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GRADUATE COLLEGE

# AN ECOLOGICAL STUDY OF A LOW SOCIOECONOMIC NEIGHBORHOOD

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AN ECOLOGICAL STUDY OF A LOW SOCIOECONOMIC NEIGHBORHOOD

APPROVED BY

DISSERTATION COMMITTEE

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# AN ECOLOGICAL STUDY OF A LOW SOCIOECONOMIC NEIGHBORHOOD

## CHAPTER I

## INTRODUCTION

### Objectives

A review of the literature and history of ecological factors related to health in low socioeconomic areas indicated that several important problems remain unsolved, and knowledge concerning the relationship of mobility, interaction, environmental conditions, and attitudes toward health care practices in low socioeconomic neighborhoods was not well documented. Evaluations of health departments' efforts to change citizens' attitudes toward health care practices were, also, seldom reported.

W. Lloyd Warner and Paul S. Lunt (1) in their book, The Social Life of a Modern Community, noted that the social strata in a community were segregated into definite ecological areas and in each area a class distinction was usually found. The Communicable Disease Center of the United States Public Health Service (2) conducting community communicable disease control projects in cooperation with state and local health departments also subdivided communities into three ecological strata--upper, middle, and lower--and related these ecological areas, based on housing condition, to immunization levels and levels of infectious diseases. Warner, Meeker, and Eells (3) in their book, Social Class in

America, noted that the low socioeconomic group may contain as many as 60 percent of the population. However, few people have attempted to divide the low socioeconomic group into more than an upper-lower and a lower-lower subgroup.

From a public health viewpoint it was desirable to establish whether a low socioeconomic neighborhood could be divided into ecological subgroups and to determine if ecological factors and attitudes toward health in these subgroups were different. A working hypothesis was formulated for dividing a low socioeconomic neighborhood into subgroups based upon upward, stable, and downward mobility of their members. Eventually six working hypotheses were written into the research design. These hypotheses were as follows:

1. A family experiencing downward mobility does less about family health care than a family in the same class experiencing upward or stable mobility.

2. A geographically mobile family in a low socioeconomic neighborhood has less medical care and lower standards of environmental sanitation than its nonmobile neighbors of the same socioeconomic subgroup.

3. Families in low socioeconomic neighborhoods who practice poor exterior premises sanitation maintain poor housekeeping practices inside their homes based on single family housing.

4. After an area in a low socioeconomic neighborhood has undergone an intensive health motivation program, upward mobile, stable, and downward mobile citizens attitudes toward other neighborhood problems result in corrective actions.

5. Citizens, in the three subgroups in a low socioeconomic neighborhood who have been exposed to neighborhood clean-up and immunization programs change their attitudes toward public health as evidenced by: (1) maintenance of high immunization levels, (2) clean exterior premises, (3) regular physical examinations, (4) proper storage of refuse, (5) and favorable attitudes toward the health department.

6. Low socioeconomic neighborhood citizens who participate in health improvement programs have more interaction within the neighborhood than those citizens who do not participate in neighborhood programs.

In addition to the above hypotheses it was decided to evaluate the results of a neighborhood health program that had been conducted by the Oklahoma City Health Department and had been designed to bring about the following improvements:

1. To obtain garbage collection services for all households in the neighborhood.

2. To eliminate all privies in the neighborhood.

3. To fill or drain an old river bed in the area.

4. To demolish all houses in the neighborhood that were unfit for human habitation.

5. To raise immunization levels of polio, diptheria, pertussis, and tetanus in children.

The Mark Twain Neighborhood in Oklahoma City, Oklahoma was selected for this study.

## Background

A. M. Gibson (4) in his book, Oklahoma, A Student's Guide to Localized History, noted that Oklahoma's landforms vary from mountains to

plains and cover an area of about 70,000 square miles. The State is bordered by Kansas, Colorado, New Mexico, Texas, Arkansas, and Missouri. Four principal mountain systems within Oklahoma are the Ozarks, Arbuckle, Wichita, and Quachita. The remainder of the state's prairie-plains is interspersed with buttes, mesas, and hills. The states' drainage is by two major river systems, the Arkansas and the Red Rivers. Oklahoma's mean elevation is 1300 feet above sea level. The State slopes toward the southeast and has ten natural land regions.

Oklahoma is in a transitional zone in terms of climate and has an average temperature of 61 degrees fahrenheit. The normal January minimum is 27 degrees and the July maximum is 92 degrees. Rainfall varies greatly across the state averaging about 56 inches in the southeast to less than 18 inches in the northwest.

The World Book Encyclopedia (5) states that a presidential proclamation opened the site of Oklahoma City for settlement during April, 1889. Ten thousand settlers flocked there the first day. The city became the state capital in 1910, oil was discovered in 1928, and it has grown - until today it has a population estimated to be over 325,000. The city lies near the geographic center of the state on the north branch of the Canadian River.

The city is divided into several grade school district neighborhoods and, as mentioned earlier, one of these, called Mark Twain Neighborhood, is the site of the research for this dissertation.

## Mark Twain Neighborhood

According to information received from long-time residents, Mark Twain Neighborhood was formerly a farm owned and operated by a Mr. Mulligan.

The Canadian River meandered through the bottom land and, in times of non-flooding, good crops could be expected. During the 1923 flood, the river changed to a more southerly course leaving the old channel that is still evident in portions of the neighborhood.

The development of Mark Twain Neighborhood began during the era of the depression. As some of the people migrated off small farms from Oklahoma, Arkansas, and Texas they first settled in the downtown area of Oklahoma City. But, without the education to find or hold good jobs, they started looking for less expensive places to live which were still convenient to the downtown district. As Paul and Percival Goodman (6) noted in their book, Communitas, the migration from the heart of the city to the adjacent districts began and an unorganized settlement started developing along the former banks of the Canadian River. The area's main disadvantage was its subjection to spring flooding (7). In spite of this possibility, the new residents took advantage of the cheaper land to construct small single-family dwellings. Most of the people had a private yard and a place to resume their farming activities such as raising chickens, keeping a horse, and raising a garden.

Although a developer sold lots in the area, the design was originally unplanned and, at first, the area developed in an unorganized fashion, but it was contained by the existing street boundaries. As the area grew some of the new residents moved old houses in from Reno Avenue where a street-widening project was underway. Many homes were located on the former river bed as it was filled and reclaimed for building lots.

The neighborhood was known as Mulligans Flats until a few years ago when the name was officially changed to Mark Twain Neighborhood.

The second influx of people came after World War II and, since that time, the population has been relatively stable. Some of the ecological characteristics of the people and of the area in which they live are discussed in the following dissertation.

# CHAPTER II

## METHODS

The principal procedures used in developing this research consisted of: (1) developing the survey questionnaire; (2) determining the number of household units in the survey area; (3) determining the number of persons required to provide estimates of specified precision; (4) estimating the number of households that must be interviewed to obtain a sizable sample; (5) converting the number of required households to interview sectors; (6) allocating the interview sectors to primary sampling units; (7) completing the household interviews; (8) classifying the completed interviews into groups representing upward, downward, and stable mobility; and (9) tabulating and analyzing the data.

The three-page questionnaire used in interviewing each family is shown in the APPENDIX. It contains questions for obtaining ecological information in the following basic categories: (1) highest school year completed, occupational and residential mobility; (2) immunization status, past-year disease histories, and physician and hospital insurance practices; (3) types of interaction in the neighborhood; (4) environmental sanitation; and (5) attitudes toward health care and neighborhood problems.

The number of households in Mark Twain Neighborhood was determined by driving through the neighborhood and counting the houses. The

information was recorded on a map of the area as shown in Figure 1. The basis for the number of persons per household was the 1960 Census Report of Oklahoma City (8). The number of primary interview sectors was determined by dividing the number of housing units by the number of housing units to be interviewed within each interview sector (9). For the purpose of this study, Mark Twain Neighborhood was divided into 23 homogeneous interview sectors and six houses from each sector were selected to be interviewed from a random list of numbers. No substitution was made in the case when no response was received from the household head, as the interview sample was sufficiently large to compensate for this non-response group.

August B. Hollingshead's and Fredrick C. Redlich's (10) book entitled Social Class and Mental Illness was used as a basis in developing the index of social position. The authors describe a procedure to estimate the positions individuals occupy in the status structure of society. The procedure is premised by three assumptions: (1) the existence of a status structure in the society; (2) that positions in this structure are determined mainly by a few commonly accepted symbolic characteristics; and (3) that characteristics symbolic of status may be scaled and combined by the use of statistical procedures so that a researcher may quickly, reliably, and meaningfully stratify the population under study.

Social mobility involves a change in the class status of individuals during the course of their lives. The class position occupied by an individual's parental family during his childhood and early adolescence is the base line against which mobility may be measured. Viewed

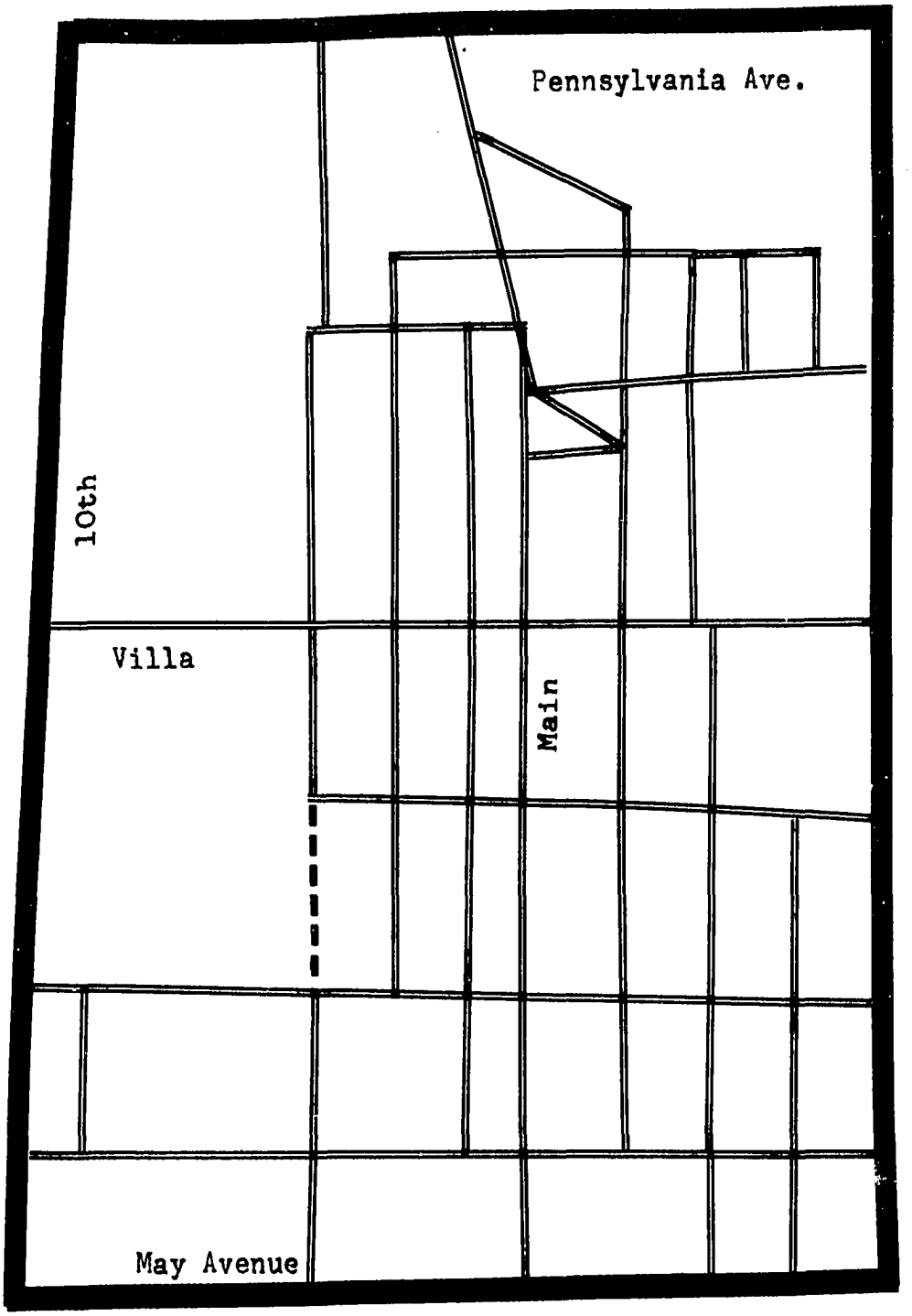


Figure 1— Mark Twain Neighborhood

theoretically, an individual either goes through life occupying the class position he "inherited" from his parental family, or he acquires a different class status through the instrumentality of his own activities. An individual who does not change his class is viewed as being intergenerationally stable. An individual who changes his class position is mobile. A person who achieves a class status higher than that of his parental family is defined as being upward mobile. A person who fails to hold the status occupied by the parental generation and acquires a class position lower than his parents is identified as being downward mobile. Generally speaking, upward mobility in the American social structure is approved and downward mobility is unapproved. Mobile behavior is learned in the course of an individual's life, but the details of how mobility or stability are acquired are not fully understood.

As described by August B. Hollingshead (11) in his paper entitled "Two Factor Index of Social Position", information is presented as to how the occupation and education of the household head and his father are used to compute one's social class. Occupations are readily obtained, but many respondents were unable to give the highest number of years education of the household head's father. Because of this limitation, Hollingshead's procedure was modified so that it could be used to determine social mobility more precisely. This modification consisted of using the type of house, degree of interaction, and the style of life based on possessions and consumption patterns in addition to the other previously mentioned factors to place all families into upward mobile, downward mobile, or stable groups.

During the period of January-February, 1967, information was

received from members of the households selected from the interview sectors. No household substitution was made except in the case of a vacant house, in which case, the adjacent household was selected for interviewing.

A total of five call-backs was made to those households where people were not at home before the households were listed as not available for interview.

# CHAPTER III

# RESULTS

## Interviews

Approximately 66 percent of the interviews were completed on the first visit. There were only five refusals and all were from elderly people; however, many elderly people were interviewed. Since a murder had been committed in Oklahoma City during the interview period and official announcements were made advising people not to admit strangers to their homes, a greater number of refusals might have been expected.

The interviewer carried an identification card from the Bureau of Public Health Research of the University of Oklahoma Medical School.

Interviews of seven households were not completed because the occupants were not found at home on any of the field visits. Thus, of the 138 originally selected, 126 were completed.

The sources of the data from the households have been summarized in Table 1.

Answers from the 126 households were tabulated and the mobility of each household head was determined. The number of households in the low socioeconomic group by social mobility type is shown in Table 2.

## Geographic Mobility

For the purpose of this study geographical mobility, occupational mobility, education, and age of the household head were all determined.

TABLE 1

SOURCES OF DATA

| Sources | Number |
|---|---|
| Husband and wife | 21 |
| Wife | 49 |
| Husband | 20 |
| Mother or adult daughter | 3 |
| Father or adult son | 2 |
| Male head (single) | 11 |
| Female head (single) | 20 |
| Total | 126 |

TABLE 2

NUMBER OF HOUSEHOLDS IN LOW SOCIOECONOMIC GROUP BY SOCIAL MOBILITY

| Mobility Type | Number |
|---|---|
| Upward | 38 |
| Stable | 50 |
| Downward | 38 |

Over 50 percent of the population migrated into Mark Twain Neighborhood from small communities and farms in Oklahoma. Table 3 shows

TABLE 3

PLACE OF BIRTH BY SOCIAL MOBILITY OF HOUSEHOLD HEAD

| Place of Birth | Type of Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Outstate Oklahoma | 65.9 | 38.0 | 52.7 | 50.7 |
| Oklahoma City | 2.6 | 12.0 | 2.6 | 6.3 |
| Georgia | 2.6 | .. | .. | .8 |
| Texas | 10.5 | 14.0 | 13.1 | 12.7 |
| New Mexico | 2.6 | 4.0 | .. | 2.4 |
| Arkansas | 10.5 | 16.0 | 8.0 | 11.9 |
| Iowa | .. | 2.0 | 2.6 | 1.6 |
| Montana | .. | 2.0 | .. | .8 |
| Tennessee | .. | 2.0 | 8.0 | 3.2 |
| California | .. | .. | 2.6 | .8 |
| Missouri | .. | 6.0 | .. | 2.4 |
| Alabama | .. | .. | 2.6 | .8 |
| Mississippi | .. | .. | 2.6 | .8 |
| Illinois | 5.3 | .. | 2.6 | 2.4 |
| Wisconsin | .. | .. | 2.6 | .8 |
| Mexico | .. | 2.0 | .. | .8 |
| Unknown | .. | 2.0 | .. | .8 |

the place of birth of the household head by social mobility. Over 65 percent of those in the upward mobile group were born on farms or in communities in Oklahoma other than Oklahoma City. Over 52 percent of those in the downward mobile group and 38 percent of those in the stable group were born in similar areas.

Over 32 percent of the household heads were born in states adjoining Oklahoma. Figure 2 shows the distribution of the place of birth of the household heads. Approximately 12 percent of the household heads were born in Texas and 12 percent in Arkansas. The states of Georgia, Montana, California, Alabama, Mississippi, Wisconsin, and the country of Mexico each contributed one household head.

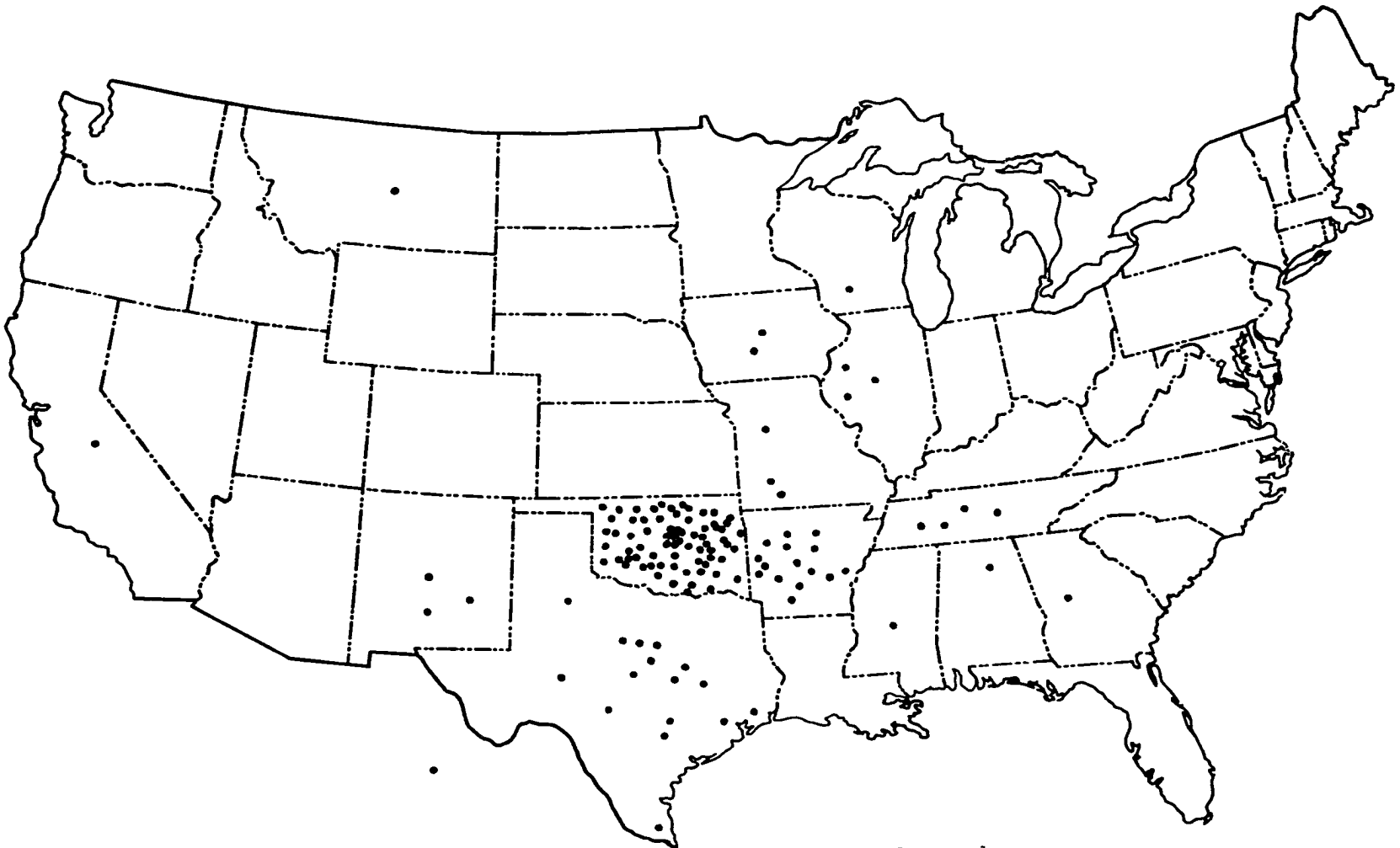

Figure 2.--Where household heads in Mark Twain Neighborhood were born.

The length of time families had lived in Mark Twain Neighborhood was significant in determining the geographical mobility of the group. As shown in Table 4 approximately seven of every ten families had lived in the neighborhood for more than ten years. Only five percent of all the families interviewed had lived in the neighborhood less than two years. There was little difference between the three groups in the length of time they had lived in the neighborhood. In the downward mobile group, over 34 percent; in the stable group, 26 percent; and in the upward group, 27.8 percent had lived in the neighborhood less than ten years.

TABLE 4

LENGTH OF TIME THE HOUSEHOLD HEAD HAD LIVED IN THE NEIGHBORHOOD

| Length of Time in Neighborhood | Type of Mobility in Percentage | | | |
|---|---|---|---|---|
| | Upward | Stable | Downward | Total |
| Less than 2 years | 7.8 | 2.0 | 7.8 | 5.5 |
| Less than 6 years | 21.0 | 16.0 | 18.4 | 19.0 |
| Less than 10 years | 27.8 | 26.0 | 34.2 | 29.3 |

The length of time each family had lived at its present address is shown in Table 5. Over 30 percent of all the families interviewed had lived at their present address less than two years, and over 22 percent of these moved to their present address during 1966. More than 42 percent of the downward mobile families, 22 percent of the stable families, and 28.9 percent of the upward mobile families had lived at their present addresses less than two years.

TABLE 5

LENGTH OF TIME THE HOUSEHOLD HEAD HAD LIVED AT PRESENT ADDRESS

| Time at Present Address | Type of Mobility in Percentage | | | |
|---|---|---|---|---|
| | Upward | Stable | Downward | Total |
| Less than 2 years | 28.9 | 22.0 | 42.1 | 30.1 |
| Less than 6 years | 47.3 | 48.0 | 55.2 | 49.2 |
| Less than 10 years | 57.8 | 62.0 | 68.4 | 62.7 |

## Employment Characteristics

Figure 3 shows the employment status of the household head by social mobility. More than 86 percent of the upward mobile group, 60 percent in the stable group, and only 21.2 percent in the downward mobile group were fully employed. Key factors in limiting full employment were the age and physical condition of the household head. The downward group also had the most unemployed people among those able to work (7.9 percent). This group also contained the most part-time employees (10.6 percent). The stable group had the most retired families (18 percent).

The length of time the household head had held his present job is shown in Table 6. There was no distinct pattern of job stability. Over 34 percent had held their jobs less than ten years. Those household heads employed in their present jobs less than five years constituted 36 percent of the upward mobile group, 20 percent of the stable group, and slightly less than 11 percent of the downward mobile group.

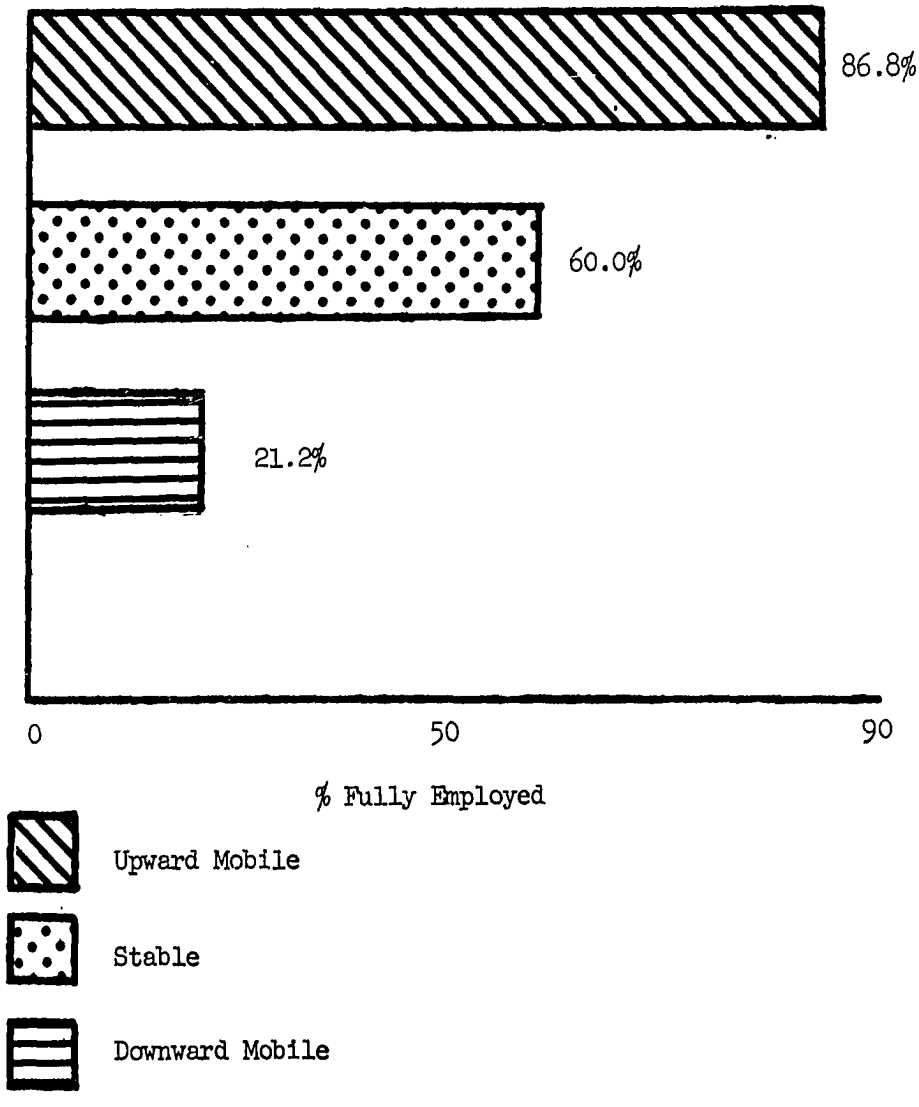


Figure 3.--Employment status of the household head.

TABLE 6

HOUSEHOLD HEAD'S TENURE IN PRESENT JOB

| Years | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Less than one | 7.0 | 10.0 | 2.6 | 7.1 |
| 1 - 5 | 29.0 | 10.0 | 7.9 | 15.1 |
| 6 - 10 | 21.0 | 12.0 | 2.6 | 11.9 |
| 11 - 15 | 5.3 | 14.0 | 5.3 | 8.8 |
| More than 15 | 23.7 | 12.0 | .. | 11.9 |
| Unknown | 2.6 | 2.0 | 10.5 | 4.8 |

The downward mobile group had the highest number of disabled (30 percent), unemployed (11 percent), retired (16 percent), and housewives (16 percent). No household head in the upward group was disabled, retired, or unemployed. In the stable group 20 percent of the household heads fell into these three categories.

## Education and Age Characteristics

Table 7 shows the education of the father of the household head in each mobility type. Although, originally, the results of this table were to be used in establishing the social mobility position, the plan was abandoned due to failure of respondents to know this information. Only 31.8 percent were able to answer the question and the information they gave showed no significant difference in the amount of education by mobility type.

TABLE 7

EDUCATION OF HOUSEHOLD HEAD'S FATHER

| Education | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| High School Graduate | 2.6 | 2.0 | 2.6 | 2.4 |
| 10 - 11 years | .. | .. | .. | .. |
| 7 - 9 years | 7.9 | 4.0 | 2.6 | 4.8 |
| 0 - 6 years | 26.3 | 24.0 | 23.6 | 24.6 |
| Unknown | 61.2 | 70.0 | 71.2 | 68.2 |

None of the fathers of household heads attended college and only 2.4 percent graduated from high school. The greatest number attended less than six grades while slightly less than five percent attended the seventh, eighth, or ninth grades.

The amount of education obtained by the head of each household is summarized in Table 8. The number of years of schooling ranged from none to two years of college with two individuals in each of these extremes. Over 42 percent had less than six years education. The upward mobile group was the best educated with 72 percent having over seven years. The downward group was the least educated with 52.6 percent having less than six years.

Almost 16 percent of the respondents in the downward group did not know the education of the household head. Of significance was the small number of high school graduates; less than eight percent of all groups completed high school. In general, the younger household heads

TABLE 8

EDUCATION OF HOUSEHOLD HEAD

| Education | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| College (1-3 years) | 5.3 | .. | 2.6 | 2.4 |
| High School Graduate | 10.5 | 4.0 | 2.6 | 5.5 |
| 10 - 11 years | 21.1 | 14.0 | 2.6 | 12.7 |
| 7 - 9 years | 34.2 | 30.0 | 23.7 | 29.5 |
| 0 - 6 years | 26.3 | 46.0 | 52.6 | 42.0 |
| Unknown | 2.6 | 6.0 | 15.9 | 7.9 |

were better educated than their older counterparts.

The age of the household head by social mobility is shown in Table 9. The largest number of people in the upward mobile group was in the 31-40 age group (29 percent). The largest number in the stable group was found in the 41-50 age group (26 percent). While, in the downward mobile group, 29 percent were in the 61-70 age bracket. For all groups the mean age of the household head was 48 years and the overall range was from 19 to 86 years.

The racial group to which each family belongs was determined at the time of the field interview. More than 95 percent of the families interviewed were white, four percent were Indian and two families were of Mexican ancestry.

TABLE 9

AGE OF HOUSEHOLD HEAD

| Age | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Less than 30 years | 15.8 | 14.0 | 2.6 | 11.1 |
| 31 - 40 | 29.0 | 12.0 | 13.2 | 17.5 |
| 41 - 50 | 15.8 | 26.0 | 26.3 | 23.0 |
| 51 - 60 | 23.6 | 16.0 | 18.3 | 19.0 |
| 61 - 70 | 13.2 | 14.0 | 29.0 | 18.3 |
| Over 71 years | 2.6 | 18.0 | 10.6 | 11.1 |

## Disease and Health Care Practices

This section deals with immunization levels, type of medical problems experienced by the household head during the past year, use of a family doctor and allied health personnel, and the number of families with health insurance. These data have been related to social mobility.

Table 10 shows the immunization levels of children under five years of age. In the 126 households interviewed, there were 59 children five years of age or younger, and, of these, only 17 were in the downward mobile families. The percentage of these immunized against diphtheria, pertussis-tetanus (DPT), poliomyelitis, smallpox, and measles is shown. Although data was based on a small sample it did show a slight difference in immunization levels between the upward, stable, and downward groups. With the exception of DPT, the highest percentage of children immunized

TABLE 10

STATUS OF IMMUNIZATIONS IN CHILDREN UNDER FIVE YEARS OF AGE

| Type | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Polio | 83.3 | 77.7 | 52.9 | 72.8 |
| DPT | 86.8 | 94.4 | 58.8 | 81.3 |
| Smallpox | 54.2 | 22.2 | 11.6 | 32.2 |
| Measles | 25.0 | 11.1 | .. | 16.9 |

was found in the upward mobile group and the lowest in the downward mobile group. However, in the case of DPT, the stable group had the highest level of protection (94.4 percent). The entire population under five years of age had the highest protection against diphtheria, pertussis, and tetanus (81.3 percent). The lowest protection was against measles 16.9 percent.

An important factor in obtaining high immunization levels was the individual family unit's accepting responsibility for this care. A total of 65 families had children. Slightly over 67 percent of these family units were fully protected against polio.

Table 11 depicts the past year's history of the household head in relation to selected medical care items. Over 57 percent of the household heads had consulted a doctor during the preceding year. The largest percentage was in the downward mobile group and the lowest percentage was found in the stable group. The number of people requiring an operation

TABLE 11

PAST YEAR'S HISTORY OF HOUSEHOLD HEAD IN RELATION TO SELECTED MEDICAL PROBLEMS AND MEDICAL CARE

| Item | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Had seen a doctor | 55.2 | 48.0 | 71.1 | 57.1 |
| Had an operation | 10.5 | 6.0 | 7.9 | 7.9 |
| Had a physical examination | 34.2 | 20.0 | 39.5 | 30.1 |
| Sick enough to stay in bed | 13.1 | 18.0 | 39.5 | 23.0 |
| Seen a dentist | 13.1 | 22.0 | 13.1 | 16.7 |
| Sick and not gone to bed | 15.8 | 12.0 | 18.4 | 15.1 |
| Been immunized | .. | 2.0 | .. | .8 |
| Had a chest x-ray | 7.9 | 16.0 | 21.1 | 15.1 |
| Tuberculosis skin test | 5.3 | 4.0 | 15.8 | 7.9 |
| Diabetes test | 2.6 | 10.0 | 36.8 | 15.9 |
| Missed work due to illness | 21.1 | 14.0 | 15.8 | 16.7 |

during the past year was 7.9 percent. There was only slight variation by social mobility with the upward group having the highest percentage (10.5) of its household heads undergoing operations.

The number of people stating they had received physical examinations was 30.1 percent. The downward mobile group had the highest number obtaining physicals; approximately four of each ten household heads completed physical examinations during the past year. This compared to less than 20 percent in the stable group.

In answer to the question of their being sick enough to stay in bed during the past year, 23 percent of the respondents answered in the affirmative. The highest percentage was in the downward mobile group (39.5) and the lowest in the upward group (13.1).

Dental care had been neglected in all three groups; only 16.7

percent of the household heads availed themselves of dental services with the highest in the stable group.

Only one person among all of the household heads obtained an immunization of any kind during the past year as compared to approximately 15 percent who obtained chest x-ray's and 7.9 percent who received tuberculosis skin tests. Approximately 16 percent of the population were tested for diabetes. The highest number of people availing themselves of chest x-rays, tuberculosis skin tests, and diabetes tests were in the downward mobile group. The lowest number obtaining these three items was in the upward mobile group, with the exception of tuberculosis skin testing, which was lowest in the stable group. The greatest difference was in the number of people obtaining diabetes tests; nearly 37 percent of the downward group and only 2.6 percent of the upward group were tested.

The final question asked in this series was whether the household head missed any work due to illness during the past year. Approximately 21.1 percent of the upward group missed work due to illness, compared to 14 percent in the stable group and 15.8 percent in the downward mobile group.

The types of illnesses experienced by the household heads in the three mobility groups are shown in Table 12. Over 45 percent of the household heads reported experiencing a physical ailment. The types reported varied from minor accidents to heart ailments. The lowest percentage of household heads with physical conditions was in the stable group (28 percent). The highest was in the downward mobile group in which nearly eight of every ten people interviewed stated they had experienced a physical ailment. Approximately 40 percent of the downward

TABLE 12

TYPES OF ILLNESSES EXPERIENCED BY THE HOUSEHOLD HEAD

| Type of Ailment | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Accidents | 2.6 | 2.6 | 7.9 | 3.9 |
| Alcoholism | .. | .. | 15.8 | 4.8 |
| Cardiovascular | .. | 6.0 | 21.1 | 9.5 |
| Chronic disease | 5.3 | 12.0 | 5.3 | 7.9 |
| Chronic impairment | 15.8 | 8.0 | 10.5 | 11.1 |
| Communicable disease | 5.3 | 0. | 2.6 | 2.4 |
| Gastro-intestinal | 5.3 | 2.0 | 2.6 | 3.2 |
| Nervous breakdown | 2.6 | .. | 5.3 | 2.4 |

mobile group was over sixty years of age. The most common conditions reported were chronic impairments, chronic diseases, and cardiovascular diseases. Chronic impairments of the back were most prevalent in the upward mobile group, (15.8 percent). Cardiovascular diseases and alcoholism were the highest in the downward mobile group, but were of minor importance in the other groups. Only three cases of communicable diseases were reported. In the upward mobile group there were two cases of recently cured hepatitis, and in the downward mobile group there was one case of tuberculosis.

An important factor in maintaining family health was the availability and the use of a family doctor. Over 55 percent of the upward mobile group families had a family doctor compared to 36.0 percent of

the stable group and 23.7 percent of the downward mobile group.

Table 13 shows the number of families using health care other than a physician. None of the families used a Christian Science Reader. The percentage using a chiropractor and optometrist was highest in the upward mobile group and lowest in the downward mobile group. The percentage using an osteopath was also highest in the upward group and lowest in the stable group. Although 15.7 percent of the upward mobile group reported they had used a chiropractor infrequently, several of the upward group reported that an osteopath was their family doctor. One reason the downward group reported so little use of either the osteopath or chiropractor may be because the majority of their medical care was received from physicians in hospitals providing care for the indigent.

TABLE 13

FAMILIES USING HEALTH CARE OTHER THAN A PHYSICIAN

| Attendant | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Osteopath | 13.1 | 4.0 | 5.3 | 7.1 |
| Chiropractor | 15.8 | 10.0 | 5.3 | 10.3 |
| Optometrist | 10.5 | 8.0 | 2.6 | 7.1 |

Table 14 shows the types of insurance held by family groups. Approximately one of every two families interviewed did not have hospitalization insurance. The downward mobile group was the poorest insured as

TABLE 14

FAMILIES WITH HEALTH INSURANCE

| Type of Health Insurance | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| General | 42.1 | 24.0 | 2.6 | 23.0 |
| Hospital | 52.6 | 30.0 | 7.9 | 30.1 |
| Surgical | 50.0 | 28.0 | 7.9 | 28.6 |
| Medical Costs | 50.0 | 28.0 | 7.9 | 28.6 |
| Medicare | 13.4 | 28.0 | 26.3 | 23.0 |
| Loss of Time | 42.1 | 22.0 | 5.2 | 23.0 |

six of each ten families lacked coverage. Several of the insured families maintained an insurance plan that included surgical, hospitalization, and medical costs. A few families eligible for medicare had not signed for the protection.

## Interaction

Interaction, or relationships between persons, has been the focus of sociology. According to Joseph A. Kahl (12) in his book, The American Class Structure, people of similar social status associate more with one another than with persons of dissimilar social status, and that out of this interaction emerge the subcultures peculiar to each prestige level.

In this study, several questions on interaction were asked to determine each family's degree of interaction with others. These

questions - shown in the APPENDIX - have to do with the location and frequency of visiting the best friend of the respondent; the location and frequency of visiting relatives; the frequency of attending meetings of clubs, churches, labor unions, etc.; the location of stores where grocery shopping is done; the family vacationing practices; and the ownership of television sets and cars.

James West (13) in his book, Plainville, U.S.A., noted that the important function of neighborhoods is to provide neighbors - people to know more intimately than anyone else except relatives; people to visit and be visited by, for a brief chat, or - frequently among children - all night; and people with whom to exchange household commodities.

The geographical location of each respondent's best friend was determined by asking if the best friend lived in his own neighborhood, some other area of the city, another city in the state, or in some other state. The results of this question have been summarized in Table 15. As shown, 57.9 percent of the respondents' best friends lived in their own neighborhoods. No significant difference existed among the three mobility groups in relation to the proximity of their best friend. Over 13 percent of all those interviewed stated they did not have a best friend and 18.4 percent of the downward group fell in this category as compared with 7.9 percent in the upward group.

The frequency of visits between the respondents and their best friends was also determined and the results are shown in Table 16. Seven out of every ten respondents visited their best friends weekly. Less than two percent visited less than annually. There did not appear to be any significant differences among the mobility groups and the frequency with which they visited their best friends.

TABLE 15

LOCATION OF RESPONDENT'S BEST FRIEND

| Area | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Own neighborhood | 57.9 | 56.0 | 60.6 | 57.9 |
| Other area of city | 23.7 | 20.0 | 10.5 | 18.3 |
| Other city in state | 7.9 | 10.0 | 5.3 | 7.9 |
| Other state | 2.6 | .. | 2.6 | 1.6 |
| None | 7.9 | 14.0 | 18.4 | 13.5 |
| Unknown | .. | .. | 2.6 | 0.8 |

TABLE 16

FREQUENCY OF VISITS WITH BEST FRIENDS

| Frequency | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Weekly | 71.1 | 74.0 | 65.9 | 70.7 |
| Every two weeks | 10.5 | 2.0 | 2.6 | 4.7 |
| Infrequently | 10.5 | 10.0 | 10.5 | 10.3 |
| Never | 7.9 | 14.0 | 18.4 | 13.5 |
| Unknown | .. | .. | 2.6 | 0.8 |

The interaction of household members with relatives in the neighborhood and other areas of Oklahoma City is shown in Table 17. Over 57 percent of the families had relatives in the neighborhood and 23.9 percent had relatives in other areas of the city.

TABLE 17

FAMILIES WITH RELATIVES IN THE NEIGHBORHOOD OR OTHER AREAS OF OKLAHOMA CITY

| Location | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Own neighborhood | 50.0 | 66.0 | 52.6 | 57.1 |
| Other area of city | 26.3 | 20.0 | 26.4 | 23.9 |
| Both | 13.2 | 4.0 | .. | 5.5 |
| Neither | 10.5 | 10.0 | 18.4 | 12.7 |
| Unknown | .. | .. | 2.6 | .8 |

The frequency of visiting with relatives is shown in Table 18. Two of every three families visited weekly with relatives in either the neighborhood or in other areas of Oklahoma City. The families who did not visit relatives at all comprised 29 percent of the downward group, 10.6 percent of the upward, and 12.0 percent of the stable group. The upward mobile and stable groups visited with relatives more frequently than their downward mobile counterparts.

Grocery shopping in neighborhood stores rather than in stores located outside of the area may be influential in developing a cohesive neighborhood. As shown in Table 19, in Mark Twain Neighborhood two of

TABLE 18

FREQUENCY OF VISITS WITH RELATIVES

| Frequency | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Weekly | 73.7 | 74.0 | 50.0 | 66.6 |
| Every 2 weeks | 2.6 | .. | .. | .8 |
| Infrequently | 13.1 | 14.0 | 18.4 | 15.1 |
| None | 10.6 | 12.0 | 29.0 | 16.7 |
| Unknown | .. | .. | 2.6 | .8 |

TABLE 19

LOCATION OF GROCERY STORES WHERE RESPONDENTS SHOP

| Location | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Own neighborhood | 52.6 | 68.0 | 78.9 | 66.6 |
| Other area of city | 21.0 | 22.0 | 7.9 | 17.5 |
| Both | 26.4 | 10.0 | 7.9 | 14.3 |
| Unknown | .. | .. | 5.3 | 1.6 |

every three families did all of their shopping in neighborhood stores. Over 17 percent of the remaining families shopped in other areas of the city and 14.3 percent shopped in both neighborhood and other stores.

The latter group usually took advantage of special sales and lower prices on individual items. The downward mobile group was more apt to do all of its grocery shopping in the neighborhood and the upward mobile group was more apt to shop in both locations. In the stable group 22 percent shopped in other areas of the city and only ten percent shopped in both other areas and neighborhood stores.

Eight churches were counted in Mark Twain Neighborhood. Table 20 shows the various denominations and the frequency of attendance of the families. Forty percent of the 126 families attended church, of which, 60 percent attended every Sunday. The largest number of families, representing 11 percent of the respondents, attended the Baptist Church. A slightly larger number of upward mobile and stable families attended church.

TABLE 20

NUMBER OF FAMILIES ATTENDING CHURCH BY DENOMINATION AND FREQUENCY OF ATTENDANCE

| Denomination | Attendance | | |
|---|---|---|---|
| | Regular N= | Irregular N= | Total N= |
| Church of Christ | 3 | .. | 3 |
| Baptist | 7 | 7 | 14 |
| Full Gospel | 3 | .. | 3 |
| Pentecostal | 1 | 4 | 5 |
| Holiness | 2 | 4 | 6 |
| Methodist | 4 | .. | 4 |
| Nazarene | 5 | 1 | 6 |
| Assembly of God | 2 | 1 | 3 |
| Holy Angel | 1 | 0 | 1 |
| Unknown | 2 | 3 | 5 |
| Total | 30 | 20 | 50 |

Neighborhood residents belonged to six other types of organizations in addition to their church. Three downward mobile families, eleven stable families, and 23 upward mobile families belonged to such organizations. The Parent Teachers Association had the largest membership of neighborhood residents. Of the 15 families that belonged, eleven attended regularly. Trade unions had the next highest membership with ten families belonging and nine attending regularly. Other memberships were distributed among the neighborhood council, fraternal organizations, and a racing association.

The number of families who owned cars and television sets and who went on a vacation last year are shown in Table 21. Approximately 95 percent of the families owned television sets and approximately 75 percent owned cars. All the families in the upward mobile group had television sets and 89.5 percent had cars, while 86.8 percent of the downward group owned television sets and 55.2 percent owned cars. One out of every three families interviewed went on a vacation during 1966. Half of the families vacationed in state recreation areas and half vacationed out of state. Approximately 45 percent of the families in the upward mobile group went on vacations.

## The Environment

Edward Higbee (14) in his book The Squeeze, stated that man did not originally evolve in an urban industrial world, and the knowledge he possesses of his own physiology and psyche scarcely enables him to know whether the environment he is creating is good or bad. The further man's manufactured habitat departs from the natural surroundings in which man evolved over time, the more he will have to be

TABLE 21

NUMBER OF FAMILIES OWNING TELEVISION SETS, CARS, AND GOING ON A VACATION DURING THE PAST YEAR

| Item | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Television | 100.0 | 96.0 | 86.8 | 94.4 |
| Car | 89.5 | 78.0 | 55.0 | 74.6 |
| Went on vacation | 44.7 | 30.0 | 26.3 | 33.3 |

aware of self-constructed snares. Unlike living organisms the man-made environment has no genetic guidance system for future growth.

Victor Ehlers and Ernest Steel (15) in their book, Municipal and Rural Sanitation, noted that poor housing has been a contributor to low physical and mental efficiency and its relation to prevalence of disease was easily recognized. If public health is to be considered as aimed at obtaining optimum conditions for physical and mental well-being, in addition to preventing disease, housing improvement must be included in its scope.

Environmental items considered in this dissertation are shown in the APPENDIX. They include sewage disposal, water supply, refuse handling practices, vector problems, premises and housing conditions, type of heating, refrigeration, bathroom facilities, electricity, number of bedrooms, animal shelters, streets, and geographical location.

The type of sewage disposal for each household is shown in Table 22. Approximately six out of every ten houses were connected to the city

TABLE 22

TYPES OF SEWAGE DISPOSAL

| Disposal Type | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Sanitary sewer | 63.1 | 56.0 | 60.6 | 59.5 |
| Septic tank | 36.9 | 36.0 | 18.4 | 30.9 |
| Privy | .. | 2.0 | 10.5 | 4.0 |
| Neighbor's facilities | .. | 4.0 | 2.6 | 2.4 |
| Unknown | .. | 2.0 | 7.9 | 3.2 |

sewerage system, and over 3 of every ten were serviced with septic tanks. Five of the families used privies for sewage disposal and occupants of three of the remaining houses used the bathroom facilities in a neighbor's house. The latter were all households with only one person and were in the downward mobile and stable groups. In some of the unsewered areas instances of septic tank failure were noted. On several blocks, petitions had been circulated and the necessary signatures obtained for installation of sewers, but the extensions had not yet been made.

All but six of the 126 households interviewed were serviced by the Oklahoma City Municipal Water Supply. One semi-private water system supplied a trailer court and a few houses in a two-block area in the southwest sector, and there was one private well. There was no significant difference in the type of water system by social mobility. Of interest was the fact that one of the hepatitis patients lived in a trailer serviced by the semi-private system.

Proper handling of refuse on the individual property is necessary to reduce the number of flies and rodents as well as undesirable odors. The refuse handling practices for Mark Twain Neighborhood are summarized in Table 23. Only 42.9 percent of the households used the standard size 10-32 gallon garbage container equipped with tight fitting lids. The rest had other types of containers without lids. The largest percentage of people maintaining good refuse storage were located in the upward mobile group (63.1) and the lowest in the downward mobile group (23.6). Only 6.4 percent of householders burned refuse, a practice outlawed by the city. A few people had been fined by city officials for burning refuse on their property. One respondent reported that she had paid a fine of $20.00 a few months earlier for practicing this type of refuse disposal.

TABLE 23

REFUSE HANDLING PRACTICES

| Item | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Adequate storage | 63.1 | 42.0 | 23.6 | 42.9 |
| Burn refuse | 7.9 | 4.0 | 7.9 | 6.4 |
| Storage racks | 29.0 | 12.0 | 10.5 | 16.7 |
| Wrap garbage | 50.0 | 54.0 | 34.2 | 46.8 |

Only 16.7 percent of the families used garbage can racks. The greatest usage was in the upward mobile group (29.0 percent), compared with 10.5 percent in the downward mobile group. None of the houses were equipped with garbage disposals. Approximately 47 percent of the

housekeepers drained and wrapped garbage prior to placing it in the refuse containers. The highest percentage was in the stable group where 54 percent followed this practice and the lowest in the downward mobile group where only 34 percent followed the practice.

In Oklahoma City each householder is charged a monthly fee for twice-weekly collection of garbage and trash by the city government. All citizens are required to subscribe to the service and are billed through the city water department. This service provides for collection of garbage and trash two times each week, but does not provide for collection of large discarded objects normally referred to as rubble. All householders except two in the downward mobile group subscribed to this municipal refuse service.

Premises with potential temporary mosquito-producing sources are summarized in Table 24. Potential temporary sources are defined as any material capable of holding water. A large number of premises, 76.9 percent, afforded this type of temporary mosquito breeding site. On the other hand, permanent mosquito breeding sources were minor and only 1.6 percent of the premises provided this type of breeding source. None of the downward mobile group was in this category. The largest single permanent source in the neighborhood was provided by the unfilled portion of the old river bed.

Another important environmental condition was the presence of rodent harborage as shown in Table 25. Two types of rodent harborage were tabulated for each premises - rubble and dilapidation. Rubble refers to any excessive amount of large refuse items, tree limbs, old lumber, etc. left indiscriminately piled on the premises. Dilapidation

TABLE 24

MOSQUITO SOURCES

| Source | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Temporary | 65.8 | 76.0 | 89.5 | 76.9 |
| Permanent | 2.6 | 2.0 | .. | 1.6 |

TABLE 25

RODENT HARBORAGE

| Type | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Rubble | 65.8 | 76.0 | 86.8 | 76.2 |
| Dilapidation | 39.5 | 54.0 | 57.8 | 50.7 |

refers to any type of building other than the main structure that needs extensive repair. At least three out of every four premises contained rubble; the highest rate, 86.8 percent, was in the downward mobile group and the lowest was in the upward mobile group (65.8 percent). Over half of these same premises also had dilapidated outbuildings with the greatest number in the downward mobile group and the lowest number in the upward mobile group.

The exterior and interior housing deterioration was determined

for all houses in each of the three subgroups. The degree of deterioration was divided into three categories: extensive, minor, and none. Extensive deterioration was assigned by the interviewer to the exterior or interior housing condition when either was so severe that more than minor repair would be required to put the house into a non-deteriorated condition. Minor deterioration involved only minor repairs or minor maintenance. No deterioration was assigned when the house was in good condition and did not need obvious repairs.

Approximately 29 percent of the houses needed extensive repairs of both the exterior and interior. Over 59 percent of all houses needed minor repairs of the exterior, and over 57 percent needed minor repairs of the interior. Approximately 12 percent needed no exterior repairs, and over 14 percent needed no interior repairs.

A large difference in housing deterioration existed among the three types of social mobility. Over 55 percent of the downward mobile houses were classified as showing extensive exterior deterioration, while less than 8 percent of the upward mobile homes displayed similar deterioration.

Interior deterioration differences were even more pronounced; nearly 58 percent of the downward mobile homes needed extensive repair work but only 2.6 percent of the homes in the upward mobile group needed similar repairs. Twenty-nine percent of the upward mobile homes manifested no exterior or interior deterioration as compared to 8 percent of the stable homes showing no exterior deterioration, and 12 percent showing no interior deterioration. All the homes in the downward mobile group exhibited exterior deterioration and 97.4 percent demonstrated evidence

of interior deterioration.

The number of rooms in each house by type of mobility is shown in Table 26. The size of the houses ranged from one room to seven rooms. The average number of rooms for all groups was four. However, 52 percent of the homes in the upward group and 48 percent in the stable group had five or more rooms. On the other hand, only 18.4 percent of the houses in the downward group had more than four rooms and approximately 51 percent contained less than four rooms.

TABLE 26

NUMBER OF ROOMS IN EACH HOUSE

| Number of rooms | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Six or more | 26.3 | 20.0 | 7.9 | 18.3 |
| Five | 26.3 | 28.0 | 10.5 | 22.2 |
| Four | 36.9 | 30.0 | 31.6 | 32.5 |
| Three | 10.5 | 10.0 | 34.2 | 17.4 |
| Two | .. | 10.0 | 5.3 | 5.6 |
| One | .. | 2.0 | 7.9 | 3.2 |
| Unknown | .. | .. | 2.6 | .8 |

The number of bedroom per house by mobility type is shown in Table 27. The number of bedrooms ranged from one to four. Approximately 50 percent of all the homes contained two bedrooms. Over 34 percent of the upward mobile and 24 percent of the homes of the stable group contained three or more bedrooms. In the downward group, however, only 5.3

TABLE 27

NUMBER OF BEDROOMS IN EACH HOUSE

| Number | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Three or more | 34.2 | 24.0 | 7.9 | 22.2 |
| Two | 52.6 | 50.0 | 44.7 | 49.2 |
| One | 13.2 | 24.0 | 36.9 | 24.6 |
| None | .. | 2.0 | 10.5 | 4.0 |

percent of the houses contained three bedrooms or more. Approximately 25 percent of the houses had only one bedroom. This number was highest in the downward group in which 36.9 percent had one bedroom and 10.5 percent had no bedroom.

The size of each house, expressed in square feet, was estimated by the interviewer at the time of the completion of the questionnaire. Table 28 shows the results of these estimates. The household size ranged from 60 square feet to 1100 square feet of floor space. One in every three houses contained between 400 and 600 square feet, and 31 percent fell in the 600 to 800 square feet category. The smallest homes were found in the downward mobile group in which ten percent had less than 200 square feet.

Practically all of the houses, 96.0 percent, were residential single dwellings. Only 1.6 percent of the total was of mixed use and only 2.4 percent was double houses.

The houses were heated by space heaters; by central heat; or,

TABLE 28

SIZE OF HOMES

| In Square Feet | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Over 800 | 23.7 | 12.0 | .. | 11.9 |
| 600 to 800 | 44.7 | 28.0 | 21.1 | 31.0 |
| 400 to 600 | 23.7 | 40.0 | 34.2 | 33.3 |
| 200 to 400 | 7.9 | 14.0 | 34.2 | 18.2 |
| Under 200 | .. | 6.0 | 10.5 | 5.6 |

as in one instance, by a wood burning stove. Over 91 percent of the homes were heated with space heaters, the large majority of which were unvented. Central heat was used in only 6.3 percent of the dwelling units; the highest rate, 15.8 percent, was in the upward mobile group, four percent in the stable group, and none in the downward mobile group. One household in the downward group used wood for heat and one other respondent in this group stated that he had no type of heating facility inside his trailer house.

Table 29 shows the number of houses on paved streets, the number with street lights, the number near a railroad track, and the number that were landscaped. Approximately two out of every three houses were located on a paved street, and over 61 percent had street lights. Over 36 percent were near a railroad track and 12.7 percent were landscaped. Most of the houses of the downwardly mobile respondents were located on unpaved streets, lacked street lights, were located near a railroad

TABLE 29

NEIGHBORHOOD CHARACTERISTICS

| Characteristic | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Paved street | 63.1 | 70.0 | 57.8 | 64.3 |
| Street lights | 71.1 | 62.0 | 52.6 | 61.9 |
| Near railroad | 26.3 | 38.0 | 44.7 | 36.5 |
| Landscaped premises | 13.1 | 18.0 | 5.3 | 12.7 |

track, and did not have landscaped premises.

One of the questions asked on the survey was whether or not the residents had a problem with rodents and cockroaches, and whether they used pesticides. Results of this question are shown in Table 30. Practically all of the rodent problems were caused by house mice and little difference in degree of occurrence existed among the mobility groups. Most people stated they were bothered in the fall when cold weather began and practically all stated that they had used mouse traps or poisons to try to control the problem. Approximately six out of every ten households interviewed complained of problems with cockroaches. Although no attempts were made to determine the species of cockroaches at the households most of the people reported small cockroaches. On several occasions the interviewer saw brown-banded cockroaches, Supella supellectilium, in the house during the interview. The use of household pesticides was common in all groups. Sixty eight percent of the people in the stable

TABLE 30

INFESTATIONS OF RODENTS AND COCKROACHES AND NUMBER OF PEOPLE USING PESTICIDES

| Item | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Rodents | 36.8 | 44.0 | 44.7 | 41.3 |
| Cockroaches | 52.6 | 68.0 | 55.2 | 59.5 |
| Use of pesticides | 71.1 | 88.0 | 76.3 | 79.4 |

group reported problems with cockroaches. Many people complained of the roach infestation becoming heaviest after adjacent families moved, or when a house was vacated following condemnation. Some also complained of periodic reinfestations in groceries purchased from grocery stores.

Only two of the 126 families interviewed lived in houses that were not equipped with refrigerators. Only one house was without electrical power, a situation brought about by the failure of the occupant to pay his bill. More than 92 percent of the houses were equipped with hot water, bath, and a kitchen sink. All houses in the upward mobile group had all of these facilities. Approximately 81 percent of the houses in the downward mobile group had a bath and kitchen sink and 84.2 percent had hot water.

Keeping animals in residential zones is often a source of insects and rodents and of other nuisances. Therefore, the types of animals on each premises were recorded. The types of animals ranged from horses, kept by two families, to dogs, kept by 56.4 percent of the families.

Over 16 percent of the families raised chickens, but only one flock was found being kept by an upward mobile family. There were two families who kept flocks of fighting roosters for sport. Single families also kept rabbits, goats, and cattle. Several people, 12.7 percent, kept cats. Among the residents of the area were several retired farmers who said they liked to care for the animals.

The general appearance of the premises and the housekeeping practices on the inside of the house were rated as either good, fair, or poor. The criteria for the two types of observations were as follows: if the general appearance of the premises was neat and orderly it was rated as good; if it needed only the usual clean up that could be accomplished in a short period of time it was rated as fair; if it needed more than minor premises maintenance it was rated as poor. The inside of the house was rated by observing the general cleanliness and level of sanitation practiced inside the home. If the inside of the house was clean and neat and orderly it was rated as good; if it needed minor janitorial services it was rated as fair; if it needed more than this, such as a complete general cleaning, it was rated as poor.

The ratings assigned to the general appearance of the premises sanitation coincided with the rating assigned to the sanitation on the inside of the premises 80.9 percent of the time. The results of the ratings were similar the greatest number of times in the downward mobile group in which 89.4 percent of these observations were given the same ratings. Similar ratings were found in 72 percent of the stable and 84.2 percent of the upward mobile observations. In those ratings that were different, general appearance was rated lower on 14 occasions.

## Attitudes

A neighborhood is not apt to provide all the economic, social, cultural, or healthful aspects that might be desired by its residents. The attitudes of residents towards neighborhood problems and neighborhood improvement were also elicited.

Table 31 shows the types of neighborhood problems as viewed by the respondents by mobility groups. The fewest number of problems were designated by the respondents from downward mobile families. The greatest number of problems were perceived by the upward mobile group. The problems most frequently given were premises sanitation; alcohol, narcotics, glue sniffing; and social concerns. Problems of social concerns were mentioned most frequently by the downward group. These included problems immediate to the family such as obtaining better clothing for children, haircuts for boys, necessary drugs, better housing, and an improved source of food over that of county-distributed commodities. The upward mobile and stable groups saw premises sanitation as their major problem, such as cleaning up the neighborhood, or tearing down condemned vacant houses, or cutting of weeds on adjacent properties.

Most people viewed the widening and paving of Villa Street, the major thoroughfare in the neighborhood, as an important sign of the neighborhood's importance in the community, yet, several people viewed this as a neighborhood problem. The need for stop lights at major intersections and more stop signs in the vicinity of the school were cited as items of utmost importance to the neighborhood.

Table 32 summarizes the attitudes of the respondents toward air pollution and traffic problems. Over 28 percent of the householders

TABLE 31

RESPONDENTS' VIEWS ON TYPES OF NEIGHBORHOOD PROBLEMS

| Problem | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward N= | Stable N= | Downward N= | Total N= |
| Alcohol, narcotics glue sniffing | 7 | 10 | 3 | 20 |
| Lack of paved streets, stop lights, or street lights | 7 | 3 | 2 | 12 |
| Premises sanitation | 12 | 12 | 3 | 27 |
| Liquid wastes | 6 | 2 | 1 | 9 |
| Animals and vectors | 4 | 2 | 2 | 8 |
| Social concerns | 8 | 5 | 7 | 20 |
| Other | 1 | 2 | 2 | 5 |
| Total | 45 | 36 | 20 | 101 |

TABLE 32

ATTITUDES ON AIR POLLUTION AND TRAFFIC PROBLEMS

| Problem | Type of Social Mobility | | | |
|---|---|---|---|---|
| | Upward % | Stable % | Downward % | Total % |
| Air pollution | 42.1 | 34.0 | 7.9 | 28.6 |
| Traffic | 21.1 | 22.0 | 10.5 | 18.3 |

believed they had an air pollution problem and 18.3 percent believed traffic was a problem in their neighborhood. The upward mobile and stable groups complained of these two problems more often than did the downward mobile group. Over 42 percent of the upward mobile group stated air pollution was a problem and only 7.9 percent of the downward group thought it was a problem. The overwhelming majority of those who complained of air pollution named "Packing Town", an adjacent meat packing area, as the primary source of air pollution in the neighborhood. However, one respondent complained of exhaust fumes from a new interstate road and three complained of weed pollens. Most of those who complained of traffic believed the dust from unpaved streets was a serious hazard. Others stated the excessive speed of cars in front of their houses was dangerous to the inhabitants of the neighborhood.

Approximately 58 percent of all families believed the health department should do more for their neighborhood. In the upward mobile group, 68.6 percent; in the stable group, 52.0 percent; and in the downward mobile group, 55.2 percent, of the respondents believed the health department should do more than it has in the past. The upward mobile group also had the highest percentage, 47.3, who believed there was a special health problem in the neighborhood that needed to be corrected. Over 18.4 percent in the downward mobile group and 24.0 percent in the stable group wanted improvements made.

A total of 96 items were named by the respondents as problems they believed the health department should be working on. The downward mobile group gave 23 items; the stable group, 37; and the upward mobile group, 26. Over half of the responses concerned premises sanitation

such as weed control, removal of rubble, and tearning down of condemned houses. Nine respondents also believed privies and septic tanks were problems. Eight householders believed the health department should enforce animal shelter ordinances and spray to control mosquitoes. Several persons were critical of the health department's laxity in enforcement of ordinances pertaining to the removal of condemned houses and to the maintenance of premises sanitation in the area.

Thirteen respondents believed the health department should do more in the field of social concerns. Over half of these respondents were in the downward mobile group. Only three respondents considered problems of alcohol, narcotics, or glue sniffing to be the concern of the health department. On the other hand, four people thought the health department should do something about installing needed street lights or repairing of streets.

Almost nine out of every ten families interviewed were satisfied with the present refuse collection services. Those who were dissatisfied stated that the refuse collectors spilled refuse and failed to clean up the spillage. Two respondents stated it cost too much, and two complained of the collectors failure to replace lids on the containers. There was no provision for removal of rubble on a scheduled basis, however, and not one single family mentioned this as being desirable.

The City Sanitation Department and the City Health Department, in cooperation with the local neighborhood council, had promoted an annual clean-up-program to rid the neighborhood of trash and rubble. During 1966, over 59 percent of the families participated. The greatest

degree of cooperation was from the downward mobile group -- 65.8 percent, followed by 63.2 percent of the upward mobile group and 52 percent of the stable group.

# CHAPTER IV

## DISCUSSION OF THE SURVEY RESULTS

All but ten of the 126 household heads interviewed in Mark Twain Neighborhood were born outside of Oklahoma City. They migrated to the city from fourteen surrounding states; and 60 percent came from farms and other communities in Oklahoma. They eventually located in the neighborhood because the location was convenient to downtown jobs and was economically suited to their income.

Although a few new families still move into the area, most of the migration has been within the neighborhood. Herman R. Lantz and Richard H. Willis (16) noted that an individual may experience the effects of geographical mobility while remaining in one place, if large numbers of others move in or out around an individual, changing the nature of the individual's social environment. This type of change was going on constantly in the neighborhood, as shown by the fact that every third family had lived at its present address less than two years and one of every five families had moved during the past year. The greatest movement occurred in the center of the neighborhood with the perimeter area displaying a greater stability.

Full employment by the household head was of primary importance if the family was to experience upward mobility. Full employment was highest among the younger men and lowest among the older and the

disabled household heads. This followed the usual pattern for this type neighborhood where the greatest earning power is among the younger, physically healthy men. As the household head grows older he may lose his job to a younger person in better physical condition. The older, disabled men usually receive some type of disability or social security payment.

Since many of the jobs were either common labor or semi-skilled, good physical health was of utmost importance. One of the early physical ailments noted in the working group was various types of back aggravations.

Health problems and lack of health care were common throughout the neighborhood. They appeared to start among the very young, with one out of every three families neglecting the complete immunizations of their children, even though free clinics offering immunizations were located in the neighborhood. In the younger working group, accidents and back injuries, especially in the upward mobile group, were prevalent.

If an accident or injury were serious enough, the household head could lose his job, his prestige, and resort to using alcohol excessively. For example, a single 51-year-old man with an eighth-grade education had driven a truck for a number of years. One evening during the winter of 1964 he loaded his truck with wallboard and started to deliver it to a job outside of the city limits. His truck broke down and, seeing a service station ahead, he started to walk to it -- only to find the station was closed. On his way back to the truck he was apprehended by five men, robbed, severely beaten, and left to die. At

the time of the study, over two and one-half years and several operations later, he lived alone, practically blind, and penniless. He said he had little hope for the future and was now a confirmed alcoholic.

Most of the alcoholics noted in this study were single men over fifty. Alcoholism and chronic and cardiovascular diseases were highest in the downward mobile group in which nearly eight out of ten household heads had some type of physical impairment.

Little value was given to education by most neighborhood residents as evidenced by the fact that over 16 percent of the downward group respondents did not know the highest school year completed by the household head, and two of every three respondents did not know the education of the household head's father. Only one family mentioned that a household head was trying to further his education and, in this case, it was a 22-year-old man with an ulcer. Seven out of every ten family heads had less than a ninth-grade education and four out of every ten had obtained no higher than a sixth-grade education. The younger people were better educated than the older, and the upward mobile group, being a younger age group, was the best educated of all.

Education, however, does not necessarily guarantee full employment and status in the neighborhood, as evidenced by the educational achievements of some of the downwardly mobile respondents. An unmarried, 57 year old, recluse lived in a trailer which he shared with his five dogs. During the Second World War he purchased the four lots on which he lived for a cost of $400. These lots were formerly the bed of the old Canadian River Channel before the 1923 flood in the neighborhood. He completed the second year of college in 1928, at the age of 20, and

then worked as a job press feeder until 1946. The highest salary he ever achieved was $34.00 a week. Since 1946 he has been delivering hand bills and has done a little yard work. At the time of the field study he lived in a trailer without a single modern convenience and cooked on two 55-gallon drums located in the yard. On the day of the interview he was reading the latest edition of the New York Times. His attitude toward public health people was rather negative, primarily because he was taken to court three years ago for maintaining rodent harborage on his property. He stated that the health department should leave poor people alone and let them live their own lives.

The level of immunizations in children under five years of age, although based on a small sample, suggested that children in the downward mobile group received fewer immunizations than children in either the stable or upward mobile groups. On the other hand, the household heads in the downward group consulted a doctor more frequently than their upward mobile or stable counterparts. This may have been partially due to the fact that a higher percentage of downward mobile people represented an average older age and therefore are more apt to be sick and bedridden. Also the downward mobile group had a higher number of disabled household heads.

The questions regarding medical care indicated that the downward mobile household head was more inclined to obtain a complete physical including a chest x-ray, tuberculosis test, and diabetes test than was his upward mobile or stable counterparts. However, less than half as many downward mobile families had a family doctor as did the upward mobile and stable families. Dental and eye care was extremely poor in all three mobility groups.

Health insurance coverage, with the exception of Medicare, was much lower in the downward mobile group than in either the upward mobile or stable groups. This may be because many of the families in downward mobile groups qualified for indigent care in hospitals and clinics and thus, were free of the concern of costs; and, because many were in this group as a result of illness, a much higher percentage needed and received medical care than in groups where the need was less but individuals nevertheless must pay for their treatment.

Charles Kadushin (17), concluded that lower classes are no more likely than the middle class to have a disease or condition, but that they react more violently to it and are more concerned about it. This may be the case in a family selected as typical of the downward mobile group. This family had three members: the husband was 44 years old, the wife 39, and a son 13.

The husband, as many of the residents of Mark Twain Neighborhood, was born in a small town in Oklahoma. He had quit school in the seventh grade. Later, at the age of 22, he, and his wife, migrated to Oklahoma City. Later in 1957 they moved to Mark Twain Neighborhood. At the time of the study he had lived at the present location for slightly more than one year. His occupation for nineteen years had been working at odd jobs and salvaging. He had worked on a farm prior to coming to Oklahoma City.

His house was typical in size of the average house in the neighborhood. It had four rooms, two of which were bedrooms. It had a refrigerator; hot water, and bath. The house was connected to city water and a septic tank. The premises were kept extremely poor -- refuse

storage was poor, and temporary mosquito breeding sources and rodent harborage were evident. Mice periodically invaded the dwelling.

The family belonged to a neighborhood church and attended about once a month. They did not visit with relatives, but visited weekly with friends in the neighborhood. They did not have a vacation the past year. The only animals they kept on the property were two dogs.

The health care of the family was fairly typical of the downward mobile group. The son had full polio protection and the husband and wife had none. All three had a smallpox vaccination at some time in their lives. The wife did not know if the son had ever had a DPT immunization. During the past year, neither the wife nor son had seen a physician or a dentist. On the other hand, the husband had a complete physical examination, had been treated by a dentist, had been tested for diabetes, and had missed work due to illness. The household head was unemployed and was not looking for a job, but was looking forward to being placed on a welfare disability roll. He claimed he was unable to work because of severe pains in his leg. The wife had worked for sixty cents an hour until she became ill and, at the time of the study, the family had no source of income.

The family's chief concern was the immediate need for money and they believed that, if the husband were placed on the disability roll, this need would be relieved. They listed their immediate needs as clothing and shoes for the boy to wear to school; haircuts for the boy and father; and better food.

The wife had a bright outlook toward the future. The husband was rather bitter and did not believe he was retrainable for a job. In

many aspects this family typified the average downward mobile group. The biggest difference was that they were younger than the average.

People living in Mark Twain Neighborhood spent much of their time visiting. Approximately six out of every ten had relatives in the neighborhood and the large majority of these families visited each other weekly. However, if the downward mobile residents had relatives living in another area of the city visiting was usually infrequent. The best friends of nearly six out of every ten families lived in the same neighborhood and 70 percent of these visited each other weekly. Through these visits, news about the neighborhood traveled rapidly -- a key factor in facilitating the completion of interviews after the first few days of this study. Charles Abrams (18) in his book, Man's Struggle for Shelter, noted that a large group of houses can make a neighborhood if the people who live there bring to it the elements of intimate association and a unity of interest.

Two out of every three families did all their shopping at neighborhood stores. Although several people belonged to a church, the main social life was through visiting with relatives or neighbors. Social contacts at churches or lodges, etc., played secondary roles in the community interaction.

Nearly half of the upward mobile group took a vacation during 1966. In the downward mobile group, due to age, illness, and lack of money, only one out of four families vacationed during the year and most of these spent their time visiting relatives in other communities in Oklahoma.

The building of new, and maintenance of old, housing to satisfy

the increasing population is one of the greatest world-wide needs. Bernard J. Friedan (19) in his book, The Future of Old Neighborhoods, stated, "Housing in the declining areas is by no means uniformly sub-standard. Many of the structures do not conform to the taste of the middle class today, but only a small proportion are seriously deteriorated or lack basic facilities. Moreover, much of the old housing has been improved."

In 1963, the Oklahoma County Health Department conducted an exterior housing survey in the Mark Twain Neighborhood and reported that 13 percent of the houses were sound, 44 percent were deteriorating, and 43 percent were dilapidated. The results of the present study in which housing was classified from both an interior and exterior evaluation indicated that there had been a slight improvement in the overall housing in the area, since 12 percent were rated as good or sound, 59 percent as fair or deteriorating, and 29 percent as poor or dilapidated. The average size, four-room house had two bedrooms and contained 400 to 600 square feet of floor space. Practically all the homes had basic facilities: three out of every five were serviced by sewer, only five used privies, all but six were on city water, and all but one had electricity.

A serious hazard was the lack of venting of space heaters in most houses in the neighborhood. Victor Ehlers and Ernest Steel (20) noted, "The increased use of natural and artificial gas for heating purposes has developed a hazard which has frequently resulted in deaths. Carbon monoxide poisoning from gas heating appliances is generally due to unvented appliances (space heaters and hot water heaters), and to lack of sufficient make-up air to support combustion and life. The danger is increased by the fact that carbon monoxide is odorless and

nonirritating." Prevention of poisoning may be accomplished by simple precautions such as proper venting of flues to carry off the products of combustion. The improper venting of gas space heaters in homes interviewed was a real problem in Mark Twain Neighborhood. Over 91 percent of the homes used space heaters and none were observed to be properly vented.

Although refuse (garbage and trash) collection had been obtained for almost all the people in the neighborhood, problems caused by refuse was still one of the major problems according to the people who lived there. Ironically, the people had become accustomed, through the combined efforts of the health and sanitation departments, to looking forward to annual or semi-annual clean-up programs instead of scheduled rubble collection programs. It was evident that much had probably been achieved through the clean-up programs in the past, nevertheless, much apparently remains to be done in the future to completely eliminate this problem. Clean-up programs were never meant to be an end in themselves, but are only an intermediate step until total refuse removal can be achieved. The lack of a total refuse improvement program was also evidenced by the fact that less than half of the families had approved refuse storage containers; eight of every ten had potential temporary mosquito breeding sources; and approximately eight of every ten had rodent harborage. Although most of the families felt that much had been done, many also felt that more should and could be accomplished.

Six of every ten houses had roaches and four of every ten had mice, this was not perceived as a major problem to the respondents. Most people used pesticides spasmodically to control them. If the

infestation increased many said a professional exterminator might be called to control the situation. Many people believed they received reinfestations of roaches from groceries purchased at neighborhood stores.

The ecology of an intergenerationally stable family was displayed by the following: Mr. Doe was born on a farm in Wise County, Texas, in 1892. Shortly after the turn of the century his father decided to move to Oklahoma's newly opened territory. He settled on a farm near Pauls Valley, Oklahoma. There Mr. Doe grew to manhood, worked on a small farm, married, and reared a family of several children. Although he and his wife never had much money, they were able to give their children a better education than they, themselves, had obtained. In 1952, at the age of 60, Mr. Doe and his wife moved to Oklahoma City. They bought a four room, two-bedroom house in Mark Twain Neighborhood and paid for it with their savings. The first few years they raised a garden to help supplement their small income, but gradually they gave up this practice because the garden grew poorly and the cost of watering the plants made the endeavor unfeasible.

The family had lived on an income of approximately $140.00 a month since 1957. This income was higher than most of the retired persons in the area and was provided by three sources: from survivor's benefits from two sons killed in military service and from social security. At the age of 72 Mr. Doe suffered a severe stroke and, last year, he broke his hip in a fall. In both cases he was hospitalized. The family had no family doctor and did not belong to any neighborhood organizations. Most of their days were spent watching television; however,

in 1966 they enjoyed a short vacation with a daughter and her family in a neighboring state. The had no car and purchased all their groceries from a small store across the street from where they lived.

Their youngest son, born in 1922, had a harelip that had not yet been corrected. He quit school in the eleventh grade, after having obtained four years more formal education than his father and eleven years more formal education than his grandfather. However, as his mother said, "He and his family have a much harder time of making ends meet than we ever did."

In 1950, at the age of 28, he married a 15 year old girl and two years later they followed his parents to Oklahoma City. He and his wife had five children and, in 1964, they built a small three-bedroom house on the back of his father's lot.

Since 1960, a typical day in the household usually finds him returning from his swing-shift job in a commissary at about 7:15 in the morning. His wife leaves for work approximately 45 minutes later, and he retires as soon as the children leave for school. The youngest child, who was three at the time of the study, had adjusted to this situation and divided his time both at home and with the grandparents. Both parents had to work to make the payments of seventy dollars a month for the house, taxes, and insurance, and to provide for other budgetary items.

The oldest boy, who was 17, joined the military service in 1966. A second boy, who was 15, was in the 10th grade. When the younger of the two boys was 13 years old his parents noted an odd behavior and his mother began to suspect that something was wrong. She could smell

an odd, almost pungent, odor on his breath. His 13-and 14-year old friends also reeked of the odor. Although both she and her husband talked to him they were unable to make him quit using model glue as a means of feeling high. One school day in October 1965, they received a call from the Oklahoma City Police Department and were informed that their son had been arrested and taken to juvenile court where he was being held for questioning. Although they both thought the boy was in school that day, he had skipped school with a couple of his friends and had gone to one of the vacant houses in the neighborhood to sniff glue. A few days later his parents attended juvenile court and heard the judge sentence the boy to eight months in the juvenile home. Upon completing the sentence and the ninth grade, simultaneously in 1966, he returned to his home. He had adjusted fairly well and apparently was able to sustain from using the glue.

Several people who were interviewed mentioned the problem of glue sniffing, alcohol, and narcotics in the neighborhood and believed glue sniffing was the most important neighborhood problem.

A young housewife, whom the writer was interviewing, related the problems of alcohol, glue sniffing, and the use of narcotics in the area. She stated that narcotics had been a problem ever since she was a child. When she was 15 she had been awakened from her sleep and saw a neighborhood addict standing over her father and mother's bed with a club. She stated that the main problem was with 9 - to 25 - year olds -- a story that was repeated on several other occasions during the study. The problem was greatest near the small business center close to the school and the geographic center of the area. Nineteen other people

believed these three items were problems in the neighborhood second only to premises sanitation. Although most people recognized the seriousness of the problem, little had been done to correct its causes.

The attitudes and types of problems of neighborhood residents varied according to where respondents lived in the neighborhood. Those who lived on the perimeter were more concerned about excessive weed growth as fire hazards and as a source of hay fever. They also stated they had a severe problem with mosquitoes and usually attributed the condition to the unfilled creek bed. As one proceeded toward the main business portion of the neighborhood, traffic; alcoholism; narcotics; and glue sniffing were listed as the major problems. Many people saw these problems as stemming from neighborhood beer taverns, the sale of alcohol from a liquor store, and the use of narcotics in a home in the same area. Glue sniffing was more frequently associated with non-supervised youth activities following supervised activities at a neighborhood recreation center.

Almost six out of every ten families believed the health department should expand its activities in the neighborhood; however, less than one of four of these families perceived the health department's role in activities other than environmental health problems. In general, most of Mark Twain Neighborhood's residents believed the area was a better place to live and held an important place in the future of the community.

# CHAPTER V

## CONCLUSIONS

The first hypothesis states that a family experiencing downward mobility does less about family health care than a family in the same social class experiencing upward mobility or who are stable.

The levels of immunizations in children under five years of age, although based on a small sample, suggested that children in downward mobile families receive fewer immunizations than children in stable and upward mobile families. Household heads of downward mobile families receive more frequent medical care than their stable and upward mobile counterparts. Stable and upward mobile families are better insured than the downward mobile group. Although the answer to this hypothesis has not been conclusively proven evidence indicated that the downward mobile family had more extensive health care for the household head. This fact may have been because he suffered from physical or psychosomatic ailments and thus required remedial care. Also under past policies for medical aid perhaps it was more available to the lowest socioeconomic group. To the contrary, preventive care such as childhood immunizations and adequate health insurance were higher in the stable and upward mobile groups.

The second hypothesis states that a geographically mobile family in a low socioeconomic neighborhood has poorer medical care and

practices poorer environmental sanitation than its nonmobile neighbors.

Since only ten of the 126 household heads were nonmobile, no conclusions could be reached to substantiate this hypothesis.

The third hypothesis states that families in low socioeconomic neighborhoods who practice poor exterior premises sanitation maintain poor housekeeping practices inside their homes under single family housing conditions.

The ratings assigned to the general premises appearance and to the housekeeping practices were the same in 102 of the 126 ratings. Therefore, this hypothesis was believed to be generally true.

The fourth hypothesis states that after the people in a low socioeconomic neighborhood have undergone an intensive health motivation program, upward mobile, stable, and downward mobile citizens' attitudes toward other neighborhood problems result in corrective actions. The attitudes of the three social groups toward environmental sanitation such as clean-up programs, participation in improved refuse collection, and removal of privies from the neighborhood had resulted in corrective action. This was mainly due to professional leadership working with the local neighborhood leaders. Similarly, immunization clinics had been realized through like mechanisms. On the other hand, in problem areas where no or limited professional guidance existed, little had been accomplished. The downward mobile group was more concerned with the basic necessities of life: food, shelter, drugs, etc.; and they did not become concerned with other neighborhood problems until these basic wants were satisfied. Based on these data this hypothesis was generally believed to be untrue unless basic family needs were

satisfied and professional leadership was available.

The fifth hypothesis states that citizens in the three subgroups in a low socioeconomic neighborhood who have been exposed to neighborhood clean-up and immunization programs have changed attitudes toward public health as evidenced by: (1) maintenance of high immunization levels, (2) clean exterior premises, (3) regular physical examinations, (4) proper storage of refuse, and (5) favorable attitudes toward the health department. The findings indicated this hypothesis was true; different attitudes prevailed among social mobility groups. Fairly high immunization levels against polio and DPT were maintained by all three groups, but they were highest in the upward and downward mobile groups. The downward mobile group had the dirtiest premises, and were the least concerned about keeping them clean. The upward mobile group, on the other hand, maintained the cleanest premises and were most aware of the failure of other people in the neighborhood to keep their premises as clean as their own. The downward mobile group maintained the highest number of complete annual physicals, a situation that may have happened only because they had more physical ailments and also received indigent care. Whether the downward mobile who are physically fit also obtained more frequent complete physicals is not known. The proper storage of refuse was highest in the upward group, but it was not considered by the neighborhood residents as an important item as shown by the fact that only 60 percent maintained adequate storage. The attitudes toward the health department in general were favorable in all groups, unfavorable attitudes existed in the households that had been ordered to repair homes, those who had been taken to court, or who had reported violations only to receive no help from the health department in correcting them. Most

of the attitudes, either positive or negative, toward the health department had resulted from environmental health activities.

The sixth hypothesis states that low socioeconomic neighborhood citizens who participate in health improvement programs have more interaction within the neighborhood than those citizens who do not participate in neighborhood programs.

More than 59 percent of Mark Twain Neighborhood families participated in the annual clean-up program. The activity in the neighborhood was measured by placing any family that belonged to and attended the meetings of any organization as being active in the neighborhood. To the contrary, anyone who did not belong to an organization was listed as inactive. Approximately 64 percent of the families that participated in the clean-up program belonged and were active in an organization. The other 36 percent of the families that participated in the clean-up program were not active and did not belong to any organization. This indicated, but was not conclusive, that citizens who participated in the neighborhood clean-up program had more interaction within the neighborhood than their neighbors who did not participate.

In addition to the aforementioned hypotheses an evaluation was made of the five objectives of the neighborhood health program. The first objective of this program was to obtain garbage collection services for all households in the area. The results of this study revealed that only two of the 126 household heads did not subscribe to garbage collection; only 11 of the respondents were dissatisfied with the garbage collection service. Their complaints were as follows: the collectors did not replace the lids on the containers; the collection

service was too expensive, a charge of $2.50 per month was added to the water bill; the collectors did not clean up the material they spilled; the collectors failed to collect on a scheduled basis; and the collections were too infrequent. Since over 98 percent of the householders subscribed to refuse service this objective obviously had been reached.

The second objective was to eliminate all privies in the area. Only five of the 126 households still used privies. In the 1963 health survey of the neighborhood conducted by the health department, 17 percent of the homes in the entire neighborhood were listed as having privies; however, the number actually in use was not noted. This was, nevertheless, a 13 percent reduction in the number of privies in the area. The second objective had been reached in over 75 percent of the cases.

The third objective was to fill or drain an old river bed which has been in the area since the Canadian River developed another channel during the 1923 flood. Although homes had been built on fill material placed on the old river bed, several portions remained unfilled and collected water to become sources of mosquito breeding. Much of the unfilled river bed was used as a rubble dump. In 1963, the health and sanitation departments cleaned it out. The neighborhood citizens council had hoped to have it filled. Four years later, it still had not been filled and in some areas it was again being used as the final resting place for tires, broken glass, and brush materials. Several people on the perimeter of the neighborhood complained of the mosquitoes produced in the creek area. Obviously, the objective of filling the river bed had not been reached.

The fourth objective was, that the health department, in conjunction with the citizens council, wished to demolish all condemned houses that were unfit for human habitation. During the present study, one of the chief complaints about the health department had been that it had not followed through in eliminating the condemned houses. During the course of this study four condemned houses were removed from the area; one formerly condemned house was reoccupied without its having been brought up to the acceptable standard. At least 28 vacant, dilapidated houses still remained in the neighborhood. They might become sources of vandalism; high vegetative growth around them provided serious fire hazards to the neighborhood; and several were used by residents to house animals such as horses and cattle.

The fifth objective was to raise polio and DPT immunization levels in children. In 1963, the health department's immunization survey listed protection against polio in children under five to be 60 percent. Results of the present study indicated this to be 72.8 percent, an increase of 12.8 percent. Immunization against DPT was listed as 78 percent in 1963 and as 81.3 percent in the present study. Twenty-eight percent were immunized against smallpox in 1963 and 32.2 percent in the present survey. These figures indicated that with the exception of the slight increase in polio immunizations, the health department had only maintained its 1963 levels in spite of the fact that several free clinics were being held in the neighborhood. Of significance was the fact that several children under two years of age had no immunization protection. Some families were not concerned about immunizations. The highest number of non-immunized families existed in the downward mobile

group; therefore, a concentrated effort should be made to reach families with small children in this group to increase the number of immunizations. Immunizations for measles and smallpox were so low that the total population needed to be reached to improve their levels. Although much had been done to reach the 1963 objectives, much remained to be done to completely achieve the goals of the committee.

# CHAPTER VI

## SUMMARY

A study was conducted to establish whether a low socioeconomic neighborhood could be divided into ecological subgroups and to determine if ecological factors and attitudes toward health in these subgroups were different. The household heads who were interviewed were placed into three subgroups: upward, stable, and downward mobile. The mobility was based on education, occupation, interaction, and housing type and style of life. Six working hypotheses were tested. In addition to testing the six hypotheses, the results of a neighborhood health program that had been conducted by the Oklahoma City Health Department was evaluated.

A questionnaire was used to interview 126 families of the Mark Twain Neighborhood in Oklahoma City during January - February, 1967. It contained questions in the following categories: education, occupational and geographical mobility, immunization status, disease history, and health insurance practices, interaction, environmental sanitation, and attitudes toward health care and neighborhood problems.

Results of the research indicate that a family experiencing downward mobility has better health care for the household head. To the contrary, preventive care such as childhood immunizations and adequate health insurance is higher in the stable and upward mobile groups.

Since only ten of the 126 household heads were nonmobile, no conclusions could be reached to substantiate the hypothesis which states that a geographically mobile family in a low socioeconomic neighborhood has less medical care and lower standard of environmental sanitation than its nonmobile neighbors.

The hypothesis stating that families in low socioeconomic neighborhoods who practice poor exterior premises sanitation maintain poor housekeeping practices inside their homes based on single family dwellings was found to be generally true since 102 of the 126 ratings were the same.

The hypothesis stating that the attitudes of citizens who have undergone an intensive health motivation program produce corrective action, is true only to the extent that professional leadership is available to work with local neighborhood leaders. The downward mobile families are concerned with the basic necessities of life and they do not become concerned with other neighborhood problems until these basic wants are satisfied.

A fifth hypothesis stating that citizens in a low socioeconomic neighborhood who have been exposed to a neighborhood action program have changed attitudes toward public health as evidenced by maintenance of high immunization levels, clean exterior premises, regular physicals, proper refuse storage, and favorable attitudes was found to be partially true. The attitudes, as evidenced by corrective action, varied among the three mobility groups. The upward group was most concerned about environmental sanitation; the downward mobile group was the least concerned about it, although its members had the greatest environmental

problems. The downward mobile group maintained the highest number of complete annual physical examinations. The attitudes toward the health department were poorest in the households that had been ordered to correct environmental sanitation deficiencies.

The sixth hypothesis states that low socioeconomic citizens who participate in improvement programs have more interaction within the neighborhood. Since two of every three families that participated in the annual clean-up programs belonged to an organization, the data indicated that this hypothesis was generally true.

In addition to the hypotheses, an evaluation was made of the five objectives of the neighborhood health program. Results of this evaluation indicated that the first objective, obtaining garbage collection for all households in the area, had been reached. The second objective, to eliminate all privies in the area, had been reached in 75 percent of the cases. The third objective, to fill or drain an old river bed in the area, had not been reached. The fourth objective, to demolish all condemned houses in the area, had only partially been reached. The fifth objective, to raise polio and DPT immunizations levels in children, had been partially reached. The number of polio immunizations had been increased over 12 percent and the number of DPT immunizations over 3 percent.

This study used a combined environmental and sociological approach to the health problems and attitudes of low socioeconomic neighborhoods. It is felt that such an approach is more valuable in assessing the complex interplay of behavior and attitudes which can be of practical value to health workers.

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# APPENDIX

Code_____ Telephone Number_____ Address_____

| Household Roster | Immunizations: Age | Sex | Polio | Smpx | Meas | DPT | Past Year History: A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | |

I. When was the last time the household head had a complete physical examination?_____.

II. Where does your family go to see the family doctor?_____.

III. For what reason did the household head go to the doctor the last time?_____.

IV. Do you ever use other health care?
____ Osteopath
____ Chiropractor
____ Optometrist
____ Christian Science Reader
____ Other

V. Do you have health insurance?
____ general; ____ surgical; ____ medical costs;
____ hospital; ____ Medi. care; ____loss of time.

Have you
A. seen a dr.?
B. had an operation?
C. a complete physical exam?
D. sick enough to stay in bed?
E. seen a dentist?
F. been sick and not go to the dr.?
G. been immunized?
H. had a tb x-ray?
I. had tb skin test?
J. had diabetes test?
K. or any family member missed work due to illness?

Mobility

Occupation of household head._____

Education of household head. Head's Father
___ postgraduate ___
___ college graduate___
___ college 1-3 yrs ___
___ high school gr ___
___ 10-11 years ___
___ 7-9 years ___
___ 0-6 years ___
___ unknown ___

Ethnic group_____

How long has household head held his present job?_____

What did he do prior to this job?_____

Where was the household head born?
City_____
State_____

How long has he lived at the present address?_____

Where has he lived during the previous ten years?_____

What is the household heads father's occupation?_____

Code_____, Address_____

## Interaction

___ Do you have TV set?
___ Do you own a car?

Where do you grocery shop?
___ Own neighborhood
___ Other

Did you go on a vacation this past year?
___ Yes
___ No
___ In state
___ Out of state

How often did you attend meetings of any of the following organizations this past year?

___ School
___ Lodge
___ Union
___ Church
___ Civic
___ Other

a-weekly
b-2/weeks
c-monthly
d-6-11 times yr.
e-2-5 times yr.
f-annually
g-less than annually

Where does best friend live?
___ Own neighborhood
___ Other area of city
___ Other city in state
___ Other state

How often do you visit closest friend?
___ Weekly
___ Every 2 weeks
___ Monthly
___ 6-11 times yr.
___ 2-5 times yr.
___ Annually
___ Less than annually
___ Do you have relatives in this neighborhood?
___ Do you have relatives elsewhere in city?
___ How often did you visit them during past year?
___ Weekly
___ 1-3 months
___ 4-6 months
___ 7-9 months
___ 10-12 months
___ none

## Environmental

Sewage disposal
___ Sewer
___ Septic tank
___ Privy
___ Other

Refuse
___ Good storage
___ Burned
___ Racks
___ Disposal
___ Garbage Wrapped

Water Supply
___ Municipal
___ Private
___ Semi-private

Mosquito Source
___ Temporary
___ Permanent

Rodent harborage
___ Rubble
___ Dilapidation

Who collects refuse?
_____

Frequency?
_____

General premise appearance
___ Good
___ Fair
___ Poor

___ Central heat
___ Space heat
___ Other
___ Refrigerator
___ Hot water
___ Bath
___ Kitchen sink
___ No. rooms
___ No. Bedrooms
___ Electricity
___ Shared facilities
___ Good hsekeep.
___ Rodent signs
___ Roach problem
___ Other vermin
___ Use pesticides
___ Residential
___ Classification
___ Single
___ Double
___ Multiple
___ Mixed

Interior deterior
___ Extensive
___ Minor
___ None

Exterior deterior
___ Extensive
___ Minor
___ None

___ Street paved
___ Street lights
___ near railroad
___ Air pollution
___ Traffic problem
___ Park nearby
___ Sidewalk
___ Premise landscaped
___ Animal shelter

_____
Sq. feet in house

Code_____ ATTITUDES

Address_____

What do you think are the three main problems your neighbors have?

_____

_____

_____

_____

Do you have any of these problems? /____/ Yes /____/ No

What are your major problems?_____

_____

_____

_____

Is there a special health problem in your neighborhood about which something should be done?_____

_____

_____

_____

Did you participate in the clean up program?_____

_____

_____

Are you satisfied with refuse collection in the area?_____

_____

Do you think the health department could do more to help this neighborhood? /____/ Yes /____/ No

What type of health department activity do you suggest?_____

_____

_____