

A COMPARISON OF HEALTH AND HEALTH
CARE IN TWO MICHIGAN COMMUNITIES

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A COMPARISON OF MENTAL AND PHYSICAL CARE
IN TWO NEGRO COMMUNITIES

By

Clarence Thomas Jane

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CHAPTER I

INTRODUCTION

A man's health is fundamental to his strength and well-being. It is the foundation of a nation's strength in time of emergency and a vital factor in its welfare. The democratic ideals of life, liberty, and the pursuit of happiness are based on the premise of good health. The maintenance of health demands an adequate environment in which the individual may live and develop.

In case of ill health adequate medical service includes many institutional services and processes such as diagnosis, surgery, medication, hospitalization, nursing, dental care, drugs and appliances. Many technical services as x-ray, and other laboratory procedures are also included. Professional workers, such as physicians, dentists, nurses, pharmacists, laboratory technicians, and their assistants are also needed. These are aided by chiropractors, optometrists, medical social workers, practical nurses, public health workers, and employees engaged in the manufacture of drugs. These resources as well as the assurance of a continuing place in society are required for the treatment of ill health. A member of society who is ill is handicapped in attaining the ideals of democracy and cannot contribute his maximum to the economy of the society to which he belongs.

The continuing need for health care has resulted in the growth of social institutions. An institution has been defined by Lapiere as "a system of human relationships, each specific element of which is more or less effectively coordinated with every prior and subsequent element, for the fulfillment of the long run group need."¹ The institution, however, tends to resist change thus giving rise to problems due to the expansion of knowledge. The existence of such problems are "to the sociologist evidence of cultural lag, of the difficulty in translating into active uses the values provided by scientific knowledge."² Other problems are introduced by the overlapping of institutions, for health care operates within a context of political and economic institutions. These relationships are emphasized by Wilson G. Smillie who stated "Social laws play a tremendous part in the proper conduct of adequate medical care."³ Surgeon General Scheele held that "Social factors are the very core of preventative medicine and public health."⁴ The importance of political institutions in the field of health is reflected in the opinion of Chief Justice Harlan who in 1898 stated "It is the settled doctrine of this court that as government is organized for the

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1. Richard T. Lapiere, Sociology, McGraw-Hill Book Company Inc., New York, 1946, p.339.
 2. Otis Durant Duncan, Social Research on Health, Social Research Council, New York, 1946, p. 16.
 3. Wilson G. Smillie, Preventive Medicine and Public Health, McMillan Co., New York, 1952, p. 4.
 4. Smillie, Ibid., p. 3.

purpose, among others of preserving the public health and public morals, it cannot divest itself of the power to provide for these objects."⁵ Economically acceptance of the theory of capitalism gave rise to the fee-for-services-rendered system of providing medical service to the individual and his family.

The general application of medical services under the present system has not been achieved, as has been shown by Mott and Roemer in their book Rural Health and Medical Care.⁶ The distribution of services varied within regions, states and areas with the degree of urbanization. Health personnel and facilities were found to be most numerous in the urban industrialized north-eastern United States. It has been shown by research that the upper economic classes can and do obtain more and better medical services than do the lower economic groups.⁷ In rural areas, inability to secure medical services may result from such disadvantages as the increased age of rural physicians, the relative distance of doctor from patient, low income and relatively lower levels of education and living. On the other hand, many factors of local significance affect the level of

5. James A. Tobey, Public Health Law, Commonwealth Fund, New York, 1947, p. 5.

6. Frederick D. Mott, M.D. and Milton I. Roemer, M.D., Rural Health and Medical Care, McGraw-Hill Book Company Inc., New York, 1948, pp. 149-150

7. Charles P. Loomis and Allan J. Beegle, Rural Social Systems, Prentice Hall Inc., New York, 1950, p. 716.

health and health care in any specific community such as the age composition of the population and its health practices.

The foregoing variations in the general application of health care indicates the desirability of selecting the community as the basis of study. Here factors such as the physical accessibility of health services, and attitudes of the population tend to remain constant. Thus the effectiveness of institutions serving health needs can be tested more accurately.

Purpose and Scope of the Study

This study was designed to test the hypothesis that under the present system of distributing medical services, the resulting inequalities in the availability of medical doctors and health facilities will be reflected in poorer health and less frequent use of medical services in the disadvantaged areas. It is also hypothesized, that such a deficiency will be reflected in the attitudes and opinions of the population regarding health services.

Points of comparison used in this study are as follows;

1. The need for medical attention as determined by the symptoms approach.⁸
2. The use of available services.
3. Attitudes and opinions of the communities regarding these services.
- 4.. The cost of the services used.
5. The use of public health services.

Selection of two communities, Pellston and Tecumseh, in which to test the hypothesis was based on the work of Dr. J. F. Thaden of the Department of Sociology and Anthropology at Michigan State College. His study divided the entire area of Michigan into "medical service" communities.⁹ The population of each was estimated,

8. A discussion of the "symptoms approach" appears on page 8-9 of this study.

9. Thaden, John F., Distribution of Doctors of Medicine and Osteopaths in Michigan Communities, Michigan State College, Agricultural Experiment Station, Department of Sociology and Anthropology and the Social Research Service, East Lansing, Special Bulletin 370, June, 1951, pp. 19-20.

the number of medical doctors and osteopaths engaged in private practice in each community was ascertained, and the ratio of population per physician was determined. Arrangement of these communities along a continuum from the absence of private health care personnel and hospitals to a reasonably adequate supply of doctors resulted in the selection of Pellston as the community lacking these services and Tecumseh as the community having a reasonably adequate supply.¹⁰ Pellston had no medical doctors, osteopaths, or hospital facilities within the trade area of the community. Tecumseh had a favorable ratio of one medical doctor or osteopath per 6.0 persons in the community and a community hospital. No attempt was made to equate the communities selected according to socio-economic or other factors affecting health and health care. Frequent reference is made throughout this study to data for the rural population of Michigan as determined by the Michigan Health Survey published as Health Needs and Health Care in Michigan.¹¹

10. A more complete description of these communities is found in Chapter II. Their location is shown in figure 1.

11. Charles R. Hoffer, Duane L. Gibson, Charles P. Ioonis, Paul A. Miller, Edgar A. Schuler, and John F. Thaden, Health Needs and Health Care in Michigan, Michigan State College Agricultural Experiment Station Section of Sociology and Anthropology, East Lansing, Michigan Special Bulletin 365, June, 1950.

A Review of Selected Health Studies

The use of the rural community as a unit in determining the influence of ecological and socio-economic factors on health and health care is a comparatively recent concept in this field of study. Its use eliminates many complicating factors such as differing facilities and attitudes which may obtain as one moves across community boundaries.

The great majority of previous health studies have been undertaken in urban areas by governmental agencies or organizations with a primary interest in certain occupational groups. Frequently, then, such studies have included a political unit such as a county, or state, while occupationally centered studies cover a specified district. Such studies tend to produce an average figure from the included communities which may obscure the relation between a single factor and its effect on the health and health care of the members of a community.

In a study of the use of health resources by rural people in two central New York counties,¹² it was found that for both private and public health resources availability at the local community level is most significant from the standpoint of the rural consumer of

12. Claf F. Larson and Donald G. Hy, The Use of Health Resources by Rural People in Two Central New York Counties, 1949, Bulletin 27.

these services. A comparison of the use of available health resources by occupational groups indicated that farm families use these resources least frequently and lag far behind others in the use of voluntary health insurance. Income comparisons indicated that low income families, except for the older persons, are not using private or public health services as well as families with higher incomes. The study, however, reports no widespread "folk practices" in the use of home remedies, although many were used by individuals.

Studies of health were conducted in four town-country communities of Pennsylvania. In 1946 a study of The Use of Health Services in Two Southern Pennsylvania Communities¹³ was made. Then in 1949 the series was completed with the publication of The Use of Health Services in Two Northern Pennsylvania Communities.¹⁴ These communities were selected for similarity in income and educational level. The basis for determining the health needs of the population was the use of school records showing pupil physical and mental defects with the action taken by parents. On this basis the authors concluded that

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13. Ruth M. Corner and William G. Luther, The Use of Health Services in Two Southern Pennsylvania Communities. The Pennsylvania State College School of Agriculture, Agricultural Experiment Station State College, Penn. Bulletin 504, July 1948.
 14. Ruth M. Corner and William G. Luther, The Use of Health Services in Two Northern Pennsylvania Communities. The Pennsylvania State College School of Agriculture, Agricultural Experiment Station College, Penn., Bulletin 517, July 1949.

rural parents were less likely to have their children's defects corrected than were urban parents.¹⁵ Interviews with approximately twenty percent of the sample indicated that the use of dental services was directly related to the income and education of the family head, increasing as income and education increased. Rural residents reported less dental care and a higher percentage of extractions than town residents.¹⁶

Findings in regard to the use of a physician were based on illnesses involving the loss of one day or more or for which medical service was received.¹⁷ This study produced no positive relationship between the use of medical service and income, education, or distance from a doctor in the communities studied. Home calls were found to decrease in rural districts and lower income groups were found to carry the heaviest proportional load of health service expense.

The development of a relatively inexpensive statistical method of determining medical needs known as the "symptoms approach" was developed in 1944 by rural sociologists in the department of agriculture. It involved a list of non-technical questions such as a doctor would use in taking a medical history but which may be asked by a lay

15. Only breakdown classification shown on pupils was place of residence (ie.) rural-urban.

16. Conner and Mather Op. Cit., p. 20.

17. Ibid., p. 20.

interviewer. Each symptom or condition reported by the informant indicated, in the opinion of qualified medical doctors, a need for medical attention at least to the extent of diagnosis or treatment if necessary. This method was later validated in two studies, one conducted in North Carolina, the other in Michigan. The first was a check of lay interviewers reports with a doctor's interview, and the second by selecting a sample of those interviewed, using a schedule which included the list of symptoms, for a medical examination.¹⁸ As a result this method was found to be a valid statistical basis for the determination of medical needs of a selected population group.

Using this new technique, Mayo and Sebastian started a study in 1945 in Greene County, North Carolina, to determine medical needs of the population.¹⁹ This study showed widespread need among the population and a positive relation between age and unmet medical needs. Also a higher proportion of the negro population was found to have unmet medical needs than the white population.

18. Charles R. Hoffer and Edgar A. Schuler, Michigan State College in cooperation with Rosalie Malign M.D. and Thomas Robinson M.D. University of Michigan Medical School. "Determination of Unmet Need for Medical Attention Among Michigan Farm Families." The Journal of the Michigan State Medical Society, Vol. 46 pp. 443-446 April, 1947.

19. Selz C. Mayo and Kie Sebastian Fullerton, Medical Care in Greene County. Agricultural Experiment Station, North Carolina State College, Raleigh, North Carolina, Bulletin 36J, November, 1948.

A study using this technique was conducted in Michigan by Dr. Charles R. Hoffer. It included the validation work previously mentioned and published in September, 1948.²⁰ In this study an agreement in four out of five cases between the lay interview and clinical examination indicated that the medical needs schedule, or the "symptoms approach" as it is sometimes called, was a satisfactorily valid instrument for determining the extent of unmet medical needs. Other findings of this survey were that need for medical attention increased as the gross family income decreased, and as the age of its members increased.

A second survey was undertaken to study health in communities consisting of a town and its adjacent trade area.²¹ For this study three communities were selected in widely separated areas of Michigan to ascertain the level of health care and attendant socio-economic factors and opinions. Again the author found that unmet medical needs were greater in the open country than in the towns, and that medical needs increased with age and decreased family income.

The use of medical services was found to vary slightly but differences

20. Charles R. Hoffer, Health and Health Services for Michigan Farm Families, Michigan State Agricultural Experiment Station, Section of Sociology and Anthropology, East Lansing, Michigan Special Bulletin 352, September, 1948.

21. Charles R. Hoffer, Health and Health Services in Three Michigan Communities, Michigan State College Agricultural Experiment Station Section of Sociology and Anthropology, East Lansing, Michigan, Quarterly Bulletin Vol. 31, Article 31-12, August, 1948.

reported in two of the communities studied were not large. Satisfaction with medical care was expressed by a majority of respondents, but some dissatisfaction was reported as to the availability of health services.

The foregoing investigations suggested the need for a state-wide study of the health and health care of Michigan residents. This was undertaken with a representative area sample of all Michigan residents outside of Wayne county. Interviews were taken during the summer of 1948 and the results were published as Health Needs and Health Care in Michigan in June, 1950.²² This survey confirmed earlier findings that unmet medical needs are found most frequently in the open country and village populations, and that distance to a doctor was a factor of some importance. Socio-economic factors found to be related to medical need were family income, and education of the wife or female head of the household. No marked differences were found in doctor use between groups residing in different parts of the sample area.

Opinions and attitudes of the population indicated that a majority were satisfied with the medical care received, but in general they felt that more doctors were needed. They favored prepayment plans for paying doctor and hospital bills.

22. Charles R. Hoffer et al., Health Needs and Health Care in Michigan Cp. Cit.

A review of the preceding community studies indicates that when the use of medical facilities is the only criterion for determining the level of health care, important differences between communities may be obscured. Use of the "symptoms approach", however, has shown differences to exist depending on age, gross income of the family, education of the female head and the place of residence. The foregoing studies have not shown the effect of health education or the effect of health resources on health and health care. This study will attempt to indicate differences between communities with differences in health resources.

Method of Study

Health and health care information was obtained from thirty-six households in the Pellston community and fifty families in the Tecumseh community. The schedule included a list of twenty-seven symptoms on each individual member of the family such as a physician might use in taking a medical history. As previously explained each symptom, if positive, was considered a medical need at least to the extent that the advice of a doctor should be sought regarding the matter. Other information gathered included practices and opinions concerning health services and ecological and socio-economic data.

Information was obtained by the use of an enumerative survey using a pretested fixed question schedule during the winter and spring of 1948-1949. The respondent selected was the female head in each case where the family included such a member otherwise the male head was interviewed. In Pellston the husband was present at the time of the wife's interview in thirty-six percent of the cases. In Tecumseh the husband was present at the time of the wife's interview in only twelve percent of the cases. The interview did not include the female head in six percent of the families interviewed in Pellston and two percent in Tecumseh. The proportion of husbands present at the time of the interview varied in the communities due to factors such as seasonal work on the farms and the number of persons employed away from the home or farm. The interviews were conducted by

sociologists from the Department of Sociology and Anthropology at Michigan State College.²³

The sampling ratio was based on population estimates made by Professor Thaden in his study of Michigan communities. In Pellston a sampling ratio of one in ten households was adopted with proportional numbers from both village and open country parts of the community to be selected by enumeration of the occupied households and the selection of each tenth household in the community. This yielded thirty-eight households, thirty-six of which were interviewed for a total of one hundred forty-four individuals.

In Tecumseh the sampling ratio was determined as one household in each twenty-seven from the community center and one in each fifty from the surrounding trade area. This resulted in a sample of twenty-five families in the town and twenty-five from the trade area for a total of fifty family interviews. These fifty families included 185 individuals.²⁴

23. Participating in the interviewing of families in Pellston were Sheldon Lowry, M.A. and the writer. In Tecumseh all village interviews were done by Charles A. Koffer, a professor of Sociology and Anthropology at Michigan State College, while interviews in the community area surrounding the village of Tecumseh were by the writer.

24. A total of 89 of these persons belong to Tecumseh families and 96 to families residing in the trade area. Data based on the 1950 census shows the population of the Tecumseh community to be approximately equally divided between the village and its trade area. The sample is approximately equal for both areas.

CHAPTER II

THE COMMUNITIES DEVELOPED

The Pellston community is located in Emmet County, the most northerly of the counties in Michigan's lower peninsula. In this area one of the first communities in the state was founded; but in spite of this early settlement most of the area remained as an Indian reservation until 1875, when it was thrown open to white settlement. Following white settlement lumbering became the economic base of the area but as the forests were cut new problems arose. The lands of the county are mostly of low quality, with seventy-three percent of the area classified as third and fourth class land.²⁵ The best grades of land are concentrated on the north-south ridges crossing the county rising up to 660 feet above lake level. The terrain and lake shore has favored development of the resort business. Today the county is a leading resort center and both summer and winter sports flourish. This new economic base is reflected in Pellston, a village of 442 persons, which through its airport, serves the area and the surrounding cities of Cheboygan, Petoskey and Mackinaw. Including the village of Levering, with a population of 120 and the surrounding community areas, there

25. Veatch J.C. Agricultural Land Classification and Land Types of Michigan. Michigan State College Agricultural Experiment Station, Section of Soils, East Lansing, Michigan, Special Bulletin 231, P. 63, 1943.

are an estimated 1500 persons in the Pellston community.²⁶ They are served by the main western lake shore highway and a railroad which passes through Pellston and Levering furnishing transportation for the community centers.

Nineteen miles distant and connected to Pellston by federal all weather highway, lies Petoskey, the county seat of Emmet county and principal town of the area. It is a resort and industrial center lying on Little Traverse Bay. In 1950 the population of Petoskey was 6,468 and with its surrounding area it represented a community of 11,200 population. Located here are excellent medical and hospital facilities designed to serve the area and its wealthy summer visitors. There are two hospitals, the Little Traverse General Hospital of one hundred and three beds and ten bassinets, and the Lockwood General Hospital with forty-four beds and ten bassinets. Practicing in this community were eleven medical doctors, seven dentists, one osteopath, and two chiropractors with a physician population ratio of 933 persons per medical doctor or osteopath. This comprised the personnel engaged in private medical practice and the available health facilities in Petoskey.

To the east, an equal distance from Pellston over state all weather highway is Cheboygan, a lakeport and industrial center.

26. The following data on estimated community populations and medical personnel were obtained from Special Bulletin 370. Distribution of Doctors of Medicine and Osteopaths in Michigan Communities by John F. Thaden. Op. Cit.

This city and surrounding community area has an estimated population of 10,600 with a population doctor ratio of 1767 persons per medical doctor or osteopath. Located in Cheboygan, a city of 5,687 were five medical doctors, four dentists, one osteopath, one chiropractor, and the Community Memorial General Hospital with forty-three beds and ten bassinets. These two cities of Petoskey and Cheboygan contain the only available medical personnel engaged in private practice and health facilities available to the residents of the Pellston community.

The district health department number three, which was founded in 1930 operates in the Pellston community and serves the counties of Emmet, Charlevoix, Antrim, and Otsego. It employs a medical director and staff which included seven full-time nurses, two sanitarians, two clerks, and at the time of the survey a dentist and dental assistant. The services of a bacteriologist were available, although he was not considered to be a member of the health staff. Public health services available in the Pellston community include the services of a full time resident nurse, and periodic clinics in the community. Additional services included pre-school immunizations, dental fluorination in the school, dental, and hearing inspections, conducted every two years. In cases where dental work is not provided by the parents, a follow-up program is used to correct the condition. Aid is also given in securing funds for persons unable to pay for health care. Talks by members of the department were available to the P.T.A. or other service groups upon request.

Educational facilities in the community included a consolidated four year high school in Wellston with elementary schools in both Wellston and Levering. There are several churches, trade and service agencies in the community including a drug store in Levering but not in Wellston.

The Tecumseh community is located in Lenawee county of southeastern Michigan. White settlement of the county began in the village of Tecumseh in 1824. The settlement proceeded rapidly due to excellent agricultural land rated as approximately three-fourths first class land with the remainder largely second class agricultural land.²⁷ A prosperous agriculture exists in the trade area. In conjunction with agriculture the community has a well developed local industry and is located in the Detroit-Toledo industrial area. The community, then, is economically based on industry and agriculture. This fact tends to equalize the seasonal fluctuation of income found in an agricultural community. The population of the village of Tecumseh was 4,006 in 1950. In the community area surrounding Tecumseh are two villages, Britton with a population of 517, and Tipton with 150. The estimated population for the community was 8000.

27. Veatch, J.O. Cp. Cit. P. 63.

Medical resources within the community include the Tecumseh Hospital,* owned and operated by the people of Tecumseh. This general hospital was founded as a non-profit association. It was financed and built with funds donated by the citizens of the community. In all, about 240,000 was collected and used to build the hospital, which was presented to the village in 1941. The village issued bonds to finance an addition which gave the hospital a total capacity of thirty-seven beds and sixteen bassinets. In addition to the hospital there are eight physicians in Tecumseh and one physician in the village of Britton, all of these had full access to the facilities of the hospital. Also practicing in Tecumseh were three dentists, two osteopaths, and a chiropractor. The foregoing doctors of medicine and osteopathy gave the Tecumseh community a ratio of 600 persons per physician, a figure lower than for any surrounding community as shown by the following ratios per medical doctor or osteopath: Adrian 1600, Clinton 1233, and other small communities adjoining the Tecumseh community all having ratios varying from 1067 to 2620. Additional hospital and specialist care facilities were available at Adrian or Ann Arbor, a distance of eleven and thirty-one miles respectively.

The community had an additional health resource in the services of a county health department established in 1942. Its offices were located in Adrian, the county seat, about eleven miles by paved road from Tecumseh. At the time of the survey the department had no health officer but the staff included a

* The Tecumseh Hospital is known as the Herrick Memorial Hospital at the present time

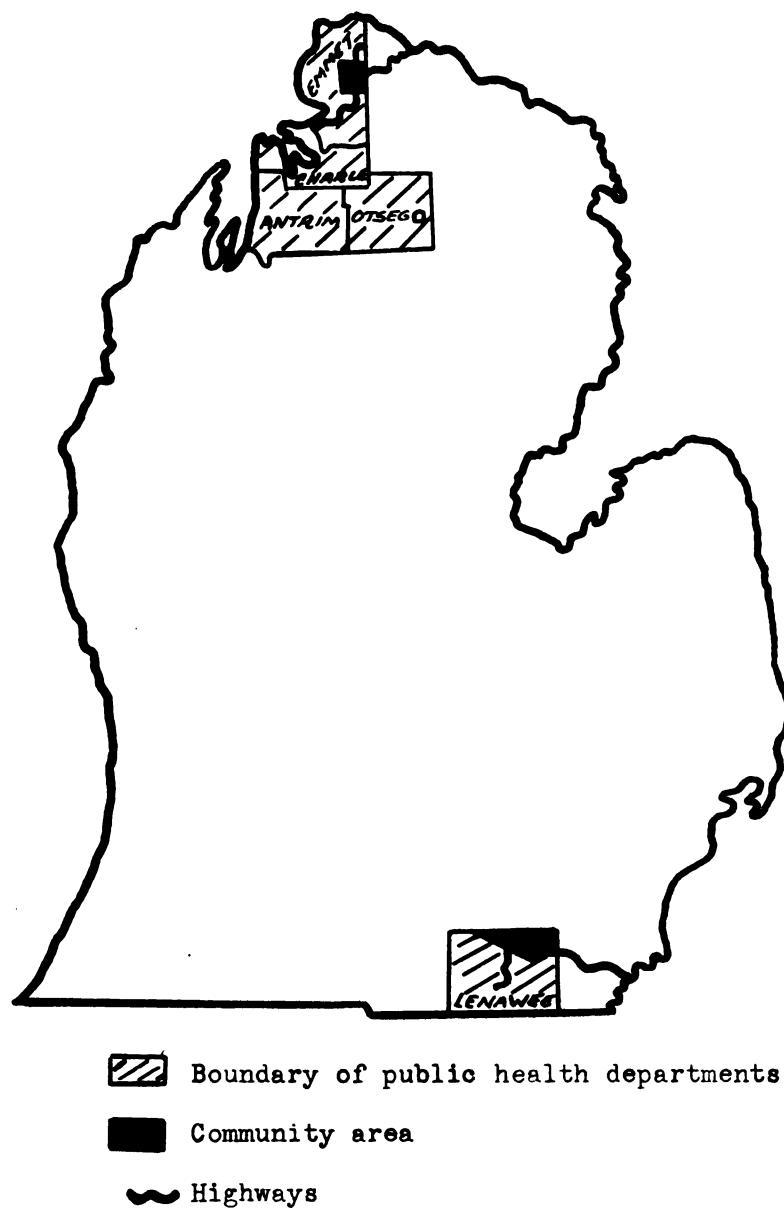


Figure 1. Location of Pellston and Tecumseh communities

supervising nurse and three full time health nurses, two sanitarians and two clerks. Its function in the Tecumseh community was more limited than in the Pellston community due to a lack of staff members. Immunizations and dental programs were not conducted by the Lenawee Health department, as they were in Pellston at the time of the survey.

Other service agencies located in Tecumseh included a four year high school, churches, and many other active associations and clubs engaged in community service and improvement projects.

Figure 1 indicates the geographical location of each community and its related health department area. The highways shown are the main highways connecting the community center to neighboring population centers.

The foregoing description has indicated general situational differences in the communities. Other differences between the individuals and families of the two communities are shown in following tables, based upon estimates from the sample data.

In figure 2 the age of the population is shown graphically in the communities studied. The data shows that in Pellston the population included in the survey is concentrated in the age groups below twenty years and over forty years of age. This leaves a smaller number in the productive ages between twenty and forty years of age. Lying in the southeastern area of Michigan's lower peninsula Tecumseh shows a "regular" age composition for its members with smaller numbers occurring in each succeeding age group. This gives the community a greater number of productive aged persons in comparison to total population.²⁸

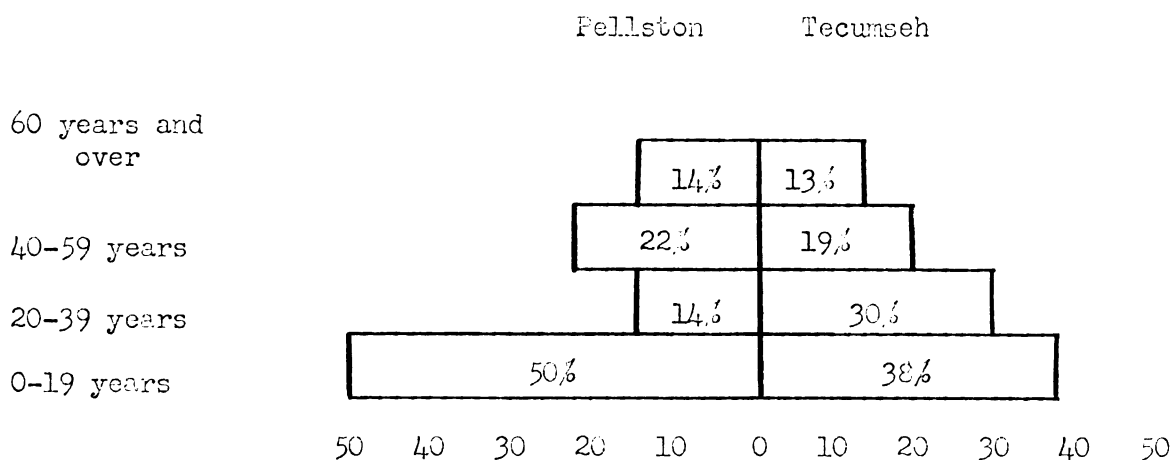


Figure 2. Age composition of the sample of 174 individuals in the Pellston community and 185 individuals in the Tecumseh community.

28. This age composition follows the general age distribution for the areas in which they are located as shown by J. Allan Beagle, Michigan Population: Composition and Change, Michigan State College Agricultural Experiment Station Section of Sociology and Anthropology, East Lansing, Michigan, Special Bulletin 342, November, 1947, pp. 46-47.

The distance which families must travel to the nearest doctor is shown in table I. In Iellston the distance reported was over fifteen miles for all except 6% of the families. In Tecumseh only two percent of the families reported the distance to a doctor as being over fifteen miles.

TABLE I
DISTANCE TO A DOCTOR'S OFFICE REPORTED BY FAMILIES IN
PELLSTON AND TECUMSEH COMMUNITIES

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
1 to 5 miles	-	74
6 to 10 miles	-	16
11 to 15 miles	6	8
16 to 20 miles	36	2
21 to 25 miles	42	-
26 to 30 miles	8	-
Not reported	8	-

Socio-Economic Comparisons

Income and environmental factors affect the health and health care of a population. In the case of the Pellston community a convergence of adverse factors might be expected to be associated with the lack of medical care facilities as will be seen in the following comparisons.

Table II includes various socio-economic factors shown to be related to health and health care. The gross income of families in Pellston is lower, the modal figure being in the \$1000 to \$2000 dollar class while in Tecumseh the modal is higher, occurring in the \$2000 to \$3000 dollar classification. One feature of income not shown for the two communities is that of seasonal fluctuation, which would tend to be greater in the agricultural and resort area of Pellston than in an agricultural industrial area such as Tecumseh.

Table II also shows the relative frequency of modern conveniences in the homes of respondents. Pellston had fewer conveniences than Tecumseh, but the largest difference was in the percentage of telephones. Tecumseh had more than twice as many. The percentage of those having automobiles was nearly equal; although, because of greater distances to many services, need was undoubtedly greater in Pellston where in case of ill health one must travel many miles for medical care. In case of emergency also the limited number of telephones would delay the summoning

of help if the individual needed medical or hospital care. Newspapers and radios were found in fewer homes in Pellston, as were sanitary measures such as running water and inside toilets. While this list included only selected modern conveniences, it indicated a lower level of living for residents of the Pellston community.

Finally, Table II shows the educational attainment of the wife or female head of the family. A higher percentage of all upper school grades were completed by members of the Tecumseh community. This is further shown by modal attainments of the two groups: in Pellston this was completion of the eighth grade and in Tecumseh the completion of high school.

Recent years have found various organizations sponsoring health projects of a preventive or educational nature. In this field many philanthropic, labor, and farm organizations have taken part. The effect of organizational membership then should be an increased awareness of health problems and an increased demand for adequate health resources in the community. Differences are indicated in the communities studied as shown by data not listed here in tabular form. It indicates that while Pellston tended to have higher church attendance, membership in farm and labor organizations was greater in Tecumseh. The ratio of members of labor or farm organizations to non-members is one of every five in Pellston and three in each five for Tecumseh. This indicates greater participation in organizations on the part of Tecumseh people. Considering only the farm population a greater percent of the farmers interviewed in Tecumseh were members of farm organizations than were those in Pellston. Of those listed as non-farm in Pellston 16 $\frac{1}{2}$ were union members. In Tecumseh the

percentage rises to 53, showing a greater organization of both farm and non-farm population in Tecumseh.

TABLE II

SOCIO-ECONOMIC CHARACTERISTICS OF A SAMPLE OF FAMILIES
IN PELLSTON AND TECUMSEH COUNTIES

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Characteristics		
Gross Income, 1948		
\$500-1000	31	12
1,001-2,000	33	14
2,001-3,000	19	38
3,001-5,000	14	28
Over 5,000	3	8
Modern Conveniences in the Home		
Telephone	28	62
Running Water	53	82
Automobile	83	86
Inside Toilet	25	78
Daily Newspaper	86	96
Radio	92	100
Education of Wife or Female Head		
1-4 grades	8	2
5-7 grades	6	4
Completed 8th grade	32	14
Some high school	22	24
Completed high school	17	34
Some college	3	14
Completed college	6	6
Not reported	6	2

* All percentages are based on a percentage of the total population sampled and are rounded to the nearest whole number.

CHAPTER III

HEALTH AND HEALTH CARE IN THE COMMUNITIES

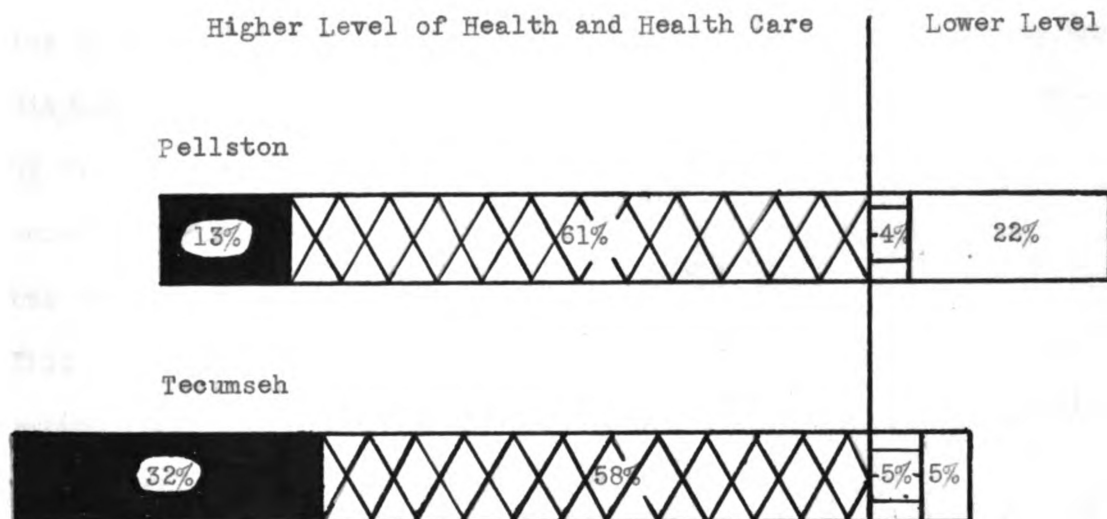
The Level of Health and Health Care

The lack of available health resources in a community, as shown for Fellston in the preceding chapter, should result in lower levels of health and health care in that community.

To test this assumption the "symptoms approach" was used to determine the level of health and health care in so far as need for medical attention is concerned. In the use of the "symptoms approach" it is assumed that any symptom on the list so reported constitutes a medical need and a physician should be consulted for diagnosis and if necessary for treatment. If a doctor has not been consulted an unmet medical need is considered to exist.²⁹

Figure 3 shows a comparison of the level of health and health care in each community as reported by the informant. If a person had one or more symptoms but all were treated he was placed in the first group called "all symptoms treated by M.D. or non-M.D." If no symptoms were reported he was placed in the second group termed

29. Edgar A. Schuler, Selz C. Mayo and Henry D. Makover, M.D. "Measuring Unmet Need for Medical Care--An Experiment in Method" Rural Sociology, Vol. II pp. 152-158, June, 1946.



- All symptoms treated by M.D. or non-M.D.
- ▨ No symptoms reported
- ▤ Some symptoms treated by M.D. or non-M.D. others untreated
- All positive symptoms untreated

Figure 3. Level of health and health care in Pellston and Tecumseh communities

"no symptoms reported." These two classifications combined were termed the "Higher Level of Health and Health Care." The individual for whom symptoms were reported some of which had not received medical diagnosis was classified in the third group as "some symptoms treated by M.D. or non-M.D., others untreated." The fourth group was composed of individuals for whom one or more symptoms were reported, but who had not consulted a physician for diagnosis or treatment. This group was classified as "all positive symptoms untreated", and groups three and four were classified as the "Lower Level of Health and Health Care."

Examination shows that the incidence of symptoms, whether treated or untreated, is nearly equal for both communities. The slightly lower incidence of symptoms in the Pellston community may be due to the larger percentage of individuals in the Pellston sample who were under twenty years of age.³⁰ Significant differences in health care were found in the treatment of reported ill health.³¹ In Pellston twenty-six percent of the individuals in the sample had untreated positive symptoms a ratio of two out of every three persons reporting

30. Health Needs and Health Care in Michigan. Op. Cit. pp. 17-18.

31. The test of the significance of difference between two percentages is based on the null hypothesis that the two percentages were observed from a sample which may have been drawn from the same universe. If the probability of the two percentages differed as widely as those observed was found to .05 or less, the null hypothesis was rejected and the difference was declared significant. See Hapgood, Margaret, Statistics for Sociologists, Henry Holt and Co. New York, 1947, Chapter 17.

positive symptoms having unmet medical needs. In Tecumseh only ten percent of the individuals studied reported unmet medical needs.

A ratio of one person of each four reporting positive symptoms having failed to consult a doctor. The favorable position of Tecumseh is further emphasized by examination of the data for the state health survey of Michigan which reported that for the state as a whole twenty-two percent of the individuals had been reported as having one or more untreated positive symptoms compared to ten percent in Tecumseh. The rural segment of the state sample reported twenty-six percent in this category, a figure similar to the Pellston sample.³²

32. Health Needs and Health Care in Michigan, Op. Cit., p. 15. The figure quoted from the study for comparison with Tecumseh is the total for rural areas as Tecumseh having over 2500 population was classified urban in this study. There are no urban places in the Pellston community; therefore, a comparison was made with the rural part of the state sample.

Table III shows that in both communities a positive relation exists between gross income of the family and the level of health care. As gross family income declines, the percentage of individuals having untreated positive symptoms increased. The comparable income groups in Pellston, however, had consistently lower levels of health and health care than did those of Tecumseh. This indicates that when income is constant the accessibility of medical resources may be an important factor in the health and health care of a community.

Table IV shows the list of twenty seven symptoms used to determine need for medical attention and the action taken in each case. A check of the frequency of occurrence reveals that in the Pellston community a greater number of individuals were reported to have dental trouble and eye trouble. Also, more frequently mentioned were persistent backache and persistent pains in the joints. The Tecumseh community reported a higher incidence for asthma or hay fever and persistent skin rashes or itching of the skin. The differences shown in the occurrence of symptoms were too small to be statistically significant.

The relationship between the occurrence of a recognized positive symptom and its treatment can be shown by taking the number of symptoms reported as receiving medical attention and dividing by the total number of positive symptoms reported. This shows that in the Pellston community thirty-seven percent of the symptoms reported as positive received medical attention. In the Tecumseh community eighty-five percent of the reported positive symptoms received medical attention.

TABLE III
LEVEL OF HEALTH AND HEALTH CARE OF INDIVIDUALS IN
PELLSTON AND TECUMSEH COMMUNITIES CLASSIFIED
ACCORDING TO GROSS FAMILY INCOME

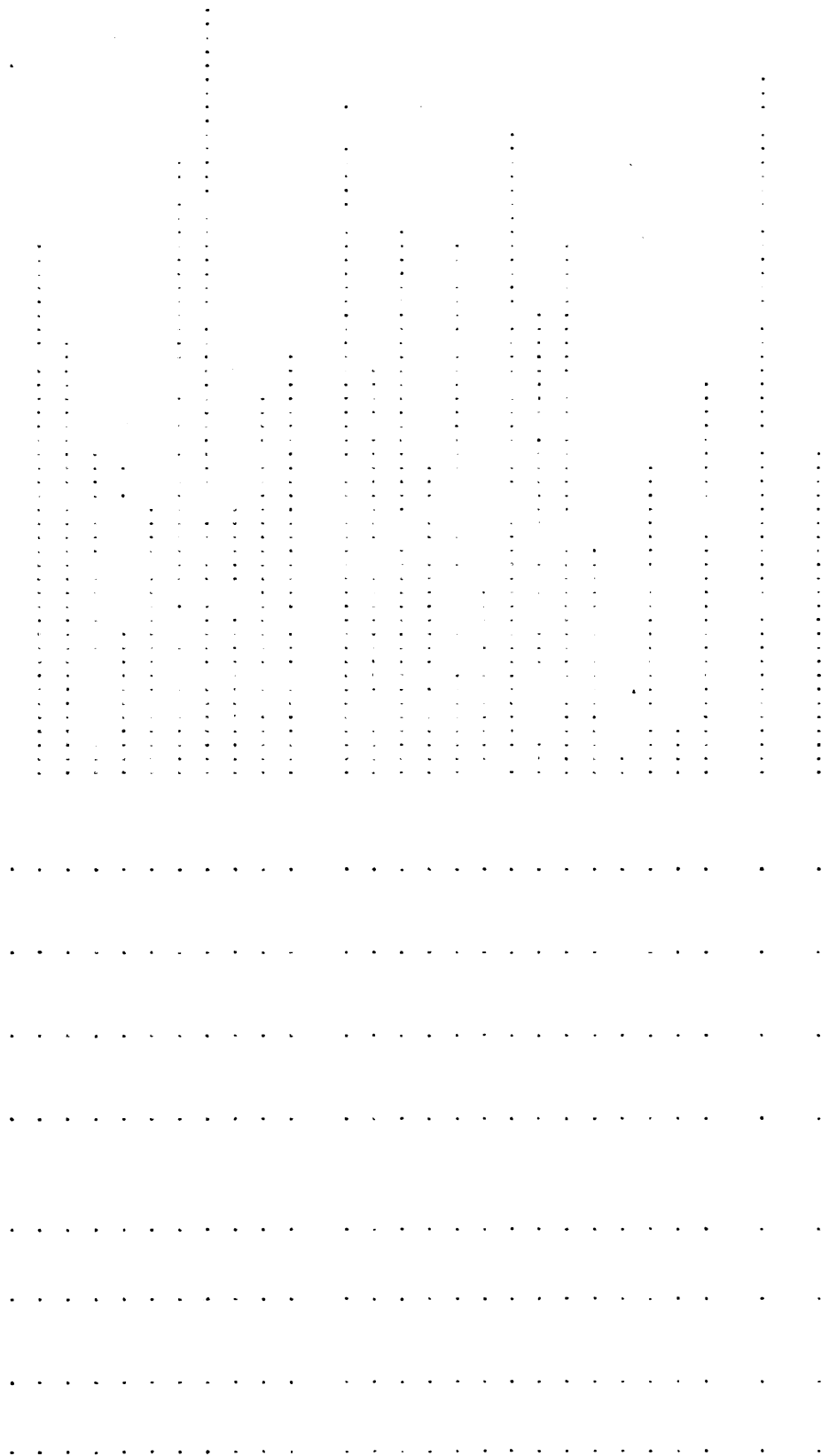
Level of Health and Health Care Gross Cash Income	Pellston			Tecumseh		
	under 1500-3000 1500 3000 & over			under 1500-3000 1500 3000 & over		
Total Number of Individuals	49	66	31	27	91	62
Total Per cent	100	100	100	100	100	100
Higher Level:	65	75	84	85	92	95
No positive symptoms	51	61	74	63	59	53
All positive symptoms treated by an M.D.	12	14	10	22	32	36
All positive symptoms treated by an Non-M.D.	2	0	0	0	1	6
Lower Level:	35	25	16	15	8	5
Some positive symptoms treated by an M.D., others untreated	8	2	0	4	3	2
Some positive symptoms treated by an M.D., or non-M.D., others untreated	2	0	0	0	0	0
All positive symptoms untreated	25	23	16	11	5	3

TABLE IV. — *Continued* — **Number of persons under 13 years of age who were treated by a medical doctor**

Community	Treatment					Reflection				
Number of Individuals	135					144				
Method of Treatment	0	1	2	3		0	1	2	3	
Unexplained loss of weight; persons over 13: 10 lbs. or more in last 6 mos.; persons under 13: any unexplained loss of weight	97.8	0.0	0.0	2.2		96.5	0.7	0.0	2.7	
Continued loss of appetite.....	97.9	0.5	0.0	1.6		98.6	0.0	0.0	1.4	
Unexplained tiredness: regularly.....	95.1	0.0	0.0	4.9		97.2	1.4	0.0	1.4	
Running ear or ears: watery, bloody, pus.....	97.8	0.0	0.0	2.2		96.5	2.1	0.0	1.4	
Blurred vision: for distant or close work, e.g., reading.....	96.2	2.2	0.0	1.6		99.6	6.2	0.7	3.5	
Repeated nosebleeds not due to blow or injury.....	97.8	1.1	0.0	1.1		98.6	1.4	0.0	0.0	
Persistent headaches.....	96.3	0.5	0.0	3.2		96.5	1.4	0.0	2.1	
Toothache.....	97.3	1.1	0.0	1.1		93.0	3.5	0.0	3.5	
Unable to chew food: teeth "sore" or missing.....	97.3	0.5	0.0	2.2		93.1	6.2	0.0	0.7	
Sore mouth: due to plates or bridges.....	98.9	0.0	0.0	1.1		97.9	2.1	0.0	0.0	
Repeated or frequent bleeding gums.....	99.5	0.5	0.0	0.0		97.9	2.1	0.0	0.0	
Persistent skin rashes or itching of skin: "breakout" (one week or more).....	94.6	0.0	0.0	5.4		100.0	0.0	0.0	0.0	
Lumps or discolored patches on skin.....	98.4	0.5	0.0	1.1		98.6	1.4	0.0	0.0	
Persistent pains in chest.....	99.5	0.0	0.0	0.5		98.6	0.7	0.0	0.7	
Persistent cough: (except colds in chest).....	98.4	0.0	0.0	1.6		98.6	0.7	0.0	0.7	
Coughing or spitting blood.....	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	
Severe shortness of breath: after doing light work.....	98.4	0.0	0.0	1.6		96.6	2.7	0.0	0.7	
Asthma or hayfever.....	95.1	0.0	0.0	4.9		98.6	1.4	0.0	0.0	
Repeated or persistent headache.....	96.2	1.1	1.1	1.6		93.1	5.5	0.0	1.4	
Persistent pains in joints.....	95.7	0.0	0.0	4.3		93.0	4.9	0.0	2.1	
Open or running sores or ulcers that do not heal.....	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	
Repeated or persistent swelling of ankles: (Two weeks or more).....	98.4	0.0	0.0	1.6		100.0	0.0	0.0	0.0	
Repeated vomiting: (Several days or more).....	100.0	0.0	0.0	0.0		98.6	0.7	0.0	0.7	
Repeated or prolonged pains in stomach or anywhere in abdomen....	97.3	0.5	0.0	2.2		97.9	1.4	0.0	0.7	
Rupture, hernia, or wearing of truss.....	96.8	1.6	0.5	1.1		94.5	2.7	0.7	2.1	
Fainting spells; Stuttering; stammering; nervous breakdown; fits; convulsions.....	93.9	0.0	0.0	1.1		98.6	0.7	0.7	0.0	
Accidental injuries: broken bones, head or severe injuries, accidental poisoning, snake bites, etc.....	96.8	0.0	0.0	3.2		99.3	0.0	0.7	0.0	

Key

0 = No positive symptom
 1 = No treatment or home remedies
 2 = Treatment by a non-medical doctor
 3 = Treatment by a medical doctor



The difference between these two percent yes or no, is the importance of available medical resources.

(Other data not shown in table III indicated that three percent of the Pallaton individuals were not working because of illness, when the survey was taken. The corresponding percentage was two in Tecumseh. In the six months period preceding the survey fifteen percent of the individuals in Pallaton were reported to have lost one or more days work, because of illness. In Tecumseh the figure was twenty percent. This difference might reflect a variation in occupation or in treatment, although the difference is not statistically significant.

The Use of Health Services

The lack of medical resources in a community would be expected to result in a reduction of their use if the seriousness of illness remained constant. The preceding section demonstrated that a person living in the Tecumseh community is more likely to receive medical attention in cases where a symptom is recognized than are those living in the Pellston community. In order to determine the kinds of medical service utilized and the frequency of such contacts the informant was asked how many times each member of the family had seen a doctor within the period of six months preceding the interview. Table V shows the results of this question. It shows that the percentage of persons who had seen a doctor was greater in the Tecumseh community than in the Pellston community. This indicates significantly greater usage of a physician's services when they are located within the community.³³ A comparison of the communities with the rural sample for the state³⁴ indicates the variations in the average use of a physician's services between the average rural area in Michigan and

33. Significance: The use of a T test of significance gives a confidence value of $>.01$.

34. Comparison of the communities with the rural sample of the state health survey is based upon the hypothesis that although in the Tecumseh community the community center is over 2,500 they share their medical resources with the surrounding community area and are essentially rural in character. Lott and Reeder, Op. Cit. p.7.

TABLE V

PERCENTAGE OF INDIVIDUALS IN FELLSTON AND TECUMSEH COMMUNITIES
WHO SAW A DOCTOR A DESIGNATED NUMBER OF TIMES DURING
THE SIX-MONTH PERIOD PRECEDING THE SURVEY

Community	Fellston	Tecumseh	Rural Part of State Sample
Total Respondents	144	185	1738
Total Per cent	100	100	100
Number of calls			
0	78	58	65
1	10	13	12
2-4	8	19	12
5-10	3	5	6
11 or more	1	5	5

communities in which the availability of such services are varied. It shows that in a community lacking such services, thirteen percent less of the population had consulted a physician. Also the number who had consulted a physician two or more times were less than for the state average. On the other hand, the number in the Tecumseh community consulting a physician was consistently higher than the average for the rural population of the state.

The location of medical personnel engaged in private medical practice to whom families in the Pellston community go for medical care is shown in figure 4. The division of the community follows a fairly regular geographical division with a majority of the persons from the Levering area going to Cheboygan. In the Pellston area a majority of the informants reported Petoskey as their medical care center.

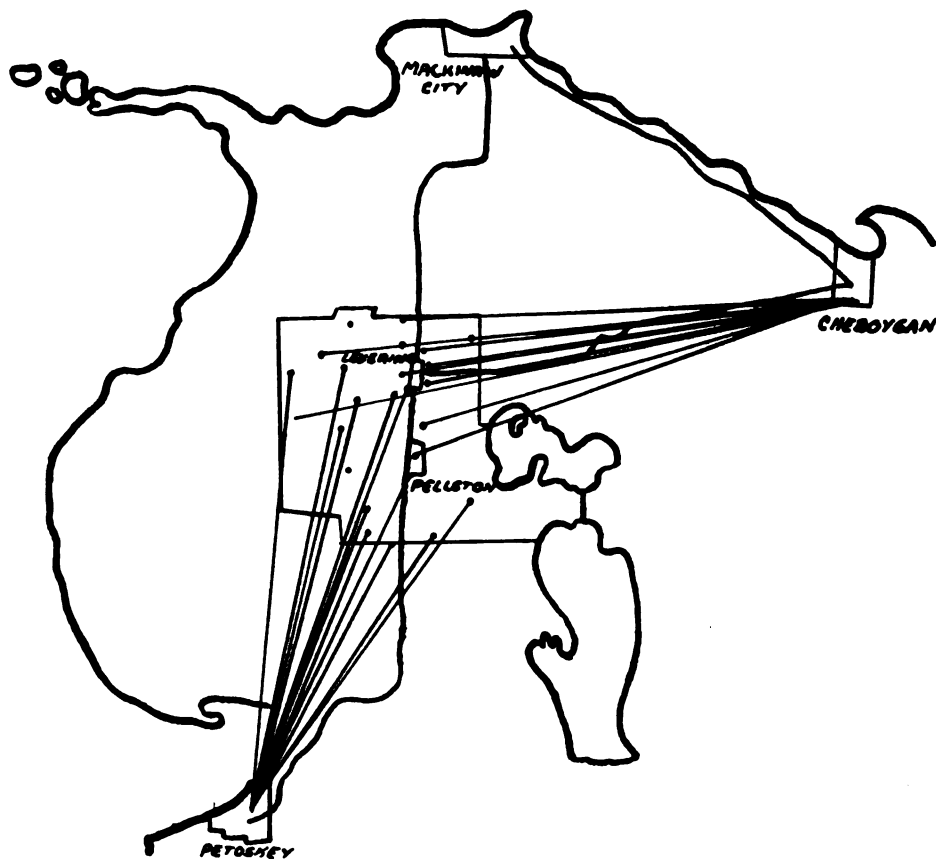


Figure 4. Medical care center for non-village families of Pellston community

Tecumseh is the medical care center for residents in that community except in the trail area lying along the boundary between the Tecumseh and Adrian communities, most of those families going to Adrian for medical care. A few persons, however, go to adjacent community centers for medical care as shown in figure 5.

It is evident from the results reported in Table VI that no home calls were reported by informants in the Pellston community. If all persons received treatment, they either visited a doctor's office or were moved to a hospital for medical attention. In the Tecumseh community where doctors resided and practiced in the community, six percent of the sample reported one or more home calls. A comparison of this percent with figures for the state rural sample indicates that they are similar. It seems probable that if a physician's services had been available in the Pellston community, this type of service might have been utilized.

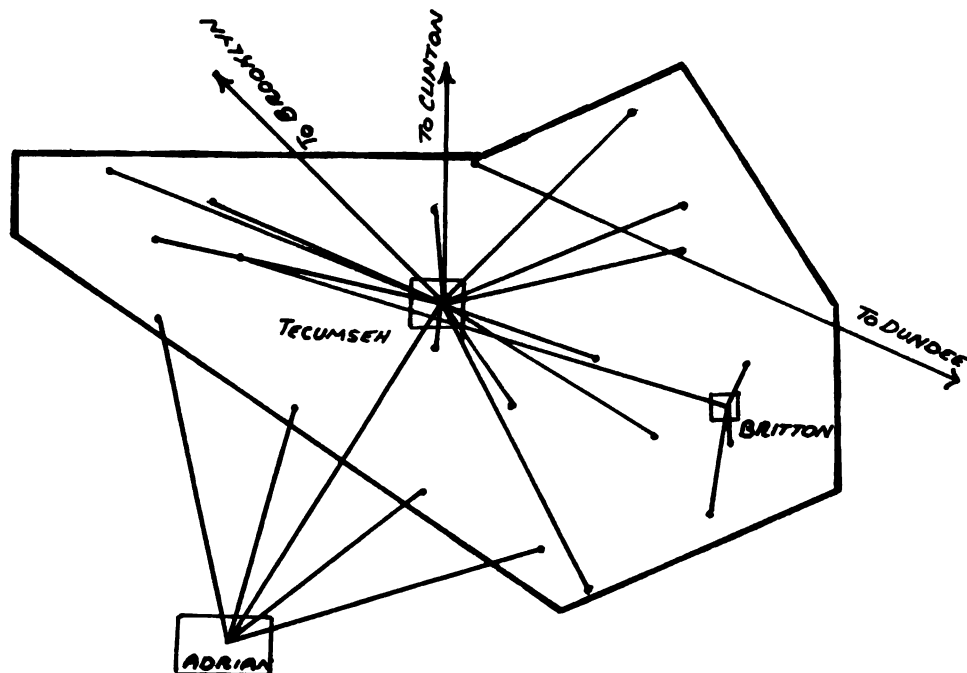


Figure 5. Medical care center for non-village families of Tecumseh community

TABLE VI

THE PERCENTAGE OF INDIVIDUALS IN PELLSTON AND TECUMSEH COMMUNITY
WHO SAW A DOCTOR A DESIGNATED NUMBER OF TIMES AT THE PATIENT'S
HOME DURING THE SIX-MONTH PERIOD PRECEDING THE INTERVIEW

Community	Pellston	Tecumseh	Rural Part of State Sample
Number of Individuals	144	185	1738
Total Per cent	100	100	100
Number of Calls			
0	100	94	94
1	-	3	3
2-4	-	2	2
5 or more	-	1	1

Other data on the use of medical care indicates the kind of doctors utilized by members of the communities studied. Table VII showed clearly that most families consulted a medical doctor and that non-medical doctors are not an important source of health care in either community. Data on the available medical personnel engaged in private practice indicated that only a limited number of other practitioners were available to residents of the communities. Persons reporting no response are those who did not establish contact with a physician.

The establishment of what may be designated as "family" doctor relationships in the communities is indicated by the data in table VIII. The figures show that the "family" doctor relationship is more general in a community having doctors such as the Tecumseh community, where ninety-six percent reported that they had established such a relationship than in Pellston where seventy-two percent of the families reported that they had established such contacts. Eight percent of the families in Pellston reported that they had no doctor to whom they would go in case of illness.

TABLE VII
KIND OF DOCTOR TO WHOM THE PEOPLE OF PELLSTON AND
TECUMSEH COMMUNITY GO FOR MEDICAL CARE

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Medical Doctors	86	92
M.D.'s and Osteopaths	-	-
M.D.'s and other Practitioners	6	4
Osteopaths only	-	2
No Response	8	2

TABLE VIII

"DO YOU HAVE A CERTAIN DOCTOR TO WHOM YOU AND MEMBERS
OF YOUR FAMILY GO FOR MOST OF YOUR ILLS?"

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Yes, a certain doctor	72	96
No, have more than one doctor	20	4
No, have no doctor	8	-

The use of dental services should be reflected in the types of service rendered and in the frequency of their use. The lack of a practicing dentist in a community might be expected to result in fewer dental appointments as well as a greater number of extractions and full dentures with correspondingly less protective service such as fillings or orthodontic procedures. Information obtained on individuals in the two communities included only the frequency of dental use. It failed to reveal any significant differences between the communities. The absence of differences may be due in part to the school dental program, with its examination and follow up, in the Pellston community.

Data given in Table IX is similar for both communities and slightly above the rural average as indicated by the use of dental services and the fewer visits per individual compared to the state rural sample.

TABLE IX

THE NUMBER OF TIMES INDIVIDUALS IN PELLSTON AND TECUMSEH COMMUNITIES
RECEIVED DENTAL SERVICE DURING THE SIX MONTHS PRECEDING THE
INTERVIEW

Community	Pellston	Tecumseh	Rural Part Of State Sample*
Total Number of Individuals	144	125	1738
Total Per cent	100	100	100
Number of Calls			
0	77	77	80
1	18	19	12
2	2	2	3
3	2	1	3
4 or more	1	1	2

*Health Needs and Health Care in Michigan. Special Bulletin
365, Michigan Agricultural Experiment Station, June 1950, p.27.

If an informant reported positive opinions for an individual who had not seen a doctor about it, she was asked why a doctor had not been consulted. Table V shows the most frequently mentioned reason in both Pellston and Tecumseh communities was "too expensive." This indicates the importance of cost, when the individual considers the use of medical services. Other reasons amounting to forty-seven percent in both Pellston and Tecumseh communities were, the symptoms were not thought serious, neglect or just haven't gotten around to it and a lack of time. These reasons indicate reluctance on the part of the individual to seek medical attention unless the symptom caused serious discomfort or inconvenience. The item of distance was reported for ten percent of the individuals in Pellston, although it might have been expected that it would be mentioned more frequently due to the relative isolation of the community to medical services and the added inconvenience of distance. The value of having doctors in the community is indicated, however, by the fact that distance was not mentioned by any informant as a factor in the Tecumseh community.

TABLE X

THE REASONS GIVEN BY INFORMANTS EXPLAINING WHY INDIVIDUALS
HAVING ONE OR MORE UNTREATED POSITIVE SYMPTOMS HAD
NOT SEEN A DOCTOR

Community	Pellston	Tecumseh
Number of Persons having one or More Untreated Symptoms	38	19
Total Per cent	100	100
Too expensive	40	37
Symptoms not thought serious	18	26
Too far-distance too great	10	-
Neglect, just haven't gotten around to it	16	16
Lack of time	3	5
Other reasons	3	11
No response	10	5

In considering the use of hospital services the factors of distance and the use of hospital insurance have been shown to be important. Both communities lie within the generally accepted radius of twenty-five to thirty-five miles or an hour's drive from a hospital.³⁵ Insurance coverage in the communities shows little variation as does the use of hospital facilities. Table XI indicates that the percentage of families in each community reporting the hospitalization of one or more members within the past two years is almost identical. The reason for this similarity is not clear even when the reasons for hospitalization were recorded. Table XII indicates that the most frequently mentioned reasons for hospitalization in both Pellston and Tecumseh were surgery, followed by obstetrics, medical treatment and accident. One difference shown was in the greater number of persons from the Pellston community who reported hospitalization for medical treatment. This fact may indicate that doctors serving Pellston hospitalize patients more frequently for observation due to the distance involved.

35. Bedford W. Bird, and Paul H. Landis, Planning the Rural Hospital and Health Center, The State College of Washington, Agriculture Experiment Station, Division of Rural Sociology, Popular Bulletin 181, August, 1945, p.9.

TABLE XI

PERCENTAGE OF FAMILIES IN WHICH ONE OR MORE MEMBERS HAD BEEN
HOSPITALIZED WITHIN A TWO YEAR PERIOD PRECEDING THE INTERVIEW

Community	Pellston	Tecumseh
Total Respondents	38	50
Total Per cent	100	100
Families having one or more members hospitalized	42	40
Families having no members hospitalized	58	60

TABLE XII
REASONS FOR HOSPITALIZATION REPORTED BY FAMILIES IN
THE PELLSTON AND TECUMSEH COMMUNITIES

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Surgery	19	26
Obstetrics	14	12
Medical treatment	6	2
Accident	3	-
Not hospitalized	58	60

One difference not shown in the presentation of data thus far is the satisfaction expressed by the family using hospital facilities. When asked, "In general, how do you feel about the accommodations and services which were provided by the hospital?" the families in Pellston replied in twenty percent of the cases that they were dissatisfied. In Tecumseh ten percent expressed dissatisfaction with the accommodations and services. The differences are small and were not found to be statistically significant. Nevertheless they may represent a difference in attitude toward hospitals, when they are located out of the community or at a greater distance from the patient's home.

The location of the hospital care center is shown for the Pellston community in Figure 6 and follows closely the location of the medical care center. The bulk of informants in the northern part of the community living near Levering go to Cheboygan and those from the Pellston area go to Petoskey. Mackinaw City might well have drawn from the community but at the time of the survey there were no doctors or hospital facilities there.

Figure 7 indicates the hospital care center for the Tecumseh community. It shows that of the reported uses of hospital facilities most cases were hospitalized in the community. The one person shown going to Adrian had need for specialized facilities not available in Tecumseh; hence he went to Adrian for hospital care. Other cases requiring special facilities might be expected to go to Ann Arbor, a specialist center for this area of the state and located approximately thirty miles from Tecumseh.

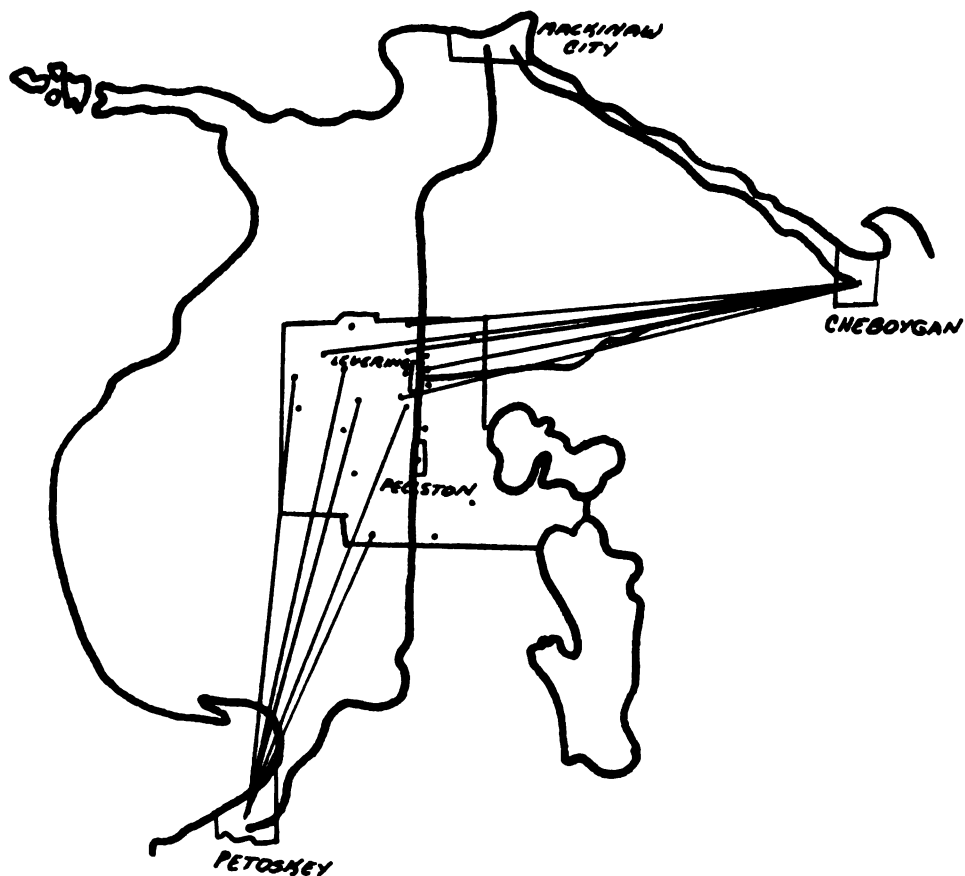


Figure 6. Place where one or more members of non-village families in the Pellston community were hospitalized during the year preceding the survey

Attitudes and Opinions Regarding Doctors

Community disadvantages in the availability of medical resources may foster negative attitudes toward health personnel and facilities, thus actually perpetuating the situation. Certainly if unfavorable attitudes do exist, they would result in reluctance to consult a doctor or to follow his advice in the treatment of ill-health. Therefore, informants were asked a series of questions relating to their feelings about doctors to whom they had gone for advice. The results of this inquiry are shown in the Tables XIII and XIV.

First, the informants were asked to think about their experiences with different doctors. They were then asked to state the things they especially liked about the doctor or doctors whom they liked best. Table XIII indicates that the results were similar for both communities and for the state rural population as a whole. More frequently reported items in the Tecumseh community were interest in the patient and thoroughness in diagnosis and treatment. The greater number making no comment in the Pellston community reflects the lack of medical contact by a larger number of families. These data indicate no significant differences in the "doctor qualities" which informants liked.

Informants were also asked to list the qualities which they had disliked about a doctor or doctors whom they hadn't liked so well. The results are given in Table XIV. A greater number of unfavorable comments were reported by informants of the Pellston community. This fact becomes more significant when one considers that fewer families

TABLE XIII
PERCENTAGE OF INFORMANTS IN FELLSTON AND TECUMSEH
COMMUNITIES MAKING SPECIFIED FAVORABLE COMMENTS
REGARDING DOCTORS

Community	Fellston	Tecumseh ¹	State Rural Sample ²
Total Respondents	36	50	319
Total Per cent	141	140	150
Pleasing Personality	31	30	33
Professional proficiency	28	26	21
Interest in patient	17	28	14
Thoroughness	11	20	17
Explanation and frank- ness about the case.	17	14	16
Reasonable about fees and collection	3	4	5
Willingness to make house calls	3	4	8
Other characteristics	6	2	36
No comment	25	12	-

¹ Some informants made more than one comment whereas others made none; hence, the figures do not necessarily total 100 per cent.

² The state rural sample included categories not listed here, so that all such categories are listed "other characteristics."

TABLE XIV

PERCENTAGES OF INFORMANTS IN PELLSTON AND TECUMSEH COMMUNITIES
WHO MADE SPECIFIED UNFAVORABLE COMMENTS REGARDING DOCTORS¹

Community	Pellston	Tecumseh	State Rural Sample ²
Total Respondents	36	50	319
Total Per cent	150	120	72
Not interested in case	22	8	3
Poor techniques	14	14	8
Ineffective treat- ment	19	8	11
Too hurried	6	12	6
Overcharges	14	8	3
Lacks knowledge (poor training)	11	8	6
Won't make house calls	3	6	8
Not frank	-	6	7
Keeps you coming back	8	-	3
Other dislikes	3	12	17
No comment	50	38	-

¹ Since the informant might make more than one comment, the total percentages of comments need not equal 100.

² Since the data for the state rural sample does not include the category "no comment", only those items which are similar are listed for comparison.

reported medical contact in Pellston is indicated by the greater number making no comment. In Pellston the most frequently mentioned comments were "not interested in case", "ineffective treatment", and "overcharges." Tecumseh listed "poor techniques", and "too hurried" most frequently. Differences in the two communities are statistically significant for "not interested in case",³⁶ and indicate that there is a feeling in Pellston that doctors, whom they have learned to dislike, take little interest in them. This factor when compared with the rural state sample is highly significant.³⁷ This may indicate that a lack of interest is felt, when patients are forced to go outside of the community for medical care.

36. T test of significances for "not interested in case" Pellston vs. Tecumseh $>.05$ Level of Confidence

37. T test of significance Pellston vs. Rural Sample $>.01$ Level of Confidence.

Following the questions about qualities they liked or disliked in doctors the informants were asked, "On the whole have you been satisfied with the help you have received from doctors or not?" The responses to this question are shown in Table XV. The data are similar for all three samples listed, if the persons reporting "no help" in Pellston community are added to those reporting satisfaction with the help they have received from doctors. It indicates a widespread favorable attitude toward doctors which is not changed by local conditions of practice. The differences are not statistically significant, though slightly fewer persons in Tecumseh reported dissatisfaction and a slightly greater number were uncertain.

Many people believe that more doctors are needed in Michigan. In order to determine the effect of a lack of medical resources on the attitudes of members of a community toward this need, informants were asked, "In your experience do you think that we have enough doctors or do we need more general M.D.'s or more specialists, or both?" The informants in both Pellston and Tecumseh communities were agreed as were those in the state rural sample that more doctors are needed, but those in Pellston felt the need more strongly, where three out of every four stated that more doctors were needed. This suggests that the residents of Pellston were concerned about the lack of a doctor in their community. In Tecumseh and the state rural sample approximately three out of every five persons felt that more doctors were needed. In general, informants agreed that more general medical doctors were needed,

TABLE XV

SATISFACTION WITH THE HELP RECEIVED FROM DOCTORS BY
INFORMANTS IN THE PELLSTON AND TECUMSEH COMMUNITIES

Community	Pellston	Tecumseh	State Rural Sample
Total Respondents	36	50	319
Total Per cent	100	100	100
Satisfied	81	88	87
Not satisfied	8	6	11
Uncertain	3	6	-
Had no help	8	-	2

while smaller numbers felt that both general medical doctors and specialists were needed.³³ Although the differences are small, Table XVI indicates that the informants in Pellston community felt the need for additional doctors more than did those in the Tecumseh community. The figures for the Tecumseh community were, however, more nearly similar to data for the state rural population.

Table XVII shows the response to the question, "If some community needed more doctors, do you have any idea how it could get them?" In a community this could reveal the extent of planning or education on this subject, or it might indicate a characteristic type of problem solving in the community. Despite the fact that Pellston community felt the need most strongly, replies in both communities revealed a general lack of knowledge of or plan to obtain a doctor. Seventy-two percent in the Tecumseh community or approximately three-fourths of the informants stated that they did not know how a doctor could be obtained. In Pellston one in every six informants suggested petitioning for more doctors. In the Tecumseh community four persons suggested that we train more doctors. The fact that these suggestions were restricted to their respective communities may reflect a difference in problem solving in the communities. The differences found in Table XVII are not statistically significant. A comparison with

33. "Need both specialists and general medical doctors."
Pellston vs. Tecumseh .01 confidence level
Tecumseh vs. State Rural Sample .01 confidence level

TABLE XVI

PERCENTAGE DISTRIBUTION OF OPINIONS CONCERNING THE NEED
FOR MORE DOCTORS IN THE PELLSTON AND TECUMSEH COMMUNITIES

Community	Pellston	Tecumseh	State Rural Sample
Total Respondents	36	50	319
Total Per cent	100	100	100
Have enough doctors	11	22	21
Need more doctors	75	56	59
More general M.D.'s	50	42	30
More specialists	6	12	8
Both specialists and general doctors	19	2	21
Uncertain	11	22	15
No response	-	-	1
Need more good doctors	3	-	4

TABLE XVII

OPINIONS GIVEN BY INFORMANTS IN PELLSTON AND TECUMSEH COMMUNITIES
ON HOW A COMMUNITY NEEDING MORE DOCTORS MIGHT OBTAIN THEM*

Community	Pellston	Tecumseh	State Rural Sample
Total Respondents	36	50	319
Total Per cent	107	102	100
Don't know	75	72	75
Train more doctors	-	8	6
Provide facilities for doctors	6	4	7
Get young doctors from training schools and hospitals	-	6	2
Petition for more doctors	19	-	2
Get doctors from com- munities that are oversupplied	-	4	1
Use the local doctors	6	2	1
Others (not specified)	3	6	4
No response	-	-	2

* Percentages may total over 100 per cent as respondents might mention more than one item.

the state rural sample indicates that in general three out of every four persons included, as in the communities, could make no suggestion as to how a community might obtain a doctor if one were needed.

Attitudes and Practices Regarding Pre-payment

Plans for Medical Care

The relative isolation of the Pellston community, with its larger number of farmers might be expected to result in fewer persons using, and favoring, prepayment plans for medical care. The fewer number of non-farm residents should decrease the numbers having health insurance as employees of industrial plants often have medical care plans included in their work agreements or allow deductions for participation in group plans. To determine the use of prepayment plans for the payment of hospital and medical expenses informants were asked, "Do you or any member of your family have insurance to pay for all or a part of (a) Hospital bills? (b) Fees for surgery? (c) Doctors fees other than surgery?" Data in Table XVIII shows that over one-half of the families interviewed in both communities had one or more members who had insurance to pay for hospital bills. A smaller percentage of families in the Pellston community reported such coverage but the difference was not statistically significant. Proportionately fewer families in both communities reported insurance to cover fees for surgery. One-third of the families in Pellston and one-half of those in Tecumseh reported that one or more members had such coverage.

Family insurance coverage in Pellston tends to be near the state average as shown in Table XIX, but exceeds that found in Tecumseh by twenty-two percentage points. The number of families involved is

TABLE XVIII

PERCENTAGE OF FAMILIES IN THE PELLSTON AND TECUMSEH
COMMUNITIES IN WHICH AT LEAST ONE MEMBER HAD INSURANCE
FOR ALL OR PART OF THE HOSPITAL BILLS AND FEES FOR
SURGERY

Community	Pellston		Tecumseh	
	Hospital	Fees for Surgery	Hospital	Fees for Surgery
Total Respondents	36	36	50	50
Total Per cent	100	100	100	100
Have insurance	53	39	58	46
Do not have insurance	44	58	42	54
Uncertain	3	3	-	-

TABLE XIX

PERCENTAGE DISTRIBUTION OF FAMILY MEMBERS IN THE
PELLSTON AND TECUMSEH COMMUNITIES INCLUDED IN IN-
SURANCE PLANS TO PAY FOR ALL OR PART OF HOSPITAL
AND SURGICAL EXPENSE AMONG FAMILIES REPORTING SUCH
INSURANCE

Community	Pellston		Tecumseh		State Rural Sample	
	Hospital	Surgical	Hospital	Surgical	Hospital	Surgical
Number of Families	20	16	29	23	154	135
Total Per cent	100	100	100	100	100	100
All eligible members	60	63	38	39	65	69
Husband or male head only	5	6	21	17	12	10
Wife or female head only	10	-	7	4	11	11
Husband and wife only	5	6	27	31	-	-
Son only	5	-	-	-	5	2
Others	15	25	7	9	6	6
Not reported	-	-	-	-	1	2

* Only families reporting such insurance are listed.

small so that tests of significance are not feasible. The percentage may, however, be lower in Tecumseh due to the type of medical and surgical insurance included in the union contract with Tecumseh Products Company, a leading employer in the community. Under this contract employees may receive hospital and surgical benefits which expand according to the length of time the employee has been employed by the company. An employee with a short period of service may be covered by the company, but members of the family would not have this protection. After continued service other members of the family may be brought under the plan, thus a wide difference between the total family coverage in Pellston and Tecumseh might result.

The question used to determine the general attitude of informants towards prepayment plans was "In general do you think that insurance plans for paying doctor and hospital bills are a good idea or not?" Replies to this question in Table XX indicate general acceptance in both communities with eighty-three percent in the Pellston community and eighty-two percent in the Tecumseh community in favor of such a plan. When these figures are compared to the figures for the state rural sample, they are found to be similar for eighty-nine percent of the state sample were reported as favoring prepayment plans for paying doctor and hospital bills. The remainder were listed as uncertain except for one informant in each community, who stated that he did not favor such a plan.

Residents of both the Pellston and Tecumseh communities endorsed the use of prepayment plans in extending adequate medical care to the

TABLE XI

OPINIONS BY INFORMANTS IN PELLSTON AND TECUMSEH COMMUNITIES
REGARDING INSURANCE PLANS FOR PAYING HOSPITAL AND DOCTOR BILLS

Community	Pellston	Tecumseh	State Rural Sample
Total Respondents	36	50	319
Total Per cent	100	100	100
A good idea	83	82	89
Not a good idea	3	2	5
Uncertain	14	16	5
No response	-	-	1

population. The method of extending such coverage is, however, a controversial subject. Many feel that the only feasible way is a comprehensive governmental prepayment plan, while others believe that the present voluntary plans with subsidy for the medically indigent represent a superior method. In order to determine the effects of a lack of medical resources on attitudes toward such plans informants were asked, "Do you favor some kind of a government sponsored plan to pay for health services?" Responses in Table XIII show that results were similar in both communities. In Pellston thirty-three percent and in Tecumseh thirty-four percent favored such a plan. In comparison with the earlier state rural sample in which a slightly different wording of the question was used, the results show that in both communities the number of informants who were uncertain was greater, while the number favoring such a plan were fewer.³⁹ The number opposing such a plan, however, was more nearly constant for all areas studied.

39. Statistical test of data indicate that such difference when the T test is used is .05 or by use of Chi-square X^2 equals 45.6 giving a .0001 level of confidence.

TABLE XXI

OPINIONS OF INHABITANTS IN PELLSTON AND TECUMSEH COMMUNITIES
REGARDING GOVERNMENT SPONSORED PLANS FOR HEALTH SERVICES

Community	Pellston	Tecumseh	State Rural Sample
Total Respondents	36	50	319
Total Per cent	100	100	100
Yes	33	34	51
Uncertain	36	28	16
No	27	36	25
No response	4	2	8

A determination of the percentage of individuals having insurance to pay for hospital bills is not exact. However, dividing the number of families having full coverage by the total number of families interviewed may give an approximation. In the Pellston community this indicates one-third of the families have such coverage and in the Tecumseh community twenty-two percent or less than one-fourth have such coverage. The addition of the individuals covered from families not having all members insured indicates that between one-third and one half of the individuals included in the sample had some type of hospital insurance. Those having insurance to pay the fees for surgery were proportionately less.

CHAPTER IV

EXPENDITURES FOR HEALTH AND HEALTH CARE

The cost of health care is an important consideration for the family while the aggregate purchasing power represented by the community is a determining factor in the attraction of health personnel engaged in private practice and related facilities. Consequently, in this survey an attempt was made to estimate the average cost of health care per family included in the sample. Estimates were then made for the community by increasing the average family expenditure by the estimated total number of families in the community. Estimates were thus obtained for each health care item and for the total health care expenditure.

The method used to obtain information about cost was to question the informant about health expenditures for the six months period immediately preceding the survey. The questions were then repeated for the previous six months, thus information covering a full year was obtained. This method was used to aid recall by the informant and minimize under-reporting, which may occur if longer periods of time are used. Information was classified according to the following items: doctor care, appliances and casts, glasses and optical care, dental care, nursing care, health and hospital insurance, and drugs and medical supplies.

The figures are presented in table XXII showing the estimated amounts spent per family in each of the two communities. The total

TABLE XXII

AVERAGE EXPENDITURES REPORTED BY FAMILIES IN THE PELLSTON
AND TECUMSEH COMMUNITIES FOR DESIGNATED HEALTH SERVICES
DURING THE YEAR PRECEDING THE SURVEY AND ESTIMATES FOR THE
ENTIRE COMMUNITY

SERVICE	Pellston 36 families	Tecumseh 50 families	Estimated Expenditure* For Entire Community	
			Pellston	Tecumseh
Doctor care in- cluding fees for surgery	\$47.67	\$65.59	\$18,114.60	\$126,260.75
Dental care	21.50	16.96	8,170.00	32,648.00
Drugs including prescribed and other purchases	20.46	12.89	7,774.80	24,813.25
Glasses and opti- cal care	6.15	7.23	2,337.00	13,917.75
Hospitalization and hospital insurance	30.43	28.12	11,563.40	54,131.00
Nursing care	.11	5.16	41.80	9,933.00
Appliances and casts	-	3.81	-	7,334.25
	\$126.32	\$139.76	\$48,001.60	\$269,038.00

* Obtained by multiplying the average per item for the sample families by the estimated number of families in the community, 380 in Pellston and 1925 in Tecumseh.

amounts are similar, although along certain categories variations are evident. The average number of individuals per family interviewed in the Tecumseh community was slightly lower than for families interviewed in the Pellston community.⁴⁰ The amount spent for doctor care was, however, greater per family in Tecumseh where the average cost per family was approximately eighteen dollars more per year.⁴¹ This difference is in agreement with earlier findings on the use of a doctor in which the amount of doctor care was found to be greater in Tecumseh. Expenditures were also greater in Tecumseh for nursing care, appliances and casts. Expenditures for other categories show a much smaller difference. The average for these items is approximately two dollars greater for Pellston, but this differential fails to reflect the families in Tecumseh who as employees of the Tecumseh Products Company have hospitalization and certain other medical service provided in their work contract with the company.

The amount spent for dental care by the families in Pellston was higher than that spent for dental care in Tecumseh. The reason is not evident, although it may to some extent reflect a very active public health program of checking the teeth of school children in the community. The data shows that Pellston had a lower

40. Families interviewed in Pellston average four individuals and those in Tecumseh 3.7 individuals per family.

41. Actual difference spent between Pellston and Tecumseh for doctor care was \$17.92.

rate of reporting dental work but more individuals in the higher cost bracket. Three reported over \$100 total cost while no one in Tecumseh had costs greater than \$100. An interesting fact is the greater cost of drugs for the Pellston community, where the average cost was approximately one third more than for Tecumseh, but the survey did not reveal the reason for this difference.

Expenses for health and health care were not statistically significant for differences between Pellston and Tecumseh, because variations and numbers were small. The data shows, however, that the burden of health care expense was relatively greater in Pellston which had lower gross incomes per family and lower health levels. Using the median gross income for the communities as a base, it can be determined that the cost of medical care was seven and two-tenths percent of the family income in Pellston. In Tecumseh it was five and one-tenth percent of the median gross family income.

Distribution of expense appeared less general in Pellston where a larger number of families reported no expense in the health care categories. Twenty-seven percent reported no doctor or surgical expense in Pellston, while the corresponding percent was six for Tecumseh. The greater cost of drugs as noted suggests that failure to consult a doctor may result in greater use of drugs by the family.

The estimated total health expenditures in the communities indicate an important difference in purchasing power between a

community which lacks private health resources and one attracting a reasonably adequate supply. The estimated total expenditure for doctor care in the Pellston community, however, could not be considered available to a doctor were he to locate in the community center. This figure included fees for surgery while an undetermined number of persons now going outside of the community for doctor care, would continue to do so despite the inconvenience. In addition the lack of other health personnel and facilities would not prove attractive to a doctor planning to engage in private practice. In view of these facts it appears likely that the community will not attract a physician nor the associated health services and will continue to secure these services in the neighboring communities of Petoskey and Cheboygan.

CHAPTER V

FAMILIARITY WITH AND USE OF THE LOCAL HEALTH DEPARTMENT

The work of the public health department is an important part of any community health program; however the services which it is called upon to perform may vary between communities. In areas lacking private health care resources, it may have important functions in the provision of such care as well as the function of preventive practices.

The Pellston community was served by a district health department⁴² which had been established for a period of years and was engaged in an active program of public health work. Lenawee county in which Tecumseh is located, had established a county health department only within recent years. Thus one might expect a greater recognition of health department activities in the Pellston community.

Table XXIII gives the response to the question, "Would you say that you are acquainted with the work of the district or county health department?" The data show that in the Pellston community forty-four percent and in the Tecumseh community

42. District health department number three covers Emmet, Charlevoix, Antrim and Otsego counties with its health officer living at Boyne City, and maintaining one nurse at Pellston in the community surveyed.

TABLE XXIII

PERCENTAGE DISTRIBUTION OF INFORMANTS ACQUAINTED WITH THE
WORK OF THE LOCAL HEALTH DEPARTMENT IN THE PELLSTON AND
TECUMSEH COMMUNITIES

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Yes--Acquainted	44	26
No--Not acquainted	50	64
Uncertain	6	10

twenty-six percent of the informants were acquainted with the work of the local health department. The differences are not statistically significant, but do indicate that the people of Pellston are more familiar with the work of their health department. Both communities, however, showed a considerable lack of information about the public health program in their community, as over one-half reported that they were not acquainted with the work of the health department.

When asked further if any member of the family had been examined or advised by the local health department in the past year, a greater number in Tecumseh gave an affirmative reply, as shown in Table XXIV. This undoubtedly reflects a recent hearing examination within the Tecumseh community schools as was reported earlier. The foregoing questions reveal then, that although nearly one-third of the families in each community contained one or more members examined or advised by the local public health unit, knowledge of its program and local activities is rather limited.

In order to discover the extent to which each community had been protected against certain selected diseases, all respondents were asked, "Have the members of your family been vaccinated or immunized for small pox, diphtheria and whooping

TABLE XXIV

PERCENTAGE OF INFANTS REPORTING THAT ONE OR MORE
MEMBERS OF THEIR FAMILY HAD BEEN PERSONALLY EXAMINED
OR ADVISED BY A PUBLIC HEALTH NURSE OR OFFICER WITH-
IN THE PAST YEAR

Community	Pellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Yes	31	38
No	69	62

caught?"⁴³ The results of this inquiry show that Yellston which had an active public health immunization program reported a greater number protected than did Tecumseh, which had no such program. In both communities the number immunized was greater than in the state rural sample, which reported approximately two-thirds of the rural sample protected.

43. This question was asked only for individuals as recommended by public health specialists. It was asked for smallpox for all persons over one year of age and for diphtheria and whooping cough only for those from six months to sixteen years of age.

TABLE XXV

PER CENT OF INDIVIDUALS IN DESIGNATED AGE GROUPS IN
PELLSTON AND TECUMSEH WHO WERE VACCINATED OR IMMUNIZED
AGAINST SMALLPOX, DIPHTHERIA AND WHOOPING COUGH*

Community	Pellston	Tecumseh	State Rural Sample
Smallpox:			
Total number who should be vac- cinated*	144	185	1696
Per cent of these who have not been vaccinated.	8%	16%	33%
Diphtheria:			
Total number who should be immunized*	61	63	623
Per cent of these who have not been immunized.	8%	24%	33%
Whooping cough:			
Total number who should be immunized*	61	63	620
Per cent of these who have not been immunized.	18%	19%	32%

* In the survey the question on smallpox included all individuals over one year of age. In the case of diphtheria and whooping cough, it was only asked for individuals from six months to sixteen years of age.

A final question to test the recognition of health needs in the community and specific problems about which the community was actively concerned was "Do you feel that this community has a major health problem?" The results in Table XVII indicate that a majority in both communities felt that no major health problem existed. Nineteen percent in the Pellston community and twenty-six percent in the Tecumseh community felt that such a problem might exist but they weren't sure. The remaining twenty-eight percent in Pellston who believed that a problem existed stated in over one half of the cases that lack of a doctor in the community was a problem. In the Tecumseh community the single item most frequently mentioned was sewage disposal. Other informants noted local conditions which they thought unsatisfactory. Differences between the communities were not statistically significant and indicate a general lack of concern about local health problems by a majority of the population.

TABLE XXVI

PERCENTAGE OF INFORMANTS WHO STATE THAT A MAJOR HEALTH
PROBLEM EXISTS IN THEIR COMMUNITY AND THEIR REASONS

Community	Fellston	Tecumseh
Total Respondents	36	50
Total Per cent	100	100
Yes	28	18
Sewage disposal	-	8
Lack of doctor	17	-
Other problems	11	10
No	53	56
Uncertain	19	26

CHAPTER VI

SUMMARY AND CONCLUSIONS

This study indicates that the present system of providing medical care results in disadvantages for a community such as Pellston having insufficient purchasing power to attract a physician or the related services so necessary to the concept of modern health care.

The inconvenience and cost of traveling long distances to adjoining community centers for health care has resulted in significant differences in the treatment of positive symptoms recognized by the informants. In Pellston, the community having no doctor, only one out of every three positive symptoms recognized by the informant received medical attention. In Tecumseh, where the doctors were located in the community center, three out of every four positive symptoms recognized received medical attention. This relationship remained true even when the informants were classified according to the gross family income and indicated a consistently lower level of health care for the Pellston community. The larger percentage of persons having no positive symptoms treated also occurred in the Pellston community where a greater number of families reported lower incomes, fewer modern conveniences in the home,

and lower levels of education. They also reported no home calls by a physician, apparently due to the distance.

Although the residents of Fellston were forced to go outside of the community for medical care only four informants mentioned distance as the reason for not consulting a doctor. More frequently mentioned in both communities was cost, indicating that among families cost is an important reason for failure to consult a doctor. Other reasons frequently mentioned were "the symptoms were not thought serious" or "neglect." Distance was not mentioned as a factor in Levensen.

Expenditures for health care during the twelve month period preceding the survey were found to be lower in the Fellston community, where the average cost per family was \$126.31 per family. In Levensen the average cost per family was \$132.76 with the major amount of this increased expenditure going for doctor care. The most important items of medical expense in the communities were doctor care and fees for surgery, hospitalization, and hospital insurance. Dental care, drugs, glasses and optical care composed the remainder of the cost. A comparison of the average cost of health services with the median gross family income, indicated that families in Fellston spent a larger percent of their family income for health care.

The distance to a hospital was not excessive in either Pellston or Tecumseh community, where two of every five families reported that one or more members had been hospitalized within the last year or two. This figure corresponds closely with the hospitalization reported for the rural segment of the state wide study, as did the use of insurance to pay a part or all of the hospital bills. Approximately one half of the families reported that one or more members had hospital insurance with proportionately fewer having such coverage for surgical fees.

Attitudes and opinions about doctors were found to be similar within the communities studied and to correspond closely with the rural part of the state study. A similar correspondence was found in information obtained about prepayment plans, where a general acceptance of voluntary insurance plans was expressed by four-fifths of the families. When informants were asked if they favored a government sponsored plan to pay for health services, replies indicated that a division of opinion existed with a greater number in the communities uncertain while fewer favored such a plan than in the state study. The similarity of attitudes and opinions for the community and state surveys indicated that the opinions on these subjects were widely held and were not influenced strongly by local conditions.

Informants were not well informed on public health department activities. Less than one-half reported that they were acquainted with its work. About one-third of the families

interviewed reported that one or more members had been personally examined or advised by a public health nurse or officer within the past year. Vaccinations and immunizations for smallpox and diphtheria indicate that a higher percentage were protected in Pellston, the community without medical services in the community but with an active public health program.

In conclusion this study indicates differences between communities in which the operation of our present institutional forms associated with the treatment of ill health have produced varying health resources. The necessity for medical care in the Pellston community has been met to some extent by an increase in the health activities of the publicly supported district health department. Private agencies such as the "Children's Fund of Michigan" have subsidized special correctional work in the community and the use of voluntary prepayment insurance plans have aided in the payment for health services. In spite of these efforts levels of health and health care were lower in the Pellston community than in the Tecumseh community, where operation of the present system provided a reasonably adequate supply of health resources. This appeared to result in a comparative curtailment of public health activities in the Tecumseh community and a higher population ratio per public health department employee.

Despite the current inadequacies and differences in the method of meeting health care needs of the population, the

tendency for institutional forms to resist change was reflected in the opinions expressed in the communities studied. The similarity to the state study indicates that traditional beliefs and inertia on the part of the population with respect to health problems stand in the way of meeting the health needs of disadvantaged areas.

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MICHIGAN HEALTH SURVEY

All information in this schedule is strictly confidential and under the exclusive control of the Social Research Service of Michigan State College. Names of all persons referred to in this schedule will not be quoted or made public in any way.

1-3 Schedule Number: _____ 4-5 County: _____ 1-3 _____
 Post Office Address: _____ 4-5 _____
 Sample area: 1-Rural () 2-Village () 3-Metro. area () 4-City () 6 _____
 Segment number: _____ 7-9 _____
 Interviewer's initials: _____ 10 _____

Code for Row 16, Page 2: Interview Type

Check one

- 0 - Not an informant
 1 - Informant (female head or single male head), Part I (family) and Part III
 2 - Informant Part I (self only), II and III
 3 - Informant for Part I (family), II and III

()

()

()

Code for Row 18, Page 2: (Person No.) _____

Dates of Calls and Interview

Call Number	Call	Interview	
		Completed	Not completed
First			
Second			
Third			

My name is and I'm from Michigan State College. We're making a health survey in homes all over the state of Michigan. Could you give me a few minutes of your time right now? For instance, we want to know if any member of your family has had any of these symptoms in the last six months... But first I need to know what people there are here, and their relation to the head of your family. What is the name of the head of the household? And may I ask his (her, your) age? Who else is there in the family? And his (her) age? What relation is he (she) to the head of the household?

Code for symptoms:

- If negative, enter a dash ()
 If positive and untreated (except for home care), enter "1"
 If positive and treated by non-M.D., enter "2"
 If positive and treated by M. D. or dentist, enter "3"

Code for vaccination and immunization:

- If not vaccinated and has not had disease, enter a dash ()
 If vaccinated and has not had disease, enter "1"
 If not vaccinated but has had disease, enter "2"
 If vaccinated and has had disease, enter "3"
 If under minimum or over maximum age indicated, enter "4"

For each symptom reported as positive:

- "Did You (he, she) do anything about (for) it or not?"
 (If other than home treatment or remedies ask;)
 "Was this an M. D. or not?"

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PART I MEDICAL NEEDS

(H,W,S,D,P,L,B,SS,GC,N)

[illegible]

Have you or any member of your family put off or postponed going to a doctor for any other reason? 62

62

1-No () 2-Yes (probe for reason)_____

PART II

PRACTICES AND OPINIONS REGARDING HEALTH SERVICES

Schedule No. _____

Now there are all kinds of doctors just like there are all kinds of other people. Some people like what one doctor does. Others like what another doctor does. Suppose you think about the experiences you have had with different doctors. Just think of one or two you have liked best - we are not interested in their names - and tell me what you especially liked about them.

A _____ 4 _____

B _____ 5 _____

Do you have any other comments?

C _____ 6 _____

Now think of one or two you didn't like so well. What didn't you like about them?

A _____ 7 _____

B _____ 8 _____

Anything else?

C _____ 9 _____

A. You just mentioned when we were talking about the doctors you liked that one thing you thought was important was that (A) _____.
Do you feel that that is pretty typical of doctors in general, or not?

1-Typical () 2-Not typical () 3-Uncertain () 10 _____

B. Well, how about your statement that (B) _____.
Is it typical?

1-Typical () 2-Not typical () 3-Uncertain () 11 _____

C. You also said that (C) _____ . Do you feel that that's typical?

1-Typical () 2-Not typical () 3-Uncertain () 12 _____

A. I think that covers the things you said you liked about the one or two doctors you liked best. Now here are one or two things you mentioned about doctors you didn't care as much for. You said (A) _____ .
(Mention only items which are not clearly the opposite of those named in Questions 4, 5, and 6.) Do you feel that that is pretty typical of doctors in general, or not?

1-Typical () 2-Not typical () 3-Uncertain () 13 _____

B. How about your statement that (B) _____ . Do you feel that that is typical of doctors in general, or not?

1-Typical () 2-Not typical () 3-Uncertain () 14 _____

C. You also said that (C) _____ . Is that typical?

1-Typical () 2-Not typical () 3-Uncertain () 15 _____

Do you have any other feeling about doctors in general, either one way or the other?

_____ 16 _____

_____ 17 _____

On the whole, have you been satisfied with the help you have received from doctors, or not?

1-Satisfied () 2-Not satisfied () 3-Uncertain () 4-Had no help () 18 _____

(If "2" to 18) What sort of things aren't you satisfied with? _____ 19 _____

So far as you know are your friends and relatives satisfied with the help they have received from doctors, or have you heard them make complaints?

1-Satisfied () 2-Made complaints () 3-Uncertain () 20 _____

(If "made complaints") What sort of things have you heard them say? _____ 21 _____

How many different doctors have you consulted in the last five years?

How many different specialists have you consulted in the last

Have you (and the members of your family) always been able to get a doctor's help when you needed it, or have you had trouble in getting a doctor's help? 24

- 1-Always got one () 2-Had trouble () 3-Uncertain ()
4-Haven't tried ()

(If 2 is checked on 24) when was the last time this happened? 25
1-Year _____ 2-Month _____

Would you mind telling me about it? 26
(write for: A. Who needed a doctor? _____

B. Why couldn't a doctor come? _____ 27

C. What did you do about it? _____ 28

D. What were the results? _____ 29

In your experience do you think that we have enough doctors or do we need more general M.D.'s or more specialists; or both? 30

- 1-Have enough () 2-General M.D.'s () 3-Specialists ()
4-Both () 5-Uncertain () 6-Need more good doctors ()
(If 2 or 3) Why do you feel that way? _____ 31

(If more needed in 30) Do you feel that this problem is so serious that something ought to be done about it? 32
1-Yes () 2-No () 3-Uncertain ()

If some community (town) needed more doctors do you have any idea how it could get them? 33
Don't know ()

Have you (or any members of your family) ever gone to an osteopath or other doctor who was not an M.D.? 34

- 1-Yes, self only () 2-Yes, other members () 3-Self and others ()
4-No () 5-Uncertain ()

(If "yes" to question 34) Was he an osteopath, chiropractor, or other kind of doctor? 35
1-Osteopath () 2-Chiropractor ()
3-Other (specify) _____

When was the last time you (or some member of the family) went to him? 36
1-Within the last year () 2-Before the last year ()
3-Uncertain ()

What kind of trouble did you (or members of your family) have the last time you went to him? 37

HOSPITAL SERVICES

Now I'd like to ask a few questions about hospitalization. Have you or any member of your family been a hospital patient within the past year or two? 37

1-Yes, self only () 2-Yes, other member () 3-Self and others ()
4-No () (If "yes" where was the hospital? (Name of town or city) 38

Did you mind telling me the reason for going to the hospital?
1-Surgery () 2-Accident () 3-General medicine () 39
4-Obstetrics ()

(If "yes" to question 37) Also, would you mind telling me how much that cost you the last time it happened? 40

Does this amount include doctor, hospital and nursing charges or not? 1-Yes () 2-No () 3-Uncertain () 41

In general, how do you feel about the medical and surgical services which the doctors gave you (or other members of the family) while in the hospital? 42

In general, how do you feel about the accommodations and services which were provided by the hospital? 43

PAYMENT FOR MEDICAL SERVICES

Now I would like to ask you some questions about the cost of medical care. About how much did you and the other members of your family spend during the last six months for:

	Self	Others	Total	
Dental Care				44
Druggeries and costs				45
Glasses and Optical Care				46
Hospital Care				47
Nursing Care				48
Health and Hospital Insurance				49
Drugs and Medical Supplies, which were prescribed by a physician				50
Drugs not prescribed by a physician, such as vitamins, laxatives, tonics, stimulants and aspirin				51

Now I know that expenses for these things may be great. I would like to ask you what you spent for medical needs during the six months just before the last six months?

	Self	Others	Total
Doctor care			52
Appliances and casts			53
Glasses and optical care			54
Dental care			55
Hospital care			56
Nursing care			57
Health and hospital insurance			58
Drugs and medical supplies, which were:			
A. Prescribed by a physician			59
B. Not prescribed by a physician, such as vitamins, laxatives, tonics, liniments and aspirin			60

Next I'd like to ask some questions about payment for medical services. Do you or any members of your family carry insurance to pay for all or part of:

A. Hospital bills? 1-Yes () 2-No () 3-Uncertain () 61

B. Fees for surgery? 1-Yes () 2-No () 3-Uncertain () 62

C. Doctors' fees other than surgery? 1-Yes () 2-No () 3-Uncertain () 63

(If "yes" to 61, 62, 63) Which members are covered?

A. Hospital: 1-All members () 2-Head only ()
3-Other (specify) 3-Uncertain () 64

B. Surgery: 1-All members 2-Head only ()
3-Other (Specify) 3-Uncertain () 65

C. Doctor's fees: 1-All members 2-Head only ()
3-Other (specify) 3-Uncertain () 66

What is the name of the insurance company?

1-Blue Cross or Blue Shield () 2-Fraternal ()
3-Uncertain () 4-Other (specify) 67

Have you or any members of your family ever carried hospital insurance and dropped it? 1-Yes, self () 2-Yes, other members ()
3-Self and others () 4-No () 5-Uncertain ()
(If "yes") Why?

In general, do you think insurance plans for paying doctor bills are a good idea, or not?

1-A good idea () 2-Not a good idea () 3-Uncertain () 60

Do you favor some kind of a government sponsored plan to pay for health services?

1-Yes () 2-No () 3-Uncertain () 4-Socialized medicine () 61

COMMUNITY AND PUBLIC HEALTH

Now I would like to ask you a question about Public Health Services. Have you or any members of your family been personally examined or advised by a public health nurse or officer within the past year?

1-Yes, self only () 2-Yes, other members () 3- Yes, self and others () 4-No () 5-Uncertain () 71

Would you say that you are acquainted with the work of the district health department?

1-Yes () 2-No () 3-Uncertain () 4-Somewhat () 72

Do you know if its services are available to people in this community?

1-Yes () 2-Not available () 3-Don't know () 4-Uncertain () 73

(If "yes") What sort of services have they provided in the past year? 74

Some people are not sure whether the services of the district health department are available only to those not able to pay for such health service elsewhere, or are available to all residents of the district. What is your understanding of the matter? 75

1-Those not able to pay () 2-All residents () 3-Uncertain ()

Have you or any members of your family consulted the district health service about a health problem within the past year?

1-Yes () 2-No () 3-Uncertain () 76

Have you or any members of your family attended a meeting or meetings in which district health workers had a main part on the program?

1-Yes () 2-No () 77

(If "yes") Kind of Meeting Agency Sponsoring Meeting

1. _____

2. _____

Do you feel that this community has any major health problems?

1-Yes () 2-No () 3-Uncertain ()

If "yes"(To 78) What is it? _____

In some places representatives of different organizations have gotten together in a committee or council to develop plans for improving health in the community. Have you heard of anything like that?

1-Yes() 2-No () 3-Uncertain ()

79

(If "yes" to 79) Do you think representatives of the organizations in this community ought to organize some kind of a health committee or council?

1-Yes () 2-No () 3-Uncertain () 4-One in community now() 80

Give number of informant (From symptoms page line 18)

80

Part III Control Items

Schedule No.

1-3

Code for No. 18 (symptoms page)

4

Give number of informant (from symptoms page line 18)

5

HEALTH CONTROL ITEM

Do you have a certain doctor to whom you and members of your family go for most of your ills?

1-Yes () 2-No, go to more than one () 3-No, have no doctor ()
4-Uncertain

6

(If "1" or "2" to 6) Is he an M.D. (are they M.D.'s)?

1-Yes () 2-None M.D.'s () 3-One M.D. ()

7

4-Uncertain () 5-Other _____

(If "yes" to 6) In what town is his office located? _____

3-8-10

How far is it to his office? (check code in miles)

1-1 to 5 () 2-6 to 10 () 3-11 to 15 () 4-16 to 20 ()
5-21 to 25 () 6-26 to 30 () 7-Over 30

11

OTHER CHARTER ITEMS

(If single person answering for self only, go to 13)

Who is the main earner of your family?

1-Informant () 2-Other person (specify relation to informant) 12_____

Are you (is he) (is she) employed?

1-Yes () 2-No () 13_____

(If "no") Why aren't you (isn't she) (isn't he) employed
right now? _____

14_____

What kind of work did you (did he) (did she) do when you
were working (when he was working) (when she was working)
(when he was living)? _____

15_____

(If "yes") What kind of work do you (does she) do? _____

16_____

Job _____

Industry _____

("What sort of place work at?")

("What do they make or do there?")

Are you (is the family's breadwinner) a member of any union? _____

17_____

1-Yes () 2-No ()

(If "yes") Is that CIO, A. F. of L, or independent? _____

18_____

1-CIO () 2-AFL () 3-Independent () 4-Uncertain ()

(If farmer) Is husband member of: _____

19_____

1-Farm bureau () 2-Grange () 3-Farm Union ()

4-Other () 5-None ()

Do you remember the name of the last school you went to? _____

What was the last grade or year you completed in school?

1-No schooling ()	5-Some high ()
2-1-4 years grammar ()	6-Completed high ()
3-5-7 years grammar ()	7-Some college ()
4-Completed grammar ()	8-Completed college ()

20_____

(If married female head responding) What was the last grade
or year your husband completed in school?

1-No schooling ()	5-Some high ()
2-1-4 years grammar ()	6-Completed high ()
3-5-7 years grammar ()	7-Some college ()
4-Completed grammar ()	8-Completed college ()

21_____

(If own country)

About how many miles is it to the nearest town having a doctor?

0-Town or city () 1-1 to 5 () 2-6 to 10 ()
3-11 to 15 () 4-16 to 20 () 5-21 to 25 ()
6-26 to 30 () 7-over 30

Do you live on a farm?

0-Town or city () 1-Yes () 2-No ()

(If "yes") Did you (the head) work 100 or more days off the farm during the past year?

1-Yes () 2-No () 3-Uncertain ()

Do you or your family rent or own the place where you live?

1-Rent () 2-Own () 3-Other (specify) _____

Is there a telephone in your home (place where you live)?

1-Yes () 2-No ()

(If "yes") Is it listed either in your name or your family's name?

1-Yes () 2-No ()

Do you happen to have a car (in your family)?

1-Yes () 2-No ()

Do you have running water in the place where you live?

1-Yes () 2-No ()

Do you have an inside toilet in the place where you live?

1-Yes () 2-No ()

Do you read a daily newspaper?

1-Yes () 2-No ()

Do you have a radio?

1-Yes () 2-No ()

About how often do you go to church or religious services?

1-Once a week or oftener () 2-1 to 3 times a month ()
3-Occasionally () 4-Never ()

What denomination do you consider yourself? _____

Did you (or any member of your family) serve in any of the United States Armed Forces during World War II?

1-Yes, self only () 2-Yes, other members ()
3-Self and others () 4-No () 5-Uncertain ()

Could you look at this card and tell me the letter closest to figure that comes closest to your total family (for individual, your personal) income this last year? Is it A.B. C. or what?

35_____

(0) A- Under \$500 ()

(1) B- \$500 up to \$1000 ()

(2) C- \$1000 up to \$1500 ()

(3) D- \$1500 up to \$2000 ()

(4) E- \$2000 up to \$2500 ()

(5) F- \$2500 up to \$3000 ()

(6) G- \$3000 up to \$3500 ()

(7) H- \$5000 or more ()

Code for economic level 1-A () 2-B () 3-C () 4-D () 36_____

Leave blank (code for population of community) 37_____

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~~MAR 10 1973 R25~~

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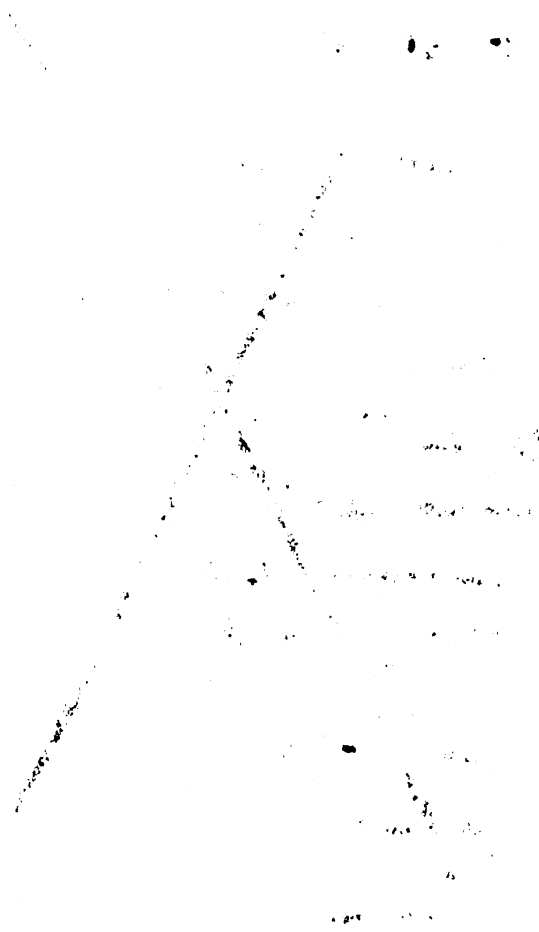
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