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A MODEL FOR THE SELECTION OF INDIGENOUS PERSONNEL FOR

FAMILY PLANNING CLINICS IN LOW-INCOME NEIGHBORHOODS

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A MODEL FOR THE SELECTION OF INDIGENOUS PERSONNEL FOR

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TABLE OF CONTENTS

LIST OF TABLES

A MODEL FOR THE SELECTION OF INDIGENOUS PERSONNEL FOR

FAMILY PLANNING CLINICS IN LOW-INCOME NEIGHBORHOODS

CHAPTER I

INTRODUCTION
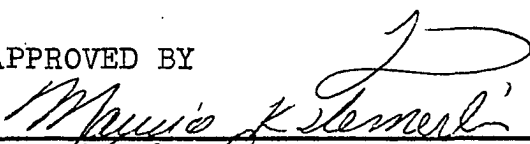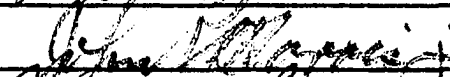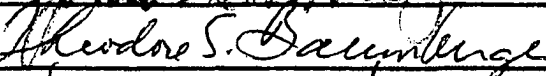
The utilization of indigenous nonprofessional workers
to interpret program procedures and goals to potential
consumers of service is being widely discussed. It is a
concept which has found many specific applications in pro-
grams designed to alleviate social conditions which tend
to perpetuate poverty. A growing body of knowledge testi-
fies to the success of such an approach. Stewart (1967)
has demonstrated that nonprofessional personnel, indigenous
to the areas to be served, could significantly raise the
immunization levels of the residents.

Kent and Smith (1967) have shown that the employment
of neighborhood representatives can raise the level of par-
ticipation in maternal and infant care clinics by a factor
of 42 percent. Further, the quality of medical care was
enhanced by the worker's ability to obtain earlier involve-
ment of expectant mothers in prenatal care.

Polgar (1966) reporting on the initial stages of a
project to recruit patients for a mobile Planned Parenthood

1

Clinic has demonstrated that workers recruited from the areas to be served can become a significant source of referral to the program. He reports these workers are the largest single source of referral when they utilized a door-to-door canvassing approach.

These brief examples point up the potential of such a strategy. One of the problems in implementing such a strategy has been selecting the right individuals for the task to be accomplished. It is not useful to assume that all persons indigenous to the area to be served can accomplish these job roles equally well.

All these authors concur on the importance of the selection process to the success of the program using indigenous nonprofessionals to involve the "hard to reach". Explicit recognition of the "selection problem" is found in the reports of these three recent studies:

> The importance of the selection process in regard to indigenous personnel can hardly be over-emphasized (Stewart, 1967, p. 176).

> Critical to the ultimate success of the neighborhood representative are: the criteria used in their selection and recruitment; the nature of their training; the style of their supervision; and their specific role function (Kent and Smith, 1967, p. 999).

In reporting on the wide variation of neighborhood workers' abilities to make successful referrals, Polgar (1966) states,

> . . .better selection and training
> of neighborhood workers. . .may be
> expected to raise their efficiency
> (Polgar, 1966, p. 14).

These brief examples of recent reports, with their emphasis on selection issues, comprise the most relevant group of studies which pertain to the present research question. The following review of the literature will provide a broader framework for the development of the problem.

Relevant Public Health Problems and Attempted Solutions

In a study of health attitudes and practices in low-income groups in Washington, D.C., Cornely and Bigman (1963) present survey data from more than 400 families. They contend that information and attitudes about health care facilities markedly influence the patterns of utilization of these services. They report that while good health is regarded as important to these families, measures such as immunization, early diagnosis, and prompt treatment were rarely mentioned as being of value to positive health. A similar discrepancy between stated attitudes and appropriate behavior is found in response to the value of periodic health examinations. Some 95 percent of the respondents said they felt the periodic health examination was important, but they report:

> . . .the proportion of those who had
> one (physical check-up) was not of the
> same order. Furthermore, belief or

> non-belief in the physical check-up
> was not associated with its use.
> There were just as many believers among
> those with low as with high utiliza-
> tion (Cornely and Bigman, 1963, p. 24).

A possible explanation of these discrepancies may be found in the portion of the study dealing with the knowledge and use of available services. The authors report that the respondents did not know where health services were available, even though the agencies concerned maintained (in their eyes) adequate programs of education. This lack of knowledge of availability extended to other service agencies such as public welfare and vocational rehabilitation, and to non-governmental health agencies such as the American Cancer Society and the American Heart Association. The health department and these other agencies were consistently viewed as dispensers of medical care rather than preventative or rehabilitative services.

Kent and Smith (1967) suggest that a hierarchy of problems is operating in the lower socio-economic levels which prevents the poor person from translating positive health attitudes into obtaining care for a non-acute problem.

> Ghetto members lead crisis-ridden
> lives. Dealing with these crises
> creates a value system that gives
> highest priority to satisfaction of
> immediate needs. In this system,
> disease is a concern only when it

is an emergency. A value for pre-
ventive health care cannot arise in
such an environment (Kent and Smith,
1967, p. 997).

These two factors (a) lack of information about re-
sources and (b) the crisis orientation of the poor, have
often intervened between the consumer of health services
and the purveyor.

Other studies lend support to this underutilization
phenomenon. Brightman, et al, (1958), has shown that health
programs and facilities available without financial bar-
riers may still not be fully utilized. The study concen-
trated on the utilization of health care services within
three socio-economic groups:

(1) Public assistance recipients whose medical care
was provided as a part of their public assist-
ance grant.

(2) Low-income residents who were nonwelfare
families residing in a public housing project.

(3) Middle income factory workers whose medical
care was largely financed through a medical in-
surance program offered through their company.

Household interviews with the families of all groups
were conducted, a total of 856 households and 3,651 persons.
The average size of the household was almost identical in
each group.

Questions regarding knowledge and utilization of

services revealed no differences among the three groups
in the receipt of health information and health literature.
There were no differences reported in the knowledge or
utilization of school health services among the groups.
In most school health programs this might be expected
since participation is often mandatory.

With regard to prenatal care received, the "public
assistance" mothers tended to present themselves later
and make fewer visits than the other groups. Over a
previous five year period, the proportion of low-income
women receiving post-partum care was significantly lower
than for the middle income group.

Notkin (1958), reporting on another facet of this
same study, demonstrated that members of the "public
assistance" group do not consider salaried welfare phy-
sicians as their family doctor. Since the public assistance
recipients report eight times more general clinic visits
than the middle income group, and twice as many as the other
low income group, this may reflect the type of availability
of services. The traditional model of the general clinic
for the medically indigent does not lend itself to the
development of rapport between the patient and the phy-
sician. A combination of high physician turnover and
specialization contribute to the low probability that
any patient will be seen by the same physician on a re-
turn visit. The desire for this continuity of care is
perhaps reflected by the finding that:

> Large numbers of them seek services
> from other physicians despite the
> fact that they presumably pay for
> such services from their carefully
> budgeted welfare grant (Notkin, et
> al, 1958, p. 326).

Another finding, which may reflect the frustration
arising from this system of health services delivery, is
the report that unattended illness is much more common in
the public assistance group than the others despite the
lack of a financial barrier to medical service. Other types
of barriers, eg., clinic hours, clinic geographic location,
availability of public transportation, are not discussed;
consequently, conclusions about this type of underutili-
zation are not possible.

An index of acute health needs can be drawn by noting
that hospitalization for inpatient care occurred nearly
twice as often for the public assistance recipients than
the other groups. Inability to pay for this type of treat-
ment may have decreased the incidence of hospitalization for
the nonwelfare, low income group. Compared to the middle
income group whose hospital costs were prepaid through
hospitalization insurance, these differential rates of
hospitalization are most parsimoniously accounted for by
positing a differential need for hospitalization. This
difference might be related to the number of unattended
illnesses reported. Some unattended illnesses would seem
to have a higher probability of achieving acute proportions
and requiring hospitalization; eg., an insect bite, if

scratched, may develop a secondary infection which results in a superficial skin infection (impetigo), which may extend to other parts of the body or penetrate to deeper layers of the skin. This process may cause boils, which may invade the circulatory system and extend to other parts of the body, including the lungs, kidney, or bones. These affected parts may then develop pneumonia, acute nephritis, or osteomyelitis, respectively; all of which would require hospitalization. The strong inverse relationship between the reporting of a family doctor and the number of unattended illnesses in the public assistance group is apparent. The likelihood that unattended illnesses account for higher rates of hospitalization for acute illness seems probable. In light of these two findings, it seems a tenable assumption that the lack of rapport with a physician, considered as a family doctor, may account for the more acute health conditions encountered by public assistance recipients.

A more recent report demonstrates lower utilization of health services by Negroes when compared to whites with similar incomes (Report of the National Advisory Commission on Civil Disorders, 1968). The previous study has shown how income level can affect patterns of health care. Since the proportion of persons in the United States who are poor is 3.5 times as high among Negroes as whites, it is not surprising to find that Negroes in general have maternal mortality rates four times as high as those for white

mothers, or that neonatal mortality rates among non-white babies are 58 percent higher than among whites (op. cit. p. 270). But, when income levels are matched, the Negro-white differences in rates of utilization still maintain themselves. When the percent of family income spent for medical care is used as an index of utilization, whites spend nearly twice as much as Negroes in the under $3000 yearly income group (op. cit. p. 271). The Report of the National Advisory Commission on Civil Disorders concludes that fewer doctors and medical facilities are available to Negroes — especially poor families — resulting in fewer visits to obtain medical care. In addition, Negroes are more likely to be treated in hospital clinics than whites, and they are less likely to receive personalized service (op. cit. p. 272).

Coe and Wessen (1965) have reviewed other social-psychological factors which affect participation in health care services. They emphasize the importance of the patient's self concept in the encounter between the physician and the patient. In contemporary medical practice, they argue that the absence of the personal relationship between the patient and the stereotype of the "old family doctor" places the purveyor and the consumer on quite an unequal footing. The physician is quite familiar with his role while the patient ordinarily does not choose to be ill, and therefore does not have a clear understanding of the norms

which might guide his behavior in that situation. In short, there is usually an extreme power differential between the patient and the physician. They also say:

> There is a considerable amount of
> research which suggests that people
> tend to resist, or even altogether
> withdraw from situations in which they
> occupy a disadvantaged position, or
> lose control over the factors which
> enable them to present themselves in
> a favorable light (Coe and Wessen,
> 1965, p. 1029).

This factor probably would be more accentuated as the distance between the social class of the physician and the patient increases. That is, the lower socio-economic classes probably exhibit resistance or withdrawal because the differences in social role between the dispenser and consumer are accentuated by differing social class backgrounds. The low probability that the medically indigent can ever hope to see the same physician on return visit to a public clinic further exacerbates the "extreme impersonality" described by Coe and Wessen (1965).

Since medical services for the indigent are most commonly provided through public agencies, the poor consumer must usually make application to receive these services. At this point, he may encounter a representative of the bureaucratic structure much like the general type described by Merton (1949).

> The personality pattern of the bureau-
> crat is nucleated about this norm of

> impersonality. Both this and the
> categorizing tendency. . .tend to
> produce conflict in the bureaucrat's
> contacts with the public or clientele
> (Merton, 1949, p. 158).

Merton develops the idea that since it is useful to the dispenser of services to minimize personal relations and to resort to categorization, the exigencies of the individual's problems are often overlooked. When the patient, who is convinced of the special features of his own problem, tries to register a protest he finds no satisfaction when confronted with the monopolistic nature of public health organizations. He has no where else to turn.

Many writers have observed the dysfunctions of bureaucracy and studied the impact of bureaucratic service systems on the consumer. This type of investigation is particularly appropriate to those services which are available only to low income groups. James (1965) describes a "fragmentation of services" which confuses and divides the patient and the patient's family. He argues, because medical care is now organized under headings of various specialities, the patient is often separated into various parts — various organ systems with separate groups of people handling each one of these systems. This situation is more markedly true of the medical care received by the indigent since often the legislative appropriations which finance their medical care are made for the disease, eg., heart, cancer, stroke, immunizations, prenatal care, family planning, etc. This

administrative determination may be one of the chief
reasons for the underutilization of medical care among the
indigent. As James (1964) points out, in discussing one of
his elderly patients with ten distinct pathological con-
ditions (ranging from carcinoma, through heart disease,
to diabetes mellitus) — the trips to the various clinics,
with the attendent waiting, and problems of transportation,
would soon prove so debilitating that hospitalization would
become necessary. He concludes:

> . . .the traditional pattern of medical
> care which was available to this medically
> indigent old man, living with his old
> wife in a public housing project, was
> not one which could help him. It would
> have incapacitated him (James 1964, p. 13).

Foster, (1952) provides cross-cultural examples from
an extensive analysis of Latin American patterns of delivery
of health services. The bureaucratic nature of the service
system is but one of the inhibiting factors found by Foster
(1952). He states that "government hours" in many parts
of Latin America require that a patient must arrive early
and await her turn if she is to be reasonably sure of atten-
tion. Since services are available in many clinics only
during the morning and early afternoons, the patient, faced
with daily marketing and other chores best accomplished in
the morning, usually chooses not to participate in the
health care programs. He reports that the most frequent
single complaint about health center services was the loss

of time experienced by the patient. Unless programs offering health care are presented within the prevailing set of value-habits of the community, their acceptance will be limited at best.

Public health efforts, which do not foster or maintain a "personal" relationship with their patients, cannot hope to achieve the level of participation necessary to insure that the health of the patient will be enhanced. There is some evidence that as presently organized and administered, some public health programs do more to reinforce negative attitudes about health care than they do to create positive health care experiences.

Some Specific Family Planning Program Problems

The difficulties encountered when establishing a family planning program are representative of the more general problems of program acceptance in other public health activities. Planned Parenthood, a voluntary organization established to carry on work in the area of population control, has encountered many of these difficulties.

Planned Parenthood clinics reach only a small proportion of the population (Stycos, 1962, p. 482). In his review of the effectiveness of family planning clinics, Stycos (1962) provides strong evidence that much is left to be accomplished. For example, describing a Puerto Rican program operating through a network of 160 clinics,

he reports an active case load of about 5 percent of the population at risk (married women in the reproductive age range) after a decade of operation. The clinic's ability to maintain a relationship with a patient over time was equally poor.

> Whereas Puerto Rico's official number
> of active cases was 15,410 in 1950
> the number of new admissions since
> 1942 totaled about 49,000. In Jamaica,
> an analysis of the first 4,000 cases
> of the Jamaica Family Planning League
> (Kingston, Jamaica) disclosed that
> only 43 percent returned a second
> time (Stycos, 1962, p. 482).

What he terms "disenchantment" with family planning clinic services is not limited to Carribean examples:

> . . .of over 16,000 new admissions in
> 23 British family planning clinics in
> 1947, less than half returned or wrote
> to the clinic in 1948, and only a
> third of this number returned in 1949.
> Of 5,186 admissions of the Margaret
> Sanger Research Bureau clinics in New
> York City in 1948, only 21 percent
> returned the following year (Stycos,
> 1962, p. 483).

He attributes these results to three ideological biases prevalent in the "Planned Parenthood Movement" — the medical bias, the middle class bias, and the feminist bias. The use of the traditional medical model administered by largely middle class workers has already been examined with regard to the implications for obtaining broad acceptance among the lower socio-economic groups.

The consequences of the feminist bias has been, "the emphasis on female methods for female patients, and the justification of family planning largely in terms of its benefits for the female" (Stycos, 1962, p. 481). The implications of this emphasis for a population of low income, largely Negro, urban ghetto residents is two fold: (1) the "overlooked" males will likely become suspicious and resistive, and (2) also "overlooked" is the fact that it is the lower socio-economic male population that has the greater "social freedom" to experiment with innovations.

Two specialized cases of the more general problems of program acceptance are often encountered. The prevailing value-attitude system often challenges the concept of "birth control" on religious or economic grounds. Unlike many other health programs the aims and goals of a family planning program are often <u>actively</u> resisted. Program interpretation must overcome many of these objections before enlistment can be effective.

The concepts of limiting family size or spacing of children are often in direct conflict with prevailing beliefs in the area to be served. Many people hold high fertility as a strong value. High fertility may mean security in old age, or it may be a demonstration of virility. High fertility is often valued in disadvantaged families as a means of increasing their potential economic output, and by some minority groups as a means of overcoming their minority status. A large number of children

contribute to the general welfare of the family by help-
ing with household chores. Many positive mental health
indicators are seen in large families, eg., big families
are happy families; children from big families have better
personalities because they are not so "spoiled" or "self-
centered"; and large families promote good marriage adjust-
ment. In addition, moral and cultural values often support
and encourage high fertility. Many people believe large
families are God's will, and they promote morality by
decreasing divorce or infidelity. In many settings, it is
in the tradition of the community to have a large family,
and often social status is ascribed to those persons with
the largest families. Another important attitude which
conflicts with family planning is dislike of contraceptive
methods for aesthetic, or health reasons, or because it
interferes with sex. The myths and superstitions which
have grown up around the different contraceptive method-
ologies constitute a major source of resistance to the
acceptance of family planning in many cases.

The second specialized case which is perhaps just as
critical to program acceptance is the lack of adequate
knowledge of effective alternatives to high fertility. In
research carried out prior to the establishment of the
program model used in this study, Beasley, Harter, and
McCalister (1966) demonstrated that knowledge of reproductive
physiology and alternatives to high fertility were not
commonly understood among the medically indigent population

of Orleans Parish. Ninety-four percent of the medically
indigent women with less than an eighth grade education
were unable to specify that pregnancy occurs as a result
of "something from the man meeting with an ovum inside
the woman" (Beasley, et al, 1966, p. 198). As the edu-
cational level increased this "essential" knowledge in-
creased, but for the total sample, only 47 percent possessed
this essential knowledge. When asked about a more sophis-
ticated concept (knowledge of the ovulatory cycle suffi-
cient to describe the fertile period as approximately the
middle seven days between two menstrual flows), this
knowledge did not increase dramatically with educational
level. Of the total sample, 91.5 percent of the women
lacked this "essential" knowledge of the ovulatory cycle.

Other findings suggest that while most (83 percent)
of these women knew two or more effective family planning
methods, this knowledge did not insure availability of these
methods, nor was this knowledge considered sufficient
for their needs. More than 75 percent of these women de-
sired more contraceptive information, and 100 percent
thought family planning services should be provided to the
medically indigent. In addition, only about 1/3 of the
women used effective family planning methods even though
60 percent never wanted to become pregnant again, and an
additional 25 percent wanted only one more child.

Nearly identical findings are reported on a rural
population in northern Louisiana by Beasley and Harter

(1967) using the same methodology.

Polgar (1966), reporting on a similar survey in New York City, also found "that lack of acquaintance with different contraceptive methods was not the ingredient that accounted for the. . .unmet need in New York's poverty areas in 1965" (Polgar, 1966, p. 11). Once again, lack of knowledge of availability of services (which offer alternatives to high fertility) was seen as the chief reason for underutilization.

The action program in New York City which evolved from a household survey, is among the first reported in the United States to use indigenous nonprofessionals for patient recruitment and follow-up. Twelve neighborhoods were divided into six matched pairs with one neighborhood receiving service and the other acting as a control. Three neighborhood workers were assigned to three of the six pairs. The strategy employed to contact patients in the first eight months of the project concentrated on the use of "coffee-sips". These small, informal gatherings of women in the home of a clinic participant were attended by the family planning neighborhood worker. They discussed family planning and the availability of the new mobile service program. However, this strategy was discontinued due to the fact that the three neighborhood workers had recruited only 21 patients from the 25 "sips" held. Many of the participants were already knowledgeable about birth control and were using an effective method. The strategy

was changed to a door-to-door canvassing approach, and added a taxi service for patients needing an escort or transportation to the clinic. This change was accompanied by an increase in the number of workers to a total of seven.

The effect of the new strategy and the additional workers was to increase the number of referrals from the neighborhood workers to a point that they accounted for 40 percent of the total patients seen in the clinic. Under the prior strategy, the neighborhood worker had been responsible for only ten percent of the total referrals. The author did not specify how much of this increase was due to the change in strategy and how much was due to the increased manpower. He concludes:

> The changes from the first nine months
> to the following six. . .show a more
> adequate representation of Puerto
> Ricans, of women with less income and
> education, and of those with lower parity.
> It is clear that the extent of these
> changes was greater in the areas with
> than without neighborhood workers, giving
> some support to the notion that home
> visiting will bring in more patients
> conventionally called 'hard to reach'
> (Polgar, 1966, p. 15).

The change in strategy and the resultant change in response highlights another specific problem encountered by family planning programs. The nature of the content discussed while interpreting the program is such that many women prefer not to discuss it except in the most confidential settings. The feeling that a discussion of sex and

reproduction should occur only within the boundaries of very intimate relationships, often discourages the indigent from participating in clinic programs. As Polgar (1966) has demonstrated an indigenous nonprofessional worker can accomplish this task of interpretation. The indigenous nonprofessional became the bridge between the patient and the clinic by providing the personal relationship desired by the patient.

In summary, there is growing evidence that social-psychological factors influence participation in public health and other agency programs. For a more complete review and documentation of the nature of these problems as they affect a broad range of health related programs, the studies of Stewart (1967) and D'Onofrio (1966) contain excellent summaries of the difficulties of involving the "hard to reach" in immunization programs. Their bibliographies list 104 and 235 items, respectively. For a more general treatment of how cultural factors and socio-economic factors influence health related programs, the writings of Foster (1952), James (1965), Coe and Wessen (1965) are instructive.

Selecting Indigenous Personnel to "Bridge the Gap"

The use of nonprofessionals, chosen from the ranks of the consumers of service, to overcome many of these problems in communication and attitude change, is increasing. Pearl and Riessman (1965) and Reiff and Riessman (1965) have

written extensively on these new job roles and their application to current programming in the human services areas. Stewart (1967), Kent and Smith (1967), Hildebrand and Lee (1962) have presented dramatic evidence of the effectiveness of the indigenous nonprofessional worker in interpreting public health programs to their neighbors.

In two instances, these new job roles have been employed within the framework of a family planning program. The New York City study described by Polgar (1966) presents limited empirical evaluation of the effectiveness of these neighborhood workers. Zalduondo (1964) describes a Puerto Rican study which recruited volunteer community leaders to serve as health educators in a family planning program.

Throughout all these reports, one theme is repeated — the need for selection techniques which will give some assurance that those nonprofessionals selected will be able to perform in the new and unique job role.

The traditional methods of selection for jobs have relied on two basic techniques — objective testing to compare the applicant with well defined and developed norms and the pre-employment interview. The applicability of these traditional methods to the selection of nonprofessionals for human services jobs has not shown promise. Since white, middle-class professionals generally have not been able to communicate effectively with the indigent consumer, they are not likely to select, through a pre-employment interview, indigenous workers who can relate to

a group of indigent consumers. Similarly, the objective
tests which have been developed for employment screening
have focused on the assessment of manual and verbal skills
necessary to carry out well-defined, traditional job roles.
These instruments have little face validity for the human
services jobs under consideration since it would seem that
success in these tasks is more dependent on inter-personal
relationship abilities than on discrete motor or verbal per-
formance skills. Barr (1966) does suggest a positive rela-
tionship between educational attainment and work performance
for a group of neighborhood workers, but offers no empirical
evidence that educational attainment was measured, or that
it could be used to predict job-performance.

To this reviewer's knowledge, there are no published
reports concerning the validity of standardized tests to
select low-income applicants for human services job roles.
If tests have been used, there are no reports of empirical
validation studies assessing the predictive efficiency of
the instruments.

The absence of any positive findings to recommend the
use of standardized personnel tests to screen for these
job roles does not suffice to rule out their possible value.
A brief review of recent studies on the "fairness" of
tests used in employee selection from among minority and
low-income groups may explain why these techniques have been
avoided to date.

Employment Discrimination

A recent case before the Illinois Fair Employment
Practices Commission (French, 1965) was decided in favor
of the plaintiff, a Negro, who claimed that the short,
general intelligence test used for screening applicants
discriminated against him on the basis of race. The F.E.P.
examiner directed the Motorola Company to stop using the
test in question. Even though a later ruling by the Illi-
nois Supreme Court reversed this ruling, the question of how
to develop "fair" tests which discriminate among applicants
only on the basis of their ability to carry out specified
tasks remains.

Guion (1967) has pointed out the need for research
in this area since unfair discrimination may be taking place
inadvertantly in many traditional personnel practices.
He says, "Discrimination has been a part of the culture
so long that even the well intentioned may discriminate
inadvertantly using ordinary selection tools" (Guion,
1967, p. 207).

Kirkpatrick, et al, (1967) have noted that the problem
of unfair discrimination has been avoided by industrial
psychology researchers until very recently. The authors
also review several studies which have relevance for this
present investigation. They conclude,

> It is generally established that
> Negroes score lower on tests than do

whites (Campbell, 1964; Dreger and
Miller, 1960; Dugan, 1966; Himelstein,
1966, pp. 161-162; Lucas, 1953; Shuey,
1958). It is also the majority con-
sensus that these differences are due
to environmental effects rather than
innate differences (Campbell, 1965;
Deutsch, 1963; Klineberg, 1963; Lock-
wood, 1966), though there are those
who disagree (eg. Shuey, 1958).
These differences in test scores do
not, however, indicate anything re-
garding the fairness of tests (Kirk-
patrick, et al, 1967, pp. 2-3).

A test is only unfair if the measured performance
for one group is lower while the criterion scores obtained
are not lower when compared with other groups. Lopez
(1966) has described one of the few studies which takes
into account both the validity of the prediction as well
as the validity of the criterion. Using New York Port
Authority toll collectors, he investigated Negro-white
differences on three pre-selection tasks (an interview
checklist, the D.A.T. Clerical Speed and Accuracy test,
and a specially built mental ability test). Four criter-
ion variables were used (1) absence rate, (2) tolls ac-
curacy rate, (3) continued employment and (4) supervisors'
ranking. He found that the best method for predicting
successful performance for whites was not the best method
for Negroes. Had only the Negro group been used in the
analysis, the mental ability test would have been dropped
from the selection. Had only the white sample been used
in the analysis, the interview would have been dropped
from the selection. Had either procedure been adopted,

it would have acted to effectively screen out successful
employees in the other group. These Negro-white differ-
ences represent only one possible dichotomy of many which
might be investigated in the same manner, eg., "culturally
disadvantaged" versus "normals". The implication for a
selection test which relies on a single validity coeffi-
cient is clear. Lopez (1966) concludes:

> . . .what is really emerging is a more
> powerful argument for a clinical in-
> terpretation of selection tests based
> upon the broad perspective of relevancy.
> From this perspective, a single test
> score is interpreted not simply by
> past experience, but rather in the
> light of the present situation, in-
> dividual, organizational, social and
> cultural. . .we are not only justi-
> fied in using different standards for
> different subcultural groups but we
> are obliged to do so if we are to achieve
> the ultimate criterion of successful
> placement (Lopez, 1966, p. 17-18).

Cultural Bias

Other authors have demonstrated the effects of
cultural background differences on aptitude tests. Al-
though the occupational groups studied do not represent
the exact job classifications under investigation here,
there is considerable evidence that test scores are
influenced by differing cultural and socio-economic
backgrounds. A brief review of these studies will lend
further support to the argument that traditional standard-
ized tests are not known to be valid predictors of job
performance.

Lucas (1953) reviewed the literature on the effect of cultural differences on aptitude test scores. After citing many attempts to develop "culturally free tests" he concludes:

> On the whole, while performance
> tests and purportedly culturally
> unbiased tests correlate signi-
> ficantly with scales of the verbal
> type, the coefficients are not
> high enough to warrant regarding
> the two types as measuring the
> same things to the same extent
> (Lucas, 1953, p. 10).

He then reviews studies which have used occupational classifications to differentiate cultural groups. While occupational classification may be indicative of cultural differences, this method of classification seems to rely most heavily on socio-economic levels as the underlying variable, eg., white collar, blue collar, semi-skilled, unskilled. The review finds that, "notwithstanding over-lapping of score distributions, differences in means or medians exist between groupings based on parental occu-pations" (Lucas, 1953, p. 24).

Parental income and educational levels were also considered as possible correlates with intelligence level in a few studies. Reported correlations between test scores and these two variables fall between .25 and .35. The reviewer suggests that an underlying explanation may be found in a selective process "whereby the less

intelligent gravitate toward the lower level occupations"
(Lucas, 1953, p. 27). None of the studies reviewed con-
sidered moderator variables such as race or quality of
educational opportunity.

A study by Roberts (1950) comparing college perfor-
mance of Negro women from the South with Northern Negro
women demonstrated that Northern Negro women did better
on both the ACT and first year achievement than did South-
ern Negro women attending Fisk University. However, these
differences between the two groups had disappeared by the
senior year for those of higher socio-economic status.
For those of lower socio-economic status, the differences
increased. It seems clear that defining cultural background
by the occupational level of parent, parental income, or
education ignores differences within sub-culture as a
function of varying socio-economic levels. It seems un-
warranted to conclude that those with less intelligence
gravitate toward lower level occupations. It may be that
those with fewer economic resources simply find themselves
prepared for only lower level occupations.

The implications for the present study are twofold:
(1) selection from lower socio-economic groups should not
rely on aptitude test scores which seem to discriminate
between socio-economic groups, since discrimination within
one socio-economic grouping of applicants would be sharply
reduced, and (2) test results obtained from lower socio-

economic groups should reveal many levels of intelligence
and aptitude. If tests are to become useful, then the
problem is to determine which aptitudes and which levels
ultimately predict job success. It is entirely possible
that selection for tasks, which require persons with a high
degree of similarity with the majority of the lower socio-
economic level consumers, would need to rely on many
dimensions of similarity rather than any particular set
of aptitudes or any single test score.

Guion (1967) in reviewing the area of personnel
selection describes a major trend away from testing toward
concern for the wholeness and integrity of applicants. It
seems that this trend is particularly promising for the
task of selection from the ranks of persons who, because
of their socio-economic status, skin color, or "cultural
background", achieve test scores which may not predict
subsequent job performance.

Previous Attempts to Select
Indigenous Nonprofessionals

Stewart (1967) selected seven indigenous nonpro-
fessionals to work in lower socio-economic neighborhoods
recruiting patients for immunization clinics. The experi-
mental areas assigned to these workers had been the re-
sponsibility of public health nurses. In the year before
the intervention of the nonprofessional workers, these
nurses had an average of 200 immunizations per month.

At a time in the experiment when full intervention occurred, the rate rose to more than 2,000 per month. When the project was discontinued the rate dropped markedly and approximated the pre-experimental levels within three months.

Stewart (1967) describes his selection procedure as similar to the techniques discussed by Reed (1964). The strategy was to find and utilize "natural leaders" from the community to be served. Stewart (1967) first contacted visible leaders of a Negro neighborhood in North Tulsa, Oklahoma. In addition, he contacted public health nurses who had been assigned to that neighborhood for a long period of time. From each of eight identifiable leaders or nurses who had a long term acquaintance with the area, he obtained a list of ten names of persons, "who would do a good job of getting others to come in for their immunizations" (Stewart, 1967, p. 136). As was expected some names appeared on more than one of the lists. The frequency of nomination of the same persons on these eight lists determined the order in which the interviews occurred, eg., if one person's name appeared most frequently across all the lists she was interviewed first. He reports that two individuals were mentioned three times each across the ten lists, and several persons were mentioned twice across the ten lists. The underlying assumption was that the eight people providing the lists, and the persons doing the subsequent interviewing would be able to select persons

who were well known and well accepted in the experimental area.

It is important to note that no objective testing was used in this selection process, nor were any predetermined selection criteria, such as age, sex, previous work experience, etc., utilized in the recruitment of the persons to be interviewed. It is also important to note that the final selection decision was left in the hands of the same professionals who had not been successful in recruiting patients from that area for their immunizations. The success enjoyed by the neighborhood health aides argues that this method of selection was appropriate to the task to be accomplished. It also suggests that selection of indigenous nonprofessionals can be entrusted to professionals even though they have not been successful themselves in recruiting patients.

In summary, this selection procedure relied mainly on interviews conducted by professionals. An important departure from traditional selection procedure was found in the recruitment procedure which relied on several persons (knowledgeable of the area to be served) to nominate "natural leaders" for these positions. The technique seems to have worked very well for that particular area. It should be pointed out that possible drawbacks of this technique could arise in situations where the screening of a large number of applicants was necessary to avoid arousing

negative feelings from the population to be served. This
often occurs when a large amount of publicity is attendant
to the funding of service programs in poverty areas. A
strategy which would allow for the actual interviewing
of a larger number of applicants is probably called for in
these cases. Another possible pitfall using this approach
would seem to be that identifiable leaders in the lower
socio-economic areas might be significantly different from
the general population of those areas. One might expect
that persons nominated by these identifiable leaders
might tend to be more like themselves than the balance of
the population. This is not necessarily a negative cri-
ticism of the technique but it should be borne in mind
that, if the identifiable leaders are not in close touch
with the bulk of the population, serious problems might
arise when their nominations are considered.

Reiff and Riessman (1965) have described a similar
method of recruitment and selection. They suggest that
the best place to start recruiting is through local agencies
and neighborhood groups which have contact with the people
to be served. They stress that the specific qualifications
which are required for any of the jobs will depend, of
course, on the specific job, except that they must be
"indigenous". By this they mean that the person to be
selected should have been reared in the particular cultural
mileau or environment to be served and that they have a

continuing close association with it. The authors also
caution against looking only for the indigenous "leaders".
They suggest that names of anyone in the community who
have come to someone's favorable attention in one way or
another be obtained.

Lesh (1966) describes a selection process which was
used to employ nonprofessional workers in youth employment
programs. He points out that in their experience, tests
prove to be almost totally useless when applied to the kind
of population they were considering. Only the most gross
deficiencies were revealed by the test, and he suggested
that these were more easily identified in a personal in-
terview. Again, there was a heavy reliance on a lengthy
personal interview with many open-ended questions. In
addition, standard information relating to the applicant's
education, work history, health, etc., was gathered. The
applicant's answers were later summed up by the interviewer
on a separate form and presented to the entire agency
staff as in a case conference. The interviewer was ques-
tioned by the staff and answered questions about the
applicant's characteristics and background. At this
point a decision to accept or reject the applicant was
made by all staff. No information concerning job per-
formance was presented.

Another approach, by Kent and Smith (1967), relied
most heavily on a list of specific selection criteria.

They include a heavy emphasis on the applicant's being
from the neighborhood, the applicant's ability to identify
with the subcultural group being served, and the applicant's
possessing values for work and health care. An interesting
criteria was that the applicant should not be a member
of a group identifiably middle-class. Two additional
criteria were specified, that the applicant: (1) be 35
years of age, and (2) be female. The specific job task
was described as a departure from the traditional concept
of the indigenous nonprofessional. For Kent and Smith
(1967) their "neighborhood representatives" were hired
to specifically represent the disadvantaged neighborhood.
In this role, the neighborhood representative was a semi-
independent worker, not closely supervised by professionals,
and not highly identified with the service oriented func-
tion of the neighborhood clinics. The authors report
successful outcome of their project in terms of the re-
presentative's ability to resolve some of the problems of
the neighborhood. For example, the use of clinic services
increased by 42 percent during the time that the neigh-
borhood representatives were serving the communities.
Furthermore, over 60 percent of the patients referred to
a maternal and infant care clinic in one neighborhood had
been referred by the neighborhood representative. Clinics
which were served by neighborhood representatives reported
an average of 20 percent more unwed mothers than in com-

parable neighborhoods not served by representatives.

In light of these obvious successes, it would be useful to know the specific selection process used to employ the neighborhood representatives. The authors do not describe their selection beyond the listing of the criteria used and a brief discussion of recruitment. They did rely almost wholly on suggestions from the residents of the area to be served in their recruitment, and almost entirely on interviews by professionals in the final determination of employment. The authors seemed satisfied with the selection criteria that they had chosen; however, one wonders whether these criteria were responsible for the successes, or if the successes might have been enhanced by other criteria.

Hallowitz and Riessman (1966) report on a project to select and train community mental health neighborhood workers. Their selection process for what they term the "expediter" (a worker who would work as a translator, negotiator, advocate, counselor, etc., and even as a coordination link between a number of agencies offering services to the same family) involved one of the first attempts employing the concept of group selection. They state:

> It was immediately apparent that it would be of little use to rely on traditional methods of selecting employees; that is, to do an initial screening of application forms and

> then to conduct individual inter-
> views with what appeared to be
> promising candidates. For one, the
> application forms were not designed
> to reveal the personal characteristics
> which might be related to adequate
> functioning as a mental health aide
> and secondly, individual interviews
> with such a large number would be
> extremely time consuming (Hallowitz
> and Riessman, 1966, p. 773).

The authors turned to a group selection process to overcome these inadequacies of the traditional selection methods. Their first step was to convene a meeting of all applicants and discuss the position, its salary, and other details. Following this initial meeting, the applicants were divided into small groups of not more than ten. Each small group was then interviewed by the professional staff of the program and a member of the training staff. These interviews were observed through a one-way mirror by four professionals (a psychologist, a social worker, a psychiatrist and a nurse). The group interview was designed to elicit the applicants' attitudes in a number of areas which were thought to be important to their subsequent functioning as a mental health aide. Questions were largely open-ended and attempted to tap attitudes towards people on welfare, disturbed people, minority groups, etc.

Applicants were rated by the judges with regard to several characteristics including empathy, attitude toward authority, comfort in the group, ability to communicate

ideas and feelings, trainability, inflexibility, capacity
for self-awareness, reaction to stress, pathology, relevant
work, and life experiences. While the authors originally
felt that the final step of the selection process would
include an individual interview with each applicant who
obtained high ratings, this idea was discarded in favor of
a second group interview among the persons who had rated
highest in each of the initial group interviews. The authors
conclude, "It seemed apparent that the group interview
method provided a much clearer picture of ego functioning
and ego capacity than could be obtained from the individual
interview method" (Hallowitz and Riessman, p. 74). No
data on subsequent job performance were presented.

Another attempt at group selection is described
by Klein, et al, (undated "A"). This recruitment was de-
signed to attract persons who could serve as "counselor in-
terns" for disadvantaged youth in Washington, D.C.. The
recruitment phase was initiated by contacting some 15 agencies
concerned with problems of youth in poverty. A general
meeting was held to enlist the aid of these agencies in
the recruitment process and to acquaint them with the con-
cept of employing the indigenous nonprofessional. The
actual selection was based on the assumption that the
qualities that distinguish a good leader from a poor one
had not been effectively established. It was decided that
applicants would be interviewed in a group, and be rated

on their potential leadership ability, and that applicants
with both high and low ratings would be included in the
program as a way of evaluating whether these qualities
are, in fact, related to performance. It was expected
that there would be major differences among the trainees
in three major dimensions: (1) academic achievement, (2)
extent of experience with youth, and (3) facility in work-
ing with groups.

The applicants reported for the interview in a large
group and received a general introduction describing the
program and the job role. They were instructed that the
actual selection for the program would be based on how
they as a group would handle three problems which had been
developed by the staff as a means of assessing the appli-
cant's participation in a group process. The problems
were presented both verbally and in writing; the profes-
sional staff observed but did not participate in the en-
suing discussion.

Three professional staff members used a ten item
rating scale that had received a limited pretesting.
Five qualities which were supposed to denote a good group
leader were rated. These included the ability to parti-
cipate in discussions, to focus on and clarify issues, to
interact flexibly with others, to demonstrate self confi-
dence and initiative, and to react with sensitivity to
problems of youth. Each of these three raters were to

indicate by a simple yes or no whether the applicants had demonstrated these qualities. If a score of "yes" was given to an applicant, a score of one was assigned. These scores were then summed and pooled for each applicant. The raters then examined the scores to determine those applicants whose scores were above the mean (these were assigned to a low risk group), and those at or below the mean (these were assigned to a high risk group).

The authors point out that the one major difference between the low and high risk groups seemed to be the applicant's past involvement in voluntary group activities. All of the low risk applicants had some experience in voluntary group activities as compared to two of the high risk candidates.

The authors point out that the group interviews and the selection process were subject to influences which probably affected the nature and extent of participation of each applicant. Originally, the applicants were to participate in groups of ten. However, the six sessions held varied in size from four to twelve members. The authors feel that this variation in size had a definite effect on the amount of participation, since more oppor- tunity for participation was available in the smaller groups. In the larger groups, the opportunity for obser- ving the behavior of each participant was more limited. They conclude:

> Essentially, the applicants were rated
> on extent and nature of their partici-
> pation, rather than on the quality of
> their contribution (Levine, et al,
> undated, p. 16).

The authors explained that the research staff responsible for the rating of applicants shared a common conception of the qualities of leadership which had grown out of an on-going relationship with the training staff and was reflected in the high inter-rater reliability $(r=.89)$ achieved during the applicant assessment. There was, however, little systematic agreement by rating item. They concluded:

> In other words, it appears as though
> the raters were able to achieve a
> considerable amount of agreement as
> to who seemed locally to possess the
> qualities or potential for leader-
> ship, though there was very little
> agreement on the specific nature of
> these qualities (Levine, et al,
> undated, p. 17).

The authors said that raters expressed a preference for a rating scale which would allow more degrees of difference for each quality being rated. The "yes" or "no" response to a number of items did not allow for any intermediate steps or degrees, and the raters felt uneasy when responding to ten items on several applicants after only a brief exposure to them.

When a final evaluation of the trainee's performance

was made, the authors concluded that there was no significant difference in performance between those rated as low risk and those rated as high risk. They conclude, that the "best and only reliable prediction of success at this time is performance in on-the-job training and on the job itself" (Levine, et al, undated, p. ix). These conclusions seem to be overlooking one of the features of the selection process which may account for the "no differences" findings. The selection procedure was geared primarily to the rating and selection of applicants who could function in a group situation. The high and low risk catagories were related to prior experiences in group activities. However, as the program evolved, two kinds of job settings for the trainees arose. One was primarily group oriented, while the other was a task that largely entailed a one-to-one client relationship. The authors do not discuss which of the applicants evolved to these very different types of positions. It seems premature to conclude that the selection process employed cannot discriminate on the basis of the high or low risk categories since two job situations were present, and the selection of an assessment for the one was not necessarily relevant for the other.

These examples of selection techniques employed by other investigators represent the most sophisticated attempts at developing a model of selection which lends itself to empirical test. These models seem to be con-

sistent with most practical issues surrounding the problem of selection. For example, all rely on persons (or agencies) knowledgeable in the area to be served for recruitment suggestions. In following this guideline they seem to have avoided the possible pitfalls of (1) recruiting only the visible leadership or (2) recruiting only those persons who seem desirable to the project director. Another common occurrence has been the strict avoidance of standardized tests which purport to measure aptitudes. This is consistent with the findings that these tests have little predictive validity for jobs that are not well understood, or for applicants who come from differing cultural or socioeconomic backgrounds.

Another common practice is the use of professional staff members to make the final selection decision. It is here that these models encounter considerable controversy. The question of "who should select" will be treated in more detail in the following section.

With one exception (Kent and Smith, 1967, p. 999), selection criteria employed were broad and general, aimed at "screening in" applicants rather than eliminating potential trainees. For Kent and Smith (1967) whose job roles were well defined, the specific selection criteria, eg., must be over 35 years of age and female, seemed to have face validity.

It has previously been pointed out that these authors

are almost unanimous in calling for better selection
methods. They agree that subsequent job performance
should be improved when selection is refined. Absent
from all these studies is a carefully controlled attempt
at validating the selection process employed.

Variables Influencing Selection

Two important variables which seem to influence the
selection task are (1) the person doing the selection and
(2) the specific job role under consideration, as it
effects the establishment of performance criteria to be
used at the time of evaluation.

The specific job role obtains importance in relation
to the need for criterion measures of performance necessary
for validation. For those studies which have not been
concerned with the problem of validation, there has been
less attention given to precise criterion measures. Simple
ratings by supervisors throughout the training and on into
the job have sufficed. Without well specified descriptions
of the task, it is difficult (and most unfair to the worker)
to erect performance criteria.

Guion (1967) in a review of the area of personnel
selection says:

> . . .the literature for the period
> covered by this review, like that of
> earlier periods, contains the peren-
> nial discussion of the criterion
> problem and the perennial examples of
> having overlooked it in the design of
> actual research (Guion, 1967, p. 195).

He calls for a relevant criterion measure not only in
terms of management goals, but also in terms of why a
particular variable does or does not predict some important
aspect of job performance. It would seem that these
criteria could be derived from a detailed description of
the task, accomplished before selection and training, to
avoid the tendency to redefine the job in the image of the
worker's style. The selection models for nonprofessionals
in the human services would seem to require detailed job
descriptions with some indication of the subsequent per-
formance measures to be employed. If the rater is to pre-
dict successfully, he must have some idea of what he is
trying to predict. In this relatively uncharted area,
it is not useful to leave this to his imagination.

Who Should Select?

Another major factor influencing selection is "who
should select". In the absence of well standardized,
empirically validated, objective test instruments to aid
in the selection task, the individuals doing the selecting
become the primary focus. Previously described studies
have utilized professional staff members (involved in the
particular action project employing the nonprofessional)
as judges and raters.

In the final analysis, the professional made the
decision to employ or not to employ. Some authors have
recognized the need to use persons in the selection process

who would not be directly involved with the nonprofessional
during his training or actual work performance (Klein, et al,
undated "B", p. 27). This avoids the possibility that
the raters initial impressions and subsequent ratings might
act as a self-fulfilling prophecy. Klein, et al, (undated
"A") has suggested "the possibility that initial ratings
tend to be based more on a generalized ideal of what the
person should or should not act like in the role for which
he is to be trained, than on any valid assessment of
actual capability" (Klein, et al, undated "A", p. 48).
If this ideal is allowed to permeate the training program
and subsequent evaluation of the workers, there is a strong
possibility that the initial predictions will be borne out.

While several studies have utilized nonprofessionals
(consumers) in the recruitment phase, only two have reported
allowing the nonprofessional to participate in the actual
selection phase. (A curious finding in light of the
"doctrine" of maximum feasible participation of the poor
in the conduct of anti-poverty programs, and in light of
the assumptions that white, middle-class professionals
have much difficulty in communicating with the lower socio-
economic classes.)

Hallowitz and Riessman (1966) utilized nonprofessional
community mental health aides to rate applicants for the
same position using a group selection process. The aides
used as raters had been screened by the same selection

process. They now found themselves on a selection team including a psychologist, a social worker, a psychiatrist and a nurse (presumably the same professionals who had selected them). They report, "In subsequent screenings, aides also were used as judges. Interestingly enough, there was a high correlation between their ratings and those of the professionals" (Hallowitz and Riessman, 1966, p. 773). This finding might not be so surprising if more were reported on the length of time the professionals had worked with the nonprofessional raters, what role they played in their training, and whether the nonprofessionals had been selected by the same professionals with whom they were now serving as judges.

The authors did not specify whether these nonprofessional judges' scores actually helped to determine the final selection, and no comparative data between the professional and nonprofessional judges was presented.

Another attempt using nonprofessionals to rate a group selection process is reported by Klein, et al, (undated "B"). Members of an indigenous, nonprofessional citizen's advisory committee participated in the recruitment and selection of trainees for nonprofessional job roles in the human services. Again, it is not clear from the description what precise role the nonprofessional played in the selection process. The description of the nonprofessionals reaction, however, is worth noting:

> Somewhat to our surprise, we found
> the members of this indigenous com-
> mittee more conservative and more
> influenced by middle-class stereo-
> types and biases about the suitability
> of applicants than professional members
> of the recruiting team. Less imbued
> with the experimental concepts of the
> project than the training and agency
> staff, and mirroring their own lack
> of personal confidence, the committee
> members tended to be dubious about
> the advisability of 'trusting these
> people' with social welfare tasks
> (Klein, undated "B", p. 26).

If more were known about the methods of selecting
these "indigenous committee members" perhaps these find-
ings would not be so surprising. Many authors (Reiff
and Riessman, 1965, p. 22; Riessman, 1967, p. 27; Klein,
undated "B", p. 35; Pearl and Riessman, 1965, p. 194) have
noted the tendency among nonprofessional employees to begin
identifying with the values and biases of professional
staffs with whom they work. They tend to "lose touch"
with the clientele as the identification with the agency
increases. It may be that a similar phenomenon occurs with
"nonprofessional advisory committee members". If advisory
committee membership is appointive (by the agency), then
one might expect the members to come to the task with some
predilections toward the agency's goals. As Merton (1949)
has pointed out the agency goals are not always the goals
of the consumer. These questions need further research
in their own right and are mentioned here as possible in-
fluences during the selection process.

The question of "who should select" has political connotations apart from the basic research question of who is the best predictor of subsequent job performance. The Economic Opportunity Act of 1964, as amended, contains a mandate for the "maximum feasible participation" of the poor in the planning and operation of programs. This legislation, designed to encourage self help among the poor by enabling their voice to be heard, has stirred considerable controversy. There is little empirical data to support the notion that the under-educated, disadvantaged poor can be successful in planning and operating programs for their own benefit. This reluctance to allow the poor consumer a full voice in the implementation of programs is clearly revealed by the non-involvement of the poor consumer in the selection of nonprofessional workers.

CHAPTER II

STATEMENT OF THE PROBLEM

The objective of this study was to devise and test
a procedure for the selection of indigent, nonprofessional
staff to work in lower socio-economic neighborhoods. The
specific program model chosen for the research was a
health service available to the medically indigent popu-
lation of the New Orleans metropolitan area: the Orleans
Parish Family Planning Program. The specific job tasks to
be accomplished by the "health auxiliaries" included patient
recruitment and patient follow-up on missed appointments.

This study seeks to put to empirical test the ques-
tion of who should select indigenous nonprofessionals for
human services jobs. This question cannot be considered
outside specific job tasks, nor can the performance cri-
teria be ignored if statements are to be made about the
predictive accuracy of the persons involved in the selection.
Other intervening variables, which are often subsumed
under the heading of "sensitivity", will need to be con-
sidered. Smith's (1966) component approach to sensitivity
(as measured by predictive accuracy) will serve as the

48

basic conceptual model for the analysis. He describes

six components which affect the predictive accuracy of

an individual:

> Two of them concern the perceiver;
> two, the interaction between the per-
> ceiver and the person; and two, the
> perceiver's knowledge of the person
> he is judging. . .The accuracy of a
> perceiver's judgment is the product
> of all these relatively independent
> causes (Smith, 1966, p. 17).

The two variables which concern the perceiver are

his level and his spread. Smith (1966) defines:

> . . .a perceiver's level is his general
> tendency to rate others as low, average,
> or high; as poor, fair, or superior; as
> possessing few, some, or many desirable
> traits; or as deserving an F, C, or A
> grade. . . .A perceiver's spread is
> his general tendency to rate himself
> and others over a narrow or wide range.
> The narrow spreader sticks close to
> his level tending to give all people,
> on all traits, about the same rating.
> The wide spreader tends to rate at
> the extremes, rating people as very
> high or very low, very good or very
> bad, F or A, etc., (Smith, 1966, p. 18).

The two components relating to the interaction be-

tween the perceiver and the person are empathy and the

perceiver's observations. Smith (1966) defines empathy

as, "the tendency of a perceiver to assume that another

person's feelings, thoughts, and behavior are similar to

his own" (p. 19). Thus defined, empathy affects predictive

accuracy and is not synonymous with it. The similarities

assumed by a judge between himself and others may be
wrong as well as right. Obviously, observation plays an
important role in determining predictive accuracy in
interpersonal judgment situations, just as it does in
determining accuracy of prediction in the more basic scien-
ces. Scott (1955) has suggested that since psychology has
developed from philosophy, it remains dominated by the a
priori reasoning methods characteristic of the older
discipline. This may account for the paucity of studies
focusing on accuracy of perceptions as distinct from the
accuracy of inferences based on perceptions.

The accuracy of judgments about an individual are
influenced by past judgments of the groups to which the
individual belongs. This tendency, to draw conclusions
about an individual from his group membership, is termed
stereotyping. Smith (1966, p. 133) points out that until
recently, stereotyping had negative connotations to social
scientists. Recent studies, however, indicate that judges
make better predictions on the basis of stereotypes alone
than they do when they are allowed to add their own
personal observations (Stone, Leavitt, and Gage, 1957;
Stelmachers and McHugh, 1964). The measurement of "stereo-
type accuracy" has often failed to eliminate the influence
of spread and level components. If ranking methods,
rather than rating methods, are used by the judges, an
effective control for the spread and level habits of the

judge is introduced. Using this methodology, the focus of the question of judging accuracy is narrowed to include the interaction between the judge and the perceived, and the judge's knowledge of the perceived.

The last component in Smith's (1966) theoretical system is individual accuracy. He defines individual accuracy as "what is left when influences of level, spread and stereotype have been removed" (Smith, 1960, p. 155).

He goes on to differentiate stereotype from individual accuracy:

> By individual accuracy, then, we
> mean the ability to differentiate
> between individuals when group
> membership cues are reduced to a
> minimum. Stereotype accuracy re-
> quires differentiation between the
> average members of different groups.
> By contrast, individual accuracy
> requires differentiation between
> individuals in the same groups
> (Smith, 1966, p. 157).

The problem of developing a model for the selection of indigenous nonprofessionals for jobs in the human ser-vices must take these influences on predictive accuracy into account.

The Selection Model

It has been shown that judges' predictions are in-fluenced by six major components. Some of these components can be controlled by selecting ranking, instead of rating,

as the method of data collection. The level and spread

habits of an individual judge cannot influence his judg-

ments if he is forced to assign a numerical ranking to

each applicant from highest to lowest. The interactional

components of empathic and observational accuracy are

central to this selection task since the assumed similarity

between the judge and the applicant has relevance for the

task to be accomplished, eg., the professional judge may

assume that since he has difficulty in communicating with

poor consumers, persons like himself will have similar

difficulty. The component of observational accuracy

obtains importance in direct proportion to the importance

of racial identity and possible prejudice on the part of

a judge toward applicants. As Allport and Kramer (1946)

have observed:

> People who are unprejudiced are less
> sensitive to the identity of those
> with whom they deal. ...The question
> of racial identity is of small impor-
> tance to the person free from prejudice.
> Yet, it is of considerable importance
> to the bigot, and for this reason
> the bigot, apparently learns to ob-
> serve and interpret both facial
> features and expressive behavior
> so that he can swiftly spot his
> 'enemy' (Allport and Kramer, 1946,
> p. 17).

One might expect the observational accuracy compon-

ent to be operative in a selection process which has members

of a minority group under consideration as applicants.

Stereotype accuracy should also play an important role in this type of selection task since group membership is assumed to be an important determiner of job success. The applicant's success should be directly proportional to his similarity with the group being served. Previous experience with the "consumer group" should enhance the stereotype accuracy of the judge.

Individual accuracy, or the ability to discriminate between individuals of the same group, comes into play only to the extent that recruitment has been successful in obtaining applicants belonging to the same group. Presumably, all the applicants should be indigenous to the group of consumers of service — the target population. To the extent that this condition is met, individual accuracy comes to bear on the final selection process. Given the assumption that shared group membership with the consumer is the largest single determiner of job success, individual accuracy becomes a statement of who among the many persons similar to the group of consumers (stereotype accuracy) is the most likely to succeed.

The operation of these components suggest a selection model which takes into account, or controls for, these components. A selection model which utilizes professional and nonprofessional judges drawn from the ranks of the consumers of service, seems to lend itself to an empirical test of the influences of components such as stereotype, empathic, and observational accuracy, if the

influence of spread and level are controlled by using ranking instead of rating procedures. Group differences in predictive accuracy can be attributed to these components, and interpretation of these differences can be based on the group membership of the judge. Individual accuracy can only be used to explain differences within the groups of judges.

The set of hypotheses to be tested must also take into account the task to be accomplished by the applicant and the criterion measure employed to discriminate among the workers at the time of evaluation.

For this study two tasks will be defined — "follow-up" on missed appointments and "outreach" or patient recruitment (See Appendix A). The follow-up task consists of contacting patients who have been familiarized with the family planning clinic and its goals. These women will have been given an appointment to the clinic for a post-partum examination and family planning services, or for family planning services only (in the case of self referrals, not immediately post-partum). For those women who missed their initial appointment to the clinic or a subsequent revisit appointment, a "follow-up" home visit will be made by the nonprofessional health auxiliary. The goals of this type of home visit will be to ascertain the reasons why the patient missed her previous appointment, to reinterpret the clinic's value and purpose, and to reappoint the patient for a subsequent appointment time.

The "outreach" task requires the health auxiliary to recruit new patients to the family planning clinic from a population that is not immediately post-partum. This population will not have had any previous contact with the family planning clinic.

The major differences between these two tasks can be revealed from the techniques employed to achieve them since the goal — clinic attendance — remains the same. These techniques should not differ in kind as much as they do in degree. For example, the "follow-up" assignment should require less program interpretation than the "out-reach" assignment since the "follow-up" patient either previously attended the clinic; or has received recent information about the clinic from a nurse at the time of her hospital confinement for the birth of her most recent child; or from some other source (generally another clinic patient) in the case of the self referral not immediately post-partum. "Follow-up" assignments are more in the traditional model of medical services delivery, and as such, are probably better understood by health professionals. Patient recruitment (outreach) has traditionally been left to the health educator who has relied on mass media techniques rather than personal contact. This distinction is an important one when considering the frame of reference the two types of judges have for the tasks to be accomplished.

The amount of information available to the prospective

"follow-up" patient prior to the home visit is greater than for prospective "outreach" patients. Another difference between the tasks is the manner in which they are perceived by the professional and nonprofessional judges evaluating applicants for these positions. Since each auxiliary will have assignments of both types it is likely that the frame of reference of the nonprofessional judge (whether he is familiar with the "outreach" task as a departure from the traditional approaches) may predict "outreach" performance better than "follow-up" since the outreach task is more similar to the activities of other poverty programs in their neighborhood.

The measure of performance to be employed for each of these tasks will be the ratio of appointments kept to the number given by each health auxiliary. Performance on each task will be measured separately since the amount of communication necessary to accomplish the outreach task is greater.

The hypotheses tested within the framework of this selection model are:

Hypothesis I. The null form of this hypothesis states:

> There will be no differences between a group of professional judges and a group of nonprofessional judges predicting overall performance ranking of a group of auxiliary workers.

Hypothesis II. The null form of this hypothesis

states:

> There will be no differences between
> a group of professional judges and a
> group of nonprofessional judges in
> predicting job performance rankings
> on follow-up assignments.

The alternative to this hypothesis is stated:

> Professional judges as a group will
> predict job performance rankings on
> follow-up assignments better than
> nonprofessional judges as a group.

Hypothesis III. The null form of this hypothesis

states:

> There will be no differences between a
> group of professional judges and a group
> of nonprofessional judges in predicting
> job performance rankings on outreach
> assignments.

The alternative to this hypothesis is stated:

> Nonprofessional judges as a group
> will predict job performance ranking
> on outreach assignments better than
> professional judges as a group.

The measure of predictive accuracy for each group

of judges will be the average correlation coefficient

between the judges' ranking of applicants at the time

of selection and the ranking of the auxiliary health

workers in terms of the criterion measure, eg., the ratio

of kept appointments to the total number given.

CHAPTER III

METHOD

Selection of the Judges

The selection of judges on the basis of professional training or lack of it does not provide the information necessary to test the hypotheses. To avoid obtaining differences between the two groups that were really arising from differences in experience, commitment, and philosophy, it was decided to employ professional judges who were familiar with the population to be served, and whose experiences, after obtaining their professional training, included working in settings which served the indigent. This was an effort to equate the professional and non-professional judges as nearly as possible, on their knowledge of the population to be served and their positive commitment to serve the indigent.

Five professionals, eg., a physician, a social worker, a nurse, a psychologist, and an urban sociologist, participated in the selection process. The physician

was an officer in the Commissioned Corps of the Public
Health Service assigned to the Louisiana Family Planning
Program. He was the medical director of the clinic where
the health auxiliaries worked. His previous experience
included one year as a visiting professor in obstetrics
and gynecology to Cuenca University Medical School in
Ecuador. In his present setting he had daily contact with
the patients of the family planning clinic.

The social worker had attained his M.S.W. from
Tulane University. His field work was done in agencies
in New Orleans. His past experience included directing
a Community Action Program in Lake Charles, Louisiana.
As the director, he had participated in the recruitment,
selection, training, and supervision of 70 neighborhood
service center workers. These workers were from the
indigent community and were very analogous to the workers
recruited for this study. In his present position, he
is responsible for training indigenous nonprofessionals
throughout the state.

The nurse was employed in the family planning clinic.
Her routine tasks were to interview new patients and to
teach a 45 minute class on reproductive physiology and
contraceptive methods. Her previous experience included
staff nursing positions in New Orleans Charity Hospital
(where 90 percent of the medically indigent births occur)
and with the Public Health Department in the city.

The psychologist is a faculty member of Tulane University School of Public Health and Tropical Medicine. His experience included the establishment of a family planning clinic in a rural, north Louisiana Parish which served as the model for the New Orleans clinic. He participated in the recruitment and selection of nurses to carry out the follow-up and outreach tasks. His education and training include extensive experience in individual and group therapy. He has resided in New Orleans for eight years and has been extensively involved in research on and data collection from the population to be served.

The sociologist member of the selection team has worked extensively with the "hard core" poor. He has participated in recruitment, selection, and training of indigenous workers for health and community organization programs. His recent doctoral dissertation described his research on the employment of indigenous personnel.

These five professionals represent the disciplines most likely to be involved in the establishment and operation of a family planning clinic, and they are probably representative of individual professionals who prepare themselves for career commitments to service and research programs for the medically indigent. In this regard, they are probably better prepared by experience and training than are most professionals to judge the qualifications of employees for these programs. In

short, by selecting professionals with these backgrounds,
the possibility of differences arising between groups of
professional and nonprofessional judges due to differences
in commitment should be reduced. In addition, the
specialized experiences with indigenous nonprofessionals
shared by these professionals should enhance their pre-
dictive ability in the selection task.

Selecting Nonprofessional Judges

The most important criteria for selecting nonpro-
fessionals to serve as members of the selection team
was that they represent the areas and individuals to
be served by the health auxiliaries. Neighborhood De-
velopment Centers (funded by the local Economic Oppor-
tunity Program) were contacted to obtain nominations for
nonprofessional selection team members. In some cases,
the persons nominated were elected members of the neigh-
borhood center's health advisory committees. Others
were nominated from discussion groups (active in the
neighborhood) organized to focus on problems of child-
rearing. Of the eight persons nominated, four (all
Negro) were chosen at random to participate on the se-
lection team. The fifth member was included because she
was the only white person nominated. (Birth records
indicate that approximately twelve percent of the medic-
ally indigent births occurred to whites in the New Orleans
metropolitan area).

All the nonprofessional team members were female and of childbearing age. All had children and three of the five were currently married. All five had previous knowledge of the family planning clinic, and three of the five were clinic patients. They resided in "target areas" defined by the local poverty program, and each had met a needs test and been determined eligible for the various Economic Opportunity programs. These five women were considered representative of the indigenous population to be served on the relevant criterion of age, sex, race, income, and previous marital and/or childbearing experience. (The clinic did not consider a never married, never pregnant woman as eligible for services.) These women were unique in their neighborhoods since they had demonstrated an active interest in health or childrearing problems. This brings them closer to the group of professional judges on the "interest" dimension, and tends to equate the two groups on this variable. This similarity was intended since the career choice of the professionals is in the health or health related area. Without any attempt to equate for interest in this particular content area, any differences which might arise could be explained as due to the ego involvement in the content area. It is important to remember that while the interest level of both groups is high, their viewpoints can still be characterized as the professional dispenser and the

nonprofessional consumer.

Recruitment of Applicants

The recruitment of applicants for the selection process was accomplished through the local poverty program. Total Community Action, the poverty program agency in New Orleans, had received a federal grant to establish a "Concentrated Employment Program". A part of this Concentrated Employment Program was a New Careers Division which focused on the development of positions in the human services for low income individuals with very little previous job experience. The aim of the New Careers program was quite in line with the goals of the family planning clinic and of this research. A job order was placed with the New Careers division specifying a few minimum criteria. The family planning clinic requested that all applicants be female, that they be in the reproductive age, and that they have a minimum educational attainment of approximately eight years. This job order was then transmitted to the Concentrated Employment Program workers in the local neighborhood service centers. These employment counselors, stationed in the neighborhoods, had previously interviewed many residents, and from their files of prospective employees, 20 applicants were chosen to be interviewed to determine their interest in the specific job roles that were outlined by the family

planning clinic. In order to obtain representation from throughout the metropolitan area, the family planning clinic further requested that the Community Action agency refer five applicants from each of four neighborhood centers which contained an employment representative.

The 20 applicants, expressing an interest in this job role, were then invited to the family planning clinic in groups of five to meet with the auxiliary supervisor and with the research staff. A group interview was held with each group of five to explain the family planning clinic's program in more detail and to obtain some indication from the applicants that they were interested enough to participate in the selection process which was to follow the next day. This group interview also allowed the research staff and the supervisor of the auxiliary health workers to make some preliminary evaluation of the eligibility of each applicant for employment. It was during this time that a brief application form (see Appendix B) was completed by each applicant. Information concerning their previous work history and other identifying data were obtained. In addition, the group discussion was used to elicit from each applicant the number of children they now had, and their attitudes about the concept of family planning. Questions regarding the specific religious objections to the concept of family planning were raised at this time since it was anticipated

that some of the applicants would be Roman Catholic
(approximately 31 percent of the non-white population
of New Orleans is Roman Catholic) (Beasley, et al, 1966,
p. 1848). Of the 20 applicants referred by the Total
Community Action agency, all were acceptable within these
broad criteria. All applicants agreed to attend the
selection interviewing the next day.

A brief description of the selection process was
given each group of applicants and discussed with them.
The group discussion also familiarized them with the
individuals who would be directing the group interviews
the following day, and provided a familiar face to greet
them when they came for the actual selection interviews.
A brief tour of the family planning clinic also helped
the applicants to learn their way around. Every oppor-
tunity was taken to decrease their anxiety about the
upcoming interview. In an effort to avoid unrealistic
expectations it was pointed out to each group of appli-
cants that a total of 20 applicants would be interviewed
the next day, and at the end of the day, ten would be
hired as health auxiliaries. Questions regarding salary,
sick leave, vacation, working hours, and other personnel
policies were fully discussed. The interview ended after
the staff had obtained definite commitments from the
applicants regarding their interest and their ability
to attend the selection interviewing.

Selection Design

A group meeting was held with all the judges (both professional and nonprofessional) who were to participate on the selection team. The following instructions were given to the group of ten judges.

You will be observing interviews in-
volving 20 applicants for positions
as auxiliary health workers. There
are only a limited number of positions
to be filled at this time. We are
asking you to assist in this selec-
tion process by completing the
following steps.

1. Write out five questions you
   would like each applicant to
   answer in a group discussion.
   These questions should be ones
   which you think will help you
   make a decision about this
   applicant's qualifications for
   the job. We encourage you to
   make these questions open-
   ended so that they will stim-
   ulate discussion and thereby
   reveal more about each applicant.

2. We will ask you to observe all
   20 applicants, four at a time.
   You will observe a 45 minute
   group interview conducted by an
   interviewer. There will be a
   total of seven people in each
   interview room. Four applicants,
   an interviewer, another judge,
   and yourself will comprise the
   group. We ask each judge <u>not</u>
   to participate in the actual
   group discussion. When you enter
   the interviewing room, you will
   submit your list of five ques-
   tions to the interviewer. Each
   interviewer will then structure
   the following group interview
   around the questions that you and

and your teammate have provided.
It may be that all of the ten
questions provided by the two
judges can not be discussed in
this time period. The inter-
viewer will select questions
from each judge alternately in
an attempt to keep the discussion
balanced from each judge's point
of view.

3. Following each group interview
there will be a 15 minute break
to allow you to complete an
evaluation form on the group of
four applicants. This form will
ask you to rate the four appli-
cants using the following pro-
cedure.

If you had the sole responsibility
for the employment decision how
would you judge each applicant?

Applicant's Name _____

    Accept: Very Certain /__/ Certain /__/
             Uncertain /__/

    Reject: Very Certain /__/ Certain /__/
             Uncertain /__/

Comment: _____

_____

You must make a decision on each
employee, and you may choose only
one category to describe your
certainty. At the end of the
selection process, when you have
observed five group interviews,
you will be asked to rank the 20
applicants in the order of your
preference, from most acceptable
to least acceptable. A comments
section is included on each group
evaluation form so that you may
make notes regarding any special
characteristic possessed by any
of the applicants. We encourage

each of you to utilize the time
at the end of each selection
interview, since at the end of
all interviews, you will be asked
to recall something about all 20
applicants in order that you
might rank them in order of your
preference.

Following these instructions, each judge was pro-
vided a blank evaluation form to familiarize them with
the instrument. Discussion was then held regarding the
nature of the job to be accomplished by the health auxi-
liary. Emphasis was put on the distinctions between the
follow-up task and the outreach task. Health auxiliaries
who were currently functioning in these roles were in-
vited to participate in the discussion and to describe
their day-to-day work experiences. Care was taken through-
out this discussion to avoid characterizing the tasks
as ones which could be accomplished best by any particular
personality type. When questions were inevitably raised
about "what the clinic was looking for in employees,"
they were answered by reassuring each judge that "we
were looking for what, in his judgment, would constitute
the best type of employee for this job role." The judges
were each given a schedule which indicated the interview
room numbers, the names of the four applicants who would
be in that room, and the name of the other judge who
would be working with them in any particular group inter-
view. These schedules were designed in such a way that

each professional judge was paired with all nonprofessional judges. The five interviewers were also scheduled in such a way that no interviewer worked twice with any judge. The four applicants stayed in the room they were assigned throughout the five interviews. The judges and the interviewers rotated from room to room at the end of each 45 minute interview, in order to allow for a maximum amount of exposure for each applicant and the ten different judges. In effect, each judge's overall ranking assessment was based on slightly less than four hours of observation. When pooled across all ten judges, the equivalent of some 40 hours of selection interviewing had occurred.

The selection design was structured to avoid the possibility of any contaminating communication among the judges as a result of their continued exposure to one another. No judge ever worked a second time with any other judge, and no interviewer ever worked a second time for any particular judge. Each judge and interviewer saw each group of four applicants only once.

By allowing each judge to devise his own set of questions designed to reveal the applicant's qualifications, a built-in control for similarity among the five group interviews was established. This allowed each judge, no matter who his selection teammate or interviewer, to have a common experience across all

interviews. This technique also relies heavily on the
values and frame of reference of each judge and his per-
ceptions of the job role.

At the conclusion of the interviewing process,
each judge submitted a folder which included the rating
sheets of each group interview, the overall ranking of
the 20 applicants, and the five questions they had used
in the selection process. The applicants were dismissed
for lunch and asked to report to the clinic later that
afternoon to learn of the final results of the selection
interviewing.

The average ranking assigned by all ten judges was
calculated, and the 20 applicants were ordered by their
average rank score from the lowest (rank of one) to the
highest (rank of 20). It was observed that there was
almost complete unanimity among the ten judges' ranking
of the highest five applicants. Since there were very
few disagreements on the ranking of these five applicants,
they could not contribute to differences between the
groups of professional judges and nonprofessional judges
at the time of evaluation. These five applicants were
dropped from consideration for the actual hiring. The
remaining 15 applicants were then rank ordered, and a
representative sample of the 15 ranks was drawn from
this overall ranking of 15 applicants. The ten appli-
cants who were finally chosen had received the following

overall ranking: 1, 2, 3, 4, 6.5, 8, 9, 11, 12, and 13.5.

When the applicants reassembled they were divided into two groups — the applicants selected for employment and those who would be referred back to the New Careers program for subsequent job interviews in other agencies. Each group was informed of the final results of the selection. The group selected was instructed to report for work the following Monday. The group that was selected was briefed on the training program which they would encounter during the first three weeks of their employment. They were given training schedules and the necessary forms for completing their personnel folder, eg., income tax withholding forms and a personal biographical sheet. The group of applicants not selected were assured that their rejection did not mean they were unsuited for human services job roles. They were instructed to report back to their neighborhood employment counselor and encouraged to apply for other New Careers positions.

This selection was accomplished without any objective test scores or personal data on the applicants available to any of the judges. Each of the judges was questioned regarding whether they had any previous acquaintance with any of the applicants. In only one instance was this the case. The nurse was acquainted with one of

the applicants, but it proved to be of no consequence since this applicant was not hired.

The interviewers who participated in the selection process were drawn from the staff of the Louisiana Family Planning Program or the staff of the Center for Population and Family Studies, Tulane University School of Public Health and Tropical Medicine. All interviewers had extensive experience in interviewing persons from the lower socio-economic areas. Those individuals drawn from the family planning clinic staff, had been trained as interviewers to conduct lengthy interviews with families as a part of an ongoing research project. These interviewers were instructed to ensure that each applicant in the group of four had ample opportunity to express herself, and to elicit responses from those who might be reluctant to speak up. Only occasionally did the interviewers report any difficulty in eliciting comments from individual applicants. For the most part, the interviews were very animated and spontaneous and often had to be interrupted at the end of the allotted time.

Following the announcement of the selection decision, both groups of applicants, the hired and not hired, were asked their reactions to the selection format. Both groups reported general agreement, that the selection process was "tiring", "made them a little nervous", but more importantly "that it seemed to be fair, everybody

had an equal chance to be heard".

Orientation and Training

The training model for the auxiliary health workers followed the general guidelines suggested by Reiff and Riessman (1965, p. 20). The training methodology utilized a group discussion format interspersed with role playing. The lecture approach was strictly avoided with the exception of instruction in reproductive physiology and contraceptive methodology. These lectures were supported by extensive use of audio-visual aids and question and answer sessions.

The formal training schedule lasted two weeks (see Appendix C). For the first week, the training activities were confined to the clinic setting. Supervised visits to other clinics in the medical complex, and field visits to "follow-up" patients comprised the bulk of the second week of training. During this second week, the new employees began an additional training experience which was a part of their "New Careers" program. The New Careers Division of the Concentrated Employment Program had contracted with Tulane University to obtain "on campus" instruction for the New Careers trainees. There the curriculum included remedial English, mathematics, and reading, as well as more generic courses in interviewing, growth and development, and group process. The

class sessions were organized around a twelve hour per week schedule. This training was scheduled to last for eight months.

At the completion of the two weeks of on-the-job training, the health auxiliaries were given "follow-up" assignments for patients from their neighborhoods, and they began to function as a regular part of the clinic staff, within the model program to be described.

The Program Model

The Orleans Parish Family Planning Demonstration Program was established in June of 1967 to provide community services to the medically indigent population of Orleans Parish. It is an outgrowth of the Center for Population and Family Studies of the Department of Maternal and Child Health and Population Studies, Tulane University School of Public Health and Tropical Medicine.

After a series of research studies in infant and fetal loss, fertility attitudes, abortion, intrauterine device effectiveness, and a field demonstration in northern Louisiana of the acceptability of family planning, the Faculty of the Center for Population and Family Studies sought funding for the establishment of a service and research program. Funding for this program is provided by the Children's Bureau of the Department of Health, Education and Welfare, the Office of Economic Opportunity, and the Ford and Rockefeller Foundations.

One of the many hypotheses to be tested within this research and demonstration program is:

> The use of personnel selected from
> the indigent population, trained as
> family planning auxiliary workers,
> and used to contact eligible patients,
> will serve as an effective and
> economically feasible means to in-
> form prospective patients of the con-
> cept of family planning and to arrange
> for services among those interested.
> These auxiliaries can also be used as
> a means of providing periodic personal
> contact between the program and its
> patients (Beasley, 1967, p. 5).

In order to test this hypothesis and others which concern themselves with the general level of health among the indigent population, four subgroups of this indigent population were identified. The immediately post-partum segment of the indigent population is considered the first group of patients for whom the program must provide services. In 1965, 6000 live births occurred in Charity Hospital of New Orleans to residents of Orleans Parish.

A second group of patients includes women who have experienced some event in their previous reproductive history which places them at a higher risk for experiencing an infant death or stillbirth in the event of any subsequent pregnancy. This group of women are termed "high risk".

A third group is termed "non-high risk". This group is comprised of those women who have experienced a birth

in Charity Hospital of New Orleans during a previous
three year period, and who do not, because of their pre-
vious reproductive history, fall into the high risk
category. The second and third groups mentioned here
comprise the identifiable population which will be con-
tacted by the auxiliary health workers as a part of their
"outreach" assignments. The fourth group is referred to
as the nonidentifiable segment of the population. This
group is comprised of those women among the indigent
population who have not had a birth registered in Orleans
Parish in the last three years.

One main clinic and three satellites were established
to provide services to these patients. All clinics were
located in neighborhoods which had been previously de-
signated by the local poverty program as "target areas".
Auxiliary workers obtained their assignments (both follow-
up and outreach) from the central clinic in order to
centralize the record keeping and data collection pro-
cedures. They were, however, encouraged to utilize the
satellite clinic which was nearest their neighborhood.

The post-partum segment of this patient population
is first contacted on the post-partum wards of Charity
Hospital of New Orleans. This contact is accomplished by
a staff nurse who makes daily visits to the ward to inter-
view new mothers and to explain the program. It is at this
time that the post-partum patient receives an appointment

to the family planning clinic, for her post-partum examination (six weeks subsequent to delivery), and for family planning instruction and contraceptive services if desired.

The "high risk" and non-risk identifiable segments of the population are contacted in their homes by the health auxiliary who completes a brief contact form, explains the concept of family planning, discusses the clinic's goals, and invites the patient to participate in the program. If this invitation is accepted, the auxiliary then provides the patient with a definite appointment date and time for her initial visit to the clinic.

For the non-identifiable population to be contacted, the health auxiliary will share responsibility with the balance of the program staff to contact and encourage neighborhood PTA groups and other organizations to refer patients to the clinic. No systematic attempts at community organization were planned for the auxiliary workers. However, each health auxiliary is expected to work through the existing organizations in her neighborhood to obtain referrals and to act as a resource person representing the family planning clinic.

The auxiliary health workers meet weekly with their supervisor. This group supervisory meeting includes the receiving of new assignments for the following week, and the completion of brief record forms on those individuals

contacted during the preceding week. Assignments are
allocated to the health auxiliaries on the basis of the
geographical residence of the patient. Every attempt
is made to assign patients to health auxiliaries that live
in the same neighborhood.

A follow-up assignment is given to an auxiliary
health worker only after the patient has missed two pre-
vious clinic appointments. The first appointment was
offered to the patient either at the time of the post-
partum visit on the obstetrical ward of Charity Hospital
of New Orleans, or in the case of the self referred
patient, at the time the patient contacted the clinic
initially. If this initial appointment is not kept, the
patient can receive a second appointment for her revisit
by phone or by letter. If this appointment is not kept,
the health auxiliary then receives a referral from the
clinic records section and a home visit is attempted. The
patient is offered a third appointment for her initial
visit at this time, and if the patient does not keep this
appointment she is dropped from the clinic register.

The outreach assignments are obtained from a printed
listing of women who have delivered in Charity Hospital
of New Orleans during the past three years. These list-
ings are divided by the risk status of the patients and
other identifying information which includes the number
of children in the family and the addresses of the patient.

An individual contact card is generated for each patient
on these lists, and these contact cards are then assigned
to auxiliaries on the basis of geographical location of
the patient. The auxiliary makes the home visit and offers
the initial appointment to the patient. If this appoint-
ment is not kept, then the previously described follow-up
procedure is instituted, wherein the patient receives a
second appointment for her initial visit by phone or
letter, and if necessary, a third appointment is offered
by the same health auxiliary who offered the initial
appointment. The follow-up is then considered complete,
and the patient is dropped from the clinic register if
she does not keep this third appointment.

Data Collection

The assignments given to each health auxiliary are
provided on a printed 5" x 8" card. The follow-up assign-
ment card contains the name and address of the patient to
be home visited, as well as other identifying information
such as the name of a close friend or relative contact,
the type of missed appointment (initial or revisit), the
source of referral of the patient (post-partum referral,
self referral, auxiliary worker referral), and the date
of last missed appointment. Other items on the card are
to be completed by the health auxiliary at the time of the
home visit (see Appendix D). The "outreach" assignment
card contains the name and address of the patient, her

age, race, and risk status. The "outreach" contact card
also contains many items to be completed by the health
auxiliary. Marital status, employment status, education,
religion, and a full review of the reproductive history
are examples of the type of data obtained by the health
auxiliary during the outreach visit. Obtaining this kind
of information requires more time and rapport from the
patient than does the information required on the follow-
up card, which does not concentrate so heavily on the
details of the reproductive history and other demographic
variables.

These assignment cards provide the basic unit of
data collection for the evaluation of health auxiliary
performance. After the home visit is completed, the card
is submitted to the auxiliary supervisor who then edits
it for completeness and checks whether or not the patient
kept the appointment given by the health auxiliary. The
criterion measure used to evaluate auxiliary performance
for the purpose of this study is the ratio of "kept"
appointments to the total number of appointments given.
This choice of criterion would seem to work against the
possibility that a health auxiliary would in any way
coerce a patient to accept an appointment, and thereby
places the emphasis on developing a positive relationship
with the patient.

Auxiliaries were encouraged to develop their own

work schedules, within the broad guidelines of the 35 hour
week. Many times patients were not available in their
homes during the normal working hours and auxiliaries
had to change their work schedule to fit the patient's
availability for home contact. This required evening
and weekend work. This also allowed each auxiliary who
had home and family responsibilities to discharge the job
responsibilities without interfering with the necessity
of "getting the children off to school" or many other
demands which often impinge on working mothers.

In employing this criterion, it is assumed that
all auxiliaries have an equal probability of receiving an
assignment which would eventuate in an appointment given.
It was also assumed that the variables which might affect
the probability that any given appointment would be kept,
would operate equally across all auxiliaries so that the
main variable affecting the probability of the particular
appointment being kept, would be traceable to the affect
that the auxiliary had. Data to support the validity of
this criterion measure are presented in the following
chapter.

CHAPTER IV

RESULTS

The Criterion Measure

The validity of the criterion measure of performance is of considerable importance in any study of predictive accuracy. If the criterion measure does not discriminate among a group of workers then its utilization in studies of this type is not warranted. Of greater importance is the need for the criterion measure to distinguish between individuals on the basis of differences between their effectiveness and not on the basis of other factors influencing criterion scores.

In this study the criterion measure is the ratio (expressed in percent) of the number of patients keeping appointments to the number of patients given appointments by each health auxiliary. Obviously two major variables can affect this ratio — the behavior of the health auxiliary and the behavior of the patient. Throughout this study it is assumed that the patient variables are controlled by randomization of assignments. To test the

validity of this assumption several variables which are
"nested" within patients were examined to discover if:
(1) these variables were related to the probability of any
patients keeping an appointment and (2) to determine if
the most effective health auxiliaries (the top 1/3) and
the least effective (the bottom 1/3) had an equal chance
of getting assignments of the type which might influence
the outcome of an appointment.

For the follow-up assignments, it was assumed that
the source of referral, eg., post-partum versus self
referrals, might have an effect on the probability of any
particular home visit resulting in a kept appointment.
It was assumed that patients who were "self-referred"
might have a higher probability of keeping an appointment
since they had already demonstrated their motivation by
arranging for their own first initial appointment (I_1).
(The second initial appointment offered by the clinic
follow-up by phone or letter is termed an I_2 and the
third initial appointment offered by the health auxiliary
is termed an I_3.)

To test the effects of the source of referral on
the proportion of appointments kept, a two way analysis
of variance was performed using data (percent kept ap-
pointments) from the top and bottom thirds of the auxiliary
workers. The percentage data were transformed (after
Winer, 1962, p. 221) to equivalent angles using tables

for the 2 arcsine $\sqrt{\text{percentage}}$ transformation (Winer, 1962, p. 650). Table 1 and 1' present the original and transformed data obtained from the performance of the top 1/3 and bottom 1/3 of the auxiliary workers by the source of initial referral to the clinics. (Note: Post-partum referrals are received from two medical schools utilizing Charity Hospital as a teaching facility — Tulane and Louisiana State University.)

The results of the analysis of variance performed on this data are presented in Table 2.

TABLE 1

Percent of Patients Keeping "Follow-up" Appointments by Source
of Referral and Auxiliary Level.

| Auxiliary Level | Source of Referral | | | | | Total |
	Post-Partum Tulane	Post-Partum L.S.U.	Self Referral	Auxiliary Worker Referral	Other	
Top 1/3	49.03	57.77	65.44	33.33	68.42	(N=433) 56.35
Bottom 1/3	39.56	40.25	37.03	21.53	40.00	(N=470) 35.74

TABLE 1'

Transformed Scores ($X' = 2$ arcsine $\sqrt{\text{percentage}}$)

Auxiliary Level	Post-Partum Tulane	Post-Partum L.S.U.	Self Referral	Auxiliary Worker Referral	Other	Total
Top 1/3	1.5508	1.7315	1.8755	1.2239	1.9391	8.3208
Bottom 1/3	1.3594	1.3694	1.3078	0.9764	1.3694	6.3924
Totals	2.9202	3.1009	3.1833	2.2003	3.3085	14.7132

TABLE 2

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Total	10	22.4676		
Mean	1	21.6478		
Auxili- ary Level	1	0.3718	.3718	23.23 **
Source of Referral	4	0.3840	.0960	6.00 N.S.
Residual	4	0.0640	.0160	

**p $<$ .01
N.S. not significant .05$<$ p $<$.1

This analysis indicates that the source of referral does not influence the probability of any given appointment resulting in a "kept" appointment. There is, however, a significant difference (alpha $<$ .01) between the top 1/3 and the bottom 1/3 of the auxiliary force in obtaining "kept" appointments from all sources of referral. To test that both levels of auxiliary workers had received equivalent numbers of assignments from each source of referral a chi-square comparison of the distribution of total assignments by source of referral for each level was computed. The calculated chi-square (8.3903) was not

significant at alpha $<.05$. These results indicate that there was no significant difference in the numbers of assignments from each referral source across the two levels of auxiliary workers. These results further indicate that the source of referral (a variable nested within patients) does not affect the performance of the most effective auxiliaries when compared to the least effective auxiliaries. Thus, the criterion score is independent of the referral source of the assignment.

The type of missed appointment, eg., missed initial or missed revisit is another variable which might influence the probability of a patient keeping an appointment given at the time of the follow-up home visit. The Revisit (R_3) assignments were assumed to be more likely to keep their appointments than were the Initial (I_3) assignments since the "revisit" patients had already attended the clinic at least once. They knew the clinic location and were familiar with the procedures. They most probably had elected a contraceptive method at the time of their initial visit and were not experiencing any difficulty with the method since they had not reported back to the clinic and requested further medical consultation.

This assumption seems to be correct since the calculated chi-squares comparing the number of kept appointments to the number not kept for each type of visit proved to be significant for both levels of auxiliary workers.

The differences between the likelihood that an initial versus a revisit appointment would keep for the top third (chi square = 4.9099) and for the bottom third (chi square = 5.6532) were both significant at the .05 level (critical level of X^2 (1) alpha .05 = 3.841). Thus both levels of auxiliary workers have a greater probability of experiencing a positive outcome from a revisit assignment.

This difference in response across the two types of follow-up might partially account for the differences between the two levels of auxiliary workers if the top third are appointing more revisit patients than the bottom third. A chi-square comparison of the distributions of Initial and Revisit appointments given by each level (chi square = .0148) does not support a contention that there were differences in the distributions. Thus, the conclusion that the differences between the two levels of auxiliaries are not a function of differences in type of follow-up assignment, supports the idea that the criterion measure is differentiating between the two levels on their overall effectiveness with both types of follow-up assignments.

A third variable which might affect patient response is the time which elapses between the patient's last missed appointment and the "follow-up" home visit by the health auxiliary. It was assumed that as the time lapse increased the motivation of each patient to keep an appointment would decrease resulting in a lowered response probability for

any given appointment. A two way analysis of variance
was performed to ascertain the effects of this lapse on
the two levels of auxiliary workers. The response rate
obtained by each level was arrayed across eight time lapse
periods as presented in Table 3. Table 3' represents the
transformed (2 arcsine $\sqrt{\text{percentage}}$) scores used in the
analysis summarized in Table 4.

TABLE 3

Proportion of Patients Keeping Follow-up Appointments
by Time Interval Between Last Missed Appointment and
Date of Home Visit by Auxiliary Level.

Auxiliary Level	Elapsed time in days								
	0-2	3-4	5-7	8-10	11-14	15-21	22-28	29-59	60+
Top 1/3	.55	.70	.62	.53	.54	.55	.46	.46	.25
Bottom 1/3	.24	.40	.34	.31	.37	.41	.41	.18	.20

TABLE 3'

Transformation = 2 arcsine $\sqrt{\text{percentage}}$

Auxiliary Level	Elapsed time in days									
	0-2	3-4	5-7	8-10	11-14	15-21	22-28	29-59	60+	Total
Top 1/3	1.6710	1.9823	1.8132	1.6308	1.6509	1.6710	1.4907	1.4907	1.0472	14.4478
Bottom 1/3	1.0239	1.3694	1.2451	1.2025	1.3078	1.3898	1.3898	.8763	.9273	10.7319
Total	2.6949	3.3517	3.0583	2.8333	2.9587	3.0608	2.8805	2.3670	1.9745	25.1797

TABLE 4

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Total	18	36.8488		
Mean	1	35.2231		
Auxiliary Level	1	.6774	.6774	29.97 ***
Time Lapse	8	.7671	.0958	4.24 *
Residual	8	.1812	.0226	
(a) non-additivity	1	.0132	.0132	0.55 N.S.
(b) remainder	7	.1680	.0239	

***p < .005
* p < .05
N.S. not significant

These results indicate that this time lapse does significantly influence the probability that any given appointment will be kept across both auxiliary levels. It is also apparent that the top 1/3 of the auxiliary force has a higher probability of achieving a positive response to appointments given across all time intervals.

Tukey's test for non-additivity was carried out on the residual term to determine if the residual term could be used as an estimate of the error. Since this F ratio was not significant it was concluded that the residual term was an appropriate estimate of the error term. A chi-square comparison of the distribution of total completed assignments at each time interval for both levels of auxiliaries found no significant differences between the two auxiliary level's probabilities of having a completed assignment across time intervals. (Calculated chi-square = $9.3730 < 15.507 = X^2$ when $p < .05$ with 8 df.)

Another "time interval" variable which might affect patient response is the elapsed time between date of home visit and the date of the new appointment. It was assumed that as the time interval between these two events increased, the probability of the patient keeping an appointment would decrease. Two reasons for this assumption are: (1) the patient's motivation to keep would be highest at the time nearest the home visit when she had committed herself by accepting an appointment and (2) occurrences in the patient's family which prevent her attendance, (eg., sick children) would be more likely to intervene as the time span increased. Another way of stating this last reason would be to consider a patient's ability to predict her own availability for an appointment one day hence versus one week hence versus two weeks hence.

The accuracy of prediction should decrease as the time span

lengthens.

A two way analysis of variance was performed to

ascertain the effect of this time interval on the two

levels of auxiliaries. Table 5 presents the proportion

of kept appointments for each level of auxiliary worker

across six time intervals. Table 5' represents the trans-

formed raw scores used in the analysis summarized in

Table 6.

TABLE 5

Proportion of Patients Keeping Follow-up Appointments
by Auxiliary Level by Time Interval Between Home Visit
and Date of New Appointment.

Auxiliary Level	Elapsed time in days						
	1-2	3-4	5-6	7-8	9-10	11-12	13+
Top 1/3	.74	.61	.46	.53	.52	.47	.36
Bottom 1/3	.61	.32	.33	.30	.38	.17	.14

TABLE 5'

Transformation = 2 arcsine $\sqrt{\text{percentage}}$

Auxiliary Level	Elapsed time in days							Totals
	1-2	3-4	5-6	7-8	9-10	11-12	13+	
Top 1/3	2.0715	1.7926	1.4907	1.6308	1.6108	1.5108	1.2870	11.3942
Bottom 1/3	1.7926	1.2025	1.2239	1.1593	1.3284	0.8500	0.7670	8.3237
Totals	3.8641	2.9951	2.7146	2.7901	2.9292	2.3608	2.0540	19.7179

TABLE 6

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Total	14	29.4965		
Mean	1	27.7711		
Time Lapse	6	0.9723	0.1620	12.18 ***
Auxiliary Level	1	0.6734	0.6734	50.63 ***
Residual	6	0.0797	0.0133	
(a) non-additivity	1	0.0240	0.0240	2.16 N.S.
(b) remainder	5	0.0557	0.0111	

*** = $p < .005$
N.S. = Not significant

As expected the time interval between the home visit had a significant effect on the proportions of patients keeping appointments. Once again the top 1/3 of the auxiliary workers attained positive outcomes at a rate significantly different from the bottom 1/3. A chi-square comparison of the distribution of total appointments given at each time interval by both levels of auxiliary workers

found no significant differences (chi-square = 9.4842) between the two levels' probabilities of having a completed assignment across individual time intervals (Critical Value of $X^2(6)$ when alpha = .05 = 12.592.)

In summary, for follow-up assignments the variables thought to affect the criterion scores of auxiliary workers (if significant) are distributed evenly across all auxiliary workers and no instances of interaction between the auxiliary level and these variables were observed.

Similar analyses were carried out for the outreach assignments, and similar results were obtained. An additional analysis using age of the patient and auxiliary level as independent variables was performed to determine their effect on the percentage of appointments kept — the dependent variable. Table 7 presents an array of the "outreach" performance for the top 1/3 and the bottom 1/3 of the auxiliary force across age groupings of appointments given. Table 7' presents the transformed data used in the analysis summarized in Table 8.

TABLE 7

Outreach Performance of Two Levels of Auxiliary Workers Across
Age Groupings of Patients Who Accepted Appointments Expressed
in Proportion of Patients Keeping
Appointments

Auxiliary Level	Age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Top 1/3	.55	.64	.49	.47	.38	.42	.33
Bottom 1/3	.39	.35	.34	.30	.30	.31	.25

TABLE 7'

Transformation $X' = 2$ arcsine $\sqrt{percentage}$

Auxiliary Level	Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Totals
Top 1/3	1.6911	1.8546	1.5508	1.5308	1.3284	1.4303	1.2239	10.6099
Bottom 1/3	1.3490	1.2661	1.2451	1.1810	1.1810	1.2025	1.0472	8.4719
Totals	3.0401	3.1207	2.7959	2.7118	2.5094	2.6328	2.2711	19.0818

TABLE 8

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Total	14	26.6612		
Mean	1	26.0822		
Auxili- ary Level	1	.2525	.2525	10.8836 **
Age	6	.1870	.0311	1.3405 N.S.
Residual	6	.1395	.0232	

$**p < .025$
N.S. = not significant

These results indicate that the age of the patient
does not have any significant effect on the probability
that a patient will keep an outreach appointment. The
top third of the auxiliary force does significantly
better than the bottom third across all age groups. A
chi-square comparison of the distribution of appointments
given across all age groups revealed that the two levels
were equivalent (chi-square = 6.2965) in the number of
assignments which resulted in appointments (Critical Value
of $X^2(6)$ = 12.592 when alpha = .05). Since the age of
the patient does not seem to affect the probability of an
appointment being kept and since both levels appointed

equivalent numbers in each age group it seems that age —
a variable "nested" within patients — does not influence
the criterion score obtained on outreach patients.

An analysis of the time elapsed between the home
visit and the date of the appointment for the outreach
group was performed to ascertain its effect on the pro-
bability that an appointment would be kept. The results
of this analysis were identical to a similar analysis
performed on follow-up assignments. The elapsed time
effect was significant ($p < .005$). A chi-square com-
parison of the distributions revealed that the number of
appointments given for each time interval were equivalent
(chi-square = 12.1871) for both levels of auxiliary workers
(Critical Value of $X^2(8) = 13.3616$ when alpha = .1).

Other variables nested within patients receiving
outreach assignments, eg., high or low risk status,
previous miscarriage or stillbirth, were not found to
significantly influence the probability of a patient
keeping an appointment, however, the differences between
the top and bottom levels of auxiliaries did maintain.
A comparable study comparing clinic attendence of groups
who had and had not experienced stillbirth and/or infant
death in their reproductive histories was consistent with
these findings of "no differences in clinic attendence".
(McCalister, Hawkins, Beasley, 1968).

It does not appear that variables nested within

patients significantly affect the probability of clinic attendence. When these variables are significant as in the case of "elapsed time" they do not seem to interact with the auxiliary level and thus, cannot account for spurious differences between the levels when the numbers appointed are equivalent for both levels.

Here, as in the case of the follow-up assignments, the criterion measure seems to be discriminating on the basis of differential abilities among auxiliary workers.

Derivation of Ranking Scores

The prediction scores of each judge were compared to the criterion scores of each applicant selected, to determine the predictive accuracy of each judge. The subgroups, eg., professional and nonprofessional scores, were pooled for comparisons between the two groups.

The ranking score assigned by each judge to each applicant at the time of selection was taken as the basic unit of data collection. Since only ten of the twenty applicants were hired, the overall ranking of applicants was used to determine the relative positions of the ten applicants selected. The following procedure was observed for each judge's ranking scores:

Auxiliary Worker	Ranking among all applicants at selection	Final ranking score
A	1	1
B	2	2
C	3	3
D	4	4
E	6.5	5
F	8	6
G	9	7
H	11	8
I	12	9
J	13.5	10

This final ranking score assigned from the relative positions of the judges' ranking at the time of selection was then compared with the rank order of the ten workers on the performance measure. Each worker's "percent kept" score was used in ordering their positions at the time of evaluation.

The method of pooling the final ranking scores across all judges and across the professional and non-professional subgroups used the average of all the final ranking scores to determine the applicant's positions in the pooled ranking. Once the average rank assigned by the subgroup had been determined, these averages were ordered from lowest to highest and a ranking of 1 through

10 was assigned, eg., the lowest average ranking received
a new rank of one, the next lowest; two, etc. The final
ranking scores for each applicant derived from each judge
and pooled for each subgroup are presented in Table 9.

The criterion scores for each worker were tabulated
from the records maintained on each patient referred to
the family planning clinic. The results of all appoint-
ments issued by the health auxiliary at the time of the
home visit are presented in Table 10. Variations in the
number of assignments which resulted in appointments are
due to many factors. Auxiliary "D" is not participating
in the New Careers Training at Tulane University and is
able to devote full time to the job. The balance of the
workers spend varying (from three to 15 hours per week)
amounts of time away from their neighborhoods attending
this training program. The travel time required to attend
staff meetings and the on-campus training, varies across
all workers due to their different geographical locations.
The differences between the number of follow-up assign-
ments and outreach assignments which resulted in appoint-
ments are due in large part to the clinics priority system
which makes a follow-up assignment the first order of
business. Only when the follow-up assignments have been
completed are the auxiliaries free to work on the out-
reach assignments. The number of outreach assignments
attempted are limited by the number of "follow-up"

TABLE 9

Final Ranking Scores Assigned Each Worker
for Each Judge and Sub-group of Judges

Auxiliary Worker	Nonprofessional Judges					Mean N-P	Professional Judges					Mean P	Mean P+N-P
	$N-P_1$	$N-P_2$	$N-P_3$	$N-P_4$	$N-P_5$		P_1	P_2	P_3	P_4	P_5		
A	2	2	1	2	5	1	5	10	6	5	1	5	2
B	6	1	7	1	2	2	7	1	1	4	2	1	1
C	4	7	5	10	1	6	2	6	7	9	5	6	6
D	1	3	10	7	3	3	3	7	4	3	9	4	4.5*
E	5	9	2	5	4	4	4	3	5	10	10	7	7
F	3	4	3	9	7	5	9	2	8	2	3	3	4.5*
G	7	6	8	4	6	7	1	4	2	1	8	2	3
H	9	10	4	3	8	8	6	5	10	6	6	8	8
I	8	5	9	8	9	9	10	8	9	7	4	10	10
J	10	8	6	6	10	10	8	9	3	8	7	9	9

*When the average ranks were equal the ties were assigned the average of
the two ranks that would have been obtained had no ties been present.

TABLE 10

Results of Appointments Given by Auxiliary Workers at
the Time of Home Visit (Dec. 1, 1967 to April 1, 1968)

Auxiliary Worker	Outreach Assignments				Follow-up Assignments				Total Assignments			
	# Given	# Keeping	% Keeping	Rank	# Given	# Keeping	% Keeping	Rank	# Given	# Keeping	% Keeping	Rank
A	38	16	42.10	3	37	11	29.72	9	75	27	36.00	9
B	42	18	42.85	2	21	12	57.14	1	63	30	47.61	1
C	31	13	41.93	4	21	7	33.33	8	52	20	38.46	6
D	61	23	37.70	7	46	19	41.30	4	107	42	39.25	5
E	31	12	38.70	6	42	16	38.09	7	73	28	38.35	7
F	13	6	46.15	1	44	18	40.90	5	57	24	42.10	2
G	24	9	37.50	8	12	6	50.00	2	36	15	41.66	3
H	44	18	40.90	5	20	8	40.00	6	64	26	40.62	4
I	25	8	32.00	9	17	5	29.41	10	42	13	30.95	10
J	23	7	30.43	10	48	20	41.66	3	71	27	38.02	8

patients to be contacted in each worker's neighborhood.
Within this framework outreach assignments tend to be
self limiting. The auxiliary worker who appoints an
"outreach" patient will have to visit the patient as a
"follow-up" assignment if the patient does not keep the
first or second (by phone or mail) appointments. Since
follow-up assignments take priority it is easy to see how
an auxiliary worker's assignments follow a cyclical pattern,
eg., few follow-up assignments mean more outreach assign-
ments which then result in more follow-up assignments.

To test whether any significant relationship was
present between the number of assignments given appointments
and the rank by criterion scores, a Spearman's rank order
correlation coefficient was calculated. Each auxiliary
worker was ranked by the number of appointments (of each
type) she had given and also by the percent of patients
keeping those appointments. These rankings were done for
outreach and follow-up assignments and their combined
totals. The rank correlation coefficients (rho) were
.1819; .2000 and -.2242, respectively. None of these
was significantly different from zero (Critical Value of
rho is $\pm$ .56 when N = 10 and alpha = .05).

These findings suggest that the number of assignments
which resulted in appointments is independent of the per-
cent of patients keeping those appointments. In the face
of these results it would seem that the criterion score

is not affected by the availability of assignments which result in appointments. This additional support for the criterion measure being independent of the clinic's method of assignment, is additional evidence that the performance measure is discriminating among workers on the basis of qualities of the auxiliary, rather than artifacts of the setting.

Predictive Accuracy

A series of rank order correlation coefficients were calculated to determine if ranking scores assigned at the time of selection (from Table 9) were associated with ranking scores obtained on the criterion measure (from Table 10). These correlation coefficients provide an index of the predictive accuracy of each judge and each group of judges as well as the accuracy of the over-all selection process (when pooled selection and performance scores are compared).

The first "accuracy" question pertains to the ability of this selection model to differentiate among the applicants it considers. A Spearman's rank order correlation was calculated using the average rank assigned by all ten judges and the rank obtained by each worker when both follow-up and outreach scores were pooled. The calculated rho was .55. The significance of this rho was tested by referring:

$$t = rho \sqrt{[(n-2)/(1-rho^2)]}$$

to the t-distribution with n-2 degrees of freedom (Maxwell 1961, p. 115). The calculated t = 1.8627 was significant when alpha = .1 with eight degrees of freedom. (The Critical Value of rho when n = 10 is .56 when alpha = .05). When the pooled performance ranking was compared to the mean ranking by the subgroups of judges, very different results were obtained. The ranking by the subgroup of professional judges obtained a rho of .78 and the nonprofessionals a rho of .25 when compared to the ranking by pooled performance scores. The mean ranking by the professional judges correlated significantly (t = 3.5526, significant when alpha = .01) with the ranking of workers by their obtained performance scores. The nonprofessional judges' ranking was not significantly associated with the overall performance ranking. These results seem to indicate that the selection model is operating very well for the professional judges, not well at all for the nonprofessional judges and only marginally well for the combined group. Another interpretation might suggest a differential predictive accuracy between the two subgroups. Still another might be that the two subgroups were predicting different kinds of performance.

A test of this third interpretation provided some evidence for its adoption. Comparisons of each subgroup's mean ranking scores with performance scores yielded the results presented in Table 11.

TABLE 11

Spearman's Rank-Order Correlations Between
Average Ranks Assigned at Selection and Ranks
Obtained by Two Types of Performance Scores

Subgroup		Type of Performance Ranking	
		"Follow-up"	Outreach
Professional Judges	rho	.6604*	.5849
	associated t value	2.4876	2.0218
Nonprofessional Judges	rho	.0910	.6728*
	associated t value	0.2584	2.5725

*significant when alpha = .05 (Siegel, 1965, p. 248)

This table provides a convenient visual illustration
of the interaction between the type of judge and the type
of task predicted. For the professional judges the model
allowed for better prediction of the follow-up performance
(rho = .66) than the outreach performance (rho = .58).
For the nonprofessional judges these results were re-
versed, eg., outreach performance (rho = .67) was predicted
better than follow-up performance (rho = .09). Consider-
ing only the follow-up task the subgroup of professional
judges predicted more accurately (rho = .66) than the non-
professionals (rho = .09). When only the outreach task
was considered the nonprofessional judges predicted more

accurately (rho = .67) than the professional judges
(rho = .58).

These results seem to support the rejection of the
null hypotheses stated in Chapter Two. Further the direc-
tion of the differences predicted in the alternative hypo-
theses seems to be confirmed.

The first hypothesis stated there would be no
differences between the professional and nonprofessional
judges' ability to predict the overall performance (eg.,
the total number of kept appointments in proportion to
the total appointments given) by auxiliary workers. The
experimental evidence does not support this hypothesis.
The predictive validity of the professional judges' mean
rankings given at the time of selection were significantly
different from zero, whereas the ranking assigned from the
nonprofessional group of judges was not different from
zero.

The second hypothesis which predicted no differences
between the two groups of judges' ability to predict
performance on follow-up assignments was not supported.
However, the alternative hypothesis which predicted
better predictive validity from the group of professional
judges was confirmed. As in the case of the first hypo-
thesis the professional judges obtained an index of pre-
dictive accuracy which differed significantly from zero,
while the nonprofessional judges obtained a score very

near zero.

The third hypothesis also predicted no differences between the groups in predicting the outreach performance. This hypothesis was not confirmed. The alternative hypothesis which predicted that nonprofessional judges would predict the performance on this task better than the professionals was supported. The nonprofessional judges obtained an index (rho = .67) which differed significantly from zero, while the professional judges' index (rho = .58) was not considered different from zero.

It must be pointed out that the two alternative hypotheses which were supported were not designed to account for such large magnitudes of difference between the two subgroups. They were originally conceived to account for differences between the way each subgroup perceived the overall task. It was assumed that professionals would more readily "identify" with the follow-up task and thus predict performance on this component better than the nonprofessionals who would identify more closely with the outreach component. It was further assumed that the follow-up and outreach assignments were similar in terms of the basic qualities necessary to accomplish the task and differed only in terms of "degree". Since the goal of both tasks was a common one — clinic attendence — it was assumed the two tasks were related, eg., two components of the same job. To test these assumptions about the dependence of the two tasks, a comparison of perfor-

mance on the two tasks across all workers was carried out using a rank order correlation. There proved to be no relationship between performance on the two tasks (rho = .15). Further interpretation must take this unanticipated finding into account.

CHAPTER V

DISCUSSION

This study has endeavored to treat the relevant variables involved in a selection process for indigenous nonprofessional workers assigned to health clinics providing direct service to low income patients. The attempt has been to isolate those variables which may affect the selection procedure and to present a method of study which lends itself to empirical test.

Three major variables affect any selection process: (1) the applicants, (2) the job requirements and (3) the persons responsible for the selection decision. In this study an attempt was made to control for cultural and other background differences among the applicants who presented themselves for selection interviews. Recruitment criteria were specific enough to choose a homogeneous group of applicants along the relevant dimensions of age, sex, previous marital and/or childrearing experience, interest in health related occupations, income, and socio-economic class membership. Certainly, not all applicant variables were controlled for, eg., educational level, personality,

and future studies may uncover many differences among
applicants which influence both the judge's perception
of them and their subsequent performance on the task.
If applicant variables are to be studied, careful atten-
tion must be given to the nature of the task to be per-
formed, and to the variables which affect the persons
participating in the selection.

This study has focused on the significant variables
which allow a group of judges to predict subsequent
performance and on the characteristics of the task to be
performed. Smith (1966) provided the theoretical frame-
work for considering the various components which enter
into an individual's ability to predict the performance
of another person. For Smith, this predictive accuracy
is synonymous with sensitivity. His component approach
to sensitivity identifies at least six variables which
influence the "sensitivity" of anyone attempting to pre-
dict the behavior of another person. Two of the variables
(level accuracy and spread accuracy) have been omitted
from consideration in this study since the methodology
employed, (eg., ranking) effectively controls for their
influence. Of the four remaining variables, empathic
accuracy and observational accuracy depend in large part
on the interaction between the predictor and the person
whose behavior is being predicted. In this study, the
interaction between the perceiver and the perceived was

held constant for all judges. The two remaining components
of the ability to predict another's behavior are stereo-
type accuracy and individual accuracy. Stereotype accuracy
refers to the perceiver's ability to make accurate pre-
dictions of someone's behavior based on their similarity
to groups with which the perceiver is familiar. Individual
accuracy refers to the perceiver's ability to differentiate
between individuals when group membership cues are reduced
to a minimum. In this study, the conditions which would
allow for a significant test of individual accuracy were
not met. In fact, every attempt was made to maximize the
group membership information about each person being judged.
This study attempts to narrow the consideration of predic-
tive accuracy to two components — stereotype accuracy
and empathic accuracy. Observational accuracy is omitted
from consideration since no group differences were ex-
pected. Observational accuracy may be useful in dif-
ferentiating between individual judges, but the design
of this study equated the two groups on the factors which
tend to influence this component, eg., motivation and
amount of interaction.

When one attempts to account for the results found
in this study on the basis of stereotype accuracy alone
the model seems to be insufficient. Using only group
membership cues, stereotype accuracy should allow either
or both groups of judges to predict performance on the two

types of tasks equally well, since both tasks have been developed from the assumption that the indigenous nonprofessional's effectiveness is closely related to his membership in the group of individuals to be served. The findings of this study suggest two possible alternatives: (1) stereotype accuracy is not sufficient to allow prediction of tasks which depend on group membership for their success, or (2) stereotype accuracy is sufficient for the prediction of job success on those tasks where group membership is important if the group membership is similar to that of the judge.

Other findings from the setting of this present study suggest the adoption of the second alternative. During the initial stages of program development, auxiliary health workers were not available to carry out the follow-up task for patients of the family planning clinic. Prior to the recruitment and selection of auxiliary workers, staff nurses and other program personnel, eg., a social worker and a trained interviewer, were employed to carry out follow-up responsibility. These workers were all white, middle-class professionals with little or no similarity to the patient group being served. A total of 151 follow-up assignments were accomplished by five workers over a two month period. The results obtained by these workers (56 percent of the total appointments given were kept) equalled or exceeded the performance of 80 percent

of the entire auxiliary worker force. It does not appear
that group membership is an important variable in predict-
ing the success of individuals carrying out the follow-up
task.

As a part of a special research project, two public
health nurses with specialized training in interviewing,
offered initial appointments to the family planning clinic
to a group of patients analogous to the high risk patients
contacted by the health auxiliaries during their outreach
assignments. Almost 40 percent of these patients re-
sponded to the initial offer of an appointment. This
performance by white, middle-class professionals was less
than that achieved by 60 percent of the auxiliary force.
Although these findings are based on but two individual
professionals offering the appointments, it does suggest
that group membership similar to the consumer is an important
variable in predicting performance on the outreach task.

These additional findings now provide a suggested
interpretation for the findings of the study. Since the
nonprofessional judges were superior in predicting the
outreach performance of the auxiliary workers, and since
the outreach performance does seem to be related to group
membership variables, it would seem that their superiority
could be explained from the standpoint of greater stereo-
type accuracy from the nonprofessional judges. Since the
nonprofessional judges were selected from the group to be

served, they should be more acquainted with the relevant
group membership variables. Therefore, when these vari-
ables are significant in predicting performance, nonpro-
fessional judges should predict better than the professional
judges whose understanding of these relevant group vari-
ables is necessarily based on a combination of academic
training and experience in dealing with these groups as
a purveyor of service. Similarly, the professional
judges' superior ability to predict performance on the
follow-up task may derive from their stereotype accuracy.
Since white middle-class professionals can achieve results
on this task equal to or greater than most auxiliary health
workers, it may be that the professionals were superior
in choosing applicants who were more like the profes-
sionals, as a group, than like the consumers of service.
What may have occurred is that the professionals were
predicting group membership variables which did in fact
influence performance, but the reference group on which
their choices were based was the middle class professional.
This interpretation may also accommodate any effects due
to empathic accuracy. Since empathy is defined by Smith
(1966, p. 93) as, "the tendency to assume that another
person's feelings, thoughts and behavior are similar to
one's own", it is not surprising to find that professional
judges predict a task which can be accomplished by persons
like themselves with greater facility than by persons

not like themselves. Nor is it surprising to find that nonprofessional judges can predict performance on a task which can be accomplished by persons more like themselves.

It seems that the important lesson here is that for any selection process, it is important that the actual job task be defined in terms of the group membership variables which are likely to be operating. It would seem that the more straightforward follow-up task is less dependent on group membership variables similar to the consumer population than the outreach task which requires more communication and "salesmanship". The "salesmanship" involved may be analogous to the worker's ability to serve as an ego model for the patient. Modern advertising techniques rely heavily on the concept of an appropriate ego model. They consistently present individuals with whom their consumers can readily identify in order to achieve response.

In summary, it would seem that a judge's ability to predict the performance of a nonprofessional worker is contingent on empathic and stereotype accuracy. If the judge assumes that the individual under consideration is like himself and if the judge has a superior ability to carry out the designated task, then his empathic accuracy will allow for heightened predictive accuracy. If in addition, group membership variables are important in

predicting performance, stereotype accuracy will account for part of the overall predictive accuracy.

CHAPTER VI

SUMMARY AND CONCLUSIONS

This study attempted to identify the relevant vari-
ables affecting selection for "New Careers" job roles
under three major headings: (1) the applicants, (2) the
selection team, and (3) the criterion measure used to
assess effectiveness for a specified job role. The study
compared the predictive accuracy of two groups of judges:
(1) professionals most likely to be involved in the es-
tablishment of a family planning clinic and (2) representa-
tives of the low-income consumers of service.

Results indicated that the criterion measure (the
numbers of patients accepting and subsequently keeping
either an outreach or follow-up appointment) discriminated
between the auxiliary workers. These criterion scores
were used to rank the workers on two types of assignments —
patient recruitment (outreach) and patient follow-up.
The goal of both assignments was to obtain patient attend-
ance at the family planning clinic, and the percentage
of patients keeping appointments in relation to the total
number given became the evaluation score. Rankings

assigned by the two groups of judges were compared to the rankings of workers at the time of evaluation to determine the predictive accuracy of the judges' rankings.

It was found that professional judges were more accurate in predicting follow-up performance than the nonprofessional judges. However, this accuracy was reversed when only the outreach assignments were considered. There was no correlation between performance on follow-up and outreach assignments. This differential performance accounted for the differences in predictive accuracy between the two groups of judges, since only one selection score was used to predict two independent performance scores. The study suggests that a possible interpretation of why the single selection score given by the two groups of judges was accurate for different types of assignments could be found by examining the tasks with respect to reference group phenomena.

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APPENDIX A

JOB DESCRIPTION AND ANALYSES

AUXILIARY-HOME VISITOR

GENERAL DESCRIPTION

The Auxiliary-Home Visitor represents a subprofessional
position filled by an individual recruited from the
neighborhood served by the Louisiana Family Planning
Program, Inc.

RESPONSIBILITY

The Auxiliary will receive training in the process of
interviewing, observation and recording in addition to
a thorough orientation relative to the goals and ob-
jectivities of the program, and methodology and tech-
nology to be employed.

The Auxiliary will be trained and supervised by the
Supervisor of Auxiliary Services.

The Auxiliary will be assigned to visit patients who
have missed appointments as well as to visit individuals
who have requested information prior to participating
in the program.

The Auxiliary will report through the supervisor the
existence of conditions and situations of professional
interest and concern to the medical and social service
personnel of the Program and will implement, where pos-
sible, the recommendations prescribed by the aforementioned
professionals.

In addition to preliminary training and orientation, the
Auxiliary will be the recipient of on-the-job training
administered by the Supervisor with the contributions of
the medical and social service personnel.

APPENDIX A (continued)

JOB ANALYSES

FOLLOW-UP ASSIGNMENTS

I. OPERATIONS

 1. Obtain FP-22 from Supervisor or clerk.
 2. Record assignment in Daily log.
 3. Determine priority of patient.
 4. Determine location of patient.
 5. Develop a plan of contact.
 6. Locate the patient or other contact.
 7. Interview the patient and give appointment.
 8. Record necessary information on FP-22.
 9. Instruct the patient on location and procedures of clinic.
 10. Record travel expense and other useful information in notes and on daily record.
 11. Inform supervisor and/or clerks of the outcome of contact.
 12. Refer patient for additional services.

II. RELATED INFORMATION

A. Technical (must know)

 1. Read forms and understand operating schedules of clinics.
 2. Procedures for appointing various types of patients.
 3. Priorities of patient contacts.
 4. Read maps and calculate times and distances.
 5. Contact resources, eg., schools, postman, grocers, landlords, for assistance in tracking.
 6. Establish rapport with patients.
 7. Explain clinic policies and procedures.
 8. Refer requests for medical information.
 9. Establish a helping relationship.
 10. Other resources available and how to refer.
 11. Help patient identify her needs.
 12. Explain the value of family planning.
 13. Explain basic reproductive physiology.
 14. Determine and record accurate information.
 15. Know and observe the meaning of confidentiality.
 16. Location of, and directions for, reaching the clinic.

17. Explain _simply_ the various contraceptive methods.
18. Explain instructions accompanying different methods.
19. Calculate travel expenditures and keep travel records.
20. Teach and reinforce good health attitudes.

B. General

1. The history and philosophy of family planning.
2. The structure and function of the corporation.
3. Health and economic reasons for family planning.

APPENDIX A (continued)

JOB ANALYSES

OUTREACH ASSIGNMENTS

I. OPERATIONS:

   1. Secure FP-21 from supervisor.
   2. Determine geographical location of patient.
   3. Develop plan of contact.
   4. Find patient or other information source.
   5. Explain and interpret clinic program, location, policies and procedures.
   6. Interview patient — (a) determine availability, (b) involve the patient, (c) teach the value of participation.
   7. Make initial appointment for the patient.
   8. Record interview results on FP-21.
   9. Record travel expense and other useful information in notes and daily log.
  10. Inform supervisor and/or clerks of the outcome of contact.
  11. Refer patient for additional services.
  12. Obtain additional information for locating patient.

II. RELATED INFORMATION

   A. Technical (must know)

     1. Read identifying information from referral card and understand operating schedules of clinics.
     2. Read maps and calculate times and distances.
     3. Contact resources, eg., schools, postman, grocers, landlords, for assistance in tracking.
     4. Establish rapport with patients.
     5. Explain clinic policies and procedures.
     6. Refer requests for medical information.
     7. Establish a helping relationship.
     8. Other resources available and how to refer.
     9. Help patient identify her needs.
    10. Explain the value of family planning.
    11. Explain basic reproductive physiology.
    12. Determine and record accurate information.
    13. Know and observe the meaning of confidentiality.

14. Location of, and directions for, reaching the clinic.
15. Explain <u>simply</u> the various contraceptive methods.
16. Explain instructions accompanying different methods.
17. Calculate travel expenditures and keep travel records.
18. Teach and reinforce good health attitudes.
19. Teach the value of utilization of health services.
20. Be an ego model for the patient.
21. Communicate at the patient's level of understanding.
22. Deal with resistance.
23. Communicate with prospective patient's husband or other relatives.
24. Identify significant "other" person in whom the patient has confidence and obtain assistance in convincing the patient about the value of participation.

B. General

1. The history and philosophy of family planning.
2. The structure and function of the corporation.
3. Health and economic reasons for family planning.

APPENDIX B

EMPLOYMENT APPLICATION

LOUISIANA FAMILY PLANNING PROGRAM, INC.

APPLICATION FOR EMPLOYMENT:

NAME_____

ADDRESS_____
      No.   Street   City   Parish   State   Zip Code

TELEPHONE_____SOCIAL SECURITY NO._____

DATE OF BIRTH_____PLACE OF BIRTH_____
                                      City   State

POSITION FOR WHICH YOU ARE APPLYING_____

EDUCATION:

     HIGH SCHOOL_____GRADUATED_____

       COLLEGE_____DEGREE_____

         MAJOR_____MINOR_____

GRADUATE SCHOOL_____DEGREE_____

SPECIAL EDUCATION_____CERTIFICATE_____

                           LICENSE_____

LAST EMPLOYER_____

ADDRESS_____ANNUAL SALARY_____

REASON FOR LEAVING_____

PREVIOUS EMPLOYER_____

ADDRESS_____ANNUAL SALARY_____

REASON FOR LEAVING_____

REFERENCES

NAME	ADDRESS	PHONE
	CITY STATE	

APPENDIX C

CONTENT OF ORIENTATION AND TRAINING IN THE SUGGESTED ORDER OF PRESENTATION

ACTIVITY   CONTENT

1.   Administrative and personnel briefing, completion of forms eg., W-2, insurance.

               Total time = 45 min.

2.   Receipt of training materials and briefing on training schedule.

               Time = 15 min.

3.   Explanation and overview of the total program eg., program goals, philosophy, methodology relation to parish, state, nation.

               Time = 90 min.

4.   Explanation of this clinic's relationship to other clinics in the medical complex, field visits to other clinics.

               Time = 120 min.

5.   Explanation of generic job duties in relation to the overall program and the clinic operation.

               Time = 45 min.

6.   Clinic attendance as a patient — observer.

               Time = 180 min.

7.   Reproductive Physiology and family planning methods — lectures and discussions.

               Time = 300 min.

8.   Relationships to other community resources.

               Time = 45 min.

9.   Interviewing skills.

               Time = 120 min.

ACTIVITY	CONTENT

10.   Relationship techniques.
                               Time = 120 min.

11.   Field visits to Charity Hospital for observation of bedside interviews.
                               Time = 120 min.

12.   Orientation to Specific Community Resources.
             A.   Public Health
             B.   Poverty Program
             C.   Public Welfare
             D.   Private and United Fund Agencies
                               Time = 360 min.

13.   Field visits with trained interviewers: observation of the experienced auxiliaries at work.
                               Time = 540 min.

14.   Explanation of forms, record keeping and specific job duties.
                               Time = 60 min.

15.   Role playing of special interview situations.
                               Time = 180 min.

16.   Introduction to Human Behavior eg., attitudes and attitude change, how people learn, etc.
                               Time = 180 min.

17.   Supervised field interviews by the trainee.
                               Time = 180 min.

18.   Field work with group supervision.
                               Time = 2100 min.

19.   Field work with regular staff meetings and individual case conferences with supervisor as needed.
                               Time = As needed

20.   Continuing in-service training to upgrade job skills, eg.,
             A.   Supervisory Skills
             B.   Community organization
             C.   Group process
                               Time = As needed

1. ID NUMBER	2. MISSED VISIT			3. Date of Last Missed Appointment			4. SOURCE OF REFERRAL

2. MISSED VISIT ☐ Initial ☐ Revisit ☐ Supply

3. Date of Last Missed Appointment ___ Mo. ___ Day ___ Yr.

5. NAME (Last)   (First)   (Maiden)

6. ADDRESS (Number)   (Street)   (Box-Route)   (Town-City)   **7. PHONE**

ADDRESS   PHONE

8. FRIEND OR RELATIVE CONTACT

NAME   PHONE

ADDRESS (Number)   (Street)   (Box-Route)   (Town-City)

9. CONTACTS ATTEMPTED

Date	Time	Comments	Date	Time	Comments

10. FINAL RESULT
☐ Interviewed   ☐ Not Located   ☐ Refused   ☐ Out of Area

11. REASON FOR NOT MEETING LAST CLINIC APPOINTMENT

12. NEW APPOINTMENT GIVEN
☐ No   ☐ Yes

13. Date of New Appointment ___ Mo. ___ Day ___ Yr.

14. TIME OF APPT.

15. CLINIC OF APPOINTMENT

16. IF NEW APPOINTMENT IS NOT GIVEN, WHY?

FOLLOW-UP CARD FP22

17. APPOINTMENT KEPT?
☐ No   ☐ Yes

18. SIGNATURE OF INTERVIEWER

19. METHOD USED NOW?

IF THIS IS A FOLLOW-UP FOR A MISSED REVISIT OR MISSED SUPPLY VISIT, DETERMINE:

20. FAMILY PLANNING METHOD GIVEN IN CLINIC

21. IS PATIENT STILL USING METHOD?

☐ No   ☐ Yes

22. If Patient Is **NOT** Still Using Method, What Is the Approximate Date She Stopped Using the Method?

Mo. Day Yr.

23. IF "NO" TO ITEM 21, WHY DID PATIENT STOP USING METHOD?

24. ANY DIFFICULTIES WITH METHOD?

25. CURRENT STATUS

☐ Pregnant   ☐ Not Pregnant   ☐ Not Sure If Pregnant

26. IF PREGNANT, DATE OF L.M.P.

Mo. Day Yr.

27. ADDITIONAL COMMENTS

FP22 (BACK)

1. REEL NUMBER	2. CERTIFICATE NUMBER	3. AREA	

4. NAME (Last)	(First)	(Maiden)	5. DATE ASSIGNED

Mo.   Day   Yr.

NAME (Last)   (First)   (Maiden)

6. ADDRESS (No.)   (Street))   (Box-Route)   (Town-City)

7. DIRECTIONS TO FIND

8. APPROX. DISTANCE TO CLINIC

_____MILES

9. RISK	10. SOURCE	11. RACE	12. DELIVERY DATE
☐ 1 ☐ 2	☐ Vital Records ☐ Other _____	☐ White ☐ Negro ☐ Other	Mo. Day Yr.

13. CONTACTS ATTEMPTED

Date	Time	Comments	Date	Time	Comments

14. FINAL RESULT

☐ Interviewed   ☐ Not Located   ☐ Refused Interview   ☐ Out of Area

CONTACT CARD (OUT-REACH) FP21

| 15. CONTACT DATE Mo. Day Yr. | 16. PHONE | 17. CHARITY HOSPITAL NUMBER | 18. DATE OF BIRTH Mo. Day Yr. |

19. MARITAL STATUS
☐ Single ☐ Married ☐ Separated ☐ Divorced ☐ Widowed

20. PRESENTLY EMPLOYED
☐ No ☐ Yes

21. HIGHEST GRADE IN SCHOOL COMPLETED

22. RELIGION
☐ None ☐ Protestant ☐ Catholic ☐ Jewish ☐ Other _____

| 23. NO. OF PREGNANCIES | 24. NO. OF STILLBIRTHS | 25. NO. OF MISCARRIAGES | 26. NO. OF CHILDREN BORN ALIVE WHO DIED BEFORE AGE ONE |

27. When Did Last Pregnancy End? Mo. Day Yr.

28. Date Next-To-Last Pregnancy Ended Mo. Day Yr.

29. Pregnant Now ☐ No ☐ Yes

30. If Pregnant, Est. Date of Delivery Mo. Day Yr.

31. Is There Any Reason Why You Could Not Have Another Pregnancy ☐ No ☐ Yes   IF 'YES', WHY?

32. CONTRACEPTOR? ☐ Currently ☐ Previously ☐ Never

33. MOST RECENT METHOD

34. REMARKS REGARDING MOST RECENT METHOD

35. FRIEND OR RELATIVE CONTACT

NAME (Last)   (First)   (Middle)   PHONE

ADDRESS (No.)   (Street)   (Box-Route)   (Town-City)

36. APPOINTMENT GIVEN? ☐ No ☐ Yes

37. Date of Appointment Mo. Day Yr.

38. TIME OF APPT.

39. CLINIC OF APPOINTMENT

40. IF APPOINTMENT IS NOT GIVEN, WHY?

41. APPOINTMENT KEPT? ☐ No ☐ Yes

42. SIGNATURE OF INTERVIEWER

FP21 (BACK)