.0

$X^2 = 1.7$, d.f. = 1. Not significant at 5 percent level.

*See footnote Appendix Table 1.

TABLE 10 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING FREQUENCY OF PHYSICAL EXAMINATIONS; AGE OF HEAD CONTROLLED

Younger Households*

Opinion Concerning Frequency of Physical Examinations	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Every 6 months	17	27.9	3	15.8
Once a year	28	45.9	8	42.1
Only when needed	16	26.2	8	42.1
Total	61	100.0	19	100.0

Two households did not respond.

$X^2 = 1.7$, d.f. = 1. Not significant at 5 percent level (rows 1 and 2 combined)

Older Households*

Opinion Concerning Frequency of Physical Examinations	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Every 6 months	10	23.8	7	29.2
Once a year	15	35.7	6	25.0
Only when needed	17	40.5	11	45.8
Total	42	100.0	24	100.0

Four households did not respond.

$X^2 = .2$, d.f. = 1. Not significant at 5 percent level.

*See footnote Appendix Table 1.

TABLE 11 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING IMMUNIZATION; AGE OF HEAD CONTROLLED

Younger Households*

Opinion Concerning Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	52	83.8	15	75.0
Unfavorable	5	8.1	2	10.0
Uncertain	5	8.1	3	15.0
Total	62	100.0	20	100.0

Not enough cases for chi square test.

Older Households*

Opinion Concerning Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	39	90.6	19	70.4
Unfavorable	2	4.7	6	22.2
Uncertain	2	4.7	2	7.4
Total	43	100.0	27	100.0

$X^2 = 4.9$, d.f. = 1. Significant at 5 percent level (rows 2 and 3 combined).

Note: The expected frequency of one cell was 4.6.

*See footnote Appendix Table 1.

TABLE 12 -- HOUSEHOLDS CLASSIFIED BY FAMILY DOCTOR AND OPINION CONCERNING POLIO IMMUNIZATION; AGE OF HEAD CONTROLLED
Younger Households*

Opinion Concerning Polio Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	27	43.5	11	55.0
Unfavorable	22	35.5	3	15.0
Uncertain	13	21.0	6	30.0
Total	62	100.0	20	100.0

$\chi^2 = .2$, d.f. = 1. Not significant at 5 percent level (rows 2 and 3 combined).

Older Households*

Opinion Concerning Polio Immunization	Family Doctor		No Family Doctor	
	Number	Percent	Number	Percent
Favorable	26	60.5	9	33.3
Unfavorable	10	23.2	8	29.6
Uncertain	7	16.3	10	37.1
Total	43	100.0	27	100.0

$\chi^2 = 4.8$, d.f. = 1. Significant at 5 percent level (rows 2 and 3 combined).

*See footnote Appendix Table 1.

OTHER BULLETINS IN RURAL HEALTH SERIES

1. The Rural Health Facilities of Lewis County, Missouri, Res. Bul. 365, 1943.
Almack, Ronald B.
2. Family Health Practices in Dallas County, Missouri. Res. Bul. 369, 1943.
Meier, Iola, and C. E. Lively
3. Illness in Rural Missouri. Res. Bul. 391, 1945.
Kaufman, Harold and Warren W. Morse
4. Use of Medical Services in Rural Missouri. Res. Bul. 400, 1946.
Kaufman, Harold F.
5. The Health of Low-Income Farm Families in Southeast Missouri. Res. Bul. 410, 1947.
Gregory, C. L., Zetta E. Bankert, Aleta McDowell and C. E. Lively
6. Illness in the Farm Population of Two Homogeneous Areas of Missouri. Res. Bul. 504, 1952.
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7. Supply of Physicians in Rural Missouri. Sta. Bul. 651, 1955.
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8. Extent of Illness and Use of Health Services in a South Missouri County. Res. Bul. 647, 1958
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