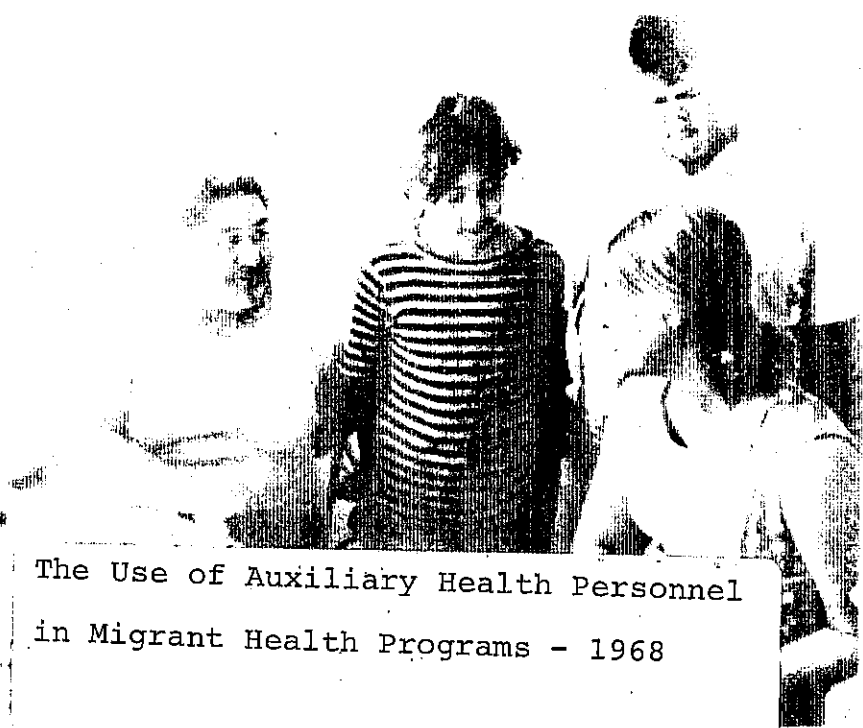


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Report of A Study
THE USE OF
AUXILIARY HEALTH PERSONNEL
(Health Aids)
IN MIGRANT HEALTH PROGRAMS
SEPTEMBER, 1968

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The Use of Auxiliary Health Personnel
in Migrant Health Programs - 1968

Migrant Health Program, U.S. Public Health Service

Resource ID # 5812
The Use of Auxiliary Health Personnel in Migrant
Health Programs

The migratory agriculture worker is one of the most forgotten peoples of this land. Travelling from place to place he wanders alone, or with his family, searching for work among the agricultural crops. Seldom do American families ever think of the sweat, toil and backbreaking labor that have gone into the cultivation and harvest of the bountiful fruits and vegetables they enjoy.

The migratory workers who supply the sensitive minds and fingers for picking the cherries, grapes, strawberries, tomatoes, asparagus and other fruits and truck crops for our dining tables are among the poorest, lowest educated and socially outcast in our society. Poorly paid, undernourished and in poor health, they often exist on the barest essentials of life. Living from day to day, they know better than most people what it means to be truly hungry and tired. Their families are often crowded into ^{makeshift} shelters, ~~unfit for human habitation~~, and their children are frequently two to three years behind in school. As a result, they have little opportunity to become fully functioning human beings.

Perhaps their greatest ^{problem has been} barrier is their almost total rejection by the communities in which they live. Unlike the worker on the family farm, ~~these~~ migratory workers have no place in their temporary communities. They are considered important only in terms of the work they can perform. When the crops are ready for harvest, the grower and the agricultural community are eager to see them ^{come. They are just as eager to see them leave when the work is done.} ~~go. His help is needed, but he is not.~~ Literally millions of dollars worth of crops would rot without their help at the time and place where it is needed. But they are not seen as part of the community and as a result they are often excluded ^{by law or by local regulations, policy or practice} from health, welfare, education and recreation services that they ~~so~~ desperately need.

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lep

farmworkers and families,

To meet the health needs of the migratory laborers, Congress passed in 1962 the Migrant Health Act. This act made it possible for local health agencies and organizations to provide health services for domestic agricultural migratory workers and their families. As part of these services, local health departments and other agencies began to recruit and employ persons who represented the migratory labor groups. These indigenous workers, or health aides as they were called, were employed to bridge the cultural gap between the migrants and the professional staff, to improve communications between these groups and to help deliver more effective health services to migrant workers and their families.

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The guidelines presented in this report are based on a nationwide study

This study is an evaluation of how these indigenous workers and aides have been used and how effective they have been in the health programs they have assisted. It is hoped that the results of this study will help administrators and other professional staff in local health agencies to use aides and other types of auxiliary personnel in more effective ways and thereby provide more comprehensive health care to the migratory farm labor and other disadvantaged groups.

Helen Johnston

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Preface

To all of those health aides who are devotedly working to promote the health and well being of the migrants, is this study dedicated. To a great extent, it is through their understanding and personal involvement with their clients that the delivery of health services to migrants has been successful. With migratory farm workers and all other groups who have different economic, cultural and ethnic backgrounds, it is particularly important that health workers be attuned to the special needs and problems of their clients, and that they be able to relate to and communicate effectively with them in order to plan and provide health services that meet their needs.

The staff in local migrant health projects were ^{among} ~~one of~~ the first groups of health professionals in this country to pioneer in the exploration and use of indigenous health personnel. Recognizing the special difficulties faced by ^(in obtaining services) ~~and~~ ^{by staff professionals in reaching and serving them,} ~~the staff in these~~ projects began to recruit and employ health aides and auxiliaries. During the last few years, this trend in the health field to employ various types of auxiliary personnel to increase the scope and improve the quality of health services has grown by leaps and bounds. The involvement of the poor in delivering health services to the poor, and the development of new health careers for this and other population groups now professes to become one of the new frontiers in public health and medical care.

It was the awareness of the implications of this trend, plus a recognition of the need to evaluate this aspect of their program, which led the federal migrant health staff of the USPHS to approve and fund this study. The intent was to document and evaluate the experiences of their various local migrant health projects in using health aides, and to develop guidelines for more effective planning, recruitment, selection, training, employment, supervision and evaluation of this type of auxiliary health personnel.

The study could not have been completed without the wonderful cooperation and hours of time given by many persons. First thanks go to the many aides, nurses, sanitarians, health educators, physicians, administrators and other professional staff in local projects who responded so willingly in the interviews and in providing us with essential information. Secondly, I wish to thank all of the federal migrant health office staff, both in the central and regional offices for their support and assistance. Thirdly, I wish to give special thanks to Dorothy Nyswander and Faustina Solis who graciously gave their wisdom and advice as consultants to the study.

And lastly, I want to commend my own staff - Robert Dunbar who aptly assisted with the direction of all aspects of the study, Patricia Rasmuss who listened to hours of tape, typed materials and edited the report, and Harleen Lyons who assisted so well with the interviews.

Wilbur Hoff, Dr. P.H.

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I. OVERVIEW OF THE STUDY

Statement of Purpose

A one year study was conducted to determine the nature, use and effectiveness of ~~auxiliary health personnel (health aides)~~, which have been used in migrant health programs throughout the country. Migrant health projects were selected which had used aides for 3 years or longer. The 12 sample projects were located in the East Coast, Midwest, Southwest and Pacific Coast states. Data were collected through interviews, an activity time study, and performance ratings on 66 aides and 57 professional staff in these projects. The methods and results of the study are reported including guidelines for the recruitment, selection, training, employment, supervision and evaluation of auxiliary health workers.

Significant Findings

Nature of Aides

1. There were 66 aides interviewed. Ten were nursing-clinic aides, 9 were sanitation aides, and 47 were community health education aides.
2. Of the total group 54 were women and 12 were men. All the nursing-clinic aides were women and all the sanitation aides were men.
3. The male aides tended to be younger with a median age of 26 years, while the women were generally older with a median age of 36 years. Males were younger primarily because college students were recruited as sanitarian aides.
4. Most of the aides were of a minority background. Eighty-three percent were either Mexican-American or Negro. Forty were of Mexican descent and 14 were negroes. The rest were Anglo. Most of the projects tended to hire aides similar to the migrant group except in the Eastern projects where the sanitation aides were all young Anglo males.

5. Most of the aides (49 or 74%) were married. Eleven were not married and 6 were divorced or widowed.
6. The educational level of the aides varied by project. Twenty-one or 32% of the aides had less than high school education and most of these were working in the Western projects. Thirty or 45% had either some high school or were high school graduates. The remaining 14 or 13% had some college or were college graduates. Most of the college level aides were in the Midwest or Eastern projects and all of the college graduates were sanitation aides in 3 Eastern projects. The Western projects tended to hire more indigenous type aides who had an educational background closer to migrants whereas the Eastern projects employed more college students who were not indigenous to the migrant group.
7. Thirty-four or 52% of the aides were Catholic and 31 or 47% were Protestant. Religious preference seemed to be related only to ethnic background.
8. Twenty-seven percent of the aides had a family income below the poverty standard, (i.e. \$4,000) and these were mostly in the Eastern and Midwestern projects. Twenty-three percent had incomes from \$4-6,000. Thirty-two percent had incomes from \$6-10,000 and 10% had family incomes over \$10,000. Most of the latter category were in Western projects and some were unmarried students of families where both parents were employed.
9. Almost all of the aides spoke the language of most of the migrants in their area. All but one of the aides who were working directly with migrants could speak their language. This was an Anglo sanitation aide in a Western project where most of the migrants were Mexican-Americans.
10. Most of the aides (89%) resided in towns or cities. The rest (11%) lived in rural areas. The vast majority had lived in the area for 2 years or more. Fifty-two aides lived at their present residence for 5 years or

more and 7 for 2 to 4 years. Only 7 aides lived at their present residence for less than one year.

11. A little more than half (55%) of the community health aides were involved in community organizations, that is, they belonged to or participated in 2 or more organizations. The most frequently participated in organizations were church, service and youth groups. Most of the nurse-clinic and sanitation aides were not involved with community organizations, that is, they belonged to none or only one organization. Community involvement seems to be related to length of present residence.
12. The previous work experiences of the aides were as follows: 31 or 47% were unskilled, 13 or 19% were semi-professional, 11 or 17% were housewives, 5 or 8% were professionals and 5 or 8% were students.

Recruitment and Selection

1. Most of the aides (53) learned about their position from members of the health department staff, 5 from a friend and 8 from other sources such as the employment office or clergy.
2. Very few professionals recruited aides from the migrant streams and most recruited aides from the local areas.
3. Supervisors used these criteria to select aides:
 - a. Females to work with nurses and males to work with sanitarians.
 - b. High school education preferred.
 - c. Married persons with children.
 - d. Bilingual (Spanish speaking).
 - e. Can accept responsibilities
 - f. Motivated.
 - g. Feeling for people.
 - h. Valid Drivers license
 - i. Neat and clean.

- j. Interested in health problems.
- k. Ability to communicate.

Training

1. There was wide variation in the nature and length of training provided for the health aides:
 - a. The length of formal organized training varied from 0 to 12 weeks. The length of training program did not appear to be related to the educational level of the aides nor to the type of job the aide was doing. Informal on-the-job training was provided in many cases.
 - b. Training objectives in most of the projects were not stated in behavioral terms and could not serve as standards to evaluate results of the training program.
 - c. The content of training was usually related to the technical health functions of the job. Training in interpersonal, human relations and communications skills was either lacking or weak in most of the projects.
2. Personnel skilled in the principles, methods and techniques of planning and conducting training programs were available in only a few of the projects.
3. Seven of the ten projects which provided formal training made an attempt to evaluate their training programs but only four of these had documented the results.

Supervision

1. The amount of interaction between the aide and his supervisor was four times a week to daily for 43 persons, once a week for 19 and infrequently for 4 aides.
2. The means of supervision were:
 - a. Personal contact (face-to-face)

- b. Observation.
 - c. Discussion.
 - d. Review of activity reports.
3. Most of the aides (58 or 88%) said their work was evaluated. However, only 4 of the aides were evaluated with a specific evaluation form.
4. Thirty-four or 52% of the aides worked primarily by themselves, 30 or 45% primarily with a nurse, 1 or 2% with a sanitarian, and 1 or 2% primarily with another aide.

Administrative Practices

1. The administrative practices of the twelve projects were as follows:
- a. Eight hired aides on a temporary basis and 4 hired aides on a permanent basis.
 - b. Half hired aides full-time and half hired aides part-time.
 - c. The average (mean) rate of pay was \$1.84 per hour and the range was from \$1.25 to \$3.05 per hour.
 - d. Eight did not give employee benefits and 4 did.
 - e. Eleven had written duty statements, one did not.
 - f. Only 2 offered salary advancement for the aides.
2. No project in our sample offered opportunities for health aides to advance in a health career within the structure of the project.

Evaluation of Aides

1. A measurement was obtained on the extent of agreement between the perceived activities of various types of aides and the

amounts of time they actually spent in these activities. These differences are reported and discussed.

2. Of the 66 aides who were assessed by their supervisors, all were functioning at "average", "above average" or "excellent" levels.
3. Assessment scores of aides were compared with certain variables. The data seem to support positive relationships between assessed functioning and extent of training, length of time worked, and experience. That is, the more extensive training an aide was given (orientation plus continued training) the longer an aide worked in the project; and the more experienced an aide was, the higher his supervisor would rate him on performance.
4. An index was developed to assess how effectively a project used aides. Nine of the 12 projects were evaluated with this index. They were scored and ranked in order of their overall effectiveness in using aides in the project. Project L received the highest rank and Project A the lowest.
5. Professional staff perceive the overall impact of the aides on the health agency and the migrants to be a positive one. The professionals felt that the aides not only lightened the work load of their staff but helped to create better relationships between the staff and the migrants and to bridge the cultural gap that existed.

II. INTRODUCTION

The Problems of Migrant Farm Laborers

Today, amidst America's abundance and plenty, there exist almost one million poverty ridden migratory farmworkers and their families who harvest the nation's crops. The migratory farmworkers and their families are among the poorest people who live in the United States. They are an extreme case of the problems encountered by some 14 million poverty stricken Americans. Rural poverty is so widespread and so acute in this country that the recent "Report by the President's National Advisory Commission on Rural Poverty" termed it.... "a national disgrace, and its consequences have swept into our cities, violently."¹ Yet this is a problem which many Americans do not even realize exists.

Number and Distribution

The domestic migratory farmworkers comprise a group of from 3/4 to one million persons. They come from a labor pool in home base counties and states which probably number two to three million people.² These workers are seasonal laborers who work in agricultural or related seasonal industry, and they find jobs by moving each year to one or more work locations beyond normal commuting distance from a place they call "home."

As America's giant farm crops ripen, these farmworkers with their families move from their home base communities in Florida, Texas, California, New Mexico, and Arizona to cultivate and harvest the fruits, berries and truck farm vegetables. During the peak harvest season these migrant laborers find employment in about 48 of the 50 states.

Migratory Streams

There are three distinct migrations of domestic farm workers. These are

made up of different cultural backgrounds and represent all the basic racial groups. Eastern Seaboard, Southern Negroes work their way upward from Florida, Georgia and Alabama to the fields in Virginia, New Jersey, and New York. There is a significant number of Puerto Ricans who also enter this stream.

The midcontinent stream is the largest and is composed primarily of Mexicans and Mexican-Americans who migrate from South Texas north to Kansas, Minnesota, and over to Ohio. A few in this stream are Negroes and Anglo Americans.

Farm workers in the western stream migrate mainly from Southern California, north through the Central Valley of California to Oregon, Washington, and sometimes into Idaho. Some workers come into this stream from Mexico and communities along the Mexican border. The majority of these workers are of Mexican descent. Others are Negroes, Anglo farm workers and American Indians.

Income and Education

Migrant farm workers generally are drawn from minority groups - Spanish speaking people from Puerto Rico and the Southwest, Southern Negroes, Indians, and low income "Anglos." Total earnings average approximately \$1,000^{1,500} per year per worker, according to estimates made by the U.S. Department of Agriculture. When the earnings of women and children are added, the average annual income per family is estimated at under \$3,000. 2

The educational level of migrant adults is about fifth grade. The children move from school to school as their families follow the crops. They usually fall behind their peers in educational accomplishments because they do not have the same educational opportunities as do resident children. Thus, the pattern is perpetuated with each generation. The educational handicaps faced by migrants become even more acute with the added barriers of language and the poor quality of education which they generally receive.

Housing, Travel and Work Conditions

Migrant housing is substandard and overcrowded. In some areas, migrant families are forced to camp along rivers or irrigation ditches. Facilities for human waste disposal are usually lacking in the fields where they work and are often inadequate in places where they live. Water supplies for drinking and cooking may also be inadequate. The typical places where migrants work are exposed to heat, cold, wind, dust and mechanical hazards. The workers often travel by unsafe vehicles and are exposed to high accident risks.

Health Problems

As a result of poverty, inadequate education, substandard housing, a hazardous and dirty work environment and little knowledge about good health practices, the adults and children of migrant families are among those who have the most serious health problems. Compared with the rest of the population, they have higher rates of infant and maternal mortality, diarrheal diseases, nutritional deficiencies, communicable diseases and accidents. Other conditions often found are tooth decay, back troubles and stomach upsets.

Inadequate Health Services

Health services for migratory farm families have been almost nonexistent. Because they are non residents in most areas where they do seasonal work, they are usually ineligible for medical assistance from local public hospitals or welfare departments. Most communities lack any system for getting medical care or hospital services to migrants. Local health services are meager, and the places where services can be obtained are typically located far from where migrants live. The services are often scheduled during daytime hours when migrants work in the fields. In addition, arrangements for child care and transportation pose obstacles so even a "free" service becomes prohibitively expensive.

Migrant Health Act

The Migrant Health Act of 1962 was designed to help communities provide health services to meet the health needs of the migrant farmworkers and their families. The aim was to create a setting to help migrants take an increasing responsibility for meeting their own health needs.

The 1962 Act authorized the United States Public Health Service to make grants to public or voluntary non profit groups to pay part of the cost of:

- a. family health service clinics to provide general care on an outpatient basis to workers and other migrant family members, and
- b. other activities to improve migrants health services and conditions.

The legislation passed in 1965 to extend the act for three more years, also expanded the scope of grant assisted services to include in-hospital care in short term general hospitals.

Barriers to Health Services

Special barriers stand in the way of providing adequate health services to migrants. One of the biggest obstacles is the lack of trained health personnel. The patient to physician ratio is far too high to provide adequate treatment and care. Nurses and other staff are also in short supply. This problem is further compounded by the fact that the patients who need the most care often present the greatest obstacles in the form of economic, emotional and language difficulties. This means that more staff time is required to meet individual patient needs.

Language difficulties are very common. The largest number of migratory workers are Spanish speaking and many are unable to speak English. In most cases the health workers do not speak Spanish and are either unable or have great difficulty in communicating with their client group. In addition, there

are approximately 20,000 Navajos and members of other Indian tribes who enter the migrant labor group during the year.

Cultural differences are another type of barrier that interferes with providing good health services to migrants. In addition to Mexican-Americans and Indians, the migrant labor force is made up of Southern Negroes, Puerto Ricans and low income Anglo Americans each having their own beliefs, superstitions, customs and style of life. The differences between the beliefs and attitudes of these distinct minority or ethnic groups and those of middle class white health workers present serious problems of communicating, educating and providing health care to migrants.

The predominately ^{white} Anglo American health workers and their communities often fail to understand the health concepts of the migrant. Because of his cultural background and his lack of adequate education, he may frequently misunderstand current knowledge and scientific concepts about health and disease. This poses particular problems for health education of the migrants.

A third and important barrier that stands in the way of providing adequate health care to migrants has to do with negative attitudes and feelings of people. The migrant worker and his family may be suspicious, afraid, and sometimes antagonistic to health personnel. This may be due to previous unpleasant experiences with agencies or by being rejected by communities in which they live. On the other hand, individual health staff may exhibit attitudes of prejudice, hostility, indifference, or insensitivity in their encounters and contacts with migrant clients. The expression of these kinds of attitudes in either a conscious or unconscious way communicates to the migrants that they are unwanted, or are not respected and accepted as human beings. This kind of behavior leads to a wider gap and the growth of greater obstacles between those providing health services and those who need the services.

Use of Auxiliary Personnel In Migrant and Other Health Programs

The concept of using aides or auxiliary personnel in health programs is not new. The developing countries of the world have used aides as an integral part of their community development programs for nearly two decades.

In the 1950's, two programs in North America piloted the use of aides in health programs. One was the introduction of health education aides into the Navajo Reservation at Window Rock, Arizona by a project developed by the University of California, (Berkeley) School of Public Health for the Division of Indian Health, Public Health Service.³ These aides "completed the bridge across the wide gap between the Indians in their communities and the health and medical services available to them."

The other was a community health program sponsored by the Department of National Health and Welfare of Canada for the Indians and Eskimos living north of the 60th parallel.⁴ Since 1958, the health educator in this program recognized one of the soundest approaches "...the long-talked-of idea of training native people as assistants to field staff. The natives had cherished the idea for some time of having their own people trained to work in their own communities."

Some of the health agencies who were providing services to migrants saw the need for employing indigenous health workers. This was due partly in recognition of the special problems connected with providing health services to migrants and partly as a result of the lack of adequately trained manpower to deliver these services.

The use of aides with migrant health programs began first in Palm Beach County Health Department, in Florida, in 1958.⁴ There an aide was employed to help the nurses work with migrants in the community. Then, in 1961, the Kern County Health Department, in California, began a pilot project to extend the

services of the health department to the farm worker and his family. This project was based on the belief that persons with leadership qualities might be effectively recruited from the farm worker community and employed to help their neighbors accept good health practices, and hopefully, bring about a better understanding and improved use of existing health services. The Health Department employed a small number of community health aides for this purpose.

When the Federal Migrant Health Act passed in 1962 and funds became available for migrant health services, the use of health aides in this program began to grow. Within the next few years, the concept of using persons from within target population groups to help provide health services to migrants grew by leaps and bounds. For example, during the first year of operation of the Federal Migrant Health Program, there were only two or three local projects which included health aides in their lists of personnel. Four years later there were some 42 projects that listed approximately 160 aides under titles such as: liaison worker, health aides, homemakers and sanitation aides. Alice Heath⁶ describes the use of community health aides in one of the migrant programs in the Santa Barbara County Health Department, California. The community health aide, she said, "is a person with a professionalism based on his grasp of the culture and feelings of a group rather than on specific academic preparation. Training, of course, is essential, but it is his unique capacity to communicate with a specific group of persons that makes the aide a member of the health department team."

Within the last five years, aides and indigenous workers have been used in a variety of health programs. Stimulated by funds from the National anti-poverty program, the community mental health program and other special Federal legislation, health agencies began to experiment with the use of auxiliary personnel in a variety of ways.

In Pittsburgh, the Allegheny County Health Department piloted a successful project using neighborhood based workers as a new and important member of the public health team. ⁷ These nonprofessional neighborhood workers made door to door surveys to encourage residents in one of the worst slum areas in Pittsburgh to get tuberculin tests or X-rays. The project was highly successful and 86 percent of all residents participated.

In another poverty area, neighborhood representatives were used in a somewhat different manner. In their Maternity and Infant Care Project, the Denver Department of Health and Hospitals hired residents to represent their disadvantaged neighborhoods. ⁸ These workers interpreted the nature and extent of health services that were available to community residents in a manner that was appropriate to their subculture. The assumption was made that the culturally and socially disadvantaged patient is not "hard-to-reach" when health programs accommodate his motivational orientation. The authors report that during the period the representatives worked in the neighborhoods, the use of clinic services increased by 42%. In one neighborhood, over 60 percent of the patients referred to a maternal and infant care clinic had been referred by the neighborhood representative. Results showed that clinics which were served by neighborhood representatives reported an average of 20 percent more unwed mothers than in comparable neighborhoods not served by representatives.

In a study by Stewart, seven indigenous nonprofessionals were selected to work in lower socio-economic groups to recruit patients for immunization clinics. ⁹ The experimented areas assigned to these workers had previously been the responsibility of public health nurses. These nurses had averaged 200 immunizations per month in the year before the aides were employed. After the experiment started and the aides began working, the immunization rates rose to more than 2,000 per month. When the project was discontinued, the rate

dropped significantly and approached the pre-experimental levels within three months.

Rieff and Riessman describe the unique characteristics of the indigenous nonprofessional in community action and community health programs.¹⁰ They describe the essential value of the indigenous nonprofessional as, "his capability for acting as a bridge between middle class oriented professional and the client from the lower socio-economic groups. Implicit in the bridge concept is the notion that people drawn from lower socio-economic strata may have special skills for establishing communication across class lines. This ability is rooted in their background. It is not based on things they have been taught, but on what they are."

Two other projects recruited and employed auxiliary health personnel from poverty areas to extend health services. One was a work-study project to prepare public health sub-professionals to provide health services which were traditionally the function of professionals. The Springfield Health Department (Massachusetts) in cooperation with the Holyoke Community College, recruited high school graduates from poverty areas and trained them to work as public health assistants in various health programs.¹¹ The other was a program carried out by the Environmental Sanitation Program of the National Center for Urban and Industrial Health, Cincinnati.¹² They recruited persons from the ghetto in Chicago and trained them as health educator aides. These aides functioned as environmental sanitation communicators and educators. They helped improve the environmental health conditions of the city by improving the residents' attitudes and by strengthening their motivation to achieve and maintain a healthier way of living.

Two local health departments in California have experimented with using health aides in their programs. In 1965, the Alameda County Health Department, Oakland,

began using 10 part-time demonstration aides in a poverty health program.¹³ Their ability to extend health services to the poor became so apparent that in two and a half years' time, the health department had employed more than 150 full-time aides to work in a variety of health programs, including home care, sanitation, maternal and child health, family planning, dental health, communicable disease control and alcoholism.

The Contra Costa County Health Department, Martinez, piloted a project using multipurpose workers in a neighborhood multiservice center.¹⁴ They demonstrated how multipurpose workers or primary counselors were able to deliver all the health and well-being services from three county departments - health, welfare and probation - to assigned families in a disadvantaged neighborhood. They strongly emphasized the importance of training and employing a single-multipurpose type worker to provide broad client services in communities.

These projects illustrate the growing use of aides and auxiliary workers in health programs and represent the many health, poverty and other programs which have recently begun to train and employ indigenous workers. Common reasons for using such personnel have been to bridge the cultural gap between community groups, to improve communications between the professional health staff and the client groups and to assist the health personnel with some of their duties and activities.

In addition to meeting the existing demands for services and to improve and extend health services to special population groups, the concept of using auxiliary personnel has assumed a greater and far reaching importance. With the passage of Public Law 89-749, by Congress, the concept of comprehensive health planning became national health policy. This law states that, "...the fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person, in an environment which

contributes positively to healthful individual and family living..."

The critical resources of health manpower to carry out this purpose are now priority concerns. New approaches to the improved utilization of health manpower are being considered. Ginzberg¹⁵ and Kissick¹⁶ discuss some of these approaches such as downward transfer of functions, massive development of subprofessional aides and assistants with new positions and titles, establishing new staffing patterns in health agencies, the use of new technologies and mechanisms for recruitment and training, and the development of new career systems which enable aides and assistants to move upward in a permanent health career.

The use of indigenous auxiliary personnel and the application of some of the above approaches are also described in relation to special problem areas: Cornely¹⁷ with regards the health status of the Negro; Lindsay¹⁸ in providing continuity of health care to migrants; and Morris¹⁹ in future urban development. The principles and issues of job and career development for the poor are outlined by Goldberg²⁰ in the IRCD Bulletin. This issue also contains a selected list of 200 references relating to the nonprofessional in the human services.

Problems with Using Health Aides

With the rapid growth of using this type of health worker, problems have arisen. There have been few studies and no guidelines for the recruitment, selection, training and use of these personnel. Since the use of health aides and auxiliaries has been relatively new in this country, local migrant project staff had little or no experience to guide them. As a result, each project had to initiate their own policies and procedures for employing health aides. How to define and classify the job of a health aide, how should an aide be recruited and selected, what kind of training should be

provided, and who would supervise the aide were examples of the problems that confronted staff. Some project and program directors saw the use of aides as a panacea for their problems with migrants in the areas of communication, interpretation, securing cooperation and participation and health teaching. Some administrators and other program persons have had little understanding of the strengths and limitations of auxiliary health personnel. As a result of these experiences some persons were beginning to raise serious questions about the validity and effectiveness of health aides.

Need for Evaluation Study

In 1964, the American Public Health Association conducted an evaluation study²¹ of the operations of the Migrant Health Program. One of its recommendations was that the use of community health aides in Migrant Health Projects be examined and evaluated. This report stated specifically that:

Subprofessional health workers are needed to cope with the great shortage of trained personnel in many rural areas. Use of members of indigenous work group as part of health teams has facilitated meaningful communication between client and professional personnel, and has helped to dispel fears and antagonisms of many persons in need of personal health services. However, the backgrounds, training, roles and functions of these personnel have varied among the projects, as did the extent of their contribution. An evaluation of selection criteria, their roles and functions, should be conducted with the view towards developing health education techniques adapted to this segment of the rural population.

In addition for a need to evaluate the effectiveness of health aides who had been working in migrant programs, it was deemed important to document the procedures being followed in using aides and to develop some guidelines for the recruitment, selection, training, supervision, employment and evaluation of aides. The Federal Migrant Health Program staff needed such guidelines to

assist local projects with program development. Also, the Health Education and Information Services staff of the Migrant Health Program had received numerous requests for information and consultation on their experiences with the use of this type of worker. Many of these requests came from agencies outside the migrant health framework such as CAP and VISTA programs of OEO, Adult Education Section of the U.S. Office of Education and other health and community programs. The Migrant Health Program, therefore, decided to fund a study to provide this kind of information.

Objectives of the Study

The general purpose of the study was to determine the nature, use and effectiveness of auxiliary health personnel (health aides) which have been used in migrant health programs throughout the country.

The specific objectives of the study were as follows:

1. To determine the nature and extent of the use of health aides working in migrant health programs.
2. To evaluate the relative effectiveness of aides in achieving program goals.
3. To develop guidelines for use in the recruitment, selection, training, supervision and evaluation of performance of aides in migrant health programs.

III. METHODS OF THE STUDY

Work Plan

At the beginning of the study a work plan was developed. The objectives of the study were broken down into specific factors for exploration and analysis. Major questions for exploration were identified for each objective and specific criteria and assumptions were identified for each component. For each of these components, the kinds of data that would be required were carefully spelled out.

The work plan was used as a blueprint to develop all data collection instruments and to phase the study into a logical time sequence. This work plan helped to insure that all essential data was collected to meet the study objectives and that information which was not related to specific objective questions was not obtained.

The major questions which were identified in this work plan were as follows:

Objective I

1. What are the characteristics of the aides?
2. Why were aides used on the project?
3. How are the aides used on the project - what is the role and function of the aides?
4. How do the professional staff perceive the role of the aides?

Objective II

1. How are aides recruited?
2. How are aides selected?
3. How are the aides trained?
4. How effective is their training?
5. How is the job of the aides classified and what employment benefits

exist?

6. Are there opportunities for advancement?
7. How are the aides supervised?
8. How are the aides evaluated?

Selection of the Sample

The sample of persons from which information was collected was determined with three criteria in mind:

1. Persons were selected in migrant programs who would provide the kind of information required for the study objectives.
2. Persons and projects were selected which would represent different conditions such as: kinds of health aides being used, migrant problem situations, and geographic migrant streams.
3. Sample size should be adequate but not too large to insure that the study would be manageable within the limits and resources of the one year grant.

A list of all the health aides which were being used in projects funded by Migrant Health Program monies for 1966-67 was compiled. We found that there were approximately 157 aides working in 42 migrant projects throughout the United States during this period. These aides were listed as being of the following types - health aides, public health or community health aides, home-maker aides, nutrition aides, sanitation aides and interpreters.

An analysis was made of how these aides were being used. This revealed the following information:

1. Most of these aides were working in one or more of three general categories - performing nursing type activities; performing environmental health or sanitation activities; conducting education or interpretive activities with individuals or groups.

2. Aides had been employed or used in projects for various lengths of time ranging from several months to six years. While some projects had employed aides only recently there were projects where aides had been used since the first migrant projects were funded.

3. The projects that used aides were in states that were in the major migrant streams.

2
2
7x

Since it was not possible to study all of the projects that were using health aides, we decided to limit the sample to all migrant health projects which had employed health aides for three years or longer. We then decided to interview all health aides working in these projects, their supervisors and other key project staff such as - project director, nurse, sanitarian, health educator and/or social worker.

It was felt that this sample would provide a large enough group of aides and professional staff with enough experience to provide information for adequate analysis and interpretation. This sample would also represent all of the main types of aides and migrant problem conditions that existed. The major sample for the study finally consisted of 66 aides and 57 professional staff working in 12 projects located in the East Coast, Midwest, Southwest and Pacific Coast states. The study findings were largely drawn from information collected through interviews and other data about this sample group.

In addition to the above sample group, interviews were held with migrant staff in other selected states. These were large migrant areas which had projects that either had not made use of health aides in their statewide programs, or had begun to do so only within the last year. We visited three of these areas: South (Arizona), Midwest (Michigan), and East (New York) and interviewed selected persons at state and local levels to obtain information to

complete the study. We interviewed 8 professional persons in these sample areas.

Development and Testing of Data Collection Instruments

Three basic types of data were collected for the study:

1. Perceptual information about the attitudes and beliefs of individuals in the sample was obtained through personal interviews.
2. Behavioral data regarding the aides was acquired through a time study of activities and an assessment rating procedure.
3. Information about events on the development and operation of sample projects was obtained from copies of documents and records.

Interview Questionnaires

Separate questionnaires were developed for three groups of respondents - health aides; administrators/supervisors; and other professional staff. Each instrument was designed to obtain pertinent information about the recruitment, selection, training, use, supervision and evaluation of health aides. Both structured and unstructured questions were used to elicit information.

The three questionnaires were prepared by arranging the questions in an order that would be clear and meaningful to the respondent. Draft questionnaires were developed and pre-tested with persons similar to the sample respondents. Several health aides and a nurse, sanitarian, health educator and physician-administrator in two local California health departments (Berkeley City, and Alameda County Health Departments) were used to pretest the questionnaire. The questions were tested for clarity and for their ability to obtain the desired responses. After some minor revisions in wording, reordering of the questions and a final checking to insure that each item related to a project objective, the questionnaires were finalized.

Activity Time Study

One of the chief goals of the study was to determine how various types of health aides were being used and to evaluate their effectiveness on the job. Although the interview questionnaires were designed to obtain information about functions, activities and effectiveness of aides, we realized that the responses we would get on these questions might not necessarily relate to the reality of the job. That is, a public health nurse would probably be able to state what she thought a nursing aide was doing on the project, but her perceptions might not correspond in reality to what the aide was actually doing in the clinic, office or in the field. In addition, we wanted to have some measure of the amount of time spent in each activity in order to evaluate where and how an aide spends his time.

We decided to conduct a time study which would be a more objective measure of actual behavior on the job. Time studies have been used effectively to analyze performance in industry and with some health professions, particularly among nurses.^{22, 23} These studies identify what an employee does on sample work days. It was decided to conduct the same type of time study on all the health aides in the sample. This time study produced evidence in the form of actual activities performed and the amount of time spent on each activity for a sample time period for each health aide.

Constructing the Activity Time Study

To carry out this time study, it was first necessary to develop an instrument to record information about activities performed. It was originally thought that the simplest method would be to construct a simple check list which would contain all possible types of activities that aides might perform in their job. This check list could be given to each aide to fill out and he could record what he did and how much time he spent on sample work

days.

Such a form was developed, but when it was tested out with aides in the field several difficulties were encountered. Some of the activity items listed on the form did not always correspond exactly to the work the aides performed. Also, items were not arranged in an order that was meaningful and convenient for the aides to fill out and they had difficulty in completing the form correctly. Also, we felt that by listing specific activity items on the form it would tend to influence the aides into responding toward the items listed rather than their recording exactly what they did. This might have provided an untrue picture of what the aides actually did. This checklist was, therefore, discarded.

As a result of this experience, an unstructured form was developed in its place. It was decided to use a simple activity form which was patterned after the traditional dietary surveys which have been made by nutritionists to determine the dietary intake of people. The activity form finally adopted consisted of a blank sheet with two columns with headings for "Time of Day" and "Description of Each Activity." (See Appendix 1.)

The form was administered by showing each aide how to complete the form for the previous work day by recording every distinct activity he or she performed during that day from the time he arrived on the job until he left. He was also asked to indicate the beginning and ending times for each of these activities to the nearest half hour. Then the aide was asked to pick out two typical days from the following week and record their activities in the same manner. When we tested this form out with several aides it proved to work very satisfactorily. They had no trouble in understanding what to do and it left them free to describe their activities in their own way and in the order in which they performed them.

Developing the Classification System for Activities

The next task was to develop a system for classifying the various aide activities and for placing them into categories for analysis. There was also the problem of how to quantify the data and to assign time units for measurement. This was done by compiling a comprehensive list of health aide activity items and then arranging these items into logical categories according to similar types of activities. These behavior items could then be analyzed by assigning them time units and by computing percentages of time worked in each item and in each category.

The intent in compiling the health aide activity classification system was to develop categories of behavior that would be independent of each other and would represent all types of job activities.

Considerable time was spent in developing this activity assessment system and it proved extremely useful in analyzing and evaluating the job behavior of the aides.

The first step in developing the classification system was to prepare a comprehensive list of job items from all the different kinds of health aides known to be working in the sample group. These included nurses or clinic aides, community health or health education aides, sanitation aides and interpreters. Items were obtained from job descriptions of aide activity reports, tape recordings, notes, reports of health aide conferences and meetings and by talking with health aides and their supervisors. After obtaining a long list of such items they were sorted out and duplicates were eliminated. This list contained approximately 150 different job behavior items.

The next step was to classify these items into some type of meaningful system so a quantitative analysis could be made on what the health aides were doing. The items were examined to see into what kinds of categories they

might fall. Two possibilities came to view. Items could be arranged into discipline oriented categories such as clinic activities, home visits, community health education and sanitation inspections, or the items could be arranged into categories defined in terms of the inherent nature of the activity such as administrative behaviors, health service type behaviors and communication/education type behaviors.

The latter system was chosen because it seemed to discriminate between categories more accurately and it produced categories which were more mutually independent of each other than categories oriented to disciplines. The classification system finally agreed upon is shown in Appendix 2.

To test the system and to obtain some measure of reliability the activity items were typed on 3 x 5 cards (one item per card) and given individually to five health professionals for sorting into the defined categories. The experts were asked to sort all of the cards and place each item in one of the 13 categories listed in Appendix 2. These categories fall within the headings of Administrative activities, Health service activities, Education/Communication activities and Non Health (other) activities. These five "experts" consisted of a health administrator, public health nurse, sanitarian, health educator and behavioral scientist. This sorting procedure resulted in a fairly high amount of agreement as to how the various items were placed into the defined categories. This trial also indicated that the wording of some of the items and categories was confusing or ambiguous. This was then corrected and a final revised system for classifying the health aide activities was created, as shown in Appendix 2.

Assessment Rating Scale

One of the best methods of evaluating the effectiveness of an employee is to measure the person's behavior in terms of specific job performance

criteria. Ideally this would mean that for each job a set of performance criteria would be developed. These criteria should list specific behaviors expected in the job, and for each behavior define a skill level or a performance standard which should be attained. The employee's performance could then be measured against these job criteria, and an objective assessment could be made on his effectiveness in the job.

After an initial exploration to learn how a few migrant health projects were using health aides, it was apparent that this kind of assessment procedure could not be used for the following reasons:

1. Specific job behavior criteria have not been developed for most (if not all) health aide positions. (Such criteria seldom exist for professional health positions). We also did not have time to establish such criteria for each sample project.
2. Such criteria, if available, would undoubtedly vary according to the type of project and the type of aide position. Such variations would not permit us to compare the results of the aide evaluations for the group as a whole.

An alternative and commonly used method of determining the effectiveness of an employee is to obtain a performance rating by their supervisor. Such performance ratings are common in personnel management. This type of rating was decided upon as the most practical one to obtain information for evaluating the performance of the health aides in this study.

For this assessment, a rating sheet was constructed so that each supervisor could check the degree to which the aide was functioning in a number of behavior categories. The rating scale that was finally developed for this purpose is shown in Appendix 3, "Supervisor's Assessment of Health Aide."

In an effort to obtain characteristics or items that would be appropriate

for assessing health aides, we made a search of various employee's performance rating forms. A list of 20 different items covering personality characteristics and areas of job skills and competencies was compiled. A draft rating form was constructed and it was discussed with the project consultants and other health professionals. This was the same group who assisted in the pretesting of the questionnaires. From the suggestions received in this exploration some items were revised and others were discarded. The final assessment rating form contained 11 behavioral items which would be rated on a four point scale of: below average - average - above average - excellent.

Project Profile

The plan of the study was to assemble all the information which was collected by personal interviews, supervisor's assessments, activity time sheets and project documents and analyze it in terms of differences and similarities, frequency distributions and significant relationships between factors. Most of the data could be analyzed on the basis of individual respondents and could be handled by coding the information, programming it and obtaining machine tabulations.

Other information that described operations of each project as a whole could not be handled in this manner. For example, information describing how the use of health aides originated in the projects, the objectives of the projects, what criteria were used for recruiting, selecting and training the aides, what effect did the aides have upon the agency and the community, and what problems and difficulties were encountered in these and other areas would have to be considered in relation to each project and comparisons made between them.

To handle this kind of information we developed a project profile form; See Appendix 4. On this form all the information that pertained to the development and operation of each sample project was recorded. This information

included project objectives, project work plans, progress and evaluation reports, responses from open end interview questions, written criteria used for recruiting and selecting aides, training objectives and plans, job descriptions and personnel and administrative data. Field notes that were made by the interviewers were also included in the profiles.

These profiles enabled us to collect all pertinent information about each project together in one place so that the projects as a whole could be compared with each other.

Interview and Assessment Process

The procedure for visiting the projects and interviewing the staff was carefully worked out. Interviews were scheduled according to the season and the operations of the various projects. The projects in the northern and eastern states operated during the summer months only, and it was at that time that aides were employed. These summer projects were visited first; the year round ones were left until fall and winter. Most of the year round projects are located in the home base areas for migrants, and are in the South, Southwest, and Pacific coast states.

Before any project was contacted or visited, a formal clearance was obtained through the Regional Representative of the Migrant Health Program staff. These regional representatives contacted the appropriate project staff in their region and explained the purpose of the study. This paved the way for us to make direct contacts with the local project staff and to arrange the interviews required. We received excellent cooperation from state and local project staff and no difficulties were encountered in obtaining interviews and other information about the use of aides on the projects.

Three interviewers, (the project director and two assistant investigators) performed the interviews for the study. Interviews were held with all of the

health aides that were currently employed or working in the migrant projects that were selected for the sample. The aide's chief or immediate supervisor was interviewed and other selected professional staff. These other staff were selected from different disciplines depending on their experience in working with aides and according to their knowledge and experience of the project. This group generally consisted of an administrator of the project, a supervising or staff nurse, a supervising or staff sanitarian and a health educator or social worker. The interviews averaged from about 30 minutes for each aide to about an hour for each professional person.

Each interview was tape recorded in addition to the questionnaire form being filled out. Tape recordings were made so the interviewer could concentrate more on developing good rapport with the respondent, and so more attention could be focused on probing for more detailed and meaningful responses. The tape recordings were then listened to in the office to pick up any verbal responses that had been missed on the questionnaire form.

After the interview with each aide the activity time sheet was presented and explained. The procedure we followed was to explain the purpose of the time study (to obtain a sample of what the aide was actually doing in his job) and then describe how it should be filled out.

To enable the aide to fill out the activity time sheet accurately, he was asked to select a recent typical work day. On recalling and agreeing on one, both the interviewer and the aide filled in the form. On completing this form the interviewer kept the sample form and left two with the aide. The aide was requested to take two future typical work days and record them. On completion of the activity time sheet, he was requested to place them in a self-addressed and stamped envelope and mail them to the project office.

This procedure had several advantages. It familiarized the aide with the

form and the information we required. The interviewer kept the completed sample form; thus, if the aide neglected to fill out and return the two activity time sheets, the interviewer had at least one time sheet for the aide. This procedure of showing the aide how to fill out the time sheet worked so successfully that we had a 99% immediate return on activity time sheets completed and mailed back from the aides.

The 1% not returned was followed up by a letter requesting them from the aide. The result was a 100% return on the activity forms. This time study resulted in our obtaining three time study forms on typical work days from 60 aides. In seven of the projects we were able to obtain fewer than 3 forms for a few of the aides because the aide was either terminated the next day, the aide was not working at the time (due to seasonal employment), or there was not enough time at the end of the interview to instruct the aide on how to complete the form.

After each supervisor was interviewed they were asked to rate each aide under their supervision on the assessment rating sheet. Most of the supervisors found little difficulty in rating their aides on the qualities listed.

Analyzing and Coding the Data

The data for the study were arranged for analysis in two ways. Most of the information on the questionnaires and the data from the supervisor's assessments and the activity time sheets of the aides were coded and punched on IBM cards. These cards were then processed for quantitative analysis by computer. Frequency distributions were obtained for all of the descriptive information in the questionnaires. The data were carefully analyzed for all variables and factors that were thought to be related in some significant way. Cross tabulations were then run for these variables and tables were obtained for these.

The information that did not lend itself to machine analysis, such as

TABLE 3

TYPE OF AIDE BY SEX

Type of Aide	Sex		Total
	Male	Female	
1. Nurse	-	10	10
2. Sanitation	9	-	9
3. Community Health Education Aide	3	44	47
Total	12	54	66

TABLE 4

SEX OF AIDES BY AGE

Sex	Age									Total	Median
	0-20	21-24	25-29	30-34	35-39	40-44	45-49	50+			
Male	3	2	4	1	1	1	-	-	12	26.25	
Female	1	6	10	9	10	3	6	9	54	35.5	
Total	4	8	14	10	11	4	6	9	66	33.5	

These male community health education aides were all employed in one of the projects in our sample. Only one other male community health education aide (who was not interviewed) was employed by one of the sample projects. There seemed to be definite role expectations for men and women selected for work as health aides.

One of the basic problems of migrant health projects has been the need to reach male farm workers. Staff of the migrant health projects should consider hiring male aides to work with men in clinic and family settings. To stereotype men as being able to work only as sanitation aides has limited the chances of reaching male farm workers. It has been expressed that family planning programs might be more effective if husbands could be involved. It would be awkward, especially with Mexican-American farm workers for a female aide to attempt a discussion of family planning with the husband of the family. Project staff sometimes have assumed that men have not been as sick as women and children. However, there has been no empirical evidence to support this conclusion. Additional efforts, therefore, should be made to reach male farm workers and this could be accomplished more easily by selecting and hiring male health aides to work in the clinics and in the communities.

Only 3, (less than 1%) of all the community health education aides were men. There may have been valid reasons for employing only one sex for nursing and sanitation aides but the same validity does not appear to hold for the community health education roles. If the nature of the job is considered, it is not known why more men have not been employed in the latter positions.

Age

The median age for the 66 aides was 33.5 years. (See Table 4). Male aides had a median age of 26.25 years, and female aides had a median age of 35.5 years. The range of ages was from 18 years (male) to 61 years (female).

The median ages for female aides was 9.25 years above the median age for male aides.

Since male aides tended to be younger and most of the male aides were sanitation aides, the median age for sanitation aides was the youngest, 25.6 years. (See Table 5). The median age for nursing-clinic aides was 30 years, and the median age for community health education aides was 37 years. The male sanitation aides were significantly younger than the community health education aides.

Ethnic Background

Of the 66 aides, 40 (61%) were of Mexican descent, 14 (21%) were Negroes, 11 (17%) were Anglo Americans, or Anglos, and 1 (1%) was of Filipino descent. (See Table 6). All of the Western and midcontinent projects selected Mexican-American aides, and most of the farm workers in these areas were of Mexican descent. All of the eastern projects except one, hired Negro aides in areas where most of the farm workers were Negroes. The one exception was a project in the southeast. It is difficult to understand why at least one Negro aide was not employed for that project.

Of the 12 male aides, 9 (75%) were Anglos. (See Table 7). By contrast, 52 of the 54 (96%) female aides were non-Anglos. Of the 54 female aides, 38 (70%) were Mexican-American, 13 (24%) were Negroes, 2 (4%) were Anglo, and 1 (2%) was Filipino.

Ethnic backgrounds of the aides were not evenly distributed when tabulated by type of aide. (See Table 8). Six of the 10 (60%) nursing-clinic aides were of Mexican descent. Eight of the 9 (89%) sanitation aides were Anglo-Americans. Thirty-four of 47 (72%) community health education aides were of Mexican descent.

As shown in Table 8, 8 (89%) of the sanitation aides were Anglo, and

TABLE 5

TYPE OF AIDE BY AGE

Type of Aide	Age											Total	Median
	0-20	21-24	25-29	30-34	35-39	40-44	45-49	50+					
Nurse-Clinic	1	3	1	3	-	-	-	2	10	30.0			
Sanitation	3	1	4	1	-	-	-	9	25.6				
Community Health Education	-	4	9	6	11	4	6	7	47	37.0			
Total	4	8	14	10	11	4	6	9	66				

TABLE 6

ETHNIC BACKGROUND OF AIDES BY PROJECT

Ethnic Background	Project											Total	
	A	B	C	D	E	F	G	H	I	J	K		L
Aide	3	2	3	1	-	-	-	-	1	-	1	-	11
Negro	-	2	9	1	-	-	-	-	-	-	2	-	14
Mexican-American	-	-	-	1	10	1	1	3	1	4	14	5	40
Philippino	-	-	-	-	-	-	-	-	-	-	-	1	1

TABLE 7

SEX OF AIDES BY ETHNIC BACKGROUND OF AIDES

Sex	Ethnic Background				Total
	<u>Anglo</u>	Negro	Mexican-American	Philipino	
Male	9	1	2	-	12
Female	2	13	38	1	54
Total	11	14	40	1	66

TABLE 8

TYPE OF AIDE BY ETHNIC BACKGROUND OF AIDES

Type Of Aide	Ethnic Background				Total
	<u>Anglo</u>	Negro	Mexican-American	Philipino	
Nurse-Clinic	1	3	6		10
Sanitation	8	1			9
Community Health Education	2	10	34	1	47
Total	11	14	40	1	66

there were no Mexican-American sanitation aides. Sanitation aides reported environmental sanitation activities involving contacts with growers, many of whom were probably Anglo. It was apparent that sanitation aides were not selected because they were of similar ethnic background as the migrant farm workers. It is believed that this would limit the effectiveness of the sanitation aides in those areas where most of these families are Mexican-Americans and Negroes. Nearly 3/4 of the community health education aides, however, were selected from the same ethnic group with which they worked. With the exception of the sanitation aides these findings support the first assumption that aides will be similar in ethnic background to the migrant group they serve. Age was compared with ethnic background. The median ages for Anglo aides were 25.8 years, 35.0 years for Mexican-Americans, and 42.5 years for Negroes. (See Table 9). Based on comparisons with Table 5, the median ages for the nursing-clinic aides and the community health education aides, most of whom were Negro or Mexican-Americans, indicated the selection of chronologically mature persons for those positions. The sanitation aides, however, tended to be younger (under 30 years of age) Anglo men.

Marital Status

Nearly 3/4 of the 66 aides were married persons. (See Table 10). Eleven of the 66 aides (17%) were never married. Six of the aides (9%) were separated, divorced, or widowed. Marital status did not appear to be a relevant variable in comparisons with any of the demographic variables.

Education

Education of the aides was measured by the last year of school they completed. (See Table 11). Of the 66 aides, 21 (32%) had elementary schooling, 16 (24%) had some high school education, 14 (21%) were high school graduates, 8 (12%) had some college education, and 7 (11%) were college graduates or

TABLE 9

ETHNIC BACKGROUND BY AGE OF AIDES

Ethnic Background	Age											Total	Median
	0-20	21-24	25-29	30-34	35-39	40-44	45-49	50+	Total	Median			
Anglo	3	2	3	1	-	-	-	2	11	25.8			
Negro	-	-	3	3	-	2	3	3	14	42.5			
Mexican-American	1	6	8	5	11	2	3	4	40	35.0			
Philipino	-	-	-	1	-	-	-	-	1	-			
Total	4	8	14	10	11	4	6	9	66				

TABLE 10

MARITAL STATUS OF AIDES BY PROJECT

Marital Status	Project											Total	
	A	B	C	D	E	F	G	H	I	J	K		Total
Never Married	-	-	2	-	3	1	-	1	2	1	1	-	11
Married	2	4	7	2	6	-	1	2	-	3	16	6	49
Separated	1	-	1	1	-	-	-	-	-	-	-	-	3
Divorced	-	-	1	-	-	-	-	-	-	-	-	-	1
Widowed	-	-	1	-	1	-	-	-	-	-	-	-	2
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 11

LAST YEAR OF SCHOOL COMPLETED BY PROJECT

Last year of school	A	B	C	D	E	F	G	H	I	J	K	L	Total
5-8	-	-	-	-	5	-	-	2	-	3	10	1	21
9-11	-	-	5	2	4	-	-	1	-	-	1	3	16
12	1	-	2	-	1	-	-	-	2	1	6	1	14
13-15	-	2	2	1	-	1	1	-	-	-	-	1	8
16	-	1	1	-	-	-	-	-	-	-	-	-	2
17+	2	1	2	-	-	-	-	-	-	-	-	-	5
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 12

LAST YEAR OF SCHOOL COMPLETED BY SEX OF AIDES

Last year of school	Male	Female	Total
5-8	1	20	21
9-11	1	15	16
12	1	13	14
13-15	2	6	8
16	2	-	2
17+	5	-	5

above. Thirteen of the 21 aides with an elementary level of education did not graduate from school, e.g., they had 7 or less years of education. This indicated the need for basic education in the training program for the aides who did not go beyond the 8th grade.

Most of the aides with an elementary education were hired in the western projects. All of those who were college graduates or above were hired in 3 of the 4 eastern projects. As shown in Table 11, there were disparities in the level of education of the aides by region of the project.

Seven of the 12 (58%) male aides were college graduates or above. (See Table 12). Thirty-five of the 54 (65%) female aides had an elementary education or some high school education. Male aides, therefore, had the highest level of education. In some cases, assumption 2 regarding the educational level of the aides was supported and in other cases not. It does not seem justifiable that college graduates would be required as sanitation aides.

The median ages of the aides decreased as the level of education increased. (See Table 13). The median ages for the aides were: 37.9 years for those with an elementary level of education, 35.0 years for those with some high school education, 30.0 years for the high school graduates, and 27.5 years for those with post-high school education.

When education was compared with ethnic background there were also disparities. (See Table 14). Thirty-six of the 54 (67%) Negro and Mexican-American aides had the lowest level of education (elementary or some high school education). Six of the 11 (55%) Anglo aides had the highest educational attainment (college graduates or above). Anglo aides had a much higher level of education than the Negro and Mexican-American aides.

Religious Preference

The aides were asked what their religious preference was. (See Table 15).

TABLE 13

LAST YEAR OF SCHOOL COMPLETED BY AGE OF AIDES

Last year of school	Age										Total	Median
	0-20	21-24	25-29	30-34	35-39	40-44	45-49	50+				
5-8	1	1	2	3	6	1	2	5	21	37.9		
9-11	-	2	3	3	2	2	2	2	16	35.0		
12	1	2	4	1	3	1	1	1	14	30.0		
13-15	2	1	1	2	-	-	1	1	8			
16	-	1	1	-	-	-	-	-	2			
17+	-	1	3	1	-	-	-	-	5	27.5		

TABLE 14

LAST YEAR OF SCHOOL COMPLETED BY ETHNIC BACKGROUND OF AIDES

Last year of school	Ethnic background				Total
	Aaola	Negro	Mexican-American	Philipino	
5-8	1	2	18	-	21
9-11	-	6	10	-	16
12	2	2	10	-	14
13-15	2	3	2	1	8
16	1	1	-	-	2
17+	-	-	-	-	5

TABLE 15

RELIGIOUS PREFERENCE BY ETHNIC BACKGROUND OF AIDES

Religious Preference	Ethnic Background					Total
	Anglo	Negro	Mexican-American	Philipino		
Protestant	10	14	7	-	-	31
Catholic	-	-	33	1	-	34
None	1	-	-	-	-	1

TABLE 16

GROSS FAMILY INCOME OF AIDES BY PROJECT

Gross Family Income	Project													Total
	A	B	C	D	E	F	G	H	I	J	K	L		
\$999-1,999	1	1	1	-	1	-	-	-	1	-	-	-	5	
2,000-3,999	-	2	3	1	4	1	-	1	-	-	1	-	13	
4,000-5,999	1	-	3	2	-	-	-	1	-	1	7	-	15	
6,000-9,999	1	-	3	-	4	-	1	1	-	2	6	3	21	
10,000- +	-	-	1	-	-	-	-	-	1	-	2	3	7	
DK	-	1	-	-	1	-	-	-	-	1	1	-	4	
NA	-	-	1	-	-	-	-	-	-	-	-	-	1	
Total	3	4	12	3	10	1	1	3	2	4	17	6	66	

Of the 40 Mexican-American aides, 33 (82%) were Catholic, and 7 (18%) were Protestant. Religious preference was correlated positively with ethnic background in that most of the Anglo and Negro aides were Protestant, and most Mexican-American aides were Catholic.

Gross Family Income

The aides were asked about their gross family income last year. (See Table 16). For the younger aides, the gross family income reflected the earnings of parents as well as those of young health aides. For the married aides, the gross family income reflected the estimated earnings of both spouses. Some of the reported incomes, therefore, may have been slightly above the level of earnings one would expect for a health aide.

Of the 18 aides with incomes less than \$4,000, 9 (50%) were in eastern projects, 7 (39%) were in midcontinent projects, and only 2 (11%) were in western projects. At the other end of the spectrum, 6 of the 7 (86%) aides with incomes of \$10,000 and over were in western projects. Regional differences probably indicated the chances of higher gross family incomes for aides in the western projects than the incomes of the aides in eastern projects.

Of the 66 aides, five (8%) had incomes of gross poverty of less than \$2,000, 13 (20%) had poverty incomes of \$2,000 to \$3,999, 15 (23%) had above poverty incomes of \$4,000 to \$5,999, 21 (32%) had incomes of \$6,000 to \$9,999 and 7 (10%) had incomes of \$10,000 and over. Several of these were students of families with both parents employed.

Of the 18 aides with incomes below \$4,000 (poverty and gross poverty levels), 15 (84%) aides were Negroes and Mexican-Americans, and only 3 (16%) were Anglo. (See Table 17). Table 18 shows that gross poverty and poverty incomes (4,000 per year) were earned by health aides regardless of their age. Poverty was not limited to the very young or the very old.

TABLE 17

GROSS FAMILY INCOME BY ETHNIC BACKGROUND OF AIDES

Gross Family Income	Ethnic Background					Total
	Anglo	Negro	Mexican-American	Philipino		
\$999-1,999	2	1	2	-	-	5
2,000-3,999	1	6	6	-	-	13
4,000-5,999	2	5	8	-	-	15
6,000-9,999	3	1	17	-	-	21
10,000-+	2	-	4	1	-	7
DK	1	-	3	-	-	4
NA	-	1	-	-	-	1
Total	11	14	40	1	-	66

TABLE 18

GROSS FAMILY INCOME BY AGE OF AIDES

Gross Family Income	Age										Total
	0-20	21-24	25-29	30-34	35-39	40-44	45-49	50+			
\$999-1,999	-	3	-	-	-	-	2	-	-	5	
2,000-3,999	-	2	2	5	1	-	1	2	-	13	
4,000-5,999	1	1	2	-	3	2	1	5	-	15	
6,000-9,999	-	1	6	4	6	1	2	1	-	21	
10,000-+	1	-	2	1	1	1	-	-	-	6	
15,000-+	1	-	-	-	-	-	-	-	-	1	
DK	1	1	2	-	-	-	-	-	-	4	
NA	-	-	-	-	-	-	-	-	-	1	
Total	4	8	14	10	11	4	6	9	-	66	

Of the 18 aides with gross poverty or poverty levels of income, 10 (56%) of the aides had an elementary level of education or some high school. (See Table 19). Two of the 18 aides were students who had low levels of income. There seems to be some correlation between family income and education. Assumption 3 regarding the income of aides was generally not supported. Only about a fourth of the aides had an income below the poverty standard (\$4,000) and another quarter between \$4,000 and \$6,000. The rest had incomes from \$6,000 to over \$10,000.

The aides were asked what language they spoke at home in order to determine whether or not aides were able to communicate with the migrants, especially in areas where the migrants primarily speak Spanish. In eastern projects, all of the aides but one spoke English, which is the language spoken by most of the migrants. (See Table 20). The one exception was an aide in a project serving some Spanish-speaking migrants. There an aide was hired who spoke both English and Spanish. All of the midcontinent and eastern projects had at least one of their aides who spoke Spanish. This was important because most of the migrants in these areas are Spanish-speaking persons. Of the 31 aides who spoke Spanish, 28 (90%) aides spoke both English and Spanish at home, and only 3 (10%) aides spoke only Spanish at home.

Table 21 shows data on a comparison of the language spoken at home with ethnic background of the aides. As expected, the Anglo and Negro aides spoke only English at home. Of the 40 Mexican-American aides, 9 (23%) spoke only English at home, 3 (8%) spoke only Spanish at home, but 28 (70%) were bilingual and spoke English and Spanish at home. The 9 Mexican-American aides who spoke only English at home obviously knew Spanish, but they did not speak it frequently at home.

TABLE 19

GROSS FAMILY INCOME BY LAST YEAR OF SCHOOL COMPLETED BY AIDES

Gross Family Income	Last Year of School						Total
	5-8	9-11	12	13-15	16	17+	
\$999-1,999	-	1	2	-	1	1	5
2,000-3,999	5	4	1	3	-	-	13
4,000-5,999	9	3	-	2	-	1	15
6,000-9,999	6	6	5	1	1	2	21
10,000--+	-	1	4	2	-	-	7
DK	1	-	2	-	-	1	4
NA	-	1	-	-	-	-	1
Total	21	16	14	8	2	5	66

TABLE 20

LANGUAGE SPOKEN AT HOME BY AIDES BY PROJECT

Language Spoken	Project												Total
	A	B	C	D	E	F	G	H	I	J	K	L	
English	3	4	12	2	1	-	-	-	1	2	6	4	35
Spanish	-	-	-	-	-	-	-	1	-	1	1	-	3
Both English & Spanish	-	-	-	1	9	1	1	2	1	1	10	1	27
English-Spanish + Filipino	-	-	-	-	-	-	-	-	-	-	-	1	1
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 21

LANGUAGE SPOKEN AT HOME BY ETHNIC BACKGROUND OF AIDES

Language Spoken	Ethnic Background				Total
	Anglo	Negro	Mexican-American	Filipino	
English	11	14	9	1	35
Spanish	-	-	3	-	3
Both English & Spanish	-	-	27	-	27
English-Spanish + Filipino	-	-	-	1	1
Total	11	14	39	2	66

The ability of the aides to speak the language of the migrant families in the project areas was determined by comparing the language ability of the aides with reports on the characteristics of the migrants in the project areas. All but one of the 66 aides spoke the language of the migrants in project areas. (See Tables 22 & 23). The one exception was a male Anglo sanitation aide in a western project where most of the migrant farm workers were Mexican or Mexican-American. These findings support assumption 4 that aides speak the language of the migrants in the area.

Residence of the Aides

Of the 66 aides, 59 (89%) lived in towns or cities, and 7 (11%) lived in rural areas (nonfarm, farm, and farm labor camps). (See Table 24). Only one of the aides lived in a farm labor camp. The length of time the 66 aides had lived at their present residences was: 40 (61%) for 11 years or more, 12 (18%) for five to 10 years, 7 (11%) for two to four years, 2 (2%) for 7 months to one year, and 5 (8%) for 6 months or less. Nearly 80% of the aides lived at their present residences for five years or more. This indicates that most of the aides have lived in towns or cities for a substantial period of time and have not recently travelled in migrant streams.

Table 25 shows that the ethnic background of the aides did not drastically ^a affect the length of residence. Regardless of ethnic background, the aides seem to be a relatively stable group in terms of length of time they have lived at their present residences. The distribution of aides who had lived at their present residence five years or more is as follows: 7 of the 11 Anglo aides, 13 of the 14 Negro aides, and 31 of 40 Mexican-American aides. Of the 14 aides who resided at their present residence less than five years, 9 were of Mexican descent. It appears that Mexican-American aides are more likely to be transient than the aides of other backgrounds.

TABLE 22

AIDE SPEAKS LANGUAGE OF MIGRANTS BY SEX

Speaks Language of Migrants in area	Sex		Total
	Male	Female	
Yes	11	54	65
No	1		1
Total	12	54	66

TABLE 23

AIDE SPEAKS LANGUAGE OF MIGRANTS BY ETHNIC BACKGROUND

Speaks Language of Migrants in Area	Ethnic Background			Total
	Anglo	Negro	Mexican-American	
Yes	10	14	40	65
No	1	-	-	1
Total	11	14	40	66

TABLE 24

LENGTH OF TIME AT PRESENT RESIDENCE
BY LOCATION OF PRESENT RESIDENCE OF AIDES

Time at Present Residence	Town or City	Rural or Nonfarm	Rural or Farm	Farm Labor Camp	Total
0-6 months	2	-	2	1	5
7 months to 1 year	2	-	-	-	2
2 - 4 years	6	1	-	-	7
5 - 10 years	12	1	-	-	12
11 years or more	37	1	2	-	40
Total	59	2	4	2	66

TABLE 25

LENGTH OF TIME AT PRESENT RESIDENCE BY
ETHNIC BACKGROUND OF THE AIDES

Time at Present Residence	Ethnic Background				Total
	Caucasian Anglo	Negro	Mexican-American	Philippino	
0 - 6 months	1	-	4	-	5
7 months to 1 year	1	-	1	-	2
2 - 4 years	2	1	4	-	7
5 - 10 years	-	2	10	-	12
11 years or more	7	11	21	1	40
Total	11	14	40	1	66

Involvement With Community Organizations

The aides were asked what organizations they were participating in in the community at the present time. The organizations were classified according to the following categories:

1. Church - e.g. church societies, Guilds, Society.
2. Service - e.g. St. Women's Club.
3. Youth - e.g. Scouts, Bible League.
4. Community - e.g. volunteer rescue squad.
5. Poverty - e.g. Community Action Program.
6. Social - social club - e.g. home decorating club.
7. Fraternal - e.g. Elsons.
8. Ethnic - e.g. NAACP.
9. Non-Partisan Political - e.g. Voter's League.
10. Partisan Political - e.g. Democratic or Republican party.
11. Professional - e.g. beautician association.

Table 26 shows the types of community organizations in which the aides participated. Because some aides belonged to two or three organizations, tabulations were made on the number of organizations, not just on a basis of the number of aides. Fifty-eight aides reported 111 organizations belonged to. Eight aides reported no involvement with community organizations.

The organizations are listed in the rank order by which they were selected, that is: (1) Church, (2) service, (3) youth organizations and so forth. Church organizations were participated in by 10 of the 14 (72%) Negro aides, 24 of the 40 (60%) Mexican-American aides, and 6 of the 11 (55%) Anglo aides. Service organizations were participated in by 7 of 40 (18%) Mexican-American aides, 2 of the 14 (14%) Negro aides, and 1 of the 11 (9%) Anglo aides.

TABLE 26

COMMUNITY ORGANIZATIONS AIDES PARTICIPATED IN BY SEX AND ETHNIC BACKGROUND

Organizations	Sex		Total	Ethnic Background			Total
	Male	Female		White	Mexican-American	Philippine	
Church	6	34	6	10	24	-	40
Service	2	19	1	9	10	1	21
Youth	1	9	1	2	7	-	10
Community - Service	2	6	3	1	4	-	8
Party	-	7	-	1	5	-	7
Social	1	5	2	3	1	-	6
Practical	1	2	-	3	-	-	3
Ethnic	1	2	-	2	1	-	3
Non-Partisan	-	2	-	1	1	-	2
Partisan	1	1	1	-	1	-	2
Professional	-	1	-	1	-	-	1
None	1	7	1	-	7	-	8
Total	16	95	15	33	61	2	111

When we considered the 8 aides who reported no involvement with community organizations, 7 of the 40 (18%) Mexican-American aides were not involved, and 1 of the 11 (9%) Anglo aides was not involved in community organizations. By contrast, all of the Negro aides were involved in one or more community organization at the time they were interviewed.

The 66 aides were classified on a basis of their involvement in community organizations. If an aide was attending two or more organizations, he was classified as involved in community organizations. If the aide, however, attended one or no organizations, he was classified as not involved in community organizations. Of the 66 aides, half were involved and half were not involved in community organizations. (See Table 27). This table also shows that most of the nursing-clinic and sanitation aides were not involved in community organizations. Of the 47 community health education aides, 26 (55%) were involved with community organizations.

More female aides were involved in community organizations than those not involved. (See Table 28). More male aides, however, were not involved in community organizations than those involved. Twenty-nine of the 54 (54%) female aides were involved. Eight of the 12 (66%) male aides were not involved in community organizations.

When comparisons were made on a basis of ethnic background, Negro aides were the only ethnic groups represented (except for the one Filipino aide) with more than half of the aides involved in community organizations. (See Table 29). Of the 14 Negro aides, 12 (86%) were involved and 2 (14%) were not. Of the 11 Anglo aides, 4 (36%) were involved and 7 (64%) were not. Of the 40 Mexican-American aides, 10 (25%) were involved and 30 (75%) were not.

Table 30 shows that aides with some high school education or below were less involved in community organizations than those who were high school

TABLE 27

TYPE OF AIDE BY INVOLVEMENT IN COMMUNITY ORGANIZATIONS

Type of Aide	Involvement in Community Organizations		Total
	Yes	No	
Nursing	4	6	10
Sanitation	3	6	9
Community Health Education	26	21	47
Open for			
Total	33	33	66

TABLE 28

INVOLVEMENT IN COMMUNITY ORGANIZATIONS BY SEX OF AIDES

Involvement in Community Organizations	Sex		Total
	Male	Female	
Yes	4	29	33
No	3	25	33
Total	12	54	66

TABLE 29

INVOLVEMENT IN COMMUNITY ORGANIZATIONS BY ETHNIC BACKGROUND OF AIDES

Involvement in Community Organizations	Ethnic Background			Total
	Negro	Mexican American	Philippino	
Yes	4	12	1	33
No	7	2		33
Total	11	14	1	66

TABLE 30

LAST YEAR OF SCHOOL COMPLETED BY AIDES INVOLVED IN COMMUNITY ORGANIZATIONS

Last year of school completed	Involved in Community Organizations		Total
	Yes	No	
5 - 8	8	13	21
9 - 11	8	8	16
12	9	5	14
13 - 15	6	2	8
16	1	1	2
17+	1	4	5
Total	33	33	66

graduate or above; 17 (56%) were involved and 12 (41%), were not.

Aides who resided at their present residence five years or longer were more involved in community organizations than those who resided at their present residence for less than five years. (See Table 31). Of the 51 aides living at their present residences 5 years or longer, 30 (58%) were involved in community organizations and 21 (42%) were not. Of the 14 aides living at their present residences less than five years, 11 (79%), were not involved in community organizations and 3 (21%), were involved.

Previous Work Experiences of Aides

Each of the aides was asked what he did before he became a health aide. Responses to this question were categorized into professional, semiprofessional, unskilled, student, and housewife. (See Table 32). Of the 66 aides, 31 (47%) were unskilled, 13 (19%) were semiprofessional, 11 (17%) were housewives, 5 (8%) were professional, and 5 (8%) were students.

The previous work experiences of the aides were also categorized as to health related work; farm related work; and non health, non farm related work. (See Table 33). Thirty-seven of the 66 aides (56%) had no prior health related or farm related work experiences. Twenty-two of the 66 aides (33%) had done health related work.

Half of the female aides had done farm related work. (See Table 34). By contrast, only 2 of the 12 male aides (17%) had done health related or farm related work.

When previous work experiences were tabulated by ethnic background, the largest proportion of health related and farm related experiences were with the Mexican-American aides. (See Table 35). Of the 40 Mexican-American aides, 22 (55%) had health and farm related experiences. Of the 14 Negro aides, 6 (43%) had health and farm related experiences. Of the 12 Anglo aides, only 1 (8%) had

TABLE 31

TIME AT PRESENT RESIDENCE BY ANDES INVOLVED IN COMMUNITY ORGANIZATIONS

Time at Present Residence	Involved in Community Organizations		Total
	Yes	No	
0 - 6 months	1	4	5
7 months to 1 year	1	1	2
2 - 4 years	1	6	7
5 - 10 years	7	5	12
11 years or more	22	17	40
Total	33	33	66

TABLE 32

PREVIOUS WORK EXPERIENCES OF THE AIDES BY PROJECT

Previous Work Experiences	Project											Total	
	A	B	C	D	E	F	G	H	I	J	K		L
Professional	1	1	2	-	1	-	-	-	-	-	-	-	5
Semiprofessional	-	-	3	-	1	1	1	-	2	1	3	1	13
Unskilled	-	1	3	2	5	-	-	3	-	3	11	3	31
Student	1	1	2	1	-	-	-	-	-	-	-	-	5
Housewife	1	1	2	-	2	-	-	-	-	-	3	2	11
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 33

PREVIOUS WORK EXPERIENCES OF AIDES BY PROJECT

Previous Work Experiences	Project											Total	
	A	B	C	D	E	F	G	H	I	J	K		L
Health	1	-	1	-	1	-	-	2	-	-	2	-	7
Farm	-	-	2	2	3	-	1	-	-	3	9	2	22
Nonhealth Nonfarm	2	4	9	1	6	1	-	1	2	1	6	4	37
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 34

PREVIOUS WORK EXPERIENCES OF AIDES BY SEX

Previous Work Experience	Male	Female	Total
Health Related	1	6	7
Farm Related	1	21	22
Non Farm. Non Health	10	27	37
Total	12	54	66

TABLE 35

PREVIOUS WORK EXPERIENCES OF AIDES BY ETHNIC BACKGROUND

Previous Work Experience	Ethnic Background					Total
	Anglo	Negro	Mexican-American	Philipino		
Health Related	1	1	5	-	-	7
Farm Related	-	5	17	-	-	22
Non Health Non Farm	10	8	18	1		37
Total	11	14	40	1		66

TABLE 36

MONTHS WORKING AS AN AIDE BY PROJECT

Months Working As an Aide	Project													Total
	A	B	C	D	E	F	G	H	I	J	K	L		
0 - 6	2	4	8	2	8	1	-	-	2	3	2	1	33	
7 - 12	1	-	1	1	1	-	-	-	-	-	4	1	9	
13 - 24	-	-	3	-	1	-	1	1	-	-	5	-	10	
25 - 36	-	-	-	-	-	-	1	-	-	1	4	2	8	
37 - 48	-	-	-	-	-	-	-	1	-	-	-	2	3	
49+	-	-	-	-	-	-	-	1	-	-	2	-	3	
Total	3	4	12	3	10	1	1	3	2	4	17	6	66	

health and farm related experiences.

Length of Time Employed As An Aide

The aides were asked how many months they had worked as a health aide. Table 36 shows that 42 of the 66 aides (64%) had worked one year or less, and 24 (35%) had worked more than one year. Table 37 shows that all of the 12 male aides had worked 1 year or less. Female aides had worked the longest, i.e., four years or more.

The work experiences of the aides were classified into categories of experienced and inexperienced. (See Table 38). In a seasonal project, an aide was classified as experienced if he had worked 6 months or more. In a year round project, an aide was classified as experienced if he worked one year or more.

Half of the 12 projects in our sample were seasonal, and half were year round projects. (See Table 38). Thirty-one of the 66 aides (47%) were classified as experienced aides, and 35 (53%) were classified as inexperienced. The year round projects tended to have experienced aides because they could employ the aides continuously. The seasonal projects, however, tended to have inexperienced aides. The noncontinuous employment status of the aides in seasonal projects has contributed to a high turnover.

Only 3 of the 12 (25%) male aides were experienced aides. (See Table 39). By contrast, 28 of the 54 female aides (52%) were experienced health aides.

Recruitment of Aides

The aides were asked how they learned about their job. (See Table 40). Of the 66 aides, 53 (80%) learned of the job from someone on the health department staff, 5 (8%) learned about it from a friend, and 8 (12%) learned from other sources, such as an employment office, clergy, a member of the migrant council, or a camp manager.

TABLE 37

MONTHS WORKING AS AN AIDE BY SEX

Months Working As an Aide	Sex		Total
	Male	Female	
0 - 6	10	23	33
7 - 12	2	7	9
13 - 24	-	10	10
25 - 36	-	8	8
37 - 48	-	3	3
49+	-	3	3
Total	12	54	66

TABLE 38

EXPERIENCED AIDES BY PROJECT

Experienced Aide	Project												Total
	A	B	C	D	E	F	G	H	I	J	K	L	
*	S	S	S	Y	S	S	Y	Y	S	Y	Y	Y	
**	S	S	S	Y	S	S	Y	Y	S	Y	Y	Y	
Yes	1	1	5	-	4	-	1	3	-	1	12	3	31
No	2	3	7	3	6	1	-	-	2	3	5	3	35
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

* S = seasonal project

** Y = year round project

TABLE 39

EXPERIENCED AIDES BY SEX

Experienced Aide	Male	Female	Total
Yes	3	28	31
No	9	26	35
Total	12	54	66

TABLE 40

HOW AIDES LEARNED OF POSITION BY PROJECT

How Aides Learned of Position	Project													Total
	A	B	C	D	E	F	G	H	I	J	K	L		
Health Dept. Staff	2	4	10	3	3	1	1	3	1	4	17	4	53	
Friend	-	-	1	-	2	-	-	-	-	-	-	2	5	
Employment Office	-	-	1	-	2	-	-	-	-	-	-	-	3	
Clergy	-	-	-	-	3	-	-	-	-	-	-	-	3	
Migrant Council	1	-	-	-	-	-	-	-	-	-	-	-	1	
Camp Manager	-	-	-	-	-	-	-	-	1	-	-	-	1	
Total	3	4	12	3	10	1	1	3	2	4	17	6	66	

Professional staff reported that they relied on personal contacts and referrals from health department personnel, professionals, or health aides to recruit additional health aides. Some staff said that they received names of persons from clergy, labor camp managers, and migrant council members. The professionals usually stated that their preference was to recruit persons from the local areas where farm workers lived. Very few, however, attempted to recruit aides from the migrant stream itself. The staff in one project tried to recruit persons from the migrant stream, but found it was too difficult and was not dependable for recruiting health aides. Some of the difficulty came from not being able to go to the home base area to recruit health aides. Persons who resided in the project areas were therefore usually recruited.

In addition, staff in the seasonal projects reported that they were handicapped in recruiting because they could only offer temporary employment. Staff in year round projects also reported similar recruiting problems in that they were only able to offer part-time jobs.

The three major problems that were reported regarding the recruitment of aides were: (1) difficulty in contacting persons from the migrant stream, (2) inability to offer year round employment in seasonal projects, and (3) lack of funds for hiring more than part-time aides.

All of the 66 aides were asked why they came to work as health aides. All but one of the aides expressed one of the following reasons: 23 (35%) said to help people, 23 (35%) stated interest in the work, 16 (24%) reported some kind of financial reason, and 3 (5%) said they wanted a new experience. (See Table 41).

Table 42 shows that the main reason nursing-clinic aides came to work was an interest in the work (5 of the 10 aides (50%). Financial rewards seemed to motivate most of the sanitation aides (7 of the 9 aides or 78%). Both helping other people and interest in the work were the main reasons stated by community health education aides, 22 of the 47 (47%) stated, to help people and 16 of the

TABLE 41

REASONS AIDES CAME TO WORK BY PROJECT

Reason Aides Came to work	Project											Total	
	A	B	C	D	E	F	G	H	I	J	K		L
Financial	2	2	3	-	2	-	-	-	2	1	4	-	16
To Help People	-	-	7	-	4	-	-	1	1	1	8	2	23
Interest in Work	1	2	1	3	4	1	1	1	-	1	5	3	23
New Experience	-	-	1	-	-	-	-	-	-	1	-	1	3
None	-	-	-	-	-	-	-	1	-	-	-	-	1
Total	3	4	12	3	10	1	1	3	2	4	17	6	66

TABLE 42

REASON AIDES CAME TO WORK BY TYPE OF AIDE

Reason Aides Came to Work	Type of Aides			Total
	Nurse-Clinic	Sanitation	Community Health Education	
Financial	2	7	7	16
To Help People	1	-	22	23
Interest in Work	5	2	16	23
New Experience	1	-	2	3
None	1	-	-	1
Total	10	9	47	66

47 (34%) stated interest in the work.

The aides generally tended to be satisfied with their work. The vast majority stated that they liked to help people and they liked the work. It would seem from this that the aides are a great potential resource for dedicated and experienced health personnel if ways could be found to open full-time positions for them and to create opportunities to advance them into more responsible and higher paying jobs in the organization. Further justification for this is the large number of times the aides indicated (in Table 65 on problems reported) that they wanted to be given more responsibility for their job and that they needed more training in a number of areas to perform their job more effectively.

Selection of Aides

Supervisors of the aides were asked how they selected the aides and what kind of persons they selected. They responded with a number of qualifications - many staff mentioned the same items.

The following criteria on selecting aides is a summary of those suggestions made by the supervisors:

1. Interest and motivation - likes to work with people on health problems.
2. Dedication and feeling for people - concerned with the needs of others.
3. Maturity - can accept responsibilities.
4. Education - can read and write - high school education preferred.
5. Ability to communicate.
6. Language - bilingual, especially in areas where migrants are Spanish speaking.
7. Sex - Females to work with nurses - males to work with sanitarians.
8. Marital status - married persons with children.
9. Appearance - neat and clean.
10. Valid driver's license.

Some supervisors preferred aides who were former migrants or local persons who had lived in the community for a while and wanted persons who were 25 years old or over. Most sanitarians preferred sanitation aides who had had some science training and education. One supervisor originally preferred only older women with children, but after several years' experience with aides she was willing to employ both younger and older persons and either male or female applicants.

Training of Aides

The training given to the health aides on the projects varied. Information was obtained on type of training program, objectives of training, length of training period, content and subject matter, methods used, who conducted it, and whether an evaluation was made of the outcomes. General comments from aides and staff on suggestions for improvement and problems of training were also collected.

Objectives of Training

Perhaps the most important element of an effective training program is how well its objectives are thought out and defined. In order to design an aide training program which will develop necessary skills, knowledges and attitudes for the job there must be a clear statement of training objectives and these objectives should be derived from the job to be performed. If such statements of objectives are missing, the resultant training will likely be poorly planned and conducted and its outcomes cannot be evaluated in terms which will be useful to the program.

With this in mind, it was our intent to determine whether the project staff had developed a clear statement of objectives and what the nature of their plan was for training the aides. The intent was to compare the training objectives with the tasks and activities of the aides and these ultimately to the objectives of the project. Questions were asked of project staff about whether written

training objectives were available, what content was presented, what methods were used, and whether the training sessions were evaluated. If documents containing or describing these plans were available, copies were obtained.

The standards with which we used to judge the quality of training objectives are those spelled out by Mager.²⁶ In this book, "Preparing Objectives for Programmed Instruction," Mager defines an objective as "a statement of what the learner is to be like when he has successfully completed a learning experience..." The statement of objectives of a training program must denote measurable attributes observable in the graduate of the program, or otherwise it is impossible to determine whether or not the program is meeting the objectives.

Unless goals are clearly defined and stated it is impossible to evaluate a training program effectively. It is also difficult to select appropriate subject matter, teaching methods, and educational materials for the program. In a recent handbook, "Developing Vocational Instruction," Mager and Beach²⁷ describe five characteristics of training objectives:

1. An objective says something about the student. It does not describe the textbook or kinds of training experience.
2. An objective talks about the behavior or performance of students. It does not describe what the student is expected to know or to understand.
3. An objective is about ends rather than means. It describes a product not a process.
4. An objective describes the conditions under which the student will be performing his terminal behavior.
5. A training objective also includes information about the level of performance that is considered acceptable. These are the standards of performance.

Using these criteria as a guideline, the information and documents pertain-

ing to the training programs of the projects were examined and analyzed. Eight of the twelve projects in the sample reported that they did have written objectives for their aide training program and four did not. Two of the four (Projects G and H) provided no formal training for their aides and the other two, (Projects B and I) reported that they had objectives, but they were not written down. When asked for copies of their statements of objectives, only six of the eight were able to supply a copy.

There was wide variation in the way the training objectives of the eight projects were written or reported. The objectives in seven of the projects described one or more of the following areas:

- a) health content to be learned -- i.e., disease concepts, nutrition, maternal and child health, sanitation;
- b) teaching methods to be used -- i.e., orientation, field experience, discussions, etc.;
- c) understanding of the role and duties of the aides and professionals;
- d) Knowledge about the services of the health department and other community agencies.

In comparing the objectives of these seven projects with the definition and standards previously described, there is practically no conformance to these standards. For example, of the documents we examined, only one stated a training objective in terms of the desired behavior of the aides when they had completed the course. Almost none of the objectives were stated in observable terms, that is, a way in which one could observe a change in the behavior of the aide as a result of training, and therefore presenting a measure for evaluating the outcomes of training. None of the objectives contained any description about conditions under which aide behavior would be performed, nor any standards about the level of performance that would be considered acceptable.

The exception to this was one project (Project L) which supplied a statement of objectives for the training of community health aides. This statement, though it did not conform completely to the above criteria, listed most of its objectives in terms which one could measure learning and judge performance on the job.

In conclusion, it can be said that with the one exception mentioned, none of the projects had developed objectives for training in a form that they could be used as a sound basis for planning effective learning experiences which would relate directly to specific behavior goals or specific program goals. Furthermore, these objectives could not be used to evaluate effectively the outcomes of the training.

This is not to say that much time, effort and planning did not go into the training of aides in some of the projects. It was evident in some cases from talking with staff and in examining their training curriculum and schedules that a great deal of time and resources was spent on aide training programs. The important implication here is that if the project staff had initially developed a statement of specific behavioral objectives written according to the criteria already described, it could have served several important functions:

1. Provide an adequate base to plan a practical and adequate functional training program.
2. Serve as a useful behavioral criteria to judge the outcomes of the training program.
3. Act as a standard of performance which supervisors could use to periodically judge aide performance on the job.

Length of Training

Ten of the twelve projects reported that some kind of formal training was provided. Formal training was considered to be any organized training program

planned for the aides at the beginning of their employment. In addition, information was collected on follow-up and continued training. The shortest formal training period was given to the aides in Project F. These aides received two days of orientation and no continuing or follow-up training. The longest training period was given to the aides in Project L. These aides had twelve weeks of extensive training and this project had weekly follow-up sessions, plus monthly staff meetings of which a portion was devoted to training.

Most of the formal training was in a preparatory form or orientation. Of the ten projects providing formal training, three had preparatory training from two to five days -- four had similar sessions from one to two weeks -- and three had training periods of three, four, and twelve weeks, respectively. Projects G and H provided no formal training but they gave on-the-job training.

We compared the length of formal training provided in relation to the type of job the aide performs. Table 43 shows information on training given in the eight projects which employ community health education aides.

There is considerable variation among projects as to the length and type of training provided for aides who require similar kinds of basic knowledges and skills.

It is interesting to note the wide variation in the length of training programs for these aides. The length varies from no formal training in Project G, 2, 4 and 6 days in Projects F, E and J respectively, 2 weeks in Project A, 4 weeks in Project K to 12 weeks in Project L. All but 3 of these projects furnish on-the-job or some type of continued training. Length of formal training does not appear to be related to educational level of the aides, the number of aides on the project or the seasonal nature of the project.

TABLE 43
 INFORMATION ON TRAINING PROVIDED FOR COMMUNITY HEALTH EDUCATION AIDES

Project	Number of Aides	Education Level of Aides	Length & Type of Training	Seasonal Nature of Project
A	1	college	2 weeks of orientation	seasonal
E	16	elementary and high school	4 days orientation training - 2 additional days of follow up training	seasonal
F	8	high school and college	2 days orientation	seasonal
G	1	college	no formal training - on-the-job training only	year round
J	3	elementary and high school	6 days orientation	year round
K	14	elementary and high school	4 weeks preparatory training weekly & monthly in-service training	year round
L	6	elementary and high school	12 weeks formal training weekly and monthly in-service training	year round

The health education aides in all of these projects were expected to function in the same kinds of areas, that is, to carry out educational activities with migrants in an individual, family, group, and/or community setting. From the wide variation in the length and type of training to develop essential knowledges and skills for health education aides, it is concluded that the aides in many of these projects are not receiving adequate training for their job. This was borne out by replies from both professional staff and the aides when they were asked about problems and suggestions to improve training. Their responses indicated a need for longer training, periodic follow-up and continued education, more training in the use of educational methods and how to translate and communicate more effectively. (See Table 65)

There were six projects that used nurse/clinic aides. There was also variation in their training. Time of training varied from no formal training (with on-the-job only type training) in Project H to three weeks of orientation in Project C. This information is shown in Table 44.

The training of nursing aides was on the average considerably less than for community health education aides. Also the length and type of training did not appear to be related to educational level of the aides.

Sanitation aides were employed in five projects. As with the case of community health and nursing aides, there was no uniformity in the type or length of training provided. Length of formal training varied from none to two weeks, although the sanitation aides were generally selected with a college level education. The length of training they received varied considerably from project to project. Information on their training is shown in Table 45.

Training Content

The content of the aide training programs was examined and compared from one project to another. The knowledge and skills taught related in general to

TABLE 44

INFORMATION ON TRAINING PROVIDED FOR NURSE-CLINIC AIDES

Project	Number of Aides	Education Level of Aides	Length & Type of Training	Seasonal Nature of Project
A	1	high school	2 weeks orientation	seasonal
B	2	college	3 days orientation - plus continued training in staff training	seasonal
C	8	high school	3 weeks orientation training	seasonal
D	2	high school	2 weeks home health aide training course	year round
H	3	elementary	no formal training - on-job training only	year round year round
I	1	high school	1 day preparatory training + on-the-job training	seasonal
J	1	elementary	6 days orientation	year round

TABLE 45
 INFORMATION ON TRAINING PROVIDED FOR SANITATION AIDES

Project	Number of Aides	Education Level of Aides	Length & Type of Training	Seasonal Nature of Projects
A	1	college	2 weeks orientation	seasonal
B	2	college	2 days preparatory training	seasonal
D	1	college	no formal training - on-the job training only	year round
I	1	high school	2 week orientation	seasonal
J	1	(not known - aide not interviewed)	6 days orientation	seasonal

the job that was required. When training was provided to nurses aides, they were taught health subjects and content that related to the program as well as the specific job duties they were to perform. Sanitation aides and community health education aides were taught in a similar manner.

It was impossible to make an evaluation of the extent to which the content and methods of training related to and was effective in increasing specific skills and knowledges of trainees. There were two reasons why this could not be done. First, there were insufficient behavioral criteria from which to judge training results. Second, only 7 of the projects made any attempt to evaluate their training programs, and of these, only 4 had documented their results. Some of the training programs seemed heavily content-oriented and taught a great deal about health subjects and specific diseases. Whether all of this was necessary is difficult to say with the incomplete nature of the information collected.

All of the projects either verbally reported or stated in their training plans that they provided an orientation or formal training of the technical information necessary to perform the job. How adequate or effective this was in each case is open to question since the time provided for such training varied from a few days to several weeks. It should be pointed out that the nature of duties and responsibilities for aides varied from project to project. For example, among the job class of nurse aides there was a difference in the type of duties they were performing and the degree of freedom and responsibility with which they were allowed to carry out their duties. The extent of training required would naturally vary according to the type of duties performed and the complexity of the tasks. It is also recognized that many simple tasks and routines can be learned on the job with good supervision and without formal training.

Only three of the projects reported the areas of interpersonal relations or communications skills as a part of their formal training program. This is surprising since most of the aides had to function in this capacity. It is possible that in the other projects the aides were given some training in communications and interpersonal skills, but it was not reported verbally or described in the training objectives.

The three projects which provided formal interpersonal relations training were Projects K and L, which employed only community health education aides, and Project C, which employed nursing aides and sanitation aides.

The most extensive training in the emotional, interpersonal and human relations skills was given by Project L. This project also provided the most extensive training program, and planned regular in-service monthly training sessions. It was also in this project where the community health aides were seen to function in a highly individual and responsible manner. Although they were under the technical supervision of the public health nurses, they were allowed to make home visits on their own and work with certain "problem" families which the professional staff had experienced difficulty in helping.

Training Methods

A large variety of training methods was used. Most of the formal training programs used a combination of didactic presentation, discussion, observation and field trips. Some of the projects made use of experiential learning techniques such as role playing. Almost all of the projects emphasized the practical nature of training and used on-the-job training in various degrees. One project described a problem solving method such as having the aides conduct a survey in the community. Through this survey the staff taught such things as interviewing techniques and how to collect health information.

In some cases visual aids such as films and flip charts were used to

support the instructional material.

Training Staff

An effort was made to determine who conducted the training programs. It seems reasonable to assume that two conditions should be met in selecting staff who will train the aides.

1. It should be done by persons who know what the aide will be doing.
2. The staff should know something about effective educational methods and training techniques.

From the information obtained, it appears that the first condition was generally met. In most of the projects a member of the same discipline as the aide was involved in the training program. That is, a nurse was used to train nursing aides, a health educator was used to train health education aides, and a sanitarian was used in the training of sanitation aides. A number of projects also used various other members of the health department staff to train the aides.

There were several exceptions to this pattern. In Project G, the central administration of the local project was located 300 miles away and no health educator was on the scene to provide training to the health education aides.

In Project A, the only trainer was the nursing project director who provided the training for nursing aides. The other exception was in Project D where the nursing aides were trained by a nursing education director. (There, however, the sanitation aides received no formal training by a sanitarian.) It appeared that in these cases where sanitation and health education aides were not trained by a person of their own discipline, the projects were relying upon supervision by a professional of the same discipline to provide on-the-job training. It is not known how satisfactory this arrangement was to

teach the aides the knowledges and skills they required on the job.

The second requirement of an adequate training program is that it be planned and directed by someone who has knowledge and abilities in effective teaching methods and techniques. From the data collected, it appears that this condition was not generally met. Detailed information about the educational qualifications of the training staff was not collected but it was assumed that a staff level (or even supervisory level) sanitarian, nurse or administrator does not usually have the educational background or special experience required to plan, organize, direct, and evaluate training programs. Public health educators generally do have this educational background and usually are better qualified to plan and conduct training programs.

In only five of the twelve projects was it determined that health educators were in charge of planning and conducting training programs for the aides. These were in Projects E, F, J, K and L. In two of these projects, the aides received the most intensive training, which included both formal and continued on-the-job training. These two projects also had the most organized training plans, the best statements of written objectives and had made attempts to evaluate their training.

This is not to say that health educators are the only ones who are qualified to plan training programs. Occasionally other staff have had special training for this task. In Project D the health department had a director of nursing education who had special training qualifications and she trained the nursing aides in home health care. However, it was in this same project where the sanitation aides received no formal training.

The data indicate that the presence of a health educator or other person with special qualifications for training increased the chances for better planned, organized and conducted training programs.

Evaluation of Training

Project staff were asked whether they evaluated their training program, and if so, how it was done. Seven of the twelve projects stated that they did, but in only four of these cases could evidence be found that a formal evaluation had in fact been carried out. In these four cases some type of information had been obtained from the trainees. These were reports stating what the students had learned during the training session or were an evaluation form which was given to the trainees by the instructor.

These evaluation results are primarily subjective in nature since they consist of statements given by the trainees as to what they felt they learned from the sessions. These statements are helpful to the extent that they provide the training staff with certain feedback information. But they do not provide information on changes of behavior as a result of the training program.

Objective type evaluations of the aide training programs did not exist. Until the staff in the projects first develop some type of behavioral criteria they will not be able to objectively judge performance or changes in skills and abilities learned.

Suggested Improvements for Training

The faculty staff who were involved with the training of aides were asked for their suggestions on how to improve the training. Their responses are listed as follows:

Suggestions for ImprovementNumber of Responses

More time provided for formal training	6
More continuing education and on-the-job training	7
Conduct interpersonal relations training, specifically in:	3
- human relations	
- communications	
Involve migrants and learn about their cultural beliefs	1
New training techniques and methods, specifically:	4
- experience oriented	
- group training	
- more specific training	
Need more training materials, such as:	2
- films	
- models	
- training manuals	
Need a trained person to conduct the training	1
Keep better records and evaluate results	1

These suggestions indicate a recognition for improved training programs for aides, particularly for formal and on-the-job training. The project staff also desire help in planning certain kinds of training, e.g., interpersonal relations, and in the use and/or development of training techniques, methods and materials.

If these suggestions are considered together with certain problems reported by the aides (Table 65) and the nature of tasks performed by the aides (Tables 66, 67 and 68) several important areas for improved training become

apparent.

1. Specific technical skill training for aides. In many cases aides need more systematic and extensive training in specific skill areas such as sanitation inspection methods, health education methods and techniques, and so forth.
2. Training in interpersonal relations and communications skills. This seems to be a critical training need for nearly all of the aides studied. Every type of health aide spends a significant amount of time relating directly to staff and clients. For example, in Table 69, community health education aides reported an average of 58 percent of their time spent in education/communication activities with clients; nurse-clinic aides reported an average of 38 percent of their time in the same activities. Consider this fact together with the almost total lack of formal training in this area for most of the aides and it becomes evident that there is a critical need for training in sensitivity, interpersonal relations, and communications skills.
3. Understanding of human nature and the helping process. The large number of responses (Table 65) from all types of aides in the area of problems with clients or the community indicates a greater need for understanding of how to develop cooperation to motivate and assist clients with their problems. Sanitation aides, nurses' aides and health education aides all mentioned difficulties they had in overcoming resistance, lack of interest and other barriers to change on the part of the migrants, growers or other client groups.

Supervision of Aides

The aides were asked to name their supervisor and his position on the project. (See Table 46) Of the 66 aides, 30 (45%) were supervised by nurses,

TABLE 46

SUPERVISOR OF AIDES BY PROJECTS

Supervisor of Aides	Project											L	Total	
	A	B	C	D	E	F	G	H	I	J	K			
Nurse	2	2	8	2	8	1	-	3	1	3	-	-	-	30
Sanitarian	-	2	4	1	-	-	-	-	1	-	-	-	-	8
Health Educator	-	-	-	-	-	-	1	-	-	1	15	2	-	19
Social Worker	-	-	-	-	-	-	-	-	-	-	-	4	-	4
Nurse & Health Educator	-	-	-	-	-	-	-	-	-	-	2	-	-	2
Nurse & Sanitarian	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Nurse & Medical Doctor	-	-	-	-	2	-	-	-	-	-	-	-	-	2
Total	3	4	12	3	10	1	1	3	2	4	17	6	66	