PRIVATE MEDICAL PRACTICE IN AN URBAN SETTING

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by

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A C K N O W L E D G E M E N T S

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I. INTRODUCTION

Cities have always presented a critical challenge to American medicine. In recent years for the first time, medicine may be facing this challenge. The problems of our cities have special implications for the organization and utilization of medical care. Poverty, dispossession, alienation, and discrimination affect a doctor's ability to provide good medical care. Some people do not use available services as well as others do. Why? How effective are existing services? Do they need to be changed to meet new urban needs?

During the summer of 1964 I was a member of a team examining problems of medical care organization, under the direction of Dr. E. Richard Weinerman, which undertook a study of the Yale-New Haven Hospital Emergency Service.[1] The study was intended to pinpoint factors in the New Haven urban area and in the medical community that were causing a precipitous rise in Emergency Service use -- particularly for treatment of non-urgent complaints.

The results of the study indicated that the actions persons take when confronted with a medical problem are influenced by whether or not they have a "personal doctor". A significant correlation was revealed between lack of a personal physician and the use of the Emergency Service for non-urgent care. Indeed, whether or not someone had a personal doctor and possibly the nature of his relationship with that doctor seemed to influence every step toward

getting care.

What are the factors determining the existence and character of a doctor-patient relationship? How do elements such as the race, social class and geographic stability of an urban population affect the kind of medical care it receives? As cities in the United States, like New Haven, grow and their populations shift, how does the traditional pattern of delivering medical care -- through a private practitioner -- meet the challenges posed by these changes?

The major obstacle to a useful study of people and their doctors is how to select the people for the study. The time limitations inherent in a medical school doctoral thesis constituted an additional obstacle to the selection process and necessitated a shortcut. An available solution to the problem was Dr. Roy Acheson's Arthritis and Chronic Disease Survey,[2] which had already interviewed the residents of several New Haven areas selected to represent specific social class segments of the population. Data from the interviews included the name of each respondent's doctor as well as demographic information.

Doctor Acheson kindly consented to let my study become part of his Arthritis and Diabetes Survey. I was therefore able to interview the private doctors named by respondents about their relationships with the respondents, in addition to using data Acheson's group had gathered on the respondents themselves.

The thesis project was planned during the winter of 1964-65,

a series of protocols was refined, a literature search was undertaken, and I held conferences with Doctor Weinerman and Doctor Acheson. In February, 1965, a grant proposal for a summer fellowship was submitted to the Dean's Office of the Yale Medical School. With receipt of the fellowship, the project was truly launched.

I. REVIEW OF THE LITERATURE

Medical practice has been poorly investigated. Only during the last two decades, and then only within circumscribed areas, has there been a significant amount of research about the practice of medicine. The research has been peripheral, in a sense, striking at minor issues, and not providing useful images of the vast changes in American medicine since Flexner. These changes -- the decline of general practice, increasing specialization, group practice, salaried positions, and new payment plans -- have been described, proscribed, and prescribed for in general medical journals by some visionary observers of the medical scene.[3] Carefully researched outlines of these changes that might provide a basis for evaluating them and planning new programs of medical care seem conspicuously absent.

Most research on medical practice has taken one of three directions. First, there are the studies of the organization, distribution, and economics of medical practice. These books and articles have tried to sort out broad socio-economic and cultural factors

which have bearing on the practice of medicine.[4] (This is the approach most closely reflected in the present study.) Second, there are the sociological and psychological studies, usually directed at the doctor-patient relationship or the doctor's role in the medical setting.[5] Finally, there are two types of medical practice that have received special attention: general practice, particularly in Britain, and group practice.[6]

Among the many papers referred to above as concerned with research on the organization, distribution and economics of medical practice, a few which are particularly relevant to the issues in the present study should be considered in detail.

Hollingshead and Redlich's 1951 community study of mental illness[7] in New Haven successfully used social class as a variable in research on medical practice. They aimed to elicit the relationship of social class to mental illness and its treatment. When it was completed, the study had done four things: (1) taken a sample census of the general population; (2) taken a complete psychiatric patient census; (3) divided the general sample and the psychiatric patient population into social classes (they used a system -- Hollingshead's Index of Social Position -- based on ecological areas of residence, occupation and education); (4) collected specific information about the nature of psychiatric practice in New Haven.

The following hypotheses were confirmed:

> The prevalence of treated mental illness is related to an individual's position in the class structure.
>
> The types of diagnosed psychiatric disorders are connected significantly to the class structure.

> The kind of psychiatric treatment administered by psychiatrists is associated with the patient's position in the class structure.
>
> Social and psychodynamic factors in the development of psychiatric disorders are correlative to an individual's position in the class structure.
>
> Mobility in the class structure is associated with the development of psychiatric difficulties.[8]

Much to the credit of the authors is the great care they took to provide all the background necessary to study the hypotheses and see their significance. The New Haven social setting was first described in historical perspective. The development of the city and its population was traced from 1683 to the present. Particular attention was paid to social classes and their representatives in the population in each epoch. Each class was described in its current state by its class awareness, its economic orientation, ethnic origin, religious affiliation, education, family pattern, homes and other distinguishing characteristics. To complete the picture the authors described the city's mental health facilities and the social place of its psychiatrists. Thus social class became more than a bare statistical skeleton. As part of their devastating criticism of the practice of psychiatry, Hollingshead and Redlich successfully used social class as a variable in research on medical practice.

A second book is important because it outlined basic differences in attitude towards illness and health among different social classes. In 1954, Columbia University Press published a classic of medical sociology by Earl Loman Koos, the Health of Regionville.[9] The book

reported the results of four year's intensive study of an upstate New York community intended to describe how people dealt with medical problems, and their response to illness.

Exceptional cooperation from the population was obtained: one out of every five households was subjected to 16 interviews. The interviews varied from a highly structured questionnaire to a free-wheeling, open discussion. Each interview was directed at exposing a single area of concern.

The hypothesis of the study was that a family's social status ("position in the social class hierarchy of the community") is reflected in its attitudes towards health and its response to illness. Koos implied others at the same social class level shared similar attitudes, and the level seemed to determine the extent of participation in the community's health activities.

Koos' portrait of the small city and its health attitudes was almost free of the problems of contemporary urban medicine. All of the medicine in the town was provided by local private doctors. No clinics or outpatient departments encroached on the traditional realm of the private doctor, and no welfare services siphoned off the poor. It was ideal territory for describing the population's views of medicine where they would be unclouded by rapidly changing patterns of medical care.

The study established a good basis for stating that very distinct attitudes towards illness and health exist among different social class groups. And the results concerning peoples' responses

to various symptoms lead one to believe that different social classes might use physicians quite differently.

Several studies by a group at the Beth Israel Hospital in Boston are of interest for the concepts they employed in the examination of patterns of medical care.[10]

The most important of these is the concept of "central source", a derived designation that comes from an analysis of patterns of use and statements about hypothetical use. Central source is defined as follows:

> The individual's "central" source of care is the focal point of his current pattern of medical care. It is the most important facility or physician to whom he turns when he needs medical advice or care -- that is, the most important to the patient in terms of having his greatest trust or reliance in that source.
>
> The patient may use that source as a referral point, or as a continuing source of verification or reassurance.
>
> As this suggests, the criterion of "centrality" does not point to where the individual necessarily receives the greatest volume of his care. Regardless of type of care or amount of care which it provides, it is the source to which the person looks for his direction signals in obtaining care, or the source which is his mainspring of assurance regarding his condition or his care. This may, of course, coincide with the source of services which predominates in volume; but it need not do so to meet the criterion of "centrality".[11]

The central source, an entity that was <u>not</u> designated by the patient as such, was combined with the "current source" to form medical care configurations. These concepts were then used by Solon <u>et al</u> to try to understand the role of the Hospital's out-patient department in providing care for the Hospital's outpatient

clinic population.

The matrix of possible medical care configurations Solon developed was a useful analytic tool. It provided a description of medical care patterns that was more comprehensive than a description dependent on specific doctor-patient relationships. Beyond its use as an analytic tool, however, it seems difficult to establish the true existence of a "central source".

Other studies tried to combine social class variables with use patterns. In New Haven, Weinerman's 1964 Emergency Service Study tried to describe another hospital population, emergency service users.[12] The purpose of the study, as stated above, was to explain some of the changes observed in the use of the Yale-New Haven Hospital emergency service. Chief among these changes were: the number of visits was rapidly growing and a previous study had shown that about 50% of the people seen had non-urgent complaints.

Exactly 2028 people seen in the emergency room during two weeks of July were rated according to the urgency of their problems. The categories, "Emergent", "Urgent", and "Non-urgent", were assigned by the residents who saw the patients first. A one-fifth sample of the 2028 was interviewed to determine three things: their socio-economic status, their approach to medical care for the current problem, and their usual source of medical care.

The results did not substantiate the chief hypothesis of the study -- that the users of the emergency service for non-urgent

problems came from the lower socio-economic status groups.* Next to age, the most important factor affecting the way people used the emergency service was whether or not they claimed to have a doctor. People with private doctors came less often with non-urgent problems, were more likely to have sought attention somewhere else before coming to the emergency service, and used the emergency service less frequently.

The emergency service provided only a very small window on the New Haven community. It was in no way possible to describe people who did not come to the emergency service and what their complaints were. There are many possible ways to explain the small difference between upper and lower class use of the emergency room without destroying the assumption that lower class people are not properly cared for by other sources of care.

At least one previous study tried to look at factors related to having a doctor. The group of investigators involved in the studies at Beth Israel Hospital in Boston went from a study of a hospital population to a study of a community. In "Aluminum City",

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* Further analysis of the urgent and non-urgent users of the Emergency Service, by social class, revealed certain intervening variables. Although there was no primary correlation between social class and urgency, within each social class there were significant differences between those whose use of the ER was termed urgent and those whose use was for non-urgent problems. The characteristics with a high correlation to non-urgency differed along the social class scale. Using these intervening variables it should be possible to develop a more graphic and useful picture of the Emergency Room patients than Hollingshead's social class categories provided.

near Pittsburgh, Dr. Cecil Sheps and his co-workers studied several factors associated with one member of a family having a "regular doctor".[13] They talked to members of 570 families intended to represent a sampling of all segments of the city's social structure. The factors associated with having a regular doctor pointedly did not include the family's socio-economic status (determined by the Hollingshead two factor index).

The presence of children in the family correlated most strongly with having a regular doctor. (It is interesting to note that those patients who used the Yale emergency room least often for non-urgent problems were children.) The age of the head of the family correlated with having a regular doctor; the younger family heads claimed to have a regular doctor more often. The duration of residence in the city was positively correlated to having a regular doctor. Income was associated with having a regular doctor only among married people without children.

In Aluminum City, where almost 90% of the households had a regular doctor, it may have been difficult to see any differences between social classes and use of a regular doctor. Sheps' study did not use geographic or 'ecologic' subdivisions within the city to determine the social class of the interviewed population. Respondents of a given social class were therefore not necessarily grouped within one section of the city. Thus, the element of residential segregation which tended to make social class groups in the present study more homogeneous was absent. Could this explain why he found no correlation between having

a regular doctor and social class? Certainly the Aluminum City study underlines the difficulty of trying to generalize to an entire city, such as New Haven, from only two geographic subdivisions.

The second group of studies of medical practice was distinguished from the above group by a psycho-social or behavioral approach. These studies usually looked into the nature of the doctor-patient relationship and similar interactions in the medical world.

Michael Blaint's book, The Doctor, His Patient and the Illness, although possibly not intended as research in medical care, deserves attention as one of the most exciting ventures in the field.[14] It is a readable analysis of several years of seminars with general practitioners in Great Britain.

"Our chief aim was a reasonably thorough examination of the ever-changing doctor-patient relationship, i.e., the study of the pharmacology of the drug 'doctor'."[15] The research consisted of the proceedings of discussion groups of eight to ten general practitioners and one or two psychiatrists. The groups tried to solve this problem: "Why does it happen so often that, in spite of earnest efforts on both sides, the relationship between patient and doctor is unsatisfactory and even unhappy?"[16]

There is a striking characteristic that is part of the doctor-patient relationship in Britain: by law, everyone is on a doctor's "list". Problem patients with complex relationships to doctors were singled out in the study. How to treat and educate patients is the recurrent theme. "The lack of properly validated techniques in this

highly important field is the more regrettable as the doctor's relationship with his patients -- if we disregard the 'nomads' -- is lasting and intimate."[17]

The book was written to encourage practitioners to exploit the doctor-patient relationship to its full psychological advantage and proceeded to investigate the psychological elements of a doctor-patient relationship. Perceptive illustrations and examples from the experiences of the practitioners catalogued the interactions of general practice. The teaching expected of the practitioner was outlined in a section of the book on apostolic function. It concluded that the formation of a doctor-patient relationship is based on self-selection of patients according to the doctor's apostolic beliefs. "The self-selection and the apostolic function are counterparts of each other, it is they that build up the special and highly individual atmosphere of every practice."[18] Although very different from the American situation this British example shows certain psychological variables that logically belong in the analysis of doctor-patient relationships.

The American prototype for behavioral studies of patients and their doctors was a study by Eliot Freidson of the Department of Sociology at New York University: Patients' Views of Medical Practice -- A Study of Subscribers to a Prepaid Medical Plan in the Bronx.[19]

The study looked at patients who used one of three varieties of medical service, "the Family Health Maintenance Demonstration in which everyday treatment was given by an interprofessional team working

within a prepaid, centralized medical group; the Montefiore Medical Group, in which everyday care was provided by individual pediatricians and internists who worked within the framework of a prepaid, centralized medical group; and conventional solo, fee for service practice, in which everyday care was provided by individual practitioners working in their own scattered offices."[20] These sources of care were described with an analysis of what the patients expected from the programs.

Freidson implies that the intricate set of relationships that constitute the superstructure of medical care are welded together by its organization. Yet in this complex formation, all the data came from patients. Patients defined "good" doctors as those technically competent who paid sufficient attention to the individual. Thus he allowed them to conclude that group practice provided "poorer" or less satisfactory medicine because it was based on an organization where the doctor was insulated from the patient's "personal needs." Systems of medical practice have become sufficiently organized to warrant a structural approach to their analysis, and patients' views of the system providing care are relevant but these do not add up to a comprehensive picture of medical care.

The third group of medical practice studies is distinguished by its emphasis on one type of practice. In the present instance, the type under study is general practice, but some references are also given to studies of group practice. General practice first became an issue in Britain. Was it to continue? How would it change?

And how would GP's get paid?

In 1950, Lancet published what was to become a landmark study of general practice.[21] Joseph Collings' study was only the first in a series of independent studies of general practice in Britain, the United States, Canada, and Australia. It set the pattern for all the following studies and raised the quandry about the future of general practice to an international debate.

Collings looked at fifty-five general practices in Britain, dividing them into three classes designated by the practice's locale: urban industrial, "better class" urban residential, and rural. He described the practices by the doctor, his working environment and the "general social environment".

Using the technique of 'sitting in on' the doctors' practices, Doctor Collings accepted the invitation of his host GP's and contributed freely to the interviewing and examination of patients. The technique produced a broad impressionistic view of British general practice commensurate with the simple sampling methods of the study.

Collings' impression that general practice was not adapting well to other changes in medical practice -- payment schemes and scientific advances -- was illustrated dramatically by the survey. The instances in which general practice was of acceptable quality and socially viable were in rural communities where hospital services were unavailable. In poor urban areas, the GP was insulated, isolated and ill-equipped to handle family medical problems.

Although Collings' report probably produced a valid impression of general practice, later investigators felt compelled to improve Collings' sampling technique.[22] In a recent study, Cartwright and Marshall designed a sampling technique to provide an unbiased picture of British general practice.[23] The sampling was done by a "two stage sampling design" -- first selecting thirteen parliamentary constituencies at random, then fifteen general practitioners at random from each, yielding 195 doctors, 157 of whom were actually interviewed. Although 38 doctors were not interviewed, this study eliminated many of the methodological shortcomings of Collings' work, and it is of interest here particularly for this improvement.

An American classic among GP studies was An Analytical Study of North Carolina General Practice, 1953-54, by Osler L. Peterson, Leon P. Andrews, Robert S. Spain, and Bernard G. Greenberg[24] who used the Collings method and added a quantitative analysis of the quality of practice. Two internists spent three days with each of 94 general practitioners. The practices were selected as a stratified random sample of North Carolina general practice. The study was spread out over more than a year and early in the interviewing the observers came to a startling discovery. There was a much wider variation in the quality of medicine practiced than they had expected or were prepared to describe.

> At its very best, the practice of medicine resembled that carried out in the medical school. At one extreme the physician obtained thorough histories and performed careful, competent physical examinations of each patient. The laboratory which was usually manned by a trained

> technician was used skillfully as an adjunct to the practice. Other physicians' performances were antipodal. These physicians practice from their desk chairs. Histories were almost non-existent and the few questions asked were often irrelevant. Patients were seldom undressed or laid down for examinations. Abdominal examinations were performed with patients sitting in a chair. The lack of attention to the patient's safety was demonstrated by unsterile technique in performing veni-punctures and hypodermic injections.[25]

Peterson et al found the quality problem so interesting they changed the observation schedule to include a system for rating quality of practice quantitatively. Weighted values were assigned to parts of the patient evaluation: clinical history, 30; physical examination, 34; use of laboratory aids, 26; therapy, 9; preventive medicine, 6; and clinical records, 2, with a total of 107. The weights were based on an analysis of the role of the practitioner.[26]

> A physician's first responsibility to his patient is to make a diagnosis. The well-tried methods for reaching this goal are by taking a history, performing a physical examination, and the indicated laboratory work. These were accordingly used as the major criteria for classifying each practice...Greatest importance was attached to the process of arriving at a diagnosis since, without a diagnosis, therapy cannot be rational. Furthermore, therapy is in a process of constant change, while the form of history and physical examination has changed very little over the years.[27]

In many ways the North Carolina group tried to go beyond the Collings report. They incorporated better sampling and also tried to analyze the practices, taking into consideration the medical school records of the practitioners. Most important, they undertook the process outlined above, the quantitative rating of the quality

of practice. The one part of the Collings method they did not change, the "sitting in on", seemed to have been strained by trying to use it for the collection of more sophisticated data.

Two Canadian studies are worth noting. Kenneth Clute's opus on general practice in Ontario and Nova Scotia[28] -- an application of the North Carolina methods to the Canadian setting -- and Sam Wolfe's study of Western Canada in which he tried to explore the effects of GP's attitudes on their practice of medicine.[29]

The Wolfe study must be considered most carefully because he tried to look at some factors related to the formation of doctor-patient relationships, or factors affecting the nature of the relationships certain doctors create. He stated:

> A number of studies of both physicians and patients suggest the vital relevance of physician attitudes to patient care. It emphasizes the obvious to state that family physicians are utilized for both major and minor conditions, and for both preventive and curative purposes. The patient's favorable relationship with his physician, which has been developed during care for the "trivialities" of everyday living, may determine his physician choice when major medical events occur. This is a matter of considerable importance. When patients have the option of choosing between attitudes and presumptively high clinical performance, they often pick their doctors for their favorable attitudes since in fact they may know little about acknowledged peer-judged competence in clinical performance.[30]

Looking at 30 general practitioners in Urbanville, Wolfe postulated two types:

> "There was the physician with a comprehensive

> role concept, accepting social perceptions, and an open system of medical beliefs and values...The physician with a comprehensive role concept was able to apply and integrate a great number and variety of medical facts. The physician with accepting social perceptions was able to make appropriate inferences regarding traits and intentions of others. The physician with an open system of medical beliefs and values had personal standards about medical matters, which were susceptible of modification or variation." [31]

Wolfe continued: "At the opposite extreme of the model of types of GPs was placed the physician with a constricted role concept, rejecting social perceptions, and a closed system of medical beliefs and values."[32]

There was a series of predicted responses to accompany each postulated type, and the thirty GPs split down the middle, with 15 falling in the "comprehensive" slot and others being either "constricted" or in-between (thus non-comprehensive).

The comprehensive GPs were trained longer, practiced in higher social class areas, and were more often associated with teaching hospitals. They were not "upwardly mobile", that is, they were not of a higher social class standing than their parents.

By virtue of the fact that the comprehensive GPs limited the size of their practices, took more training, and held more favorable attitudes toward psychiatry and preventive medicine, Wolfe concluded they "seemed to be redefining the job of the family doctor to suit the realities of medical practice in one city of the 1960's."[33]

Wolfe's study added a new type of inquiry to the traditional

GP study, delving into the physician's perceptions of role, patients, colleagues, and medical institutions and organizations. This sort of investigation should be tightened methodologically and combined with the Peterson approach to the quality of care to make GP studies more comprehensive and relevant.

Although they will not be discussed here, it is worth mentioning an Australian study[34] and two studies of referrals from general practice because they illustrate another way of looking at medical practice.[35]

There are four studies of group practice in the United States that are of some interest. In 1951 the United States Public Health Service published a study by Hunt and Goldstein on group practice.[36] Their work included an intensive study of 22 groups and a questionnaire survey of all medical groups in the country. In 1952 Weinerman and Goldstein reported on a study of group practice in California.[37] In 1957 the American Medical Association's Committee on Medical and Related Facilities reported on its survey of group practice and took note of the rapid growth of group practice.[38] In 1959 Pomrinse and Goldstein reported on a second USPHS survey of group practice.[39] These reports have largely helped to describe the size and scope of group practice and it seems clear that group practice needs some of the same examination that general practice has received.

Only a few of the most important research papers in this field have been carefully reviewed here: those which established patterns and made major contributions. There was also a mass of literature

of opinion, which although frequently interesting and valuable, did not constitute original research and has not been discussed here.

2. GENERAL HYPOTHESES

The backbone of any study is the set of hypotheses it tests. They must embody the problem posed by the study, and be testable by the data to be collected.

The three general hypotheses of this study related socio-economic factors to private medical practice and predicted statistical associations. Socio-economic factors were expected to affect the existence of a relationship with a private practitioner. If the doctor-patient relationship existed, the socio-economic status of the patient was expected to affect the nature of the relationship. Finally, the consumer's socio-economic status was expected to be related to the nature of the practice which he claimed to use.

The first problem in formulating the hypotheses in a testable form was a definition of socio-economic divisions or social classes. The purpose of these classes was to reflect differences in social behavior and attitude. Although income, occupation, education and color were useful indices for determining social class, it was hoped that by adopting Acheson's method of selecting study areas, the people of the areas would reflect, by a process of residential segregation, homogeneous social classes. Real estate values were the chief criterion. In the Arthritis Survey, social class areas were also chosen

for the ease of sampling that was provided by having all the respondents in a few blocks.

Thus by adapting the Arthritis Survey methods to this study social class was defined by the two study areas. Each area could be described demographically to demonstrate that it represented distinct segments of society, but was assumed to be different because of the way in which it was originally selected.

The definition of social class by areas allowed simple re-statements of the hypotheses as predicted differences between the two areas. Thus it was predicted:

I. A greater proportion of the higher socio-economic status area residents would have a relationship with a personal doctor.

II. The doctor-patient relationship would be better established, closer, and more broadly used by the high socio-economic status area residents.

These two propositions imply that front-line, primary, private medical practice in the urban setting rarely provides regular and continuing attention to the lower class patient as implied in the term "personal doctor".

III. Physicians serving the higher socio-economic status group as personal doctors would have more specialized practices with more extensive and elaborate resources.

These hypotheses were developed into a series of testable subhypotheses, corresponding, in part, to the questions in the physician interview.

Three corollaries to the first hypothesis stated that:

a. In the area containing a significant proportion of non-white population, the white population would be more likely to have personal doctors.

b. Stability, as measured by years at the present address, would be associated with having a personal doctor.

c. Stability, as measured by years in New Haven, would be associated with having a personal doctor.

The hypothesis dealing with the nature of the relationship between the respondent and his personal doctor was expanded to the following predictions:

a. The residents of the higher socio-economic status area would have doctor-patient relationships of longer duration.

b. The residents of the higher socio-economic status area would be more likely to have first met their personal doctor through a medical referral.

c. The residents of the higher socio-economic status area would have seen their personal doctor more recently.

d. The residents of the higher socio-economic status area would be seen for a check-up rather than for a specific medical problem more often than residents of the lower class area.

e. The residents of the higher socio-economic status area would be described more often by their doctors as patients with whom they have a "close" relationship.

The hypothesis on the nature of practice was divided into a series of propositions:

a. The practices serving the residents of the higher socio-economic status area would be internal medicine rather than general practice.

b. Private practices would be old practices with middle-aged practitioners.

c. Most practices would be solo.

d. For those doctors named as personal doctors by the residents of the two study areas, referred practice would be only a small part of their practice, even for internists.

e. Nursing and secretarial help would be used more by the doctors serving the higher socio-economic status area residents.

f. In-office laboratory and x-ray work could not be predicted as a difference between Areas. Probably only very routine work such as hemoglobins and urinalyses would be done in the doctors' offices. Two exceptions were expected: Doctors serving poor people who could not afford outside laboratory studies, and doctors with very elaborate and well-equipped establishments.

g. The doctors serving the higher socio-economic status area would operate on an appointment only basis; those serving the lower socio-economic status area would have open office hours.

II. METHODS

1. THE SETTING

New Haven, Connecticut, where these studies were made, is a medium sized city (1960 pop. 152,000) with many of the problems of other American cities. It has a large poor population residing near the center of the city. It has had major forced population shifts in the last ten years due to drastic slum clearance programs. It has the obvious patterns of residential segregation both by color and ethnic background that characterize most American cities.[40] It was one of the first cities in the nation to develop ambitious programs supported by the federal government and private foundations to reduce the burden of these urban problems.

The lower socio-economic status area chosen for this study fell into one of New Haven's "grey areas", where there appears to be a concentration of social and economic problems. Information gathered by the city and the antipoverty agency indicated twenty-six (26) percent of the families living in this grey area, Fair Haven, were in the poverty group (under $4,000 annual income). Unemployment was at the rate of 3.6%. The Negro population of the area increased during the 1950's from 264 to 855, or 45%, while the total population of the area decreased 10%.[41]

The first bridge between Fair Haven and the rest of the city was

AREA II

AREA VI

built in 1830, opening the area to development. At the turn of the century, commercial and industrial land use began to change the previously suburban residential nature of the area. Today much of New Haven's heaviest industry is located along the river on the Fair Haven side. Housing is chiefly three story frame buildings, with a few brick tenements and cottages interspersed with commercial and manufacturing establishments. (See photos.)

The higher socio-economic status area is located in Westville, at the Western edge of the city. It is a community of new houses, built between 1945 and the present. They are single family unattached houses with generous grounds. It is not unlike many of suburban areas characterized as "bedroom towns." (See photos.)

Medically, New Haven is atypical because it has a teaching hospital and a medical school. It has two hospitals: The Hospital of St. Raphael and Yale-New Haven. The Catholic hospital has 494 beds, 16,000 out-patient and 23,000 emergency service visits per year.[42] Yale-New Haven Hospital has 727 beds, 110,000 clinic and 50,000 emergency service visits.[43] The latter is affiliated with the University and is the principal teaching hospital for the School of Medicine. The University Medical Center makes New Haven a location for many diagnostic and therapeutic specialists. A United States Government Veterans Administration Hospital in West Haven also serves as a teaching hospital for the School of Medicine. In general, New Haven has an unusually large and well trained complement of doctors for a city its size.

2. RESEARCH DESIGN

Arthritis Survey Sampling Plan In 1963, Dr. Roy M. Acheson and others in the Yale University School of Medicine, Department of Epidemiology and Public Health, began a long term study of joint disease in New Haven.[44] The design of the sample involved the selection of 5 discrete social class areas, each containing roughly 500 persons aged 21 years and over. Census data (1960) provided the basis for selecting areas as homogeneous as possible for social class, as computed by the Hollingshead two-factor index,[45] including general summaries by census tract, enumeration district data, and city block statistics. Also used were Hollingshead's findings[46] that in New Haven in 1950 the social classes distributed as follows:

Class I	3%
Class II	9%
Class III	20%
Class IV	50%
Class V	18%

Certain areas were excluded because of a high proportion of students, anticipated clearance or redevelopment, or a high concentration of non-white and non-English speaking people. The remaining areas where contiguous blocks had sufficient population were ranked for social class using rent and property values. Six homogeneous collections of blocks were finally selected. (Two areas were needed to accumulate 500 persons in social class I.) (See maps: City, Area II, Area VI) Each area constituted a statistical universe.

Although it was valid to compare two areas, it was not valid to compare or combine, for example, a single Hollingshead social class from two different areas.

Arthritis Survey Interviews: The first interview of residents, part of the Arthritis survey, was conducted during late 1963, 1964, and 1965. An attempt was made to interview every resident over twenty-one in each of the six areas. As of January 1965, a group of 7 interviewers had administered the questionnaire to over 90% of the people in Area II and Area VI. The interviewers went from door to door talking to people in their homes. Their questions were intended to elicit basic demographic information about joint symptoms. Respondents were asked to come to a mobile unit for blood tests and x-rays.

The second interview, also intended to reach every resident over 21 in each area, was split into two samples. An age stratified sample of about 100 individuals in each area received an appointment and free transportation to a clinic at the Medical Center. They had x-rays taken, and were given the second interview and a physical examination. The remainder of the people in each area were seen at home with the same interview administered to them. The interview schedule included a photograph of the respondent's hands, and simple measurement of joint size and function. Although a special effort was made to finish the second interview in Areas II and VI by June 1965, they were not all completed as of the time of this publication. Five interviewers were used to collect the data.

Medical Practice Sampling Plan: With the first interview completed for most of the people in the Arthritis Survey, an upper class (II) and a lower class (VI) area were chosen for the present study of private medical practice (see map). It was hoped that most of the persons living in Area II would prove to be social class I as judged by Hollingshead's scale. Homes were valued at $35,000 or more and rents were over $145 per month. Simila rly, Area VI was chosen in the expectation that most residents would be from social class V. The property values were between $5,000 and $9,000 for single family homes, and rents ranged between $35 and $50 per month. (In fact, there were few single family houses.)

In response to the first interview in the Arthritis Survey, over 90% of the people in Areas II and VI supplied basic personal information about themselves, including information regarding their personal doctors. They stated their doctor's name, when they had last seen him, whether they used the hospital clinics, or whether they had no doctor at all.

A second interview, described above, was also undertaken in Areas II and IV as part of the Arthritis Survey. In anticipation that the data would be available for analysis in June, 1965, two questions were included in the second interview specifically for the medical practice study. These were: "How long have you lived at this address?" and "How long have you lived in the City of New Haven?"

The demographic and physician-use information elicited in the

Arthritis Survey formed the starting point for the medical practice study. Using the people of an upper class and a lower class area as population samples, the present study proposed to look for factors affecting how these people used medical practitioners. The respondents were not grouped by their individual Hollingshead Index scores, but the two areas were compared as entities.

One hundred and twenty-six (126) physicians were named as personal doctors by the interviewed residents of the two areas. These personal doctors comprised the doctor sample. All were medical doctors, licensed to practice in Connecticut. Physicians seen only through hospital clinics were eliminated from the sample, as were chiropractors and other non-medical practitioners named as personal doctors.

In order to obtain further detailed information about doctor-patient relationships and about the nature of private practices, an office visit and interview were designed for a subsample selected from the doctor sample. Using a random number table, residents were selected and listed sequentially from Area II. The doctors named by the residents in the subsample formed a companion list. The subsample was increased until twenty-five (25) different doctors from Area II were in the companion list. The same was done for Area VI. The procedure yielded 46 different doctors (4 were named by people in both areas), and 72 people about whom they were to be interviewed.

Medical Practice Interviews: Throughout the Arthritis Survey, all

laboratory and x-ray results had been forwarded to physicians named by respondents as their personal doctors. Thus the 46 doctors to be interviewed in the study of medical practice had some previous contact with the Arthritis Survey.

Each doctor to be interviewed received a letter from Doctor Acheson introducing me as a member of the Survey staff and telling the doctor to expect a telephone call requesting an interview in his office to discuss some Survey respondents who had named him as their personal physician. (See Appendix).

The interview was based on a series of closed ended questions, partly pre-coded but with sufficient space so that precise comments could be recorded verbatim. (See Appendix) Only one person conducted all of these highly structured interviews. A pretest of the interview schedule was run with five doctors selected from a pretest area used previously for the same purpose in the Arthritis Survey. The five doctors were queried about patients in the pretest area. Care was taken to ensure that these men did not also appear in the doctor interview samples for either Area II or Area VI. After each pretest interview, the format of the questionnaire was improved for smoothness of delivery, clarity of questions, and order of questions. No substantive changes were made during or after the pretest. The letter of introduction and telephoning procedure remained unchanged after the pretest.

The routine interview was conducted in the doctor's office. I usually took a seat in the waiting room after introducing myself to

the nurse or secretary. On several occasions when there was a large group of patients waiting, I offered to reschedule the interview.

Most doctors called me into the office as if I were another patient. I introduced myself and began the interview with a brief description of the Arthritis Survey. I stated that I was interested in whether people actually saw the doctor whose name they had given to the Survey. The Survey, I explained, was checking up on its own methods and also taking an opportunity to talk with the doctors who were receiving laboratory and x-ray results. The doctor was told that the names of the respondents about whom he was being interviewed had been drawn at random, and that questions would be asked about only a few of the patients on whom he had received results.

The interview lasted from ten minutes to an hour--usually fifteen minutes. It was made clear that direct answers to the questions were sufficient. On several occasions, the doctor engaged me in long conversations or tours of his office, usually at the end of the interview schedule.

Two doctors refused to be interviewed when they were telephoned. A second letter followed by a second call failed to secure an appointment in either case. A third doctor refused to be interviewed on those questions relating to his personal history. Another doctor expressed concern about whether his responses were a breach of confidence. He was told not to respond if he did not wish to. In general, the response to the questions was friendly, cooperative and helpful. Many doctors volunteered information about their practice, its history

and its future.

Observations: A systematic way of registering visual impressions of the doctors' offices was provided at the end of the questionnaire. On completing the interview, I returned to my car or office and recorded my observations according to the check list. Included in the list were: a description of office size, location, and whether it was shared; whether the doctor had help; whether there were patients with the doctor or waiting; what equipment was seen; what medical books were visible; and the type of records the doctor kept.

Data Processing: Standard key punch and card sorting procedures were used in the data processing. The information from the first Survey interview was transferred from IBM magnetic tape to cards. Interview information obtained from the doctors concerning their relationships with specific respondents were transferred from coded questionnaires to the blank columns on the respondents' cards. A second deck was assembled for doctors. Using the American Medical Directory[47], information covering date of birth, medical education, specialty boards, specialty practice, and type of practice for all doctors named as personal doctors in Areas II and VI was coded and punched. For those doctors interviewed, responses were coded and punched on the same cards following the information from the Directory. Also included in the data on the doctor's cards was the number of respondents who had given the doctor's name in each Area. All punch-

ing operations were verified mechanically by a separate person.

Tables showing percentage distributions were derived for descriptive purposes. Some of these data were contrasted with census information. Contingency tables were constructed for analytic purposes. The chi-square method was employed for tests of statistical association, with a probability of less than 0.10 accepted as significant. It was possible to anticipate the directions of the associations using single tail distributions. Graphic figures and maps were prepared where appropriate.

III. FINDINGS

1. DESCRIPTION OF THE POPULATION OF THE TWO STUDY AREAS

Area II, in Westville, had 371 people twenty-one years and older. There were 480 adults in Area VI at the time of the study. Of the 371 people in Area II, 351 or 94.6% were interviewed in the Arthritis Survey, and 462 or 96.3% of the Area VI residents were seen.

To provide some useful comparisons with statistics for the whole City, data from the study areas were compared with data for New Haven at the last national census (1960).

Age composition: The age distributions of each study area differed from one another and from the whole city (Fig. 1). Area II had a significantly reduced proportion of adults aged 21-34, 10.2% compared to 30% for the City. It also had fewer people 65 years and

older -- 4.3% compared to 18% for the City. Characteristic of Area II was the 34-54 age group which made up two thirds of the adult population.

Area VI had a younger population with progressively smaller numbers occurring in each decade over 25. This pattern was not unlike the City as a whole.

Sex distribution: In 1960, the City of New Haven was 52.1% female. The adult populations of both study regions also showed a female preponderance which was greatest in Area VI (54.8%) and less in Area II (52.0%).

Marital Status: Area II was characterized by an adult population almost entirely married -- 90.7%, with 5.4% never married, 2.8% widowed, and 1.1% divorced. (Fig. 2) By contrast Area VI had fewer married,(63%; more never married,(14.4%); more widowed,(10.6%); and more divorced and separated -- 4.5% and 7.4% respectively.

Live Births: In Area II most of the 193 women surveyed had either one, two or three children. There were only 18 women with no live births, and only 10 with more than 3 children. (Fig. 3).

In Area VI, 51 women had no children, and 74 women had more than three children. Thus only 46% of the 263 women in Area VI had one, two or three children compared to 84% in Area II. These data were not standardized for age.

Minority Group Status: In Area II there were only three Negroes. In Area VI, 26.2% of the adult population was non-white. By the 1960 census, 12.2% of New Haven's adult population was non-white. (Fig. 4).

Religion: The populations of the two study areas represented virtually distinct religions. The people of Area II were almost uniformly Jewish. In that Area only 9.0% were Christian. In Area VI Catholics represented 64.9% of the respondents, there were 34.2% Protestants and there were no Jews. (Fig.5).

Social Class: The socio-economic status of the families in the two study areas was measured by the Hollingshead Two Factor Index. The head of the family was rated by occupation and education and a numerical index was calculated. (Fig. 6).

According to this index, only 8.1% of Area II's population was in the two lower classes (IV and V), and only 5.8% of Area VI's population was in the 3 upper classes (I and III).

Length of Residence at Present Address (Incomplete Data): For the 236 people in Area II on whome data were available as of November 15, 1965, seven were at their current address less than 2 years, thirty for 2-4 years, 116 for 5-9 years, and 83 for ten years or more. In Area VI as of November 15, 1965, with data on 184 people, 14 had been at their present residence less than 2 years, 52 for 2-4 years, 54 for 5-9 years, and 64 for 10 years or more.

Length of Residence in New Haven (Incomplete Data): In both areas, the majority of those interviewed had lived in New Haven for over 20 years. For 236 respondents in Area II, 176 lived in New Haven for over 20 years, as had 116 of 184 interviewed in Area VI. Less than 20 of the respondents in Area II and less than 30 in Area VI were in New Haven under ten years.

(The incompleteness of the data tends to weigh the results in favor of the more stable residents.)

Summary of Demographic Characteristics: The interviewed population of Area VI in relation to interviewed residents of Area II had the following major characteristics:

1. Lower socio-economic status;
2. More young adults (21-35) and more older people (55 and over);
3. More females;
4. Fewer married people;
5. More childless women; and of those with children, more children per mother;
6. Many more non-whites;
7. Many more Catholics and Protestants, but no Jews.

2. FACTORS RELATED TO HAVING A PERSONAL DOCTOR

Socio-economic Status: The people of Area II had personal doctors as a rule, but this was not true to the same extent of Area VI residents. In response to the Arthritis Survey question, "Do you have a personal doctor?" in Area II 96.6% answered "yes" and gave the doctor's name. In Area VI, only 68.3% answered "yes" and 31.7% or 143 people said they had no personal doctor. This second group included 48 people who said they used clinics (Table 1).

On the other hand, when the subsample of doctors named by Area VI residents were asked if they were the respondents' personal doctor, they said "no" in 14 out of 31 instances, or 45% of the time. This "no" response occurred only three times in 41 instances with doctors named by Area II residents, or 7.3% of the time* (Table 2).

* In two cases for each area, the doctors claimed they were the respondent's gynecologist only, not her "personal doctor".

Using the fraction of "no" responses as a correction factor of the data obtained from respondents, new estimates of the proportion of the population in each Area having personal doctors were made. These indicated that 89.5% in Area II and 37.5% in Area VI had personal doctors. These approximations should be kept in mind in evaluating data to follow, although they have not been recalculated for each factor.

Color: In Area VI, a smaller percentage of non-whites than whites had personal doctors. 80.2% of the whites of Area VI named a personal doctor, wheras only 63.8% of the non-whites claimed to have a personal doctor. (There were only three Negroes in Area II.)(Table 3).

Stability: Years at Current Address (Incomplete Data): Early results from the two questions seeking to determine length of residence at a respondent's current address and length of residence in the City were very incomplete, both because of the current quantity of interviewing completed and because of the large number of people who had moved, particularly in Area VI.

A trend was visible among Area VI respondents as 56 of 63 people living at the same address more than 10 years claimed to have a personal physician, and only 8 of 14 people there for less than two years claimed to have a doctor. Other figures maintained this trend. (Table 4).

There were many fewer data from Area II, but a similar trend may exist.

Stability: Years in New Haven (Incomplete Data): There was a similar association between the years a respondent had been in New Haven and whether he claimed to have a personal doctor. Again the data were inadequate for proper analysis, but for Area VI there appeared to be a positive correlation. In Area II there were insufficient data (Table 5).

Age, Sex, Marital Status: Three additional sets of statistics were sketched out to strengthen the above findings. Age, sex and marital status were compared with the data on having a personal doctor to show that differences between Areas II and VI could not be explained by differences in these variables.

Age: In Area VI, the very young and the very old were the groups least likely to have personal doctors -- 50% and 56% respectively. Although these two age groups represented larger proportions of the populations in Area VI, they accounted for only a small part of the differences in data about having personal doctors.

Sex: The women of Area VI had proportionally many more doctors than the men: 75% versus 59%. But the differences in sex distribution between Areas II and VI were very small.

Marital Status: Among the residents of both Areas, the married people did not have significantly more personal doctors than the others. Thus the high number of unmarried people in Area VI could not

account for the low percentage with personal doctors.

3. FACTORS RELATED TO THE DOCTOR-PATIENT RELATIONSHIP

Duration of the Relationship: The analysis of the data from the doctor interviews showed no association between the Area in which a respondent lived (social class) and how long the physician had been his personal doctor. For both Area II and Area VI, the doctor had been seeing most of the patients for more than five years and more than one third of them for ten years or more (Table 6).

Mode of Acquisition: There did not appear to be any difference between Area II and Area VI as to how the patient first found his way to a particular doctor. In both Areas, self-referrals and family referrals accounted for slightly over 40%. The doctors did not recall the source of referral in 14 cases or 21.8% of the time for Area II and 35.3% in Area VI. There were only two referrals from other doctors, both from Area II residents. (Table 7).

Date Last Seen: Two sets of data were available for this analysis. Respondents were asked when they last saw their personal doctors and the small subsample of doctors was asked when they had last seen certain respondents by whom they were named as personal doctors. (Table 8A and 8B).

From the respondents' data it was clear that Area II people tended to have seen their doctors more recently than Area VI residents, but for both Areas the vast majority of people with personal doctors had seen them in the last two years.

For the smaller collection of data from the physicians interviewed (and considering only those people for whom the physician agreed he was the personal doctor), no such association could be divined. About 45% of the respondents had been seen in 1965, over 35% were seen last in 1964. These values were very similar for both Area II and Area VI respondents.

Problem or Check-Up: Interviewed doctors were asked whether they had last seen a respondent for a medical problem or for a check-up. Twelve out of 35 Area II respondents had been seen for check-ups, but only 2 of 16 Area VI residents were seen for check-ups.

Closeness: Doctors interviewed were asked to estimate the closeness of their relationship with the patient. 72.2% of the relationships with Area II patients were described as close, and only 56.3% of those with Area VI patients were described similarly. In both Areas less than 15% of the relationships were described as "distant", but doctors used the designation "definite, but not close" more often to describe their relationships with Area VI respondents. (Table 10).

Summary of Factors Relating to the Doctor-Patient Relationship

As compared to Area II residents, Area VI residents had relationships with their doctors that were:

1. Of equal duration;
2. Established through similar routes;
3. Used as often;
4. Used less for check-ups and more for specific problems;
5. Not as close

4. PRIVATE PRACTICES SERVING AREA II AND AREA VI RESIDENTS

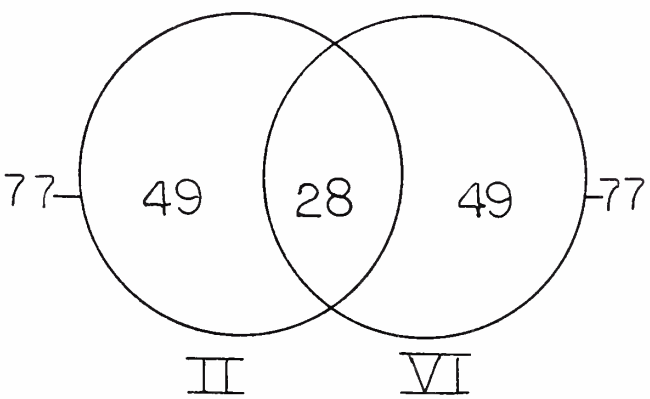
In this section of the Findings, three subjects will be discussed:

1. An analysis of the practices of all the physicians named as 'personal doctors' by the residents of Area II and Area VI. This will include a statistical description of the doctors themselves.

2. Observations on a few of the 44 visits to physicians' offices in the interview sample.

3. The results of interviews with 44 doctors about themselves and their practices.

A total of 126 personal doctors were named by respondents from the two study regions. Seventy-seven doctors were named by Area II residents and 77 by residents of Area VI. Area II residents named 49 doctors not named by Area VI residents, and similarly, 49 doctors were named by Area VI residents and not by residents of Area II.



Thus most of the doctors serving one Area did not have patients from the other Area. There were, however, 28 doctors named by residents of both areas.

A comparison of the data from physicians serving Area II and those serving Area VI may reveal differences between the practices selected by an upper class group and those selected by a quite distinct lower class group.

Age: The physicians named in the study were mostly middle-aged. The median age for both groups was 55 years and less than one third were under 45 years old.

Medical Education: Only a small number of the doctors were educated abroad; twelve percent from Area II and 14% from Area VI.

Specialty Boards: Personal doctors serving Area II were more likely to have specialty boards than those serving Area VI. 38% of the physicians named in Area II but only 26% of those named in Area VI had their specialty boards. Internal medicine was the most common board, followed by obstetrics and gynecology. (Table 11).

Specialty: The profile of specialties was similar to that of specialty boards. Only 21 of 77 personal doctors named by respondents in Area II described themselves as general practitioners. The rest called themselves specialists: 31 internists, 6 obstetricians and gynecologists; 3 gastro-enterologists, 2 general surgeons, 2 pediatricians, 2 allergists, 2 cardiovascular specialists, and one each specializing in proctology,

occupational medicine, orthopedics, otolaryngology, psychiatry, pulmonary disease and radiology. (One was an intern at Yale-New Haven Hospital).

Among the 77 doctors serving Area VI, 29 were general practitioners, 23 were internists, 11 were obstetricians and gynecologists, 5 general surgeons, and one each: allergist,cardiovascular specialist, proctologist, dermatologist, orthopedist, pediatrician, pulmonary disease specialist, radiologist, and urologist. (Table 11).

Observations on Office Visits: During the course of this study I visited 44 doctors' offices in and around the City of New Haven (50 including pre-tests). These visits were each pre-arranged by letter and telephone with the physician as described in the section on Methods. Each encounter gave fresh insight and information on the tenor of private medical practice in New Haven and each required a variation in my approach to the interview.

A few generalizations about the spectrum of private practice suggested by the visits might be in order. Office locations seemed to fall into three categories: (1) near the hospital where the doctor had his primary affiliation; (2) in downtown New Haven; and (3) on business streets within residential areas of New Haven and its suburbs.

Offices seemed to be housed in two types of buildings, new structures or converted homes with several doctors' offices, or old one or two-family frame houses with only a single office. Office

furnishings and examining equipment varied as noted below. Over half of the doctors interviewed had no new medical books visible in their offices, but several did have large new collections.

Further generalizations about the visits themselves would be difficult; statistical analysis might be misleading. Therefore, I will describe several of my visits in the following discussion of my observations.

Doctor A, a middle-aged Negro, named by an Area VI Negro respondent, had an office in the midst of the largest Negro ghetto in New Haven. (The office of the other Negro physician interviewed was across the street). The exterior of the building was in poor repair. Doctor A's office itself was eclectically furnished and rather crowded. A woman in uniform received patients from a booth not unlike a teller's cage in the waiting room. Over the cage read a sign "This office is equipped to do cancer detection examinations -- please ask for further information".

Most of the dozen or so seats in the room were filled by Negro men and women (no children) waiting to be seen. At one point conversation among them was broken as a white woman came in to return a set of crutches and pay her bill. In the half hour that I waited, Doctor A saw six patients.

The doctor's cluttered desk sat in the center of a large dark room. A separate small examining room, poorly lit, opened off the office. We talked pleasantly while he ate a quick sandwich lunch.

Information regarding the patient we were discussing was recorded on a single index card, a system observed in 26 of the offices visited. (Sixteen of the offices kept hospital type files, in two the system was not observed.)

Across town, Doctor B. practiced in a three man group. A large plate glass window and modern waiting room gave a new facade to an old frame building. Two receptionists routed patients upstairs through a suite of examining rooms, laboratories, and doctors' offices. The lab, equipped to do blood chemistries, clinical microscopy, x-ray studies, and flouroscopy was staffed by three or four technicians. One room was set aside and equipped for minor surgery.

No other physicians' office attempted to provide diagnostic services to this extent, although several had x-ray equipment and a very few had autoclaves and set-ups for minor surgery. Less than half the physicians visited had EKGs.

Within Doctor B's group each physician had his own patients, but without an appointment a patient might see any one of the three. Two members of the group were general practitioners, the third an internist, but they tended to divide their practice according to their individual interests.

Doctor C, a general practitioner, had neither receptionist nor nurse. A short, stocky man in starched collar and french cuffs, he himself called patients from the waiting room to his office, which was equipped with a brand new examining table but little else.

The office was a few doors away from a busy intersection near Area VI. Doctor C. was born in New Haven, received his hospital training at The Hospital of St. Raphael, and had been practicing at the same location since 1946. I arrived shortly before 2 p.m.; Doctor C's office hours were about to start. Twenty or so people, some women in hair curlers, some with children, sat waiting for the doctor to arrive. Several of the people leafed through publications of fraternal societies and the American Legion. At my suggestion, Doctor C and I rescheduled our appointment for a less busy afternoon. When we did talk, his files contained no record ofthe two patients who had cited him as their personal doctor. (As noted above, the same was true for almost half of the Area VI respondents -- the doctors named denied being the respondent's personal doctors.)

In a residential section near Yale-New Haven Hospital, with which he is closely associated, Doctor D. shared an office and a nurse-receptionist with another internist in a large apartment building that housed many other doctor's offices and clinical laboratories. Three or four well dressed women, one a Negro, sat in the small waiting room. A Yale University calendar of the week's events was pinned to a bulletin board over a table piled with the New Yorker, the Saturday Review, and the Scientific American. The suite contained two doctors offices, two examining rooms, and a combined nursing and secretarial station. An EKG machine was shared, but there was no laboratory space, as Doctor D and his colleague sent patients to the laboratory next door.

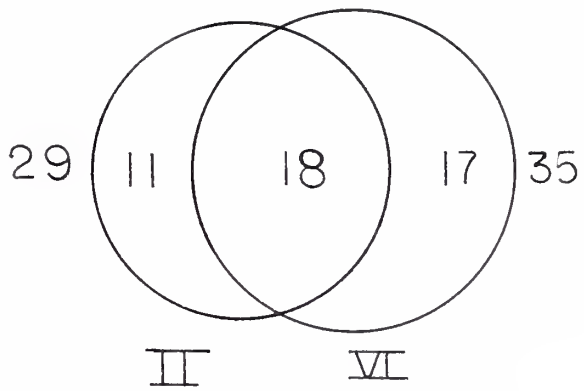
A nurse brought complete hospital type records to us in Doctor D's neatly furnished office. A dictating machine (the only one I noticed in 50 visits) sat on his desk along with several books and medical journals. Doctor D told me that about half his practice was in his medical subspecialty.

Across the street from St. Raphael's Hospital, Doctor E, a gentle man in his late 60's with black hair and heavy rimmed glasses, had a neat, uncluttered, three room office. He was alone when I arrived, and explained he had recently given up his position at St. Raphael's and reduced the size of his practice. Born in New Haven, trained at one of Connecticut's small community hospitals, Doctor E told me that the scope, though not the size of his practice as a GP had been reduced considerably over the last thirty years -- he no longer did any obstetrics, and had given up his pediatrics and minor surgery.

A well appointed examining room was Doctor E's only equipment. He described his practice as being very simply managed.

Interviewed Doctors: By the method of selecting doctors for the interview sample, there were 25 selected for each Area. There were a total of 46 doctors, 29 claimed as personal physicians by one or more respondents from Area II, 35 claimed by respondents from Area VI, thus an overlap of 18 physicians who fell into both of the above groups. Two doctors refused to be seen, and thus the Area II group and the overlap group were reduced by 2 and 1

respectively.



(All of the doctors interviewed were men. There were 2 Negroes in the sample, both named only by Area VI residents.)

Place of birth: Over half the doctors named by each Area's residents were born in New Haven. Among the doctors named in Area II, 59% were born in New Haven and 65% were New Haven born among those named in Area VI. About 10% of the doctors were foreign born. (Fig. 7).

Hospital Training: This statistic also reflected a trend toward local origin. Over 55% of the doctors named in Area II were locally trained, with an even distribution among the old Grace, New Haven, and St. Raphael's Hospitals. The Area VI doctors were 67% New Haven trained, but largely at the old Grace Hospital and the Hospital of

St. Raphael, not at New Haven Hospital. The three New Haven Hospitals trained physicians who were named in Area VI also had patients in Area II. (Fig. 8).

Start of Practice: The median year for start of practice among the interviewed doctors named in the survey was 1943 for those named in Area II and 1946 for those named in Area VI.

Organization of Practice: There were only four doctors in partnerships encountered in the interviewing. All four were named by Area II residents, and three of them were also named by Area VI residents. Thus solo practice accounted for over 90% of the doctors interviewed.

Referrals: The question about the number of referrals from other doctors produced ambiguous results. Among both groups of doctors, the majority of the physicians reported referrals from other doctors occurred "sometimes", with lesser numbers reporting referrals "never" and "often". Among both groups of doctors, about half reported they had less than 5% referred practice, and the other half reported they had over 5% referred practice. As expected, specialists had significantly more referred practice than the general practitioners. (Fig. 9).

Preference for Primary Practice: The GPs were less likely to want to increase their referred practice than the specialists. Most GPs were happy with their proportion of referred practice, whereas the

specialists wanted more referrals.

Came to New Haven: Most of the doctors interviewed for each Area came to New Haven before beginning their medical education. Nineteen of 26 for Area II and 26 of 34 for Area VI came before they began medical school. Only three more for Area II and two more for Area VI came during their medical school or house staff training. This left three doctors named in Area II and five in Area VI who came to start their practices in New Haven. (Fig. 10).

Practice at Current Address: Most of the interviewed physicians established their practices at their present addresses in the past 15 years. The picture did not differ greatly between the physicians named for the two Areas, except that the Area VI residents named a few more doctors who had been at their present address since the 1930's. (Fig. 11).

Nurse: Most of the interviewed doctors had an assistant, at least part time. (By definition, a uniformed assistant who helped the doctor in a nurse's role was considered to be a "nurse" regardless of her training.) Eighty-five percent of the physicians named by Area II residents and 79% of those named by residents of Area VI had such help.

Secretary: Most of the doctors interviewed also had a secretary -- often the same person who served as nurse. The totals were 89% and 79% for the doctors named by Area II and Area VI residents respectively.

The total number of doctors having no help was only 7. All of these physicians were named by Area VI residents, and three also by residents of Area II.

Laboratory Work: Almost all of the physicians questioned said that they did at least urinanalysis and hemoglobin determinations in their offices. Three of the practitioners named by Area II residents did no laboratory work because they were located in the same building as a clinical laboratory. In each group of physicians there were about 10 men or 30% equipped to do more complex tests. (Fig. 12).

X-rays: More of the doctors named by residents of Area II than by residents of Area VI had x-ray equipment. Only 17% of the latter group compared to 26% of the former group had x-ray equipment.

Office hours: The doctors claimed by Area VI residents were most likely to have open office hours without an appointment system. In that group of practitioners 18 of 34 or 53% had open hours, whereas 67% of the doctors named by residents of Area II saw people by appointment only.

Summary: The comparison of practices and doctors named by the respondents from the two Areas reveals the following generalizations: doctors claimed as personal doctors by Area VI residents, as compared to those claimed by Area II respondents,

1. were the same age;

2. were more locally trained, less Yale trained;

3. had started practice more recently;

4. had the same percentage of referred patients;

5. included the only Negroes;

6. came to New Haven at the same stage in their careers;

7. had been longer at their present address;

8. had fewer secretaries;

9. had fewer "nurses";

10. more often had no help;

11. were the same proportion doing laboratory work in the office;

12. did x-rays in the office less often;

13. had open office hours more often.

5. SUMMARY OF FINDINGS AFFECTING THE HYPOTHESES:

I. The hypotheses stating that a greater proportion of the high socio-economic status area residents would have a relationship with a personal doctor was confirmed.

The three corollaries to this hypothesis were possibly true, but the insufficient data for the residence questions left them in doubt.

II. The hypothesis stating the doctor-patient relationship would be more established, closer and more broadly used by the higher socio-economic status area residents was confirmed in part.

The increased number of check-ups and the "close" doctor-patient relationships for the upper class group indicated its cor-

rectness. It was not confirmed by the data on the duration of the relationship and the date of the last visit.

III. The hypothesis stating that the practices serving the higher socio-economic area group would be more elaborate and specialized was generally confirmed. The doctors serving Area II were more likely specialists with offices using a nurse and secretary, and seeing more referrals.

IV. DISCUSSION

1. METHODOLOGY

In general, the sampling techniques employed in this project served their purpose well. They were derived from research that had a somewhat different orientation, but they provided certain distinct advantages. Although the project might have tried to sample all of New Haven at random to collect a true picture of the population and how it used doctors, the intense data collection in the two small areas provided a different sort of accuracy. (Needless to say, it had provided a convenient basis for mobile unit x-ray work and transportation to the clinic.) By having a 95% sample in each of two distinct areas, it was possible to make firm comparisons of the populations. Then, with two different populations, it was possible to illustrate the differences between how each group used doctors.

The over-riding disadvantage and criticism to be leveled at this sampling system related to unseen and undocumented differences between the Areas. Was there a variable acting upon the people of both Areas, that no one noticed or understood and that explained all of the differences between the two? Did the very different religious backgrounds, which could not be considered a social class phenomenon, explain the differences between how the two areas used physicians?

The selection of doctors by the method employed here originally seemed to be a reasonable approach. The method provided a large enough group of doctors. They were selected through residents so that their selection reflected the physician use pattern of those residents. This turned out to be most useful regarding data related to the respondent groups, such as, for example, the section dealing with factors related to the doctor-patient relationship.

It was for the analysis of the data about the doctors themselves that the method was somewhat cumbersome.

In the section on private practices serving Area II and Area VI residents, the doctors were regrouped according to the Area or Areas where they were named. Thus each group included all the doctors named in the Area and a doctor named by residents of both Areas contributed data to both Areas. Again, in the doctor interview section referring to practices in general, interviews were classified by the Area or Areas in which the doctor was named rather than by the Area of the particular resident about whom the doctor was being interviewed. (In many instances, of course, these were one and the same.)

The social classes as they were defined by this study should be considered carefully, because they did not have the same predictive value that most definitions of social class try to yield. The Areas were created by classifying the census tracts in New Haven by value of the housing and then assigning blocks to one of five groups, predictive of the residents' Hollingshead social class. Parcels of homogeneous blocks designated by their predicted social class rating made up the test Areas.

Because of the demand for contiguity and homogeneity it was clear that the blocks that represented each social class were not typical of all the blocks of that social class in the City. Residential segregation in the City of New Haven also tended to insert other complicating factors such as religion and color into the variable of social class. It tended to pick up patterns of self-selection and subtle discrimination that affected peoples' behavior and attitudes without necessarily showing up the variables of education and occupation.

Thus as homogeneous social classes to be compared to one another, they were capable of revealing the broadest differences. But they cannot be used as a basis for generalizing to the rest of the City. One should not be misled by the data on Hollingshead two factor indices. The grouping of classes I, II, and III in Area II and the classes IV and V in Area VI did not make the Areas typical of classes in the City. Analysis of the inter-relationships of various socio-economic, employment, and residence data in respect to this kind of

research will be presented in a separate report.[48]

The analysis of data was hampered most notably by the failure to complete collection for the two questions on residence. Although the data collection for the second stage of the Arthritis Survey was due to be completed by June, 1965, when the medical practice study began, staffing problems and unexpected difficulty in tracking down residents reduced the intake to about 50% of expected. Thus for two of the important corrollaries to the first hypothesis, there was no appropriate means of analysis.

The other handicap encountered in the methodology was the small size of the doctor sample. For some of the contingency tables designed for testing the hypotheses, the chi-square test of significance could not be properly applied due to the small size of some of the cells. For this reason, some of the tables are presented without calculated chi-square values.

2. FINDINGS

It is apparent from the results that people who are different use doctors who are different and that the differences can be described by social and demographic variables. Needless to say, the difference between residents are greater than those between doctors.

Thus the results of the study should be reported from two points of view: the people and their doctors. From the point of view of the people it is important to draw a picture of how different people use doctors and obtain medical care. From the point of view of the

doctors and their practices it is important to describe what sort of medical care they provide and to whom.

The people of Area VI lived within a slum. They had the sort of problems that made them part of the target for the massive social welfare effort -- the poverty program. Their age distribution was skewed toward the least productive members, the very young and the very old. Marriage was not the rule. Many of the residents were Negroes. Many families were burdened with many children. By the social class index of occupation and education they fell near the bottom.

Given these facts about the residents of Area VI it would be possible to extrapolate to many of the other problems and discomforts that marked their lives.

When the residents of Area VI were contrasted with the well-to-do, secure middle class of Area II, it was remarkable that the physicians they called their personal doctors were so much alike. Yet most residents of Area VI did not have personal doctors. It was not that the few who got medicine got much poorer medicine, but that only a few had a personal doctor. It was not sufficient to look at the differences between the doctors serving the two areas, because it must be remembered that 62% of the people in Area VI had no personal doctor (and only 43 named the hospital clinics as their regular source of care).

Compared to the effect of area or social class, the variables of residential stability, age, sex and marital status were weakly

associated with having a personal doctor. Color, although an interesting variable, was only analyzed within the lower class area and therefore could not be compared with social class.

As this study did not reveal much about the quality of medicine practiced by the various personal doctors, it remains for others to analyze what kind of medicine was received by Area II residents, 90% of whom had personal doctors. It must be said that Area II served more of a role as the optimum of private medical practice than as a target of separate investigation.

There were a few questions that indicated possible differences between the relationships with doctors established by the lower class area residents and by those from Area II. The question about the check-up was used as an indication of closer relationship and a more "preventive" attitude about the relationship, and check-ups did seem to be a phenomenon of Area II. It would be ideal to create a new way of evaluating the nature of the doctor's relationship to his patient, using the insight into patients of Balint and the comprehensive and constricted categories of Wolfe, but for this study it seems justifiable to pay more attention to the existence or absence of the doctor relationship, as indicated by recognition by the doctor of his role as "personal doctor".

Several of the findings related to the doctors were unexpected. The fact that well over half the interviewed doctors were

born in New Haven was notable. It would be interesting to make certain comparisons with practitioners in other cities and also in other sorts of practice: groups and full-time hospital practice. It seems likely that home town people have gone into the type of medicine that puts them out into the world as "personal doctors". The results on hospital training probably reflected similar social forces.

The age of the practitioners, although predicted, is further commentary on the well-described decline in personal practice.

The picture of the state of referred practice was not expected, but it seems clear that most of the internists named in the survey as personal doctors do most of their practice as personal doctors and not as specialists. For the higher socio-economic status group, the internist has become the front-line practitioner and diagnostician.

This study did not attempt to rate the quality of the medical care practiced by the interviewed practitioners. It would be a mistake to construe the results to imply that technically better medicine was practiced by one group of doctors as opposed to the other. The only comment that seems appropriate is to note the efforts that different physicians made to facilitate the practice of medicine. (Even these could have been misunderstood, as they may represent conforming to their patients' expectations.) The doctors serving Area II tended to have a secretary, a "nurse", and an appointment system. More of those doctors had efficient examining

set-ups. More of the doctors serving Area II had moved into doctors buildings where x-ray and laboratory services were available. In other words, the physicians serving Area VI by and large did not provide the same type of establishment for their patients.

The results of this study should be compared with the results obtained by other approaches in other cities and other countries, but the vast differences in methodology as noted in the review of the literature make this task almost impossible. It would not be possible to determine which part of the British work on general practice could be logically compared with this study of an American city. Even the American and Canadian general practice studies are very different from this work. Only the Aluminum City Study[49] might be comparable. The Sheps system looked at whether any one member of a family had a regular doctor. It would be difficult to compare his results because my results are based on individual residents, not grouped in families. Because the incidence of "regular" or "personal" doctors could not be compared and Sheps did not look into the nature of the doctor-patient relationships, his results cannot be profitably contrasted.

V. CONCLUSION

The problems of the poor have become the problems of American cities. "As the economic base of the City changes, the plight of these people worsens. In the past, the children of the unskilled poor fared better than their parents. Today, unemployment runs higher among youth than among older people... The dispossessed, young and old, know that they are dispossessed."[50]

Does private medical practice reach the urban poor? It does not seem to.

The private practice of medicine has been linked to the community by established doctor-patient relationships. These links do not exist for the dispossessed. Why?

As medicine has become central, scientific and specialized, it has pulled out its roots in the community. It has left the private practitioner -- GP, internist, and obstetrician -- to earn a living on fee for service. It has left to the private practitioner the establishment of the link between people and medicine. Medicine needs a more substantial and comprehensive way to get at illness and sustain health out in the community.

The failing may not be with medicine and private practice alone, but may result from the dispossession that characterizes today's poor. It may be another part of the lack of jobs, poor education, welfare dependence and broken homes that constitute the interaction of society and the people at its bottom.

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TABLES, CHARTS AND MAPS

TABLE I

RESPONDENTS' CLAIM TO PERSONAL DOCTORS BY AREA

	AREA II		AREA VI	
	#	%	#	%
DOCTOR	337	96.6	308	68.3
NO DOCTOR	12	3.4	143	31.7
TOTAL	349	100.0	451	100.0
Unknown	22	5.9	29	6.0
Total population	371		480	

TABLE 2

DOCTOR'S CLAIM TO BEING RESPONDENTS'

PERSONAL DOCTOR BY AREA

	AREA II		AREA VI	
	#	%	#	%
YES	37	90.2	16	51.6
NO	3	7.3	14	45.2
UNKNOWN	1	2.4	1	3.2
TOTAL	41	99.9	31	100.0

TABLE 3

RESPONDENTS' CLAIM TO PERSONAL DOCTOR

BY COLOR AMONG AREA VI RESIDENTS

	WHITE		NON-WHITE		OTHER	
	#	%	#	%	#	%
DOCTOR	231	70.2	76	63.8	1	
NO DOCTOR	98	29.8	43	36.2	2	
TOTAL	329	100.0	119	100.0	3	

TABLE 4

RESPONDENTS' CLAIM TO PERSONAL DOCTOR

BY YEARS AT CURRENT ADDRESS

(Data incomplete)

AREA II

YEARS	2	2-4	5-9	10	Unk.	Refused or moved	TOTAL
DOCTOR	5	29	115	82	103	3	337
NO DOCTOR	2	1	1	0	8		12
UNKNOWN					22		22
TOTAL	7	30	116	82	133	3	371

AREA VI

YEARS	2	2-4	5-9	10	Unk.	Refused or moved	TOTAL
DOCTOR	8	31	38	56	175	1	309
NO DOCTOR	6	23	13	7	92	1	142
UNKNOWN					29		29
TOTAL	14	54	51	63	296	2	480

TABLE 5

RESPONDENTS' CLAIM TO PERSONAL DOCTOR

BY YEARS IN NEW HAVEN

(Data incomplete)

AREA II

YEARS	2	2-4	5-9	10-20	20	Unk.	Refused or moved	TOTAL
DOCTOR	2	2	12	42	174	103	2	337
NO DOCTOR	1	1	0	0	2	8		12
UNKNOWN						22		22
TOTAL	3	3	12	42	176	133	2	371

AREA VI

YEARS	2	2-4	5-9	10-20	20	Unk.	Refused or moved	TOTAL
DOCTOR		2	17	25	89	175	1	309
NO DOCTOR		3	7	14	25	92	1	142
UNKNOWN						29		29
TOTAL		5	24	39	114	296	2	480

TABLE 6

DURATION OF DOCTOR-PATIENT RELATIONSHIP

BY AREA OF RESPONDENT

	AREA II		AREA VI	
Years	No.	%	No.	%
2	3	8.3	2	12.5
3	2	5.6	1	6.3
4	5	13.9	2	12.5
5-9	10	27.8	5	31.3
10	16	44.4	6	37.5
Unk.	2	4.9	1	3.2
Not personal doctor	(3)	(7.3)	(14)	(45.2)
TOTAL	36	100.0	16	100.0

TABLE 7

HOW RESPONDENT BECAME PERSONAL DOCTOR'S PATIENT

BY AREA OF RESPONDENT

	AREA II		AREA VI	
	No.	%	No.	%
OTHER DOCTOR	2	5.3	0	0
SELF	3	7.9	2	11.8
FAMILY	15	39.5	5	29.4
FRIEND	9	23.7	3	17.6
OTHER KNOWN	1	2.6	1	5.9
UNKNOWN	8	21.8	6	35.3
NOT PERSONAL DOCTOR	(3)	(7.3)	(14)	(45.2)
TOTAL	38	100.0	17	100.0

TABLE 8 (A)

DATE RESPONDENT LAST SEEN

BY AREA OF RESPONDENT

Data From Respondent

	AREA II		AREA VI	
	No.	%	No.	%
1965	9	2.7	0	0
1964	105	31.9	97	28.8
1963	147	43.8	112	33.3
1962	20	6.0	34	10.1
1961	7	2.1	17	5.0
1960	6	1.8	6	1.8
Longer	13	3.9	25	7.4
Unknown	27	8.1	46	13.6
N.A.	(36)*		(143)**	
TOTAL	334	100.3	337	100.0

*Doctor is self, husband, or respondent has no doctor

**Respondent has no doctor

TABLE 8 (B)

DATE RESPONDENT LAST SEEN

BY AREA OF RESPONDENT

Data from Doctors

	AREA II		AREA VI	
	No.	%	No.	%
1965	17	44.7	8	47.1
1964	16	42.1	6	35.3
1963	2	5.3	0	0
1962	0	0	1	5.9
1961	1	2.6	1	5.9
1960	0	0	0	0
Unknown	2	5.3	1	5.9
Not Personal Doctor	(3)	(7.3)	(14)	(45.2)
TOTAL	38	100.0	17	100.1

TABLE 9

LAST VISIT: PROBLEM OR CHECK-UP?

BY AREA OF RESPONDENT

	AREA II		AREA VI	
	No.	%	No.	%
PROBLEM	23	60.5	14	82.3
CHECK-UP	12	31.6	2	11.8
UNKNOWN	3	7.9	1	5.9
NOT PERSONAL DOCTOR	(3)	(7.3)	14	(45.2)
TOTAL	38	100.0	17	100.0

TABLE 10

CLOSENESS OF RELATIONSHIP WITH RESPONDENT

BY AREA OF RESPONDENT

	AREA II		AREA VI	
	No.	%	No.	%
CLOSE	26	68.4	9	52.9
DEFINITE	5	13.2	5	29.4
DISTANT	5	13.2	2	11.7
UNKNOWN	2	5.3	1	5.8
NOT PERSONAL DOCTOR	(3)	(7.3)	(14)	(45.2)
TOTAL	38	100.1	17	99.8

TABLE 11

SPECIALTY OF PHYSICIANS USED BY RESPONDENTS

BY AREA OF RESPONDENTS

A. By Stated Specialty

	AREA II		AREA VI	
	No.	%	No.	%
GP	21	27.3	29	37.6
Internist	31	40.3	23	29.9
Obstetrics & Gynecology	6	7.8	11	14.6
Other	19	24.7	14	18.2
TOTAL	77	100.1	77	100.3

B. By Specialty Boards

	AREA II		AREA VI	
	No.	%	No.	%
Internal Medicine	21	27.3	11	14.6
Obstetrics & Gynecology	4	5.2	8	10.4
Other	4	5.2	1	1.3
None	48	62.3	57	73.8
TOTAL	77	100.0	77	100.1

FIGURE 1.

AGE DISTRIBUTION POPULATION OVER 21

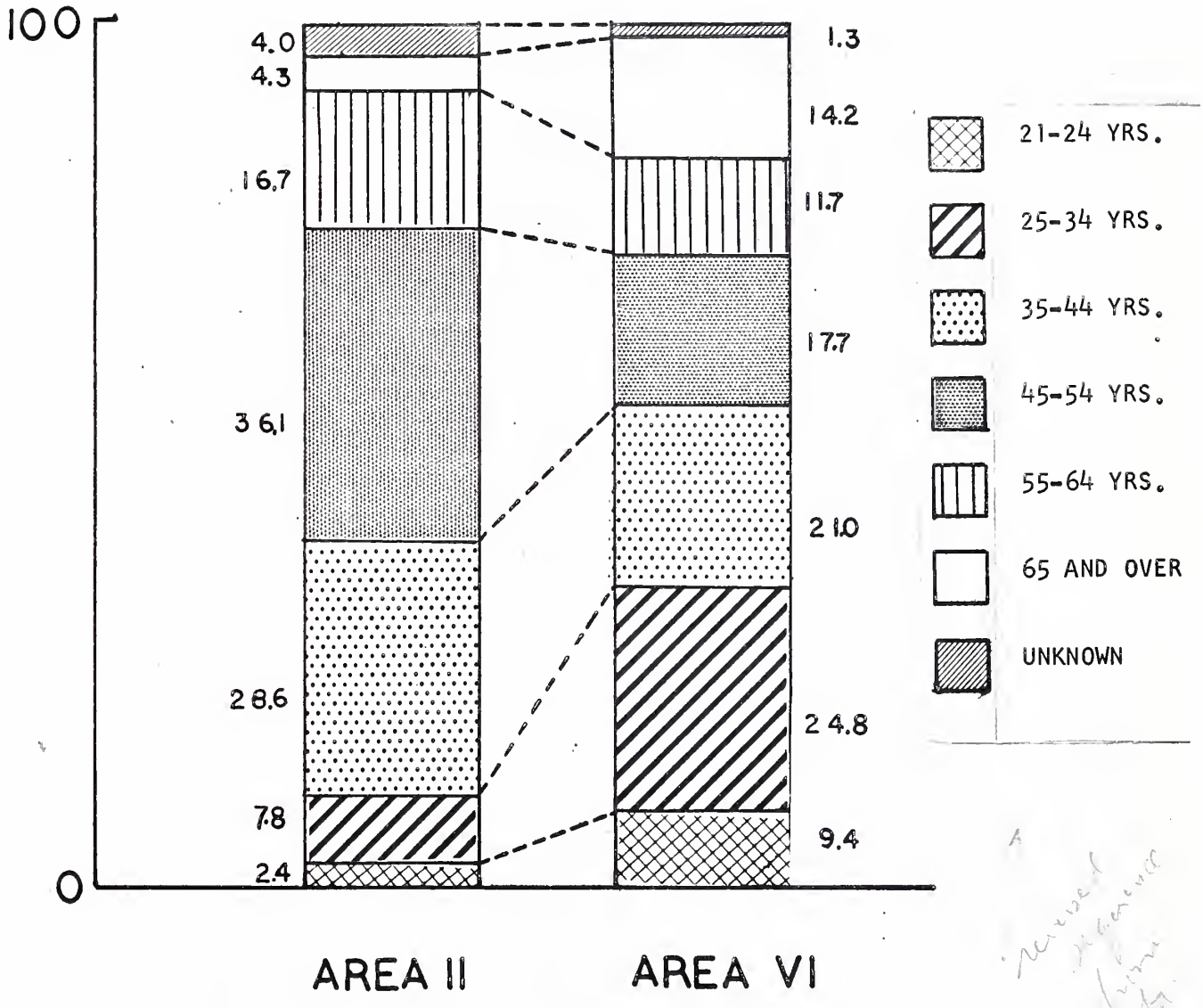


FIGURE 2.

MARITAL STATUS

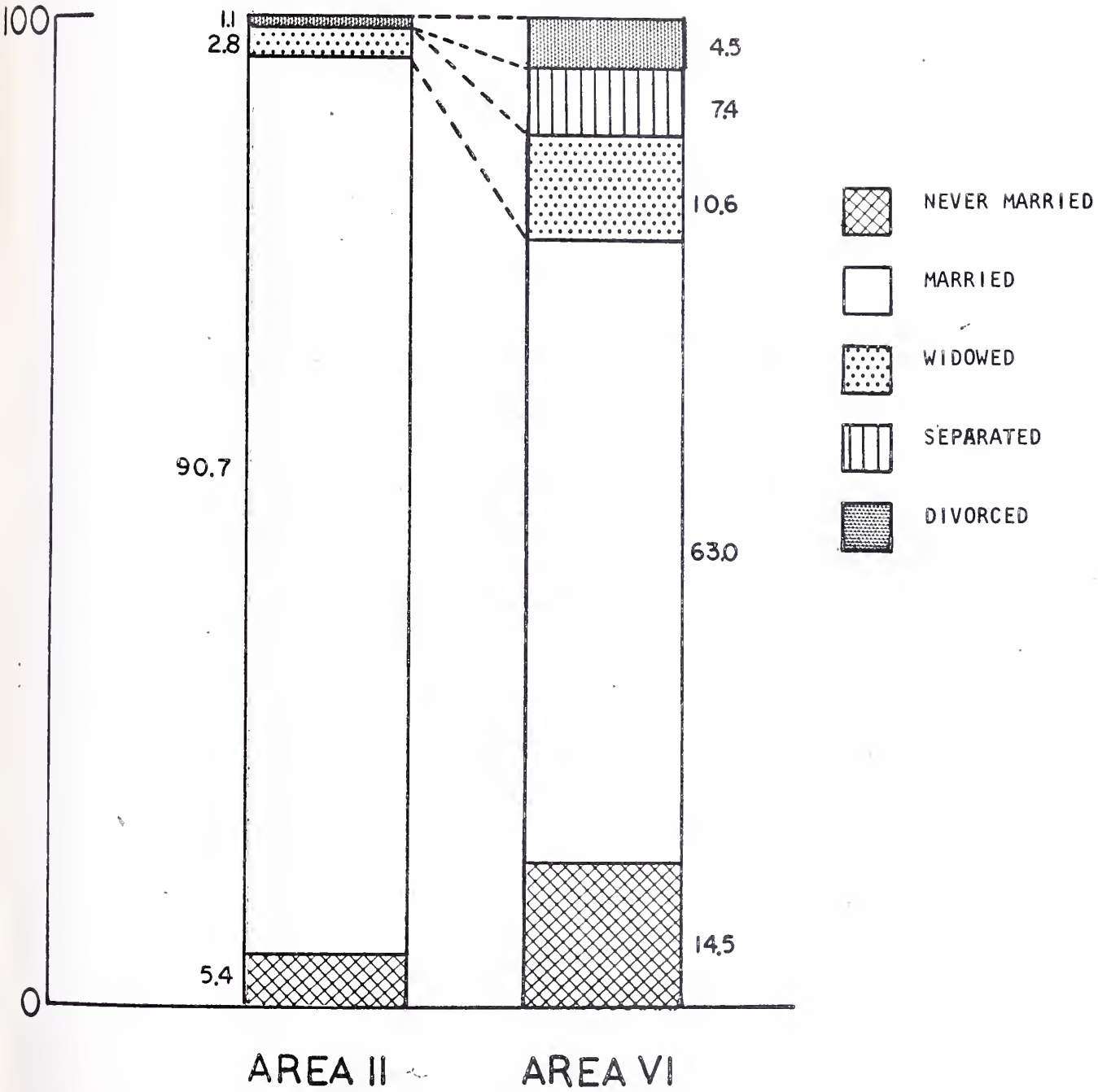


FIGURE 3. LIVE BIRTHS

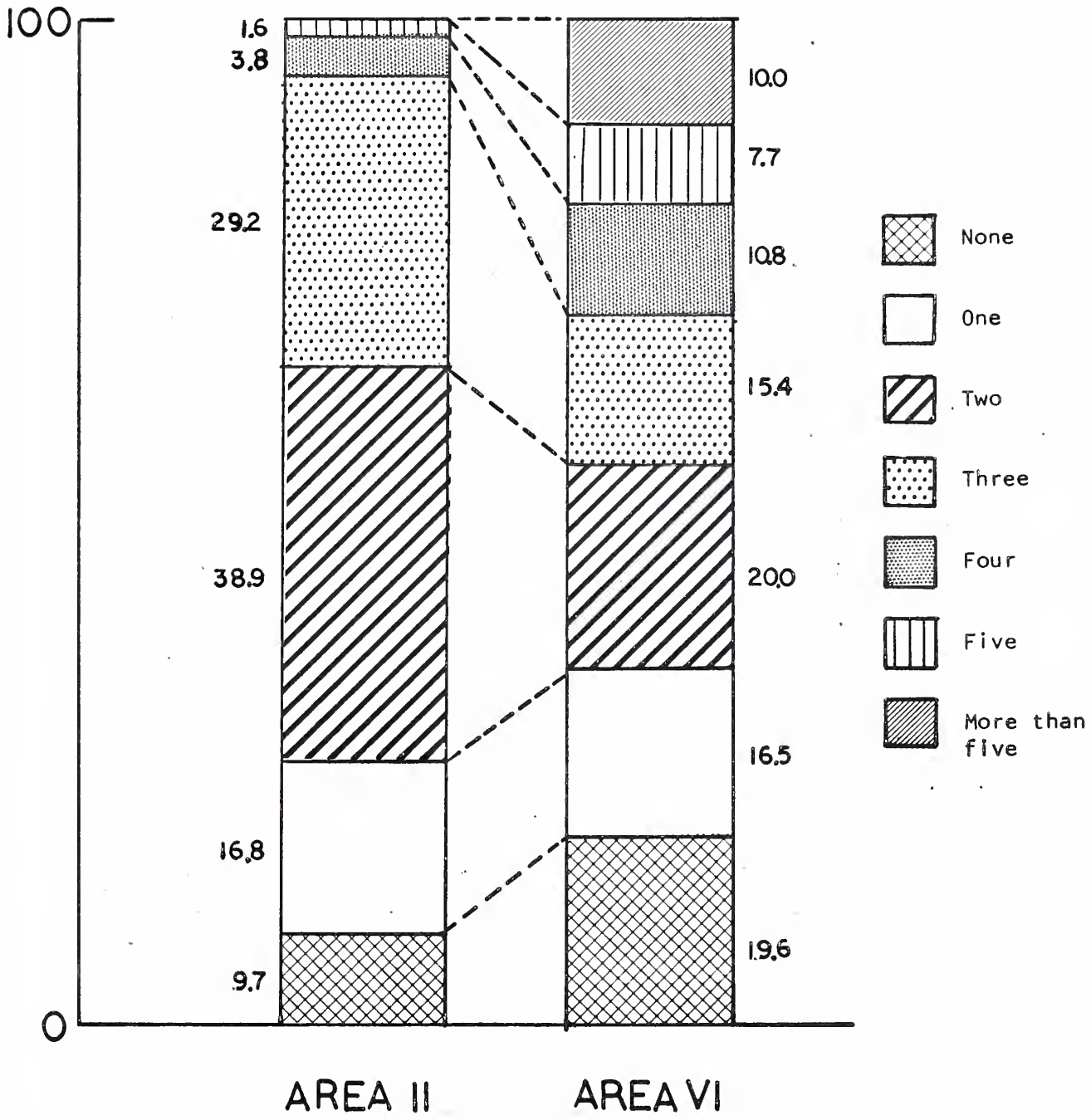


FIGURE 4. COLOR DISTRIBUTION

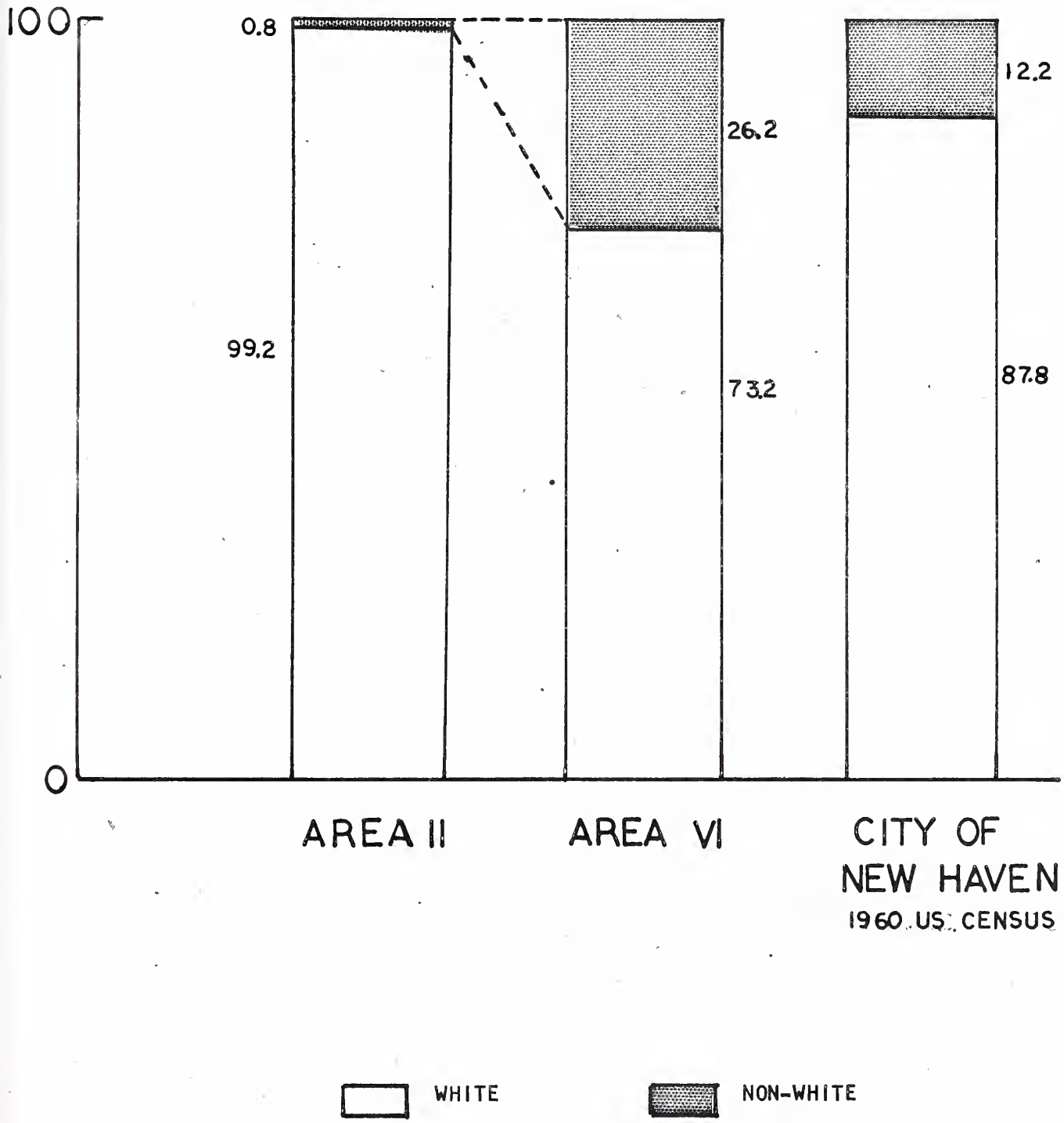


FIGURE 5. RELIGION

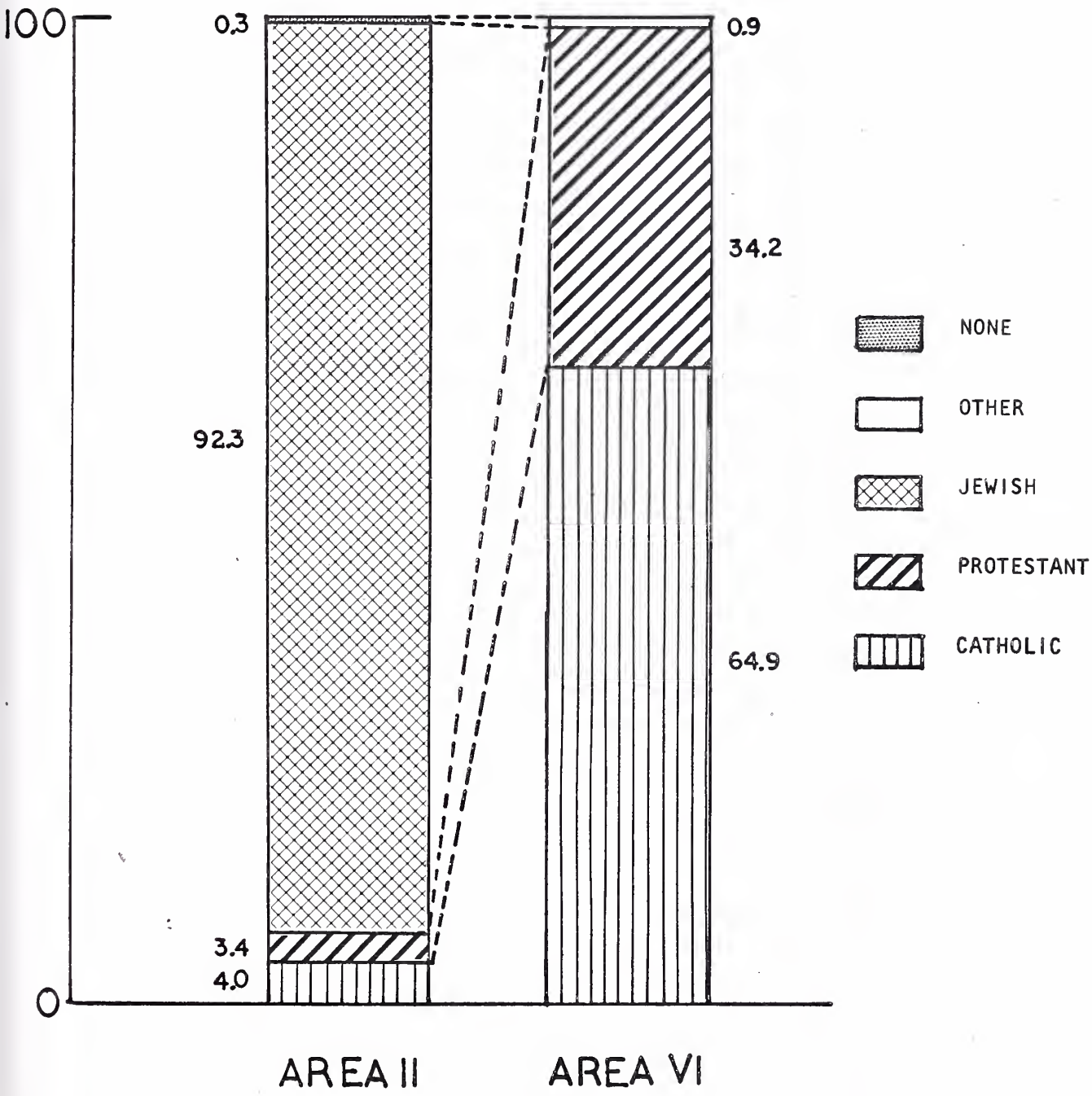


FIGURE 6.

SOCIAL CLASS DISTRIBUTION

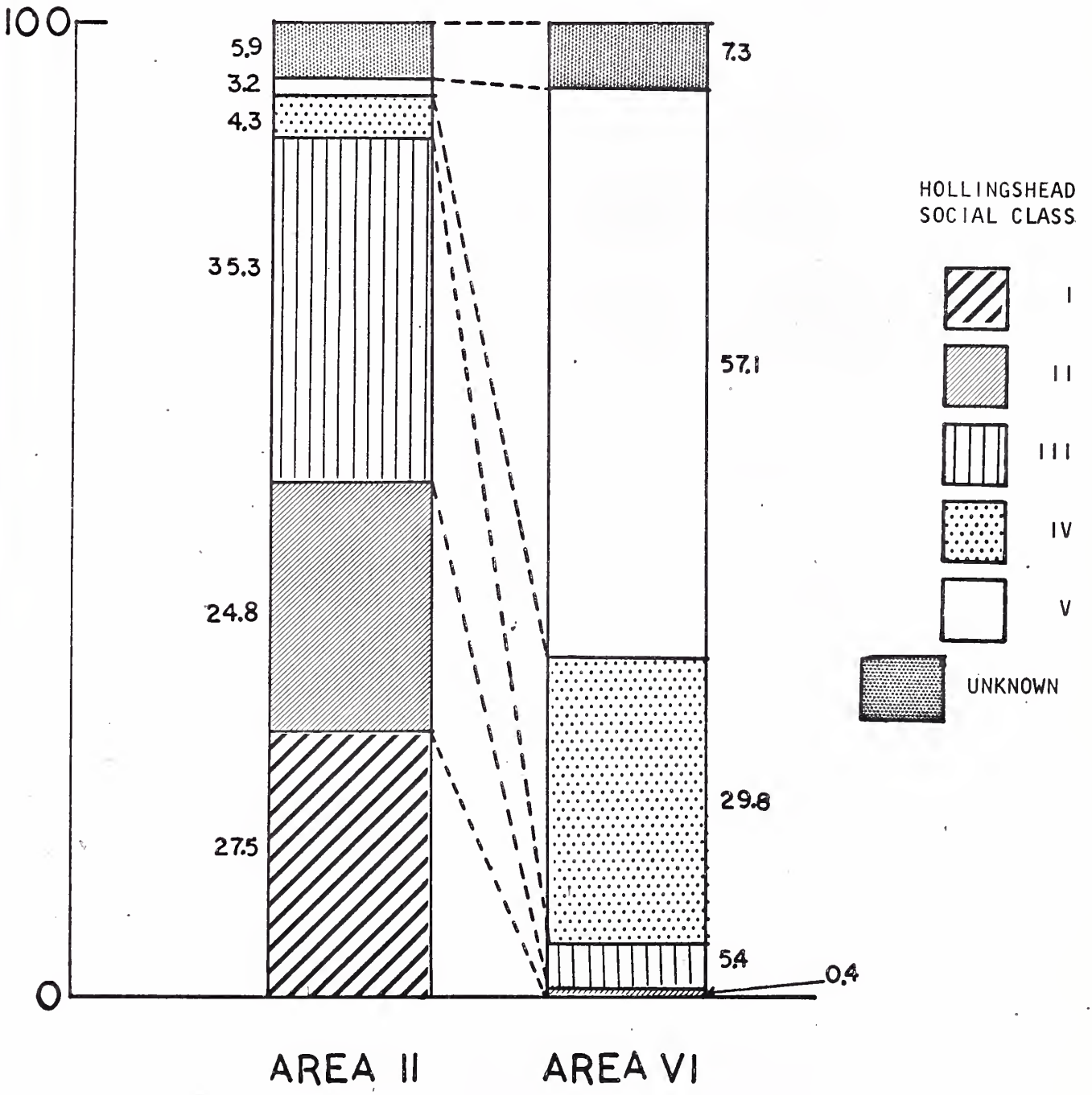


FIGURE 7.

DOCTOR'S PLACE OF BIRTH

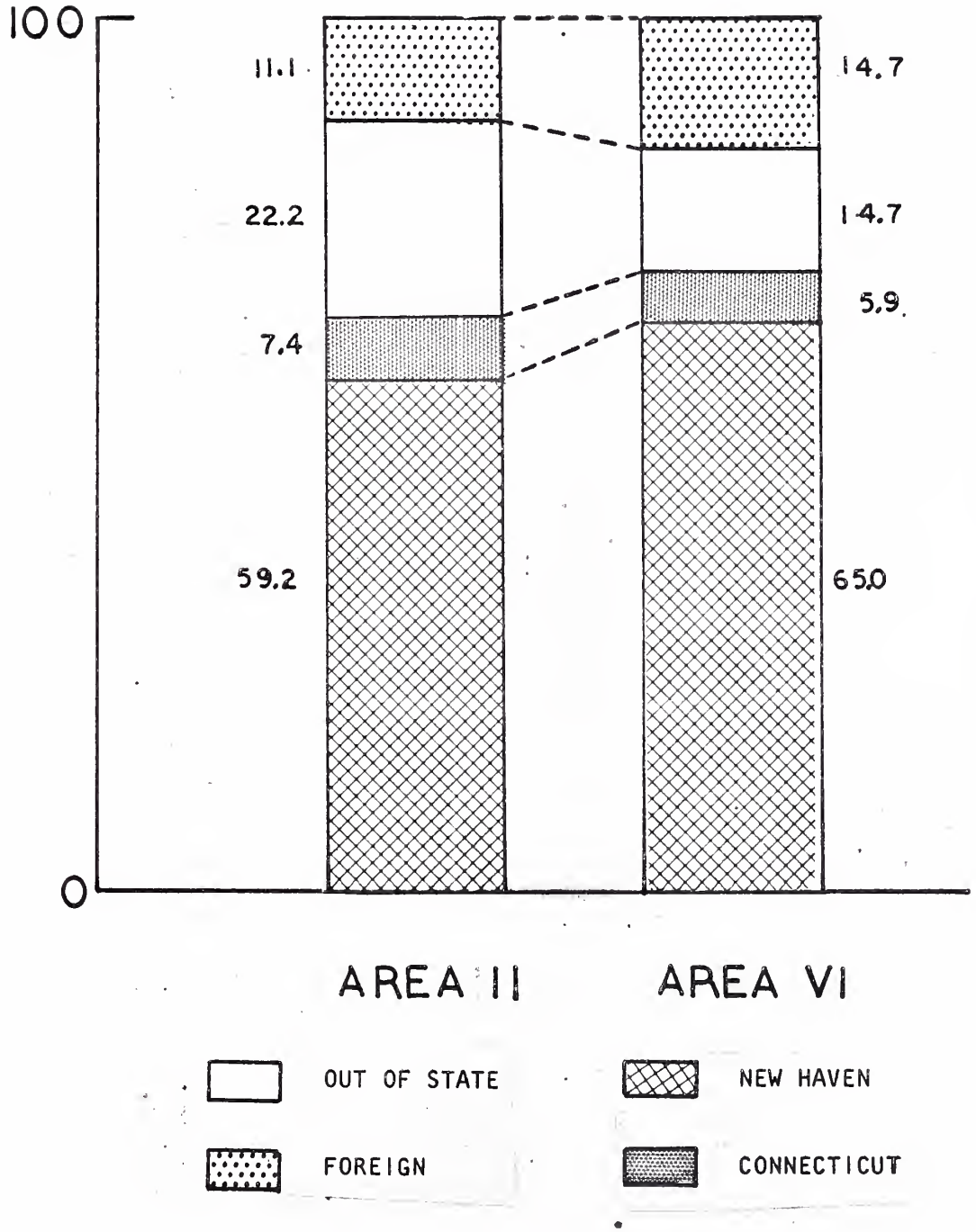


FIGURE 8.
DOCTORS' HOSPITAL TRAINING

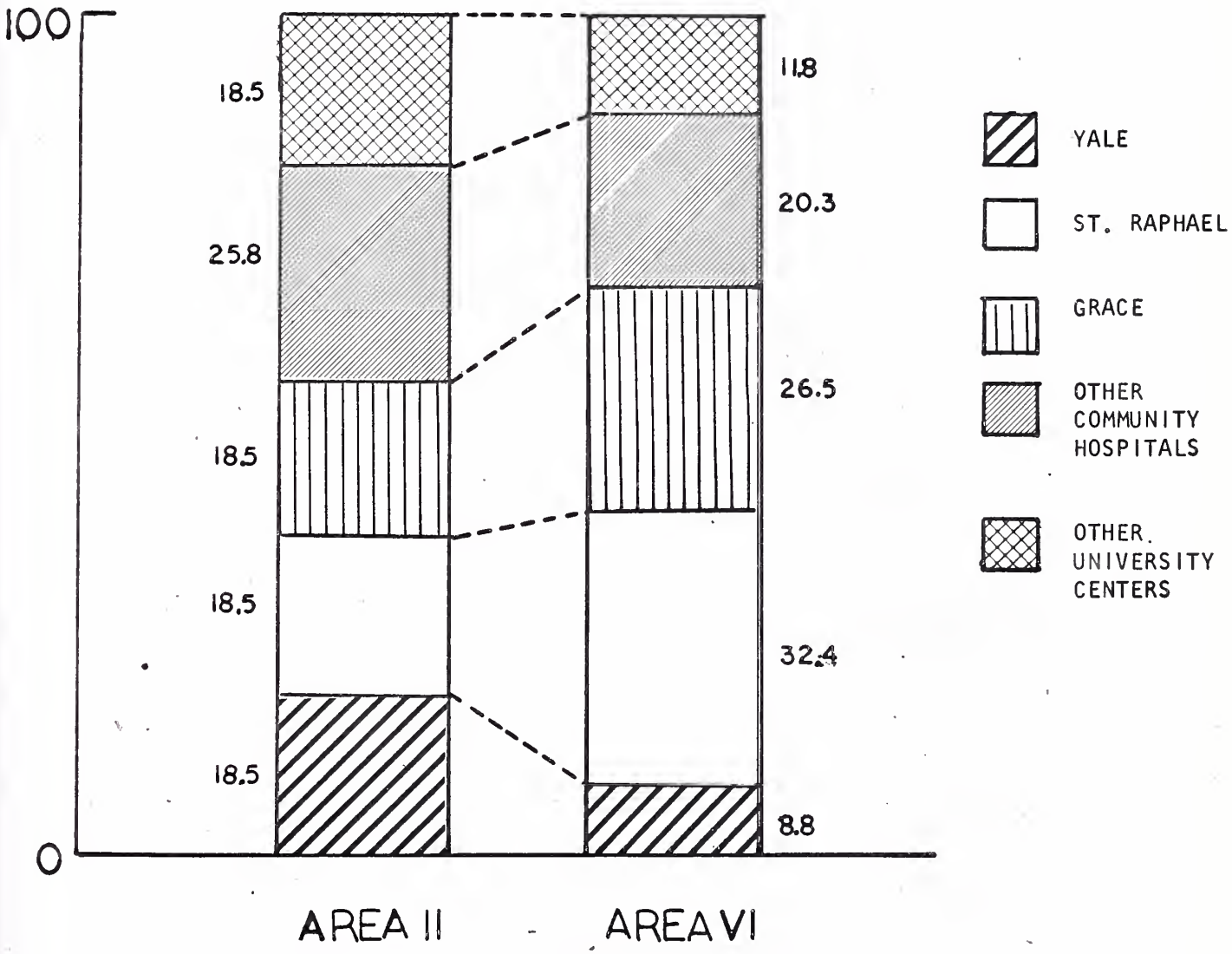
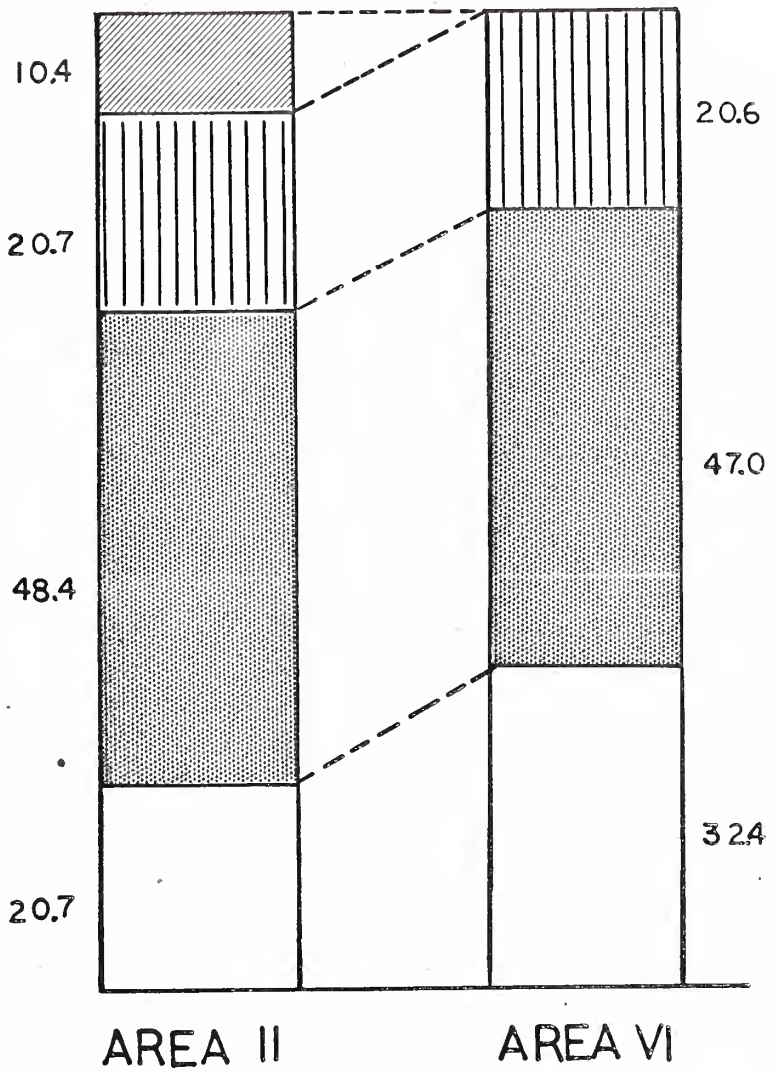


FIGURE 9. REFERRALS



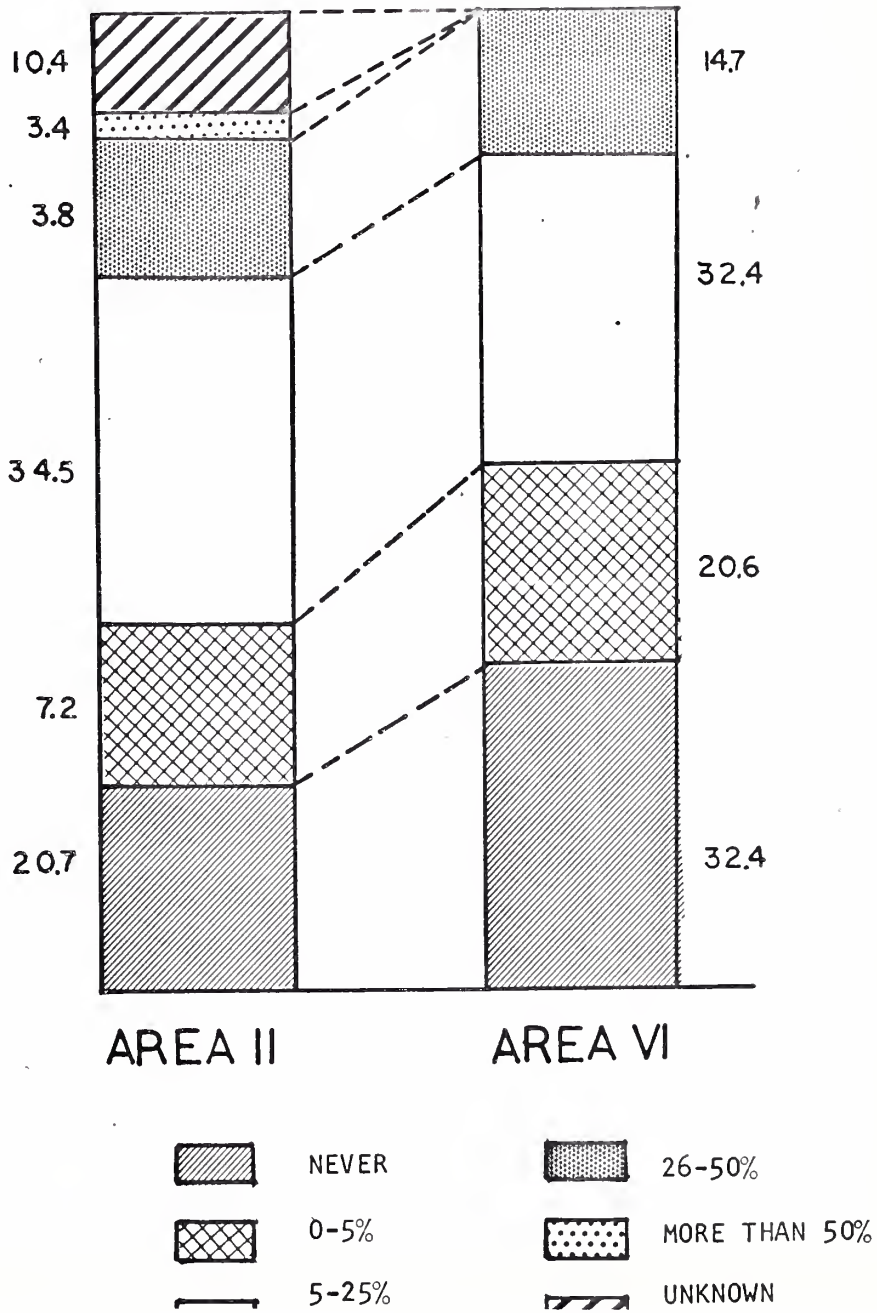


FIGURE 10.

DOCTORS CAME
TO NEW HAVEN

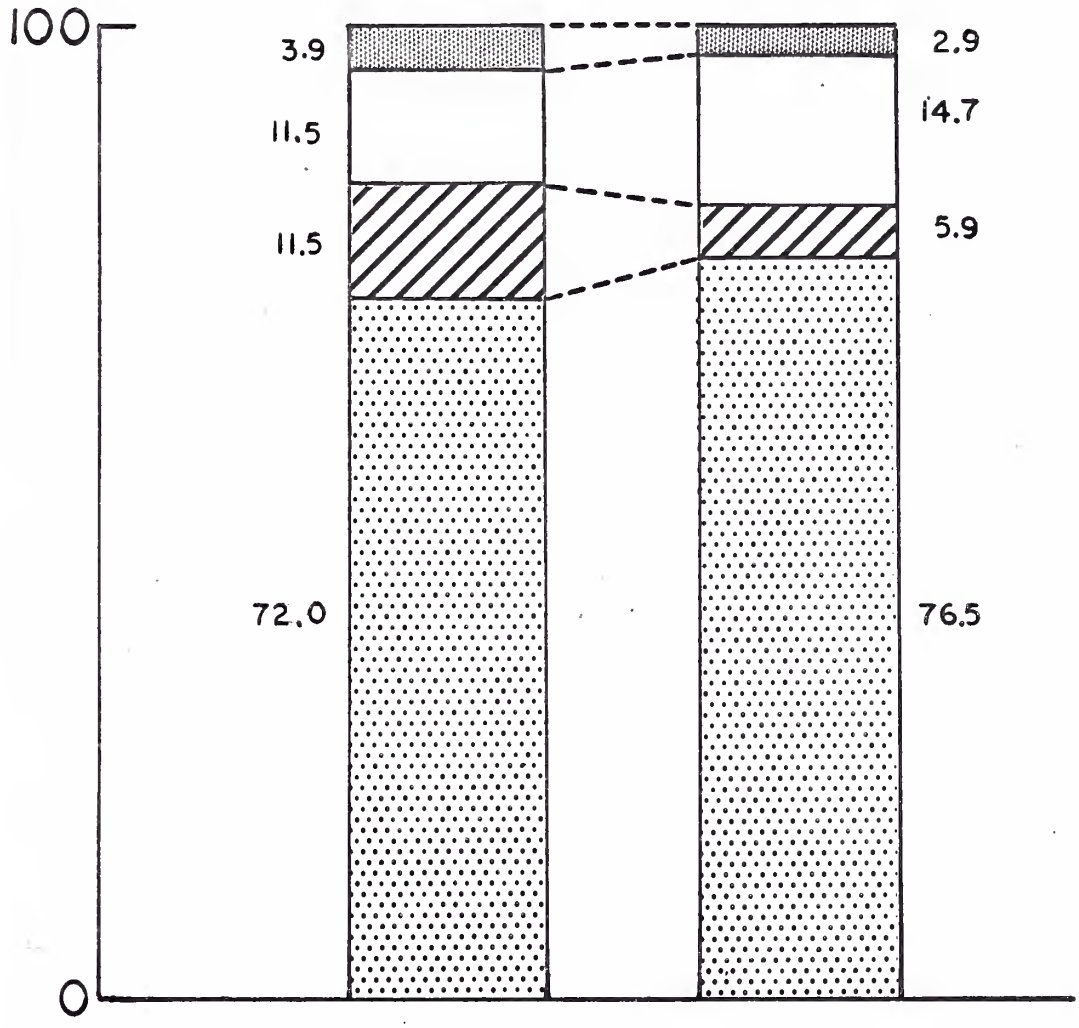


FIGURE II.

PRACTICE BEGAN
AT PRESENT ADDRESS

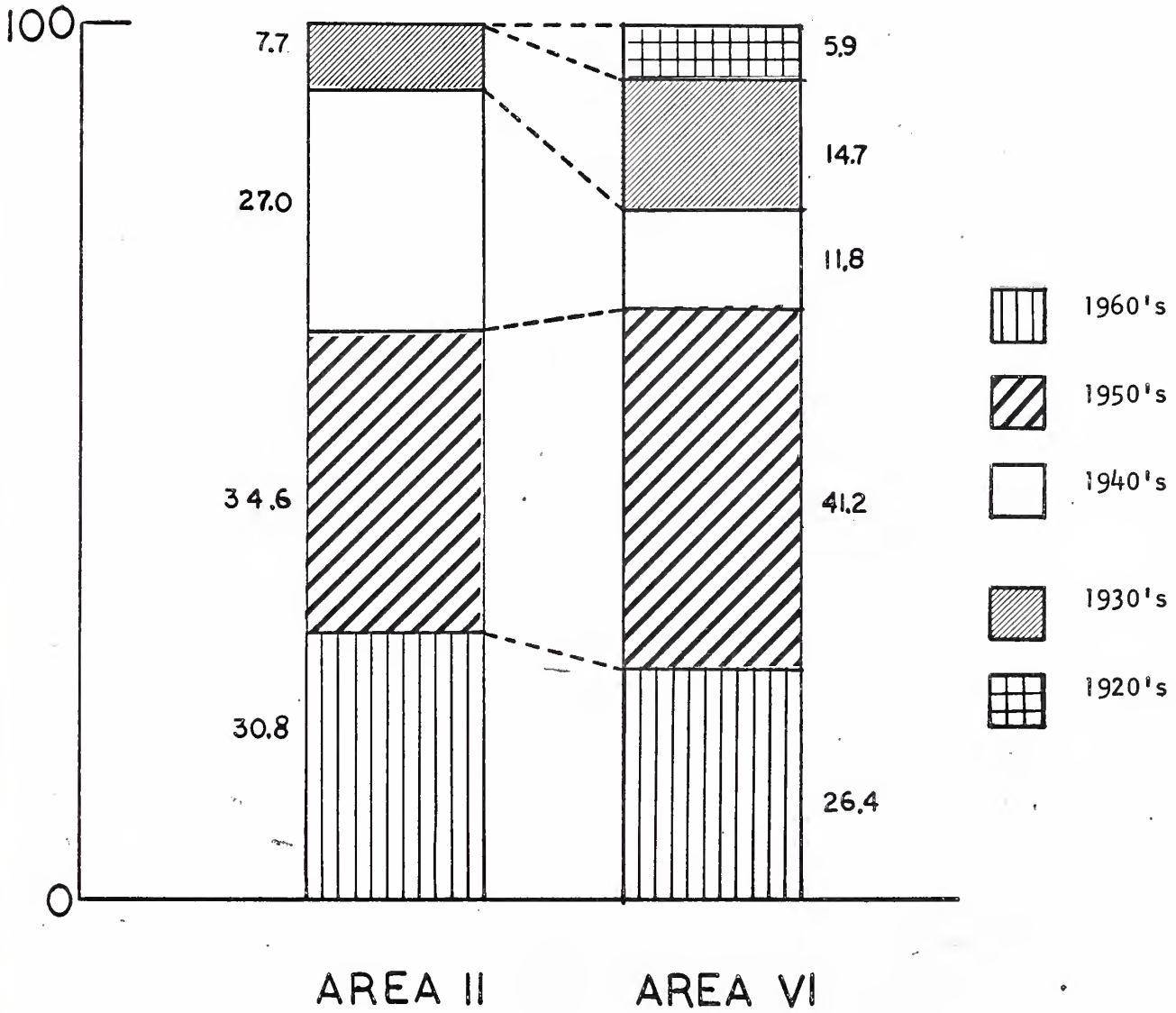
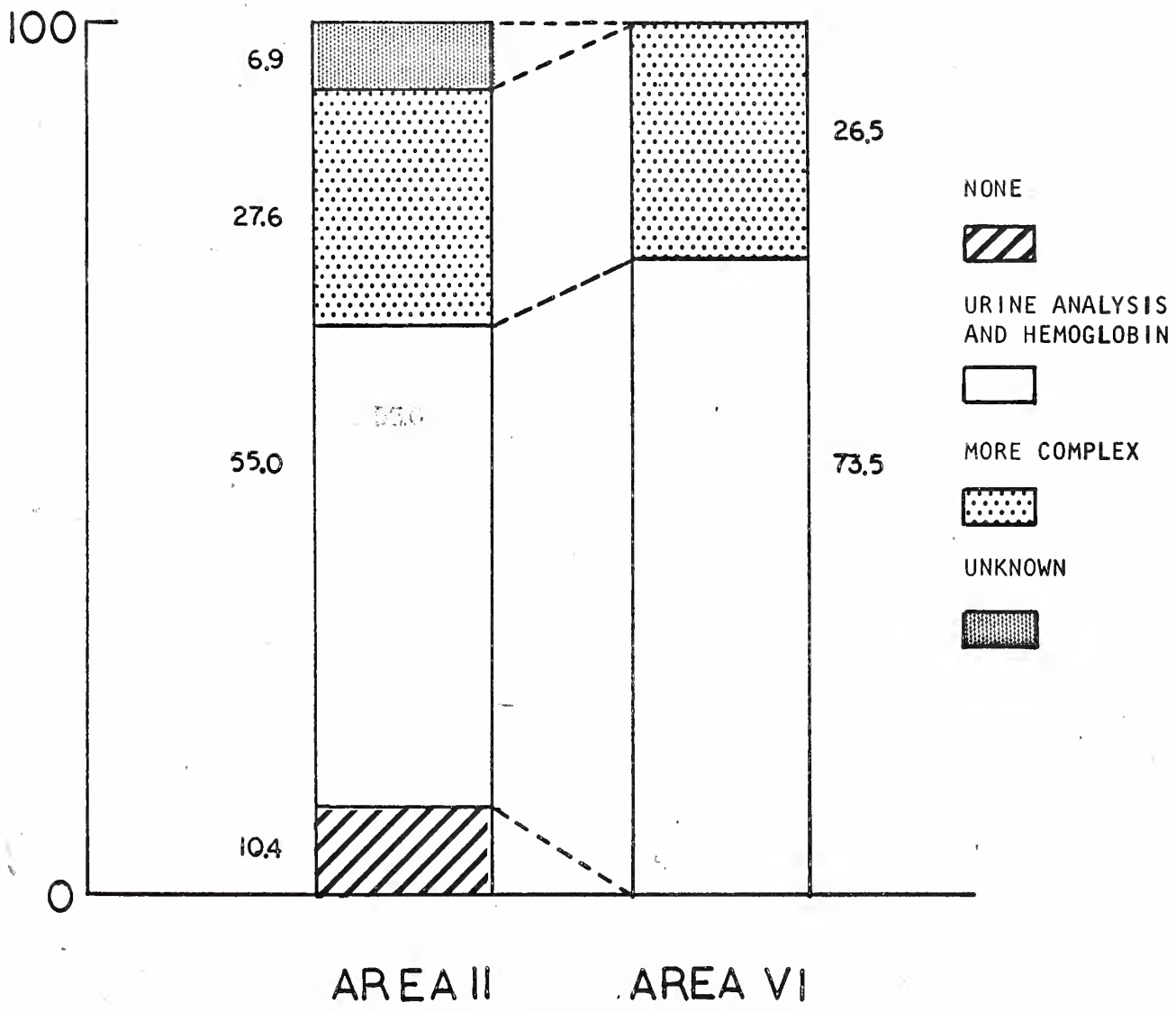
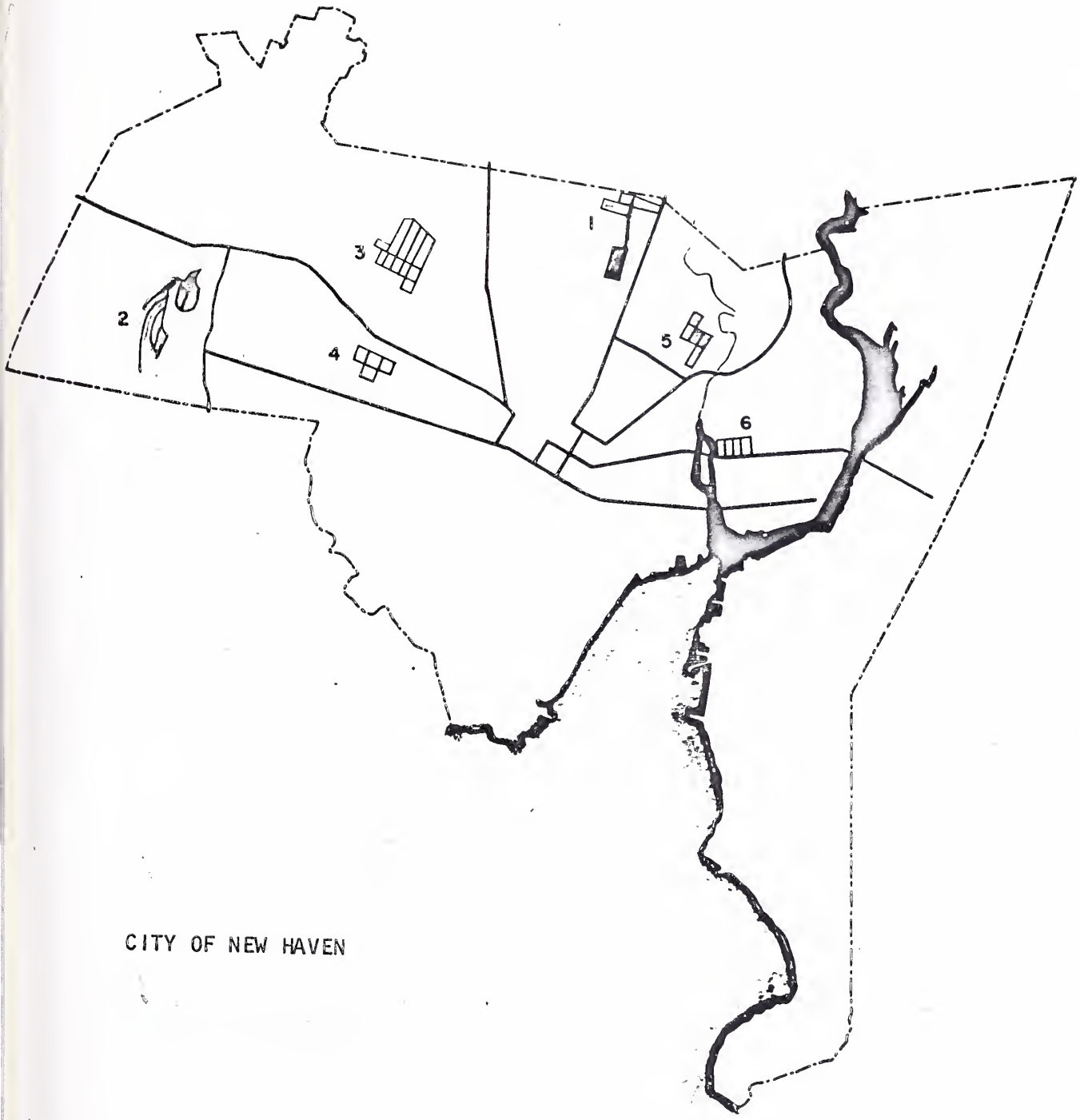


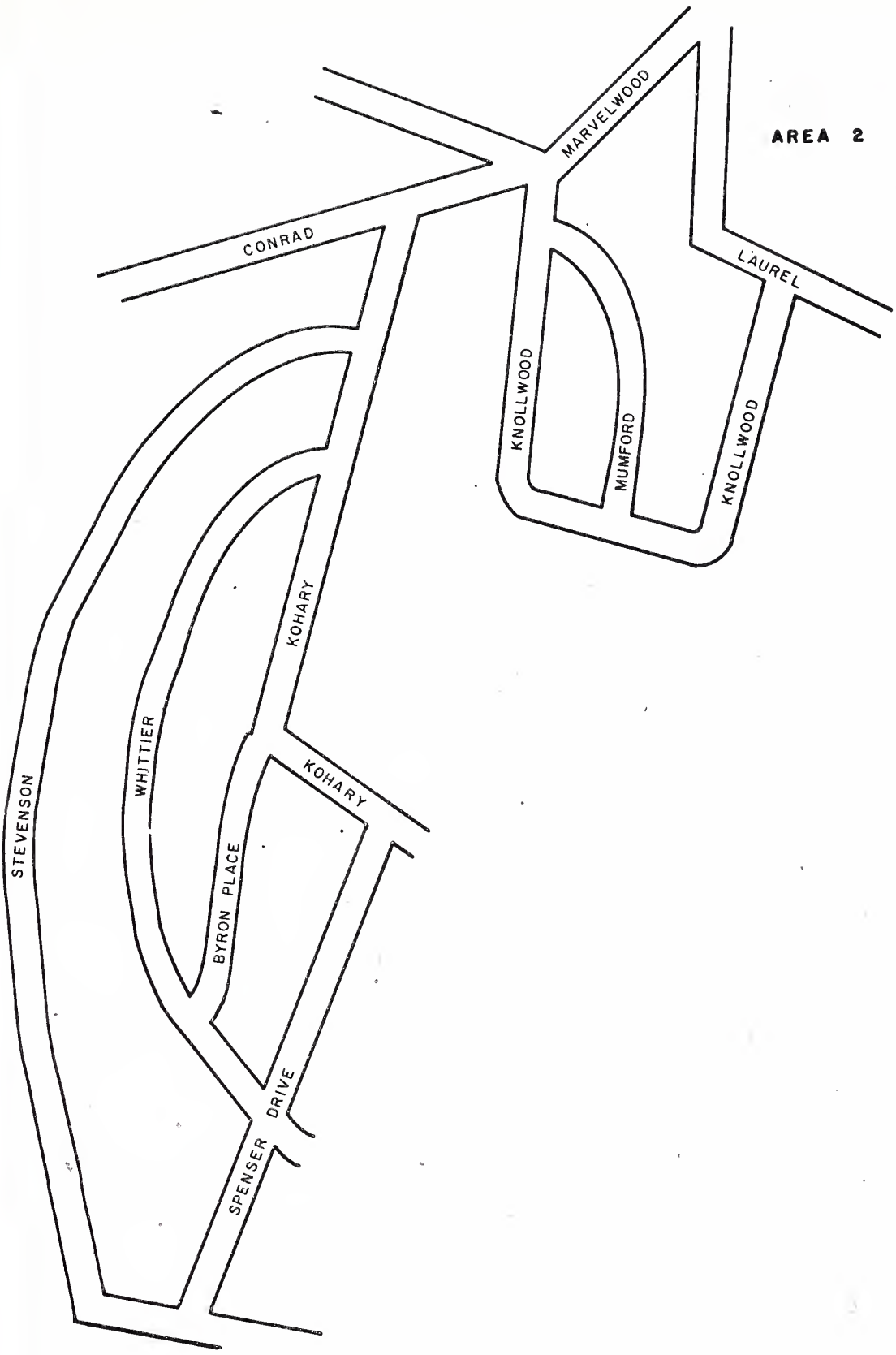
FIGURE 12.

LABORATORY WORK
DONE IN OFFICE





CITY OF NEW HAVEN


AREA 2
MARVELWOOD
CONRAD
LAUREL
KNOLLWOOD
MUMFORD
KNOLLWOOD
KOHARY
WHITTIER
STEVENSON
KOHARY
BYRON PLACE
DRIVE
SPENSER

AREA 6

APPENDIX

Yale University *New Haven, Connecticut*

SCHOOL OF MEDICINE
333 Cedar Street

Department of Epidemiology
and Public Health

Dear

From my previous letters, you know that we have seen some of your patients for our survey of arthritis and diabetes in New Haven. We are now at a stage where we would like to confirm some of the information we have obtained from those people who gave your name as their personal doctor. It would be most helpful if you could spare a few minutes of your time to help us.

Over the summer Mr. Anthony Robbins, a fourth year medical student, will be working on this problem. He will telephone your office and I should be most grateful if you would let him have an appointment. I would like to reemphasize that he will be as quick as possible.

Thanking you in advance for your kind cooperation.

Yours sincerely,

Roy M. Acheson

Roy M. Acheson, M.D.
Professor of Epidemiology and
Director of Survey

RMA:rb

Doctor: Name:

Address:

Telephone:

Appointment:

Anthony Robbins 6/8/65

DOCTOR'S QUESTIONNAIRE

Patient's Name Survey #

1. Are you his/her personal doctor?

   1. yes
   2. no

2. If YES: a) How long has he/she been your patient?

   b) Do you recall how he/she became your patient?

      1. referral from a doctor
      2. self referral
      3. referral by family member
      4. other known referral (specify)
      5. unknown
      6. don't recall

   c) Do you recall when you last saw him/her?

   d) Was it for a problem or check-up?

      1. problem
      2. check-up
      3. don't recall

   e) We realize that there is a spectrum of closeness and rapport, and that some practitioner-patient relationships are closer than others. Do you consider your relationship with this patient to be close, definite but not close, or distant?

      1. close
      2. definite, but not close
      3. distant

3. If NO: Has he/she ever been your patient?

   1. yes
   2. no

4. Have you ever treated him for:

   a) diabetes 1. yes 2. no
   b) rheumatoid arthritis 1. yes 2. no
   c) osteoarthritis 1. yes 2. no
   d) gout 1. yes 2. no
   e) other joint disease 1. yes (specify) 2. no

DOCTOR'S QUESTIONNAIRE

Doctor's Name

Address

Telephone #

1. Date of Birth

2. Sex

    1. male
    2. female

3. Race

    1. white
    2. Negro
    3. other

4. Where were you born?

    1. New Haven
    2. Connecticut
    3. out of state
    4. foreign country

5. Which medical school did you attend?

6. Where did you get most of your hospital training?

    a) New Haven

    If New Haven

    1. Yale
    2. St. Raphaels
    3. Grace

    b) Connecticut
    c) out of state
    d) foreign country

    If b, c, or d:

    1) a university center
    2) a community hospital

7. Do you have a hospital affiliation?

    1. yes
    2. no

DOCTOR'S QUESTIONNAIRE

If yes

1) Yale
2) St. Raphaels

8. When did you come to New Haven?

9. Do you practice as a:

1) general practitioner
2) internist
3) surgeon
4) gynecologist or obstetrician
5) other (specify)

10. When did you start this kind of practice?

11. When did you start practicing at this address?

12. Is yours a solo or partnership practice?

1. solo
2. partnership

13. Are your patients referred to you by other doctors?

1. never
2. sometimes
3. often

14. If 2, or 3, can you estimate what per cent of your patients are referred to you?

15. Would you prefer more or less primary practice?

1. more
2. same
3. less

16. What are your office hours?

17. Do you have a nurse? (not specifically an RN)

1. yes
2. no

18. Do you have a secretary?

1. yes
2. no

19. If yes to 18 and 19, is your secretarial work and nursing done by:

a. one person
b. two people
c. more than two people

DOCTOR'S QUESTIONNAIRE

20. Which routine laboratory studies are done in your office?

1. None
2. Prepared tests
3. Microscopic
4. diffs and bacteriologic

21. Where do you get your routine x-ray studies done?

1. in the office
2. outside lab

Observations:

1. Suite: shared?

location

rooms

2. Help

3. Patients

4. Equipment

5. Books

6. Records

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