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J. H. LONGWELL, *Director*

Family Health Practices Among Open-Country People in a South Missouri County

EDWARD W. HASSINGER AND ROBERT L. McNAMARA



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EDWARD W. HASSINGER AND ROBERT L. MCNAMARA

INTRODUCTION

This is the fourth in a series of bulletins which attempts to develop a comprehensive picture of the health situation among a sample of rural people in Laclede County, Missouri. Previously considered were the extent of illness and use of health services, relationships of the public to physicians, and charges for medical services.¹

The way people regard health matters and the way they relate themselves to the health personnel and facilities in their community is important. The "iceberg" analogy applies to health practices in that the visible practices are supported with a mass of health behavior often hardly distinguishable from other areas of behavior. During field interviews, the question was asked in each household, "Could you tell us how you go about keeping your family in good health?" The responses to this single question were not rich enough to allow the kind of treatment intended in this report, but the question directs attention to the general theme.

METHOD

The Sample

The setting of the study, selection of the sample, and manner of interviewing were presented in some detail in a previous report.² A complete schedule of questions was also printed in that report. Briefly, a random sample of open-country households was selected, and a responsible adult was interviewed in each household. One hundred fifty-two interviews were completed. Because family health practices as an area of human behavior are largely unexplored, a rather detailed description of them was thought to be useful. To this end, verbatim transcripts of field notes are included in some cases.

¹AES Research Bulletin Nos. 647, 653, 668, University of Missouri, Columbia, Missouri.

²AES Research Bulletin No. 647, University of Missouri, January 1958, pp. 6-8.

The County

Laclede county is in the Ozarks. In his delineation of social areas of Missouri, Gregory has said of the area, ". . . The people have retained the folk culture generally characteristic of early American society to a much greater degree than the northern sections of the state."³

Gregory also noted, and the present survey supports his contention, that the area is changing. Outside influences such as tourists, government programs, industry, and television have broken into its isolation.

The Households

Forty-three percent of the 152 households had one or two members; 18 percent had three or four members; and 23 percent had five members or more. Forty-six percent had no children living at home; in total there were 203 children at home. In 25 homes, no member was gainfully employed and in a number of others the employment was minor. Only 37 percent of the household heads were full time farmers; 28 percent had occupations that were entirely non-farm. Twenty-four percent of the households had a reported net income under \$1,000, and 69 percent reported income under \$3,000. Thirty-two percent of the household heads were under 45 years old, and 18 percent were 65 years or over.

The Age Factor

The relationship of family health practices to age of the household was examined systematically throughout the report. Therefore some consideration needs to be given to the age categories used. The age of the household head was used to indicate family age structure and the phase of the family-cycle. Four age categories were employed: household head under 45 years, from 45-54, from 55-64, and 65 years and over.

Table 1 describes the relationships between age structure of the households and other socio-economic variables selected for their relevance to family health practices. It does not take a great deal of explanation to justify selection of these particular factors when considering health behavior. Education is associated with informed behavior of all kinds. Income is relevant to health behavior, as anyone who has ever paid a doctor or hospital bill knows. Level of living indicates to some extent willingness to translate economic means into material possessions. This may have a bearing on willingness to buy professional health services. Size of household and members under 16 years of age are reasonably associated with home health practices. As number increases, the exposure to risk increases and youngsters in the household may call for special kinds of attention.

Age itself has certain obvious connections with health behavior. Growing old is accompanied by aches and pains. Older persons have had different health experiences from those of younger people. Age is important in at least partially

³Cecil L. Gregory, *Rural Social Areas of Missouri*, Missouri AES Research Bulletin 665, p. 33.

isolating persons from the on-going social activities of their communities and this may also be reflected in health behavior.⁴

From Table 1, low education, low level of living scores, low income, small number in the household, and few children characterized those households with heads 65 years or older when compared with those whose heads were under 45 years. A quite regular pattern can be seen when the other two age categories are included. Age of head of household, then, is relevant in that it is associated with several other socio-economic variables in a regular way. The age factor has a complex interrelationship with these selected variables and is in some ways an index of them.

TABLE 1--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY SELECTED VARIABLES AND BY AGE OF HEAD OF HOUSEHOLD*

	Age of Head of Household			
	Under 45 (N = 50) Percent	45-54 (N = 32) Percent	55-64 (N = 43) Percent	65 + (N = 27) Percent
<u>Education of head of household*</u> (years school completed)				
Under 8	14.0	31.2	39.5	51.9
8-11	50.0	56.3	55.8	40.7
12 or over	36.0	12.5	4.7	7.4
Total	100.0	100.0	100.0	100.0

<u>Level of living score</u>				
13 or less	54.0	46.9	46.5	74.1
14 or more	46.0	53.1	53.5	25.9
Total	100.0	100.0	100.0	100.0

<u>Income (dollars)</u>				
Under 1000	8.0	12.5	27.9	59.3
1000-3000	46.0	56.3	46.5	25.9
3000 +	46.0	31.2	25.6	14.8
Total	100.0	100.0	100.0	100.0

<u>Size of household</u>				
1-2 members	16.0	25.0	60.5	85.2
3-4 members	28.0	43.8	30.2	7.4
5 and over	56.0	31.2	9.3	7.4
Total	100.0	100.0	100.0	100.0

<u>Number of children under 16 years</u>				
0	18.0	37.5	76.7	92.6
1 or more	82.0	62.5	23.3	7.4
Total	100.0	100.0	100.0	100.0

* Male head of household--if no male, female head.

⁴See Philip Taietz and Olaf F. Larson, "Social Participation and Old Age", *Rural Sociology*, Vol 21, Nos. 3-4, Sept.-Dec., 1956, pp 229-238.

ANALYSIS AND FINDINGS

Health Situation in the Households

There was great variation in the prevalence of illness for the families in the sample. In 98 (65 percent), there had been no illness that prevented normal activity in the three-month period preceding the survey. On the other hand, in each of eight households, 57 or more days were lost from normal activities in the same period because of illness. As reported earlier, individuals in households where the head of the household was 55 years or older had about twice as much illness as in households where the head was under 55. Likewise, members of these older households used a relatively greater share of hospital and physician services.⁵

For some families a continuing health problem existed because of chronic conditions. For example, in one family, the wife was reported to have an arthritic condition that confined her to bed most of the time. The husband did most of the housework including meal preparation. This was an extreme case and most of the chronic conditions reported were not confining. However, they represented a family burden ranging from inconvenience through partial limitation of activity to complete confinement. Chronic illness also posed the threat of intermittent outbreak, or of progressive deterioration.

Chronic conditions were reported in 83 households (55 percent) for 111 individuals (21 percent). Thirty-five percent of the household heads were reported as having chronic conditions. Thirteen percent of the individuals in the sample under 55 years were reported having a chronic illness; while 43 percent of those over 55 reported a chronic illness.⁶ The chronic conditions most often reported were cardiovascular, rheumatic-arthritic, and asthmatic-respiratory conditions. These constituted almost three-quarters of the chronic conditions reported.

Health Personnel and Professional Services Used By The Family.

In a previous report, public-physician relationships were examined in detail. Here the emphasis is upon the role of the physician in the family situation. There was no household in which some person had never consulted a physician, although there were mature individuals who had never been under a doctor's care. In 78 percent of the homes, at least one person had used a physician's services within a year of the survey date. In 9 percent, the last doctor visit for a member of the household had occurred at least five years prior to the interview date (Table 2). Younger households were more likely than older households to have had a physician's service for a member during the year. This may have resulted in part from the larger size of the younger households.

About two-thirds of the households reported having a family doctor.

⁵Missouri AES Research Bulletin 647, Table 2, page 9.

⁶Missouri AES Research Bulletin 647, Table 9, p. 15.

TABLE 2--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY LAST TIME ANY MEMBER USED A PHYSICIAN'S SERVICES, AND BY AGE OF HEAD OF HOUSEHOLD

Time since any member last used physician's services	Age of Head of Household				
	-45 (N = 50) Percent	45-54 (N = 32) Percent	55-64 (N = 43) Percent	65 + (N = 27) Percent	All Ages (N = 152) Percent
Under 1 year	84.0	84.4	74.4	66.7	78.2
1-3 yrs.	10.0	3.1	4.6	7.4	6.5
3-5 yrs.	4.0	3.1	11.7	11.1	7.3
5 yrs. and over	2.0	9.4	9.3	14.8	8.0
Total	100.0	100.0	100.0	100.0	100.0

Younger households were more likely to have a family doctor than older ones (Table 3). When asked if they talked over problems other than health problems with the physician, 31 of the 101 reporting a family doctor and responding to this question (4 did not respond) said they did. This was about 30 percent of those reporting a family doctor. If it can be safely assumed that members of households without a family doctor did not talk over problems with a physician, only about 20 percent of the total families discussed problems other than immediate health problems with a physician. For many families, the physician appeared to function as a dispenser of medical services rather than as a confidante of the family.

TABLE 3--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY FAMILY DOCTOR AND BY AGE OF HEAD

Family Doctor	Age of Head of Household				
	-45 (N = 50) Percent	45-54 (N = 32) Percent	55-64 (N = 43) Percent	65 + (N = 27) Percent	All Ages (N = 152) Percent
Have family doctor	78.0	71.9	65.1	55.6	69.1
Do not have family doctor	22.0	28.1	34.9	44.4	30.9
Total	100.0	100.0	100.0	100.0	100.0

Even among households with no family doctor, most had some idea where they would go for physician's services if the need arose. A large majority (77 percent) of all families would normally go to the county-seat town for physician's services. Six percent said that they would go to one of the two physicians located in the county outside the county seat. Ten percent would go to a physician in an adjacent county and 3 percent would go to a more distant county. The remaining families (4 percent) did not know where they would go or did not answer this question for other reasons.

In Missouri there are two major groups practicing medicine—medical doctors (M.D.) and doctors of osteopathy (D.O.). Medical doctors outnumber osteopaths about four to one in the state, but in areas outside its four largest cities and their counties, the difference in numbers is about two to one. In Laclede

County there were 12 medical doctors and three osteopaths. Of the 150 respondents to the question, 126 indicated that they preferred a medical doctor, two preferred doctors of osteopathy and 22 indicated no preference. This last classification should not be mistaken for a no answer response, but was a judgment of no preference by the respondents. In this county, the sample of open-country households depended largely upon medical doctors and they preferred to do so.

A large majority (88 percent) of those responding to the question said that they had been satisfied with the medical care they had received for themselves and their families. About 12 percent indicated some degree of dissatisfaction. In six households the respondents claimed to have no basis for decision because of infrequent contacts with physicians. Not as large a proportion of respondents reported satisfaction with the *amount* of medical care received. About 22 percent of the respondents indicated that they felt that some member of their family needed care that wasn't obtained during the six-month period preceding the interview. This was actually a rather sizeable proportion when it is taken into account that many families would not have an occasion to need medical care during this relatively short period.

Directly to the point of the physician's role in the family health situation was the question, "At what point in an illness a physician would be consulted." This was an open-ended question and responses were placed in the categories shown in Table 4. These categories were developed from a detailed analysis of each response. They are empirically specific rather than logically complete. Present in many of the responses was the mention of a symptom or condition that would alert a person. Often in the same response a time element was involved, for instance, a fever that would not respond to home treatment. In such a case a response was placed in both the "fever" category and in the "illness doesn't respond to home care" category. Two categories of considerable size were quite close in meaning and perhaps merely reflected variation in stating the same idea. These were the "illness hangs on" and the "illness doesn't respond to home care" categories. The same response was never classified in both of these categories, so that, if one wishes to combine them, they are additive in terms of numbers of households giving the response.

A fever was the most common sign alerting people to consider calling a doctor. Some respondents indicated that the fever would have to be at a certain level; often, there was the qualification that it would not respond to home treatment.

Example: [We] kind of guess at it. If [children] have a fever and cannot get it down we get a doctor.⁷

Example: If have a fever of 101-102 or so, call after a couple of days.

It is apparent that a larger proportion of younger than older households listed fever as a signal to obtain a physician's services. Younger households were

⁷This example and those that follow were taken from field notes as the interviewers recorded them. Therefore, they may not be exact quotations but are the "sense" of the responses.

TABLE 4--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO THE QUESTION, "At What Point Do You Have A Doctor For Illness in Your Family" AND BY AGE OF HOUSEHOLD HEAD

	Age of Household Head				Total (N = 140)** Percent
	Under 45 (N = 45) Percent	45-54 (N = 32) Percent	55-64 (N = 40) Percent	65 + (N = 23) Percent	
Fever	64.4	40.6	45.0	30.4	47.9
Pain	22.2	12.5	12.5	17.4	16.4
Vomiting	6.7	6.2			3.6
Listlessness	6.7	6.2			3.6
Other specific conditions or symptoms*	22.2	3.1	22.5	13.0	16.4
Serious accident	2.2	3.1	2.5	4.3	2.9
Illness hangs on	20.0	25.0	30.0	21.7	24.3
Illness doesn't respond to home treatment	26.7	28.1	27.5	17.4	25.7
Can tell when sick enough	26.7	25.0	7.5	4.3	17.1
Must be very serious	11.1		10.0	39.1	12.9
Previous condition	2.2	3.1	10.0	17.4	7.1
When don't know what is wrong	4.4	6.2	2.5		3.6
If have something doctor can help		3.1	2.5		1.4
Stricken suddenly				4.3	.7
When frightened		3.1	2.5		1.4
Never do			2.5	4.3	1.4
Early in illness		9.4	5.0	4.3	4.3
Don't know	2.2	3.1	2.5		2.1

* Specific conditions listed were: Cold in chest, sore throat, white around the mouth, fracture, snake bite, deep cuts, dizziness, diarrhea, out of head, swelling and lumps, don't eat, headaches, cough.

** 12 did not answer this question.

more likely to have children, and for children, a temperature is a common danger signal.

The response that they could tell when a member of the family was sick enough to consult a physician was also most common among the younger households. Again this was most generally in reference to children. It carried the idea that experience with the children and their ills made it possible to tell when they were *really* sick.

Example: The way they act—if they acted like they were sick I would know they were.

Among the oldest households (head 65 years or over), one-third said that an illness had to be very serious before they would consult a physician. This was not nearly as common an answer among households in other age categories.

Example: Have to be pretty sick before we go to a doctor. It's quite an effort to get to one.

The category "previous condition" needs some explanation. These are situations where a condition is known to exist and known symptoms call for certain

actions. As might be expected, older households with more likelihood of chronic conditions, reported a larger proportion in this category.

Example: With heart trouble and high blood pressure, we may wait 5-6 hours to see if better and if not go to the doctor.

Example: For Aunt, as soon as we observe her condition is not the same.

Few volunteered that they would go to a physician early in an illness. This does not mean that they would not do so. In fact many of the respondents who said they would try home care or would go to a doctor if illness hung on would wait only a relatively short time. Other responses had relatively small numbers, but may give insight into the family-physician relationship in illness.

The responses would indicate that a considerable amount of diagnosis and care commonly takes place in the home before a physician is consulted. Each family develops a pattern for consulting a physician and probably because of family composition, these patterns vary with age of households.

The Hospital

It was pointed out in an earlier report that the hospital located in the county seat was a major health facility for the county. Over one-quarter of the households had some hospital experience during the survey year. The largest proportion of households with hospital experience was in the youngest age group. The second largest proportion was in the oldest age group. In almost 15 percent of the households, as constituted at the time of the survey, a member had never been in the hospital. Fully one-quarter of the oldest households reported that no present member had ever been hospitalized. The proportion was down to 8 percent of the youngest households. (Table 5).

TABLE 5--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TIME SINCE ANY MEMBER OF THE HOUSEHOLD LAST USED A HOSPITAL AND BY AGE OF HOUSEHOLD HEAD

Time since last used the hospital	Age of Head of Household				
	-45 (N = 49) Percent	45-54 (N = 32) Percent	55-64 (N = 40) Percent	65 + (N = 27) Percent	All Ages (N = 148) Percent
Under one year	36.7	25.0	17.5	29.7	27.7
1-3 years	18.4	18.8	27.5	11.1	19.6
3-5 years	10.2	15.6	17.5	7.4	12.8
5 years and over	26.5	25.0	22.5	25.9	25.0
Never	8.2	15.6	15.0	25.9	14.9

NOTE: No answer for four households.

Seventeen percent of the households in the sample were less than six miles from the nearest hospital; 30 percent were from 6 to 11 miles; 43 percent were from 11 to 21 miles; and 10 percent were 21 miles or more away. With only three exceptions the nearest general hospital was in the county-seat town. Sixty-eight percent of the respondents said that they and their families would

normally go to the hospital nearest to them. Fifteen percent said it would depend on the seriousness of the ailment. If the condition were serious they would be more likely to go to a hospital in a larger center. Seventeen percent of the respondents indicated that they and their families would not be likely to go to the nearest hospital if the need arose. Springfield was the place most commonly mentioned as the site of hospitalization if the nearest hospital was not used. St. Louis, Kansas City, and Jefferson City were other places mentioned.

In the area of attitudes about hospitals, the question was asked, "How do you feel about hospitals?" Respondents were allowed to give "free" answers, but the following categories had been set up previously:

- a. I'm suspicious of hospitals and would go to one only in extreme illness.
- b. No particular feeling one way or the other.
- c. No fear; they give me a feeling of security.
- d. Feel that usually sick people can be cared for as well at home.
- e. Other (record).

Interviewers checked the categories where applicable and recorded the responses under "other" where they did not fit any pre-arranged category. Some responses called for a check in more than one category. This most often occurred in categories (a) and (d). This was responsible for the responses totaling more than 100 percent. A large proportion of the responses was recorded in the "no fear" category. Seventy-seven percent of the respondents gave an answer of this kind. At the other extreme about 7 percent of the respondents said that they were suspicious of the hospital. Eight percent responded to the effect that sick people can be cared for as well at home. A response that occurred quite often and had not been anticipated in setting up the categories was that the person "dreaded going to the hospital, but if really sick that is the best place." Responses of this kind were given by about 15 percent of the respondents.

Preventive Measures—Physical Examinations.

Further inquiry was made concerning visits to a physician for physical examination. A comparison was also made between what people say "should be done" and what is actually done with reference to physical examinations. When the question was asked "How often should a person see a doctor?" a fairly large proportion (about one-third) reported to the effect that a doctor should be consulted only when needed. This apparently meant only when an ailment was believed to be present. However, the majority of those interviewed (64 percent) stated that a person should see a doctor at least once a year. Of those, 25 percent mentioned six months or less as better (Table 6A).⁸ For this discussion an examination at least once a year by a physician was regarded as a regular physical ex-

⁸The open-end question asked was, "How often should a person see a doctor?" No responses were suggested; however, almost all of them could be fitted into the categories: a) At least once in 6 months, b) At least once a year, c) Only when needed.

TABLE 6--COMPARISON OF OPINION AND PRACTICE IN HAVING
PHYSICAL EXAMINATIONS

A. How often should a person see a doctor?		Households	
Response	Number	Percent	
At least every six months	37	25.4	
At least once a year	57	39.0	
Only when needed	52	35.6	
Total	146	100.0	
Note: Six households did not answer this question.			
B. Does family have regular physical examinations?		Households	
Response	Number	Percent	
Yes (entire family)	6	4.0	
Yes (certain members only)	7	4.6	
No	139	91.4	
Total	152	100.0	
C. When was the last time individuals over 10 years of age had physical examinations?		Individuals	
Response	Number	Percent	
Within the year	101	24.5	
1-5 years	114	27.6	
5 years	81	19.6	
Never	117	28.3	
Total	413	100.0	
Note: Information not available for 8 individuals.			

amination. In actual practice only 9 percent reported regular check-ups, and over half of these were for certain members of the family only (Table 6-B). The discrepancy between stated opinion and actual practice was large.

As a further check on actual practice, the last time individuals in the sample had physical examinations was determined. Since it was desired to consider a time period of at least 10 years, children 10 years of age or younger were excluded; hence, those included spanned the entire time range. Examinations were not restricted to the routine kind, but included those for which an ailment was indicated. However, merely seeing a physician did not constitute an examination; indication that more than a specific treatment was given was needed in order to qualify as an examination. The criteria were exceedingly broad and perhaps erred in the direction of liberal interpretation. Having an examination within the year, of course, was no assurance of regular physical examinations, but failure to do so indicated that regular physical examinations were not being obtained.

During the survey year about one-fourth of the individuals had a physical examination of some kind (Table 6-C). In addition, 28 percent of those over 10 years of age had obtained an examination from one to five years previously; about 20 percent had an examination five years ago, or longer, and 28 percent had never had an examination. These figures bear out the essential accuracy of

the reports of the large majority of those interviewed who said that their families did not have regular physical examinations. They confirm the gap that exists between stated opinion and practice in this area of health behavior.

In view of the considerable difference between stated opinion and actual practice, there is interest in reasons given for not having physical examinations. The question was asked, "Why do people fail to have regular physical examinations?" Those interviewed were not questioned directly as to why they themselves did not have examinations; however it was apparent that many were projecting their own reasons into the response. The response given most often was

TABLE 7--REASON GIVEN BY RESPONDENTS TO THE QUESTION
"Why Do People Fail To Have Regular Physical Examinations"

Response	Number	Percent
Don't think necessary	66	43.4
Cost	55	36.2
Neglect	53	34.9
Doctors do not have time	14	9.2
Doctors do not encourage	4	2.6
Fear	2	1.3
Don't know	1	.7
No answer	7	4.6

NOTE: Percent adds up to more than 100 because some respondents gave more than one answer.

that people did not think examinations were necessary. If this is regarded as a projection of the person's own attitude, it may be suggested that while people state directly that routine examinations are desirable, there may underlie a feeling they they are not "really" necessary. If, on the other hand, this response represented an objective evaluation of others about them, it also indicated the feeling that such examinations were not necessary. Thus, we have the situation of a clearly stated opinion that routine physical examinations are desirable and, at the same time, evidence that this position is not strongly supported in practice.

The other major reasons given for not having regular examinations were cost and neglect. Cost is a relative matter. Many of these families, it is true, were not financially affluent, so that for them physical examinations could be had only by sacrificing other desirable goods or services. However, if great importance was attached to regular examinations, it seems likely that a larger proportion of the families could have met the cost. The idea of "neglect" expressed by the respondents seems to indicate only mild disapproval if any.

Immunization

Eighty-two percent of those interviewed were favorable toward immunization, 8 percent were uncertain and 10 percent were unfavorable. However, by no means all the youth were immunized against smallpox and typhoid fever (the two diseases that were checked in the interviews). Only about three of every

five young people in the sample households between the ages of five and 19 years had been immunized against smallpox; about the same proportion were immunized against typhoid fever (Table 8).

TABLE 8--PERCENTAGE DISTRIBUTION OF PERSONS 5 THROUGH 19 YEARS IMMUNIZED AGAINST SMALLPOX AND TYPHOID FEVER

	Age of Individual			Total (N = 168) Percent
	5-9 (N = 67) Percent	10-14 (N = 58) Percent	15-19 (N = 43) Percent	
Immunized against smallpox				
Yes	29.9	75.9	83.7	59.5
No	68.6	24.1	16.3	39.9
Don't know	1.5	---	---	.6
Immunized against typhoid fever				
Yes	40.3	63.8	76.7	57.7
No	55.2	34.5	16.3	38.1
Don't know	4.5	1.7	7.0	4.2

The record was best in the oldest age grouping where about four out of five youths had been immunized against smallpox and typhoid fever. These figures show two things: (1) that a sizeable proportion of the youth in these homes were not immunized against the diseases checked, and (2) that as children progressed through school they were likely to be caught in the net of public health services. Concerning this latter point, most of the respondents stated that immunization should be done in the schools or a clinic (62 percent). Twenty percent preferred a doctor's office and 13 percent were indifferent. The remainder either did not know or stated that immunization should not be done at all.

It appeared that the families were somewhat passive in their approach to immunization—accepting it, but preferring to leave, and actually leaving, responsibility largely to other agencies.

Maintaining Health in the Family

Now the more general question of "How do you maintain health in your family?" is considered. There were several very common responses to this question. Reference to food and nutrition was by far the most common—over 80 percent of those interviewed mentioned this. Rest, followed by cleanliness and sanitation were the next most commonly mentioned ways of maintaining family health (Table 9). Most of the statements recorded in response to this question appeared to be quite routine, however, none the less valid. About 11 percent would "let nature take its course." This was more common among older households. Seeing a doctor in time was mentioned more often in younger than older households. In most cases there did not appear to be great differences in response

TABLE 9--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO THE QUESTION, "How Do You Keep Your Family in Good Health" AND BY AGE OF HOUSEHOLD HEAD

Ways of Keeping Family Healthy	Age of Head of Household				All Ages (N = 140) Percent
	Under 45 (N = 45) Percent	45-54 (N = 31) Percent	55-64 (N = 41) Percent	65 + (N = 23) Percent	
Food and nutrition	86.7	67.7	87.8	73.9	80.7
Rest	33.3	29.0	41.5	39.1	35.7
Cleanliness and sanitation	40.0	29.0	34.1	13.0	31.4
Fresh air and exercise	17.8	6.5	17.1	17.4	15.0
Avoid exposure to elements	15.6	19.4	7.3	17.4	14.3
Let nature take its course	8.9	12.9	12.2	21.7	12.9
See doctor on time	13.3	12.9	---	4.4	7.9
Happy home environment	4.4	3.2	4.9	---	3.6
Regular habits	2.2	---	2.4	13.0	3.6
Keep bowels regular	2.2	---	2.4	4.4	2.1
Vitamins	4.4	---	2.4	---	2.1
Other	8.8	3.2	7.3	17.4	8.6
Don't know	4.4	12.9	2.4	---	5.0

NOTE: 12 did not answer this question.

on the basis of the age of the household head. This was probably due to the generalness of the responses.

What Do You Do For Colds?

A more specific question was asked about health behavior; it was "What do you do for colds in the family?" The most frequent response was the use of an external rub such as Vicks Vapo-Rub or Mentholatum. Sixty percent of those interviewed mentioned this type of remedy. Aspirin, cold tablets, rest and sleep, and use of liquids and fruit juices were other treatments mentioned often. A few (5 percent) would do nothing and let the cold wear itself out.

The use of rubs, liquids and fruit juices, and seeing a doctor appeared to be more common in the younger households (head under 55 years) than in the older households. The use of laxatives seemed somewhat over-represented in the older households (Table 10).

Food and Nutrition

Since more than three-quarters of those interviewed mentioned food and nutrition as important for health, it seems worthwhile to pursue this further.

Breakfast

Interview respondents were asked to list what the family breakfast consisted of on the day of interview. Nutritionists say that as a minimum, an adequate breakfast should contain an animal protein food, a cereal food and a fruit. The absence of these foods at breakfast does not necessarily mean that the total daily diet is deficient because they may be made up at a later meal. But it is

TABLE 10--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO THE QUESTION, "What Do You Do for Colds" AND BY AGE OF HOUSEHOLD HEAD

Methods of Treating a Cold	Age of Head of Household				
	-45 (N = 49) Percent	45-54 (N = 31) Percent	55-64 (N = 42) Percent	65 + (N = 25) Percent	All Ages (N = 147) Percent
Chest rubs (Vicks, Menthol-atum, etc.)	67.3	74.1	50.0	48.0	60.5
Aspirin	40.8	35.4	40.4	32.0	38.1
Cold tablets	20.4	25.8	19.0	36.0	23.8
Rest and sleep	26.5	19.4	19.0	28.0	23.1
Liquids and fruit juices	24.5	19.4	14.2	4.0	17.0
Laxatives	10.2	9.7	21.4	16.0	14.3
See the doctor	12.2	12.9	7.1	4.0	9.5
Cough medicine	6.1	6.4	4.8	12.0	6.8
Antacid (Alka Seltzer, soda, etc.)	8.2	3.2	2.3	8.0	5.4
Quinine	2.0	---	4.8	8.0	3.4
Liquor	2.0	---	7.1	4.0	3.4
Nose drops and spray	8.2	3.2	---	---	3.4
Vaporizer	2.0	6.4	---	---	2.0
Jamaica ginger water	---	---	---	12.0	2.0
Rub down	2.0	---	2.3	---	1.4
Nothing (just wear it out)	4.1	9.7	2.3	8.0	5.4
Other category	4.1	3.2	2.3	---	2.7

NOTE: 5 did not answer the questions.

likely that if these foods are not obtained at breakfast amounts of them will not be adequate in the total diet.

In general, breakfasts appeared to be quite heavy. Eggs, meat, cereal, bread or biscuits, milk and coffee was a common breakfast. Very few households lacked animal protein and cereal foods at breakfast. On the other hand, few households had fruit. Only 11 percent of the households reported breakfasts that contained all three of the food groups. The youngest households had the largest proportion reporting all three. The pattern was not consistent with age because the second youngest grouping of households (45-54) had the lowest proportion reporting all three food groups. The thing that was noteworthy was the large proportion of households in every age group that did not have fruit for breakfast.

Milk Consumption

Another measure of nutritional level is the amount of milk consumed. An index of milk consumption was developed on the basis that children 0-9 years of age should have three-quarters of a quart of milk per day; youth from 10 to 19 should have a quart per day; and adults 20 years or over should have a pint per day.⁹

⁹Adapted from *Essentials of an Adequate Diet*, Agricultural Information Bulletin No. 160, U.S.D.A., Nov. 1956, p. 1. Recommended amounts of milk daily: Children—3-4 cups; Teenagers—4 or more cups; Adults—2 or more cups. (Cheese and ice cream can replace part of the milk)

TABLE 11--FOOD GROUPS SERVED FOR BREAKFAST ON DAY OF THE SURVEY BY AGE OF HEAD OF HOUSEHOLD

Food Groups Served	Age of Head of Household									
	-45		45-54		55-64		65 +		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Animal protein, cereal, fruit	8	16.7	1	3.2	4	9.8	3	12.0	16	11.0
Animal protein, cereal	40	83.3	28	90.4	34	82.9	19	76.0	121	83.5
Cereal, fruit	--	---	1	3.2	--	---	--	---	1	0.7
Cereal	--	---	1	3.2	3	7.3	2	8.0	6	4.1
Animal protein	--	---	--	---	--	---	1	4.0	1	0.7
Total	48	100.0	31	100.0	41	100.0	25	100.0	145	100.0

NOTE: Responses were not recorded for 7 households.

$$\text{Index of Milk Consumption} = \frac{\text{No. qts. milk per hsd. per day}}{\frac{3}{4} (\text{persons 0-9 yrs.}) + (\text{persons 10-19 yrs.}) + \frac{1}{2} (\text{persons 20 yrs. or over})}$$

A score of one or more indicates that the above requirements were met by the family. An index score below one indicates requirements were not met.

About one-quarter of the families did not meet the requirements as defined (Table 12). The largest proportion with an index score of under one occurred in the youngest households where almost a third had an index score of less than one. Although no comparisons were made with other populations on this point, the consumption of milk appeared to be adequate for most households.

TABLE 12--PERCENTAGE DISTRIBUTION OF HOUSEHOLD BY INDEX OF FAMILY MILK CONSUMPTION* AND BY AGE OF HOUSEHOLD HEAD

Index of Milk Consumption	Age of Head of Household				
	Under 45 (N = 50) Percent	45-54 (N = 32) Percent	55-64 (N = 43) Percent	65 + (N = 27) Percent	All Ages (N = 152) Percent
Under 1	32.0	25.0	9.3	29.6	23.7
1 - 1.49	24.0	34.4	37.2	44.5	33.6
1.5 +	44.0	40.6	53.5	25.9	42.7
Total	100.0	100.0	100.0	100.0	100.0

* Index of milk consumption = $\frac{\text{No. qts. milk per household per day}}{\frac{3}{4} (\text{persons 0-9 yrs.}) + (\text{persons 10-19}) + \frac{1}{2} (\text{persons 20 yrs. or over})}$

Vitamins

In 35 percent of the households where interviews were conducted, at least one person had used vitamins or tonics during the survey year. It appeared that the use of vitamins was more common in the younger households than in the older ones (Table 13). There was a definite break between age groupings 45-54

TABLE 13--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY USE OF VITAMINS BY ANY MEMBER DURING THE YEAR AND BY AGE OF HOUSEHOLD HEAD

Did any member of the household use vitamins or tonics last year?	Age of Head of Household				
	Under 45 (N = 50) Percent	45-54 (N = 32) Percent	55-64 (N = 43) Percent	65+ (N = 27) Percent	All Ages (N = 152) Percent
Yes	42.0	43.8	27.9	22.2	34.9
No	58.0	56.2	72.1	77.8	65.1
Total	100.0	100.0	100.0	100.0	100.0

and 55-64. The common use of vitamins for children probably accounted for the larger proportion of the younger households using vitamins. Among the reasons given for taking vitamins were:

Reason	Number of households giving this reason
To keep healthy	14
Run down	10
Prevent colds	8
Nervousness	7
Appetite	7
Other reasons	9

More than one reason was recorded for some households that used vitamins and in nine, no reason was given. The reasons tended toward the general. Probably vitamins are taken with the idea of keeping healthy rather than as a specific for an existing condition.

The influence of the physician was an important consideration in the use of vitamins. A physician was credited with advising use of vitamins in 41 of the 53 homes where they were used.

Diet

In 47 of the households, one or more member had dieted during the year preceding the interview. This was 31 percent of the 150 households that responded to this question. As seen in Table 14, the oldest group had the smallest proportion in which someone had dieted; the age grouping 45-54 had the largest proportion.

TABLE 14--PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY DIETING OF ANY MEMBER DURING THE YEAR AND BY AGE OF HOUSEHOLD HEAD

	Age of Head of Household				All Ages (N = 150)
	Under 45 (N = 48)	45-54 (N = 32)	55-64 (N = 43)	65 + (N = 27)	
Has anyone tried to diet?	Percent	Percent	Percent	Percent	Percent
Yes	31.2	40.6	30.2	22.2	31.3
No	68.8	59.4	69.8	77.8	68.7
Total	100.0	100.0	100.0	100.0	100.0

NOTE: 2 did not answer the question.

Dieters may be classified according to whether they directed their own diet or whether it was suggested and directed by a physician. Physicians were given credit for directing more than twice as many diets as were self-directed. There was a definite difference in the pattern according to the age of the household head. In the oldest group, all the diets were directed by a physician; in the youngest, 47 percent of the diets were self-directed. Apparently older persons did not diet unless there was a health problem. Younger persons may be more conscious of appearance and diet relatively more for that reason. In both use of vitamins and dieting, the influence of the physician was very important.

TABLE 15--RESPONSES TO THE QUESTION, "By Whom Was the Diet Directed" BY AGE OF HOUSEHOLD HEAD

By Whom was Diet Directed	Age of Head of Household								Total	
	-45		45-54		55-64		65 +		No.	Percent
	No.	Percent	No.	Percent	No.	Percent	No.	Percent		
Physician	8	53.3	9	35.7	11	15.4	6	100.0	34	70.8
Self-directed	7	46.7	5	64.3	2	84.6	-	----	14	29.2

NOTE: No answer for two households that had dieters.

NOTE: Since two persons might have dieted in the same household the numbers do not correspond exactly with the previous table.

Home Medications

Rural people have traditionally taken care of many of their own ailments. A considerable amount of home medication was evident in this area. Respondents were asked what medicines they tried to keep on hand. A tabulation of these responses is seen in Table 16. A weakness of the instructions to interviewers is evident in that in some instances the medicines were recorded as a class rather than a specific kind. For instance, the interview records often show "laxative" rather than the specific kind. For some medications, this is not a serious omission because brand names are not thought to differentiate the products. For example, rubbing alcohol and aspirin do not really differ by brand. On the other hand, laxatives may be quite different and the difference may be identified by brand name. An attempt has been made to be as specific as possible.

More of the medications listed were to be applied externally than taken internally by 417 to 317. Antiseptics provided the largest single category of remedies; laxatives were second. However, if liniments, salves, rubbing alcohol, and external cold remedies were combined (as they might reasonably be) this would provide the largest category.

The widespread use of liniments and rubs may reflect in some ways the nature of the work of people in this area. Physical labor often accompanied by exposure to the elements may give rise to aches and pains that people attempted to relieve by one or another of the external applications.

These external remedies may also be closely related to folk medicine. Much folk medication was applied externally. The actual handling or manipulation that takes place in the application of liniments or rubs may also have a positive value carry-over from folk medicine where it was desirable to "do something" to the ill person. This may be the reason for the popularity of a remedy such as Vicks Vapo-Rub in the area.

In 1941 a study was made in a county adjacent to Laclede. In this county the four most common remedies listed were aspirin, black draught (laxative), rubbing alcohol and Vicks Vapo-Rub.¹⁰ Three of these were among the first four in Laclede County in 1955. Black draught had dropped out. This probably does not mean that laxatives were not used as much but that black draught had been replaced by other kinds. Many of the same medications were listed in both surveys although the earlier one reported a larger number.

Some of the medications normally kept in homes, such as liniments and cathartics, might be described as harsh, but most of them probably were not of great potency. In the days of miracle drugs many of the more common remedies persisted.

Home-Made Remedies

Respondents were asked if they had any home remedies that they used when

¹⁰Iola Meier and C. E. Lively, *Family Health Practices in Dallas County, Missouri*, Research Bulletin 369, June 1943, University of Missouri, Columbia, p. 23.

TABLE 16--HOME MEDICINES USED

<u>Laxatives</u>	<u>128</u>	<u>Antiseptic</u>	<u>156</u>	<u>Pain Reliever</u>	<u>125</u>
Unspecified	18	Unspecified	33	Aspirin	110
Exlax	31	Iodine	46	Anacin	10
Milk of magnesia	17	Merthiolate	29	Phenodyne	3
Sal Hepatica	12	Peroxide	14	Bufferin	1
Epsom salts	9	Mercurochrome	12	Antipain	1
Castoria	8	Lysol	11		
Black draught	8	Listerine	3	<u>Antacids</u>	<u>15</u>
Mineral oil	8	Campho Phenique	3		
Nature's Remedy	6	Boric Acid	2	Alka Seltzer	8
Feen-a-mint	4	Glycerine	1	Pepto Bismol	5
Dr. Caldwell's Syrup of Pepsin	2	Mi 31	1	Magnesia tablets	1
Dr. Hinkle's pills	1	Dr. Tischner's	1	Tums	1
Calatabs	1				
Cascara	1			<u>Quinine</u>	<u>4</u>
Rexall	1	<u>Liniment</u>	<u>54</u>		
Rawleigh's	1	Unspecified	29	Unspecified	3
		Rawleigh's	10	Cocoa Quinine	1
<u>Internal Cold Remedies</u>	<u>30</u>	Sloan's	8	<u>Liver Pills</u>	<u>8</u>
		Chief Two Moon	1		
Cold tablets (unspec.)	10	McNess	1	Unspecified	2
Cough syrup (unspec.)	10	Millerhaus	1	Carter's	6
Nose drops (unspec.)	3	Starless	1		
Cough drops (unspec.)	2	Zina Ray	1	<u>Nerve and Sleeping</u>	<u>3</u>
Antihistamine	1	Watkins	1		
Tonsilene	1	Absorbine Jr.	1	Unspecified	1
4-Way cold tablets	1			Nervine	2
Pinex cough syrup	1				
Vicks nose drops	1	<u>Salve</u>	<u>59</u>	<u>Other Category</u>	<u>10</u>
		Unspecified	13	Poison ivy remedy (unspec.)	2
<u>External Cold Remedies</u>	<u>80</u>	Rawleigh's	12	Sulfathiazole	1
		Vaseline	6	Penicillin	1
Unspecified	1	Ben-Gay	5	Calamine lotion	1
Vicks	64	Burn salve (unspec.)	5	Rexall powder	1
Mentholatum	14	Unguentine	4	Essence of pepper- mint	1
Goose Grease	1	Cloverine	3	High blood pressure tablets	1
		Rosebud	2		
<u>Rubbing Alcohol</u>	<u>59</u>	King's Ointment	2	Ear drops (unspec.)	1
		McNess salve	2		
Unspecified	59	Skin Balm	1	Kidney pills (unspec.)	1
		Black Balm	1		
<u>Oil</u>	<u>3</u>	Carbolated Vaseline	1		
		Musterol	1		
Olive oil	1	Infra Rub	1	<u>No Answer</u>	<u>2</u>
Sweet oil	1				
Camphorated oil	1				

members of the family were ill. The kinds of remedies reported may be seen in Table 17. Most of the home remedies were for colds.

Twenty percent of the households reported using some home remedy. The oldest households (head 65 years or over) reported the largest proportion using home remedies, 27 percent compared with 18 percent for those under 45 years and 16 percent for those 45-54 years.

The survey of an adjacent county made 14 years earlier reported a far greater

TABLE 17--HOME-MADE REMEDIES USED

<u>Cold Remedy</u>	<u>37</u>	<u>Other Category</u>	<u>14</u>
Turpentine, lard, and coal oil	8	Turpentine and sugar for worms	3
Quinine, coal oil, and lard	5	Sassafras tea (thins blood)	2
Turpentine and Vicks Salve	3	Red liniment in milk and sugar for colic	1
Turpentine, lard, coal oil and Vicks	1	Starches for loose bowels	1
Turpentine and coal oil	1	Willow root tea for chills	1
Turpentine, snuff, and coal oil	1	Wild plum bark for asthma	1
Hot lemonade	2	Garlic for high blood pressure	1
Soda, lemon, and aspirin	1	Lime water for arthritis	1
Lemon and fruit juice	1	Sulphur and molasses for spring tonic	1
Hot lemonade and whiskey	1	Spicewood to break out measles	1
Hot ginger tea and whiskey	2	Salt water for sinus	1
Whiskey toddy	1		
Whiskey and glycerine	2		
Jamaica ginger water	1		
Beer and aspirin	1		
Fruit juices and water	1		
Wild cherry bark for cough	1		
Aspirin and salt as gargle	1		
Hot salt water gargle	1		
Rock candy cough syrup	1		
Sassafras tea	1		
<u>Poultice</u>	<u>3</u>		
Salt bacon boiled in vinegar poultice	1		
Mustard poultice	1		
Fried onion poultice	1		
<u>Antiseptic</u>	<u>14</u>		
Turpentine	11		
Coal oil	2		
Salt for cuts	1		
<u>Burns</u>	<u>2</u>		
Vinegar	1		
Green bark of elder and lard	1		
<u>Liniment</u>	<u>2</u>		
Heated vinegar for aching legs	1		
Alcohol and wintergreen	1		

number of home remedies.¹¹ Two reasons might account for this. (1) The earlier survey may have probed deeper on this point, (2) during this time the number of home remedies may have declined. Both of these reasons apply. A number of respondents said they had used home remedies formerly but no longer did.

SUMMARY

Health is an important family responsibility. It includes health maintenance and prevention of illness as well as measures to deal with illnesses that occur.

It is clear that the physician played an important part in family illness management. The role of the physician in the total health situation was perhaps more complex than one would expect at first. In cases where a physician was consulted about an illness, that step was probably preceded by self-diagnosis, waiting and treatment. Even after the physician had been consulted, the judgement of others (usually the family) entered into the treatment.

It would appear that no great emphasis was placed upon prevention of illness. Regular physical examinations were almost entirely lacking even though a majority gave lip-service to their value. A substantial proportion of the young people had not been immunized against smallpox and typhoid fever. The larger proportion reported being immunized among older youth (10-19 years) indicates that the net of public health services tends to catch up in time. But immunization that occurs at school or in a clinic requires little more than the family's passive consent.

Of course no one admits wanting to be ill. Those interviewed were asked how they went about maintaining good health in their families. The most frequent reply given was "good food"; other leading replies were rest, cleanliness and sanitation and fresh air and exercise. These responses appeared to be stock answers. The living pattern and nutritional level of the families were not checked adequately to make a firm judgement concerning the correspondence between these replies and practices in the home. An analysis of breakfasts indicated that they were usually quite heavy but generally lacked one of the food groups (fruit) thought desirable. Most families had what was judged to be an adequate amount of milk in the diet, but about one-quarter of the families did not.

When illness struck, there were established ways of dealing with it that came with experience in rearing a family. Many parents indicated that they "could tell" when a child was ill enough to see a doctor. It was difficult for them to explain just how they were able to do this; often it was a matter of sensing when a person was "really sick." Unless the situation developed very rapidly, as in an accident, a time element was involved when an illness was watched to see how it progressed. During this time, home diagnosis was almost surely attempted and treatment given. The unfamiliar illness often caused alarm and quick action. Colds were generally lightly regarded and called for home treatment. A fever

¹¹Ibid. pp. 25-31.

usually did not cause alarm unless it "held on" or didn't develop in a manner that had been experienced before. Once an illness had been diagnosed, whether the diagnosis was right or wrong, there were a host of home treatments available. The most common ailments had the largest number of home treatments associated with them. Every family was confronted with colds and had its favorite remedies (although a few reported they just wore colds out).

Home treatment appeared to have connections with the folk-medicine of the past even though the home-made remedies were not as frequently used as they had been 14 years ago in the same area. However, many of the commercial remedies had characteristics of the home-made remedies. This was particularly true of rubs and liniments. These may be a rather direct replacement in the kit of folk medicines for such ingredients as coal oil, lard, and turpentine.

OTHER BULLETINS IN RURAL HEALTH SERIES

1. *The Rural Health Facilities of Lewis County*. Res. Bul. 365, 1943. Almack, Ronald B.
2. *Family Health Practices in Dallas County*. 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. McNamara, Robert L.
7. *Supply of Physicians in Rural Missouri*. Sta. Bul. 651, 1955. McNamara, Robert L., Edward W. Hassinger, John B. Mitchell.
8. *Extent of Illness and Use of Health Services in a South Missouri County*. Res. Bul. 647, 1958. McNamara, Robert L. and Edward W. Hassinger.
9. *Relationships of the Public to Physicians in a Rural Setting*. Res. Bul. 653, 1958. Hassinger, Edward W. and Robert L. McNamara.
10. *Charges for Health Services Among Open-Country People in a South Missouri County*. Res. Bul. 668, 1958. Hassinger, Edward W. and Robert L. McNamara.
11. *What's Happening to Rural Doctors and Health Facilities?* Sta. Bul. 735, 1959. Hassinger, Edward W., Robert L. McNamara.