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HEALTH
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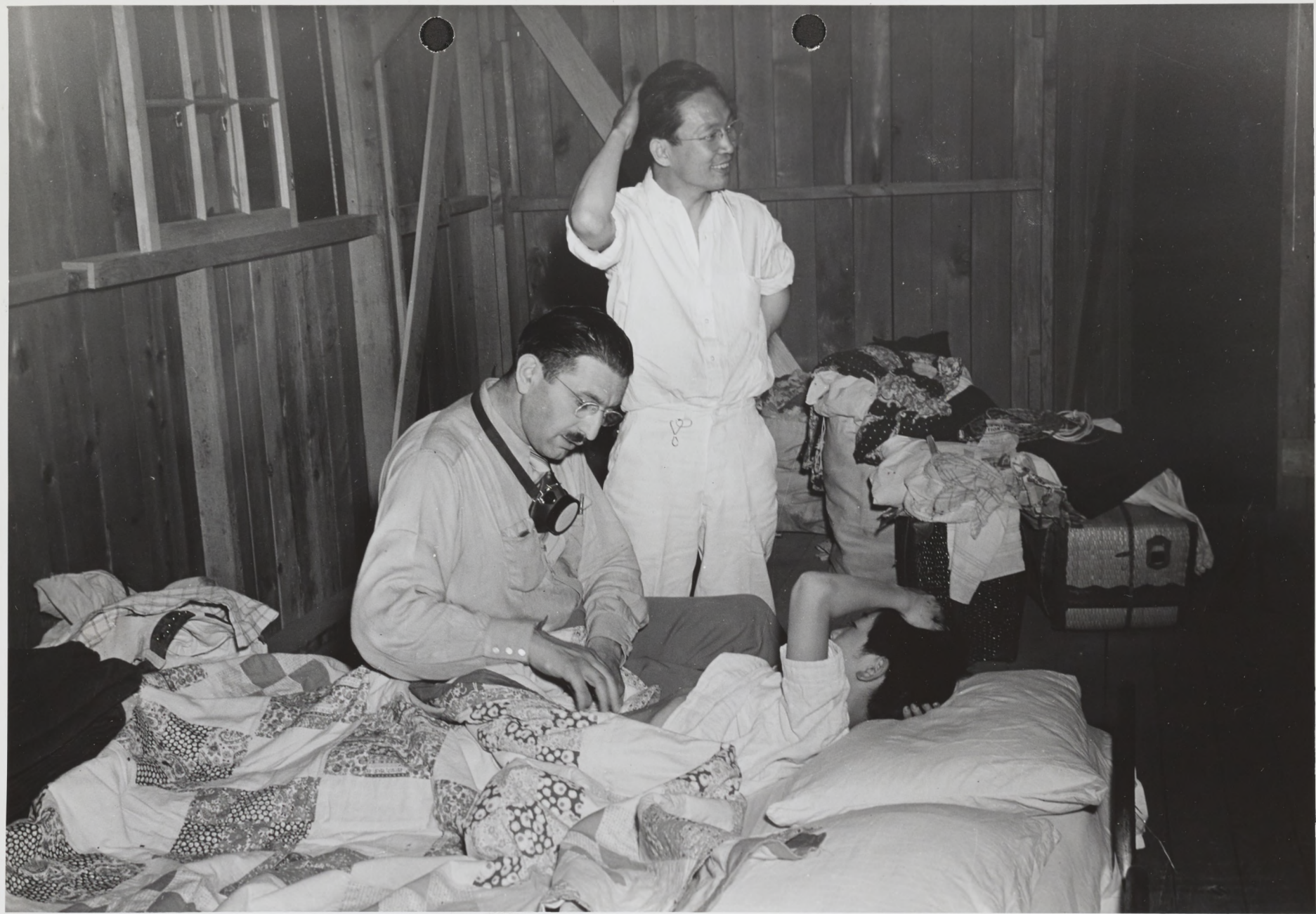
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POSTON GENERAL HOSPITAL

Medical Ward

1942



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: A-401

DATE: 5/10/42

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: First sick man at this War Relocation Authority center for evacuees of Japanese ancestry. Left to right, head doctor, Leo Schuur, and evacuee doctor, Dr. S. Watake.

Photographer: FRED CLARK



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: A-124

DATE: 5/10/42

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: Evacuees of Japanese ancestry are given a preliminary medical examination upon arrival at this War Relocation Authority center.

Photographer: FRED CLARK



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: A-123

DATE: 5/10/42

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: Evacuees of Japanese ancestry are given a preliminary medical examination upon arrival at this War Relocation Authority center.

Photographer: FRED CLARK



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: A-175

DATE: 5/17/42

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: (Site #1) Arrival of young evacuee cripple of Japanese ancestry by ambulance to this War Relocation Authority center. A doctor is in attendance.

Photographer: FRED CLARK

WAR RELOCATION AUTHORITY
Colorado River Relocation Center
Poston, Arizona

NARRATIVE REPORT
HEALTH, A COOPERATIVE
COMMUNITY MANAGEMENT SERVICE IN W.R.A.

Prepared by
Elizabeth Vickers
Chief Nurse

August, 1945

CHIEF NURSE'S REPORT

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I. HEALTH, A COOPERATIVE COMMUNITY MANAGEMENT SERVICE IN W.R.A.

In the past few years a great deal has been said of the need for communities to be better informed of their health problems and the facilities and services essential to take care of them.

There has also been a great deal said of the need for health workers to broaden their concepts of health and its related social and economic problems. They have been urged to make the facilities and services already available more accessible to the communities and to see that additional facilities and services are provided as the needs are indicated.

Good effort has been made by both community and health groups to establish better understanding of their mutual needs, aims and objectives and to satisfactorily coordinate their interests and functions to attain their ends. Many plans have been devised to facilitate achievement of the ultimate goal, which is: to produce healthful communities with adequate care for the sick and ailing.

A. THE WAR RELOCATION AUTHORITY'S HEALTH PROGRAM

Some limited effort has been made to incorporate health services in community organizations, to function in cooperative relationship with other community services. An unusual demonstration of this type of set-up is to be seen in the War Relocation Authority's program for the evacuated Japanese from the West Coast. In this organization it was planned that in the ten relocation centers where the evacuees were temporarily established, the health services and several other community services, education, community analysis, community activities (recreation, handicrafts, churches) community government, internal security and family welfare should function as closely related sections under the administrative direction of the community management division.

It was planned that the health service program should be all inclusive rather than widely extensive. That is, besides curative and preventive medicine, the health service was to be responsible for all other services that were to promote the health of the community or the individual evacuees therein. Dentistry, nutrition, pharmacy, optometry, laboratory services, hospital and public health nursing including midwifery and nurse aide services, medical and psychiatric social work, health education and sanitation were to function as parts of the one program under the direction of the principal medical officer.

The War Relocation Authority defined the aims of its health program as being; to supply in the centers, medical and health care that would be adequate to meet minimum needs and of a quality recognized as comparable to standard requirements of the U. S. Public Health Service. It was not a part of the original plan to provide service for the correction of obvious health needs of long standing, prior to the establishment of the centers and unrelated to the total welfare of all the people in the center where they existed. It was not planned that surveys and studies be made for the purpose of uncovering additional unrecognized existent and potential needs.

The interpretation and development of the health plans have been the responsibility of the principal medical officer in each center under the guidance of the W.R.A. chief medical officer in Washington and in cooperation with the chief of community management at the center. The chief of the community management division has been directly responsible to the overall director in each center, commonly known as the project director. The project director has been immediately responsible to the director of all the War Relocation Authority which is an agency of the Department of Interior.

The adoption of this plan for the development of the health program on these lines of administrative authority was not based on the pleasure of the health service professionals; nor was the idea accepted with any enthusiasm by the government administrators. It is probably that the selection of the plan was based on the precedent of a somewhat similar arrangement that had been evolved out of the reorganization of the community services in the U. S. Indian Service three or four years before the inception of the W.R.A. program. There was also the time element which was a force of marked influence in the setting up of all W.R.A. So little time could be devoted to the formulation of policies and planning programs as all initial steps had to be taken at a dead run to keep ahead of the army as it poured thousands of evacuees from the West Coast into the unfinished relocation centers in the summer of 1942.

In any event, that was the plan that was accepted, and more or less followed and we have had three years of experience and experimentation with it. We may now logically assume that we are ready to tell something of the results as we prepare for the closing of all W.R.A. centers by January 1946. We trust that the general view point of the lay group of administrators was not expressed by the project director who said that some day he would leave W.R.A. and for the rest of his life he would

pray God that he never again have anything to do with another health service.

B. THE HEALTH PERSONNEL PROBLEM

Next to the problem of setting up administrative policies, that of finding personnel was important and extremely difficult for W.R.A. The needs of the armed forces and the war industries did not leave a wide selection of personnel available in terms of adequate qualifications and experience for work with the Japanese relocation problem. Furthermore, the group had to be assembled quickly and put to work without benefit of any special preparation for the job to be done. People were employed who came from all over this country, the Orient, the Pacific Islands, Puerto Rico, Alaska and Europe.

In the health service there were American Indians, Negroes, and whites from the north, east, south and west of this country, little Spanish girls from Puerto Rico, Jews from Hitler's Europe, and white missionaries from Japan and China in the group of doctors, nurses, medical social workers, dietitians, clinical laboratory technician, hospital administrators and sanitarians that were finally gathered together to help the Japanese health professionals take care of the needs of the people in the centers.

The group represented not only widely varied professional training and experience but great differences in social views and cultural backgrounds. There were the international liberals and the racially prejudiced, the highly skilled and those with very mediocre ability, people of long experience in working with the Japanese and people who had never seen a Japanese before, some with broad vision and appreciation of social and health needs generally and some with only limited understanding of any human needs.

In the evacuee group of trained health workers who came to the centers there were more dentists and optometrists than were needed, about two thirds of the number of doctors needed, a very limited number of graduate nurses, a few clinical laboratory and x-ray technicians, one or two dietitians and many pharmacists.

There were issei, nisei and few kibei in the group, that is, those who were born in Japan, those who were born in this country, and those who were born in this country but were educated in Japan. Some of the issei were educated in this country. In this group there were differences also in train-

ing and experience, social attitudes and cultural backgrounds, based largely on the contrasting Japanese and American influences to which the individuals had been exposed or indoctrinated. They did not represent the homogenous front that was expected by many of the people who came to work with them. Some were very Japanese, many more were very American and still others appeared to have reacted to racial and social influences in a way that prevented them from fitting into either the Japanese or American classification. They seemed to possess a strange mixture of characteristics that made them somewhat unpredictable in their thinking and behavior.

In addition to these differences in the Japanese group that had resulted from their contacts and reactions to peace-time bi-racial influences, there was also the influence of the United States-Japan conflict and their own evacuation and retention in relocation centers to be reckoned with in the W.R.A. organization and administration of its health program.

All in all, the problems of personnel management, administrative authority and the interpretation of actual needs to the evacuee community proved to be of greater importance and more troublesome in the operation of the health service than any or all of the health problems encountered in the entire program.

In the appointed personnel group there was the ever present need for adjustment to center environment which included isolated desert living with plenty of heat and dust; to the evacuees; of certain types of individuals to other individuals with markedly different characteristics; to improvised equipment and the war-enforced shortage of supplies; and to dozens of other situations and contacts throughout the whole of the W.R.A. program. Many of these people were found to be hopelessly maladjusted and had to be released. Others carried on a more or less satisfactory basis and fortunately there were others who made the necessary adjustments and met the needs of the total situation with highly satisfactory results.

An apt statement was made in the early days by a young nisei woman in one of the centers who said that the entire group of appointed personnel in that center could be divided into three classes. First, there were those people who were emotionally unstable anyway and had come to the center to fight the cause of the evacuees, using them as an outlet for their own pent up emotions and doing them no good whatever by the overly sympathetic technique that they used. Second, there were those people who hated the Japanese and came to make use of

an opportunity to "get even" with them in every way possible. And third, there were those, thank heavens, who came to do a job and were intelligent enough to carry on sanely and sensibly in spite of the difficulties encountered.

The evacuee personnel had to meet a greater need for personal adjustment than the appointed personnel. They had been forced to give up their homes, their means of livelihood and their plans for the future when they came to the centers. Their living conditions were not as comfortable. Most of them lived with their families in the crude unfurnished barrack quarters. They ate with their families the food served in the block mess halls which was not always well planned or well cooked, except when they ate at the hospitals during their hours of duty. There the fare was usually better. They were faced by the uncertainties of an unknown future in which they had no way of knowing where their next homes would be, how their children would be educated or how their families would be supported later on. In addition they were often-times forced to assume responsibility and give care to their people to a degree not expected of the appointed personnel members. Evacuee community organization members never hesitated to remind evacuee doctors and nurses that they were all Japanese together in this white man's enforced confinement and that it was of them that the people expected the most in the way of service and appreciation of the common needs. Altho the interests and good will of the appointed personnel health members may have been of the highest order in their behalf, the evacuee community members were not always ready to avail themselves of these advantages. Evacuation had made them distrustful, bitter and suspicious in many cases and there was also the language barrier. From the beginning many of the demands of the evacuees for medical service were based on their mal-adjustment to center life following the emotional shock that they had endured in the evacuation experience. The evacuee doctors and nurses had shared the same hardships and in addition were called upon to give personal services far in excess of what was warranted.

Another adjustment that had to be made by both the evacuee health professionals and the community members was that of accommodating themselves to a community health service meant to be shared by all alike according to administrative arrangement of services to be rendered, and in which the privilege of selection of doctors and dentists was not included. This made for a particularly significant change for the Japanese. On the West Coast they had patronized public services to a very limited degree and had observed highly selective preferences

in their choice of the private services of the doctors and dentists in their own group. There was a marked tendency to continue this practice in the centers by both the professionals and the patients. In fact, quite a little effort was required on the part of the principal medical officers to enforce a reasonably even distribution of professional services to all the people and to eliminate the re-establishment of private practices by some members of both the medical and dental groups.

C. THE GENERAL HEALTH OF THE EVACUEES

Fortunately for everyone concerned the general physical health of the evacuees in the centers has been good. As the situation is a highly controlled one in which outside contacts have been limited, occupations have not been arduous, and adequate food, water, heat, light, fresh air, housing and medical service are provided for all, many of the hazards and much of the effort required in every day life in the usual community have been eliminated.

The occurrence of acute medical and surgical illnesses has not been high. As tuberculosis has always been a health problem of the Japanese people so is this true in the centers. There is also a fairly large number of old people, particularly men, with chronic diseases and infirmities who need custodial care and some medical attention. Mental disease incidence shows a rate below the national average of the country. This record of average good physical health has been repeatedly confused by the heavy demand for service, a practice that has constituted a major problem in health administration and to a lesser degree in project administration throughout the career of W.R.A. up to date. The high number of patient clinic visits for medical, dental, and optometry services, the large amount of elective surgery that has been done, in spite of the W.R.A. ruling to the contrary, the longer than average length of patients stay in W.R.A. hospitals as compared with civilian hospitals is all a part of the same problem. Much special dietary service and special foods have been requested continuously and for innumerable and sundry reasons. One steward's department had in its long list of requested special diets one for practically every known physical ailment and then one labeled "the minus I.Q. diet".

For purposes of interesting illustration in contrast, attention is called to the difference in out-patient clinic attendance at the Poston General Hospital in Poston, Arizona in 1943-1944 and at the Greenville General Hospital in Greenville,

South Carolina in 1940-1941. In Poston, the clinic visits totaled about 80,000 for the medical, dental and optometry services for a population of a little over 11,000. In Greenville the medical clinic visits totaled about 25,000 for a population of around 90,000. Of course, dental and optometry services were not included at the Greenville General Hospital out-patient department and the practice of private physicians in the community made a difference in that total also. However, it was only after concerted effort had been made by the health services, the welfare organizations and the Greenville County Community Council to inform the people of the much needed service that was available to them that the out-patient attendance at the Greenville General Hospital clinics was about doubled and reached the total mentioned. The illustration does not show a fair comparison because of many differences in the two situations that cannot be discussed here.

Free-of-cost service may be considered responsible in part for this demand for W.R.A. health service but close observation and consideration of complaints and requests lead one to assume that the fundamental basis of the bulk of these demands is of a more serious psychological origin. The compulsory evacuation and the retention of the Japanese in the relocation centers has unavoidably resulted in psychic trauma, personality and social mal-adjustment, wholesale resentment and desire for material and spiritual compensation to a degree that can be at least partially estimated on the basis of their demands for excessive amounts of service. Much of the treatment given by the health service has been for the large scale expression of the results of severe mental conflicts and feelings of insecurity based on social and economic uncertainty, racial discrimination, temporary loss of civil rights and dozens of other hurts and hardships that made up the evacuation and relocation experience.

D. THE POSTON SITUATION

It has been said by some W.R.A. authorities that the health service at the Colorado River Relocation Center at Poston, Arizona was more closely associated with the community management division and evacuee community affairs than was the case in any of the other centers.

If this is true, it is probably due to many factors and influences, important among which has been the interest of the community management division heads in health problems; the willingness of the health section to work under community

management; the excellent support evacuee health professionals have given the health program and their real interest in community needs; and the cooperative relationship that has existed between the health section and the evacuee community since both factions became convinced of the other's sincerity and capacity for understanding and usefulness from early experiences together. There are many other influences that might be mentioned.

Our relationship with the two chiefs of community management who have served during this time has provided both them and us with much interesting and broadening experience. Thru that contact we were kept informed of some of the planning and policy making of W.R.A. not only for the Poston Community, but for all W.R.A. centers. We, in turn, discussed details of the health program and organization that were of interest to them, informed them of certain modern trends in health planning as they seemed applicable to this situation, and asked for their assistance in the interpretation of many of our problems that had to do with community and personnel relationships. The avoidance of a paternalistic attitude toward the evacuees was one of our aims upon which there was mutual agreement from the start. The professional and social status of the professional group of evacuees was recognized as being on the same level as that of the appointed personnel professionals and our planning and observation of professional ethics has been so directed.

Neither of the two successive chiefs of community management that we have had here had had experience in this type of health service before; nor had either of the health administrators ever served before in an organization that functioned under the direct administrative control of a community management agency. It was the desire of the doctors in administrative positions to have the health service organized to function as an independent unit in each center, responsible only to limited degrees administratively to the project director of the center and operating under the direct supervision of the Washington Chief Medical Officer who in turn would be responsible only to the Washington director of all W.R.A. This recommendation was not followed, however.

The community representatives, such as, the community council, the local Red Cross, the Man Power Commission and the block managers have been able to voice their opinions and have been continuously called upon to give their assistance and support to the health service by both the health administrators and by the community management administrators.

For a long time in the health service of Poston there were very few appointed personnel members. In fact, until the end of 1943 we had only the principal medical officer and four to six nurses in that group. Fortunately, we realized from the beginning that our strength existed only to the extent that we could establish and maintain good relationships first with our evacuee workers and then thru them with the community. We had to work long and hard to make our efforts yield desirable returns.

We have been guided in our efforts by the past experiences of evacuee and appointed personnel professionals and lay workers and their interpretation of the Poston situation; the response of the evacuee community in terms of their requests for service and also the support given our program by their volunteer aid; the policies of the W.R.A. and also the policies of the U. S. Indian Service. Poston was under the joint administration of the W.R.A. and the U. S. Indian Service for the first year and a half of its existence and was the only center at which that arrangement existed.

The joint administration of the two government agencies inevitably made for somewhat divided authority. We were often-times in a position where a choice in selection of procedure might be made from either the recommended W.R.A. plan or from the recommended Indian Service plan. We were guilty at times of rejecting administrative proposals made by both of those two advisory authorities and striking out on our own to initiate something that was strictly Poston. Occasionally this sort of action lead to grief but generally we got away with it very well. However, when the time came for the U. S. Indian Service to relinquish its claim on us in January 1944 and for W.R.A. to take us over, there was a certain amount of grumbling on the part of W.R.A. as to our waywardness. We, on the whole, however, were very well pleased with ourselves.

We had, by that time, a well established service and were entirely familiar with the Poston health needs. Our medical staff remained adequate even tho we lost some outstandingly fine young doctors when all the Japanese-American group relocated to the outside or volunteered for the army. Our nursing staff was stabilized following the relocation of the American trained Japanese nurses by the introduction of Negro nurses to the service. These nurses have made a fine adjustment to relocation needs and a lasting contribution to the program. Our nurse's aide training program was established in the first couple of months of the center's existence and

was developed to the level of preparing the young evacuee girls who volunteered to carry the bulk of the nursing load under the supervision of a limited number of graduate nurses. The success of this program has been three-fold. It has stimulated the interest of the young Japanese-American girls in nursing and about one third of the more than two hundred girls who have received nurse's aide training have relocated from the Poston Health Service to nursing schools all over the country. Young girls have continued to come in adequate numbers to take the course and at the same time supply the hospital with much needed nursing service. Our relationship with the community has been strengthened by both of the above mentioned factors. So we believe that our nurse's aide training program has promoted our standing with the community as much as any other influence.

Training programs on much smaller scales were organized for lay workers in all other sections of the health service. In the dietetic service, the x-ray service, the clinical laboratory, the medical record room, the medical, dental and optometry clinics, the medical supply service, the pharmacy, the sanitation department and the public health service, groups of lay workers were trained and replaced over and over as seasoned workers went on to new fields of endeavor and new learners came to take their places. Our total average number from 225 to 275 evacuee workers kept us in indirect contact with quite a few families in the three camps of Poston. As our group was constantly changing, our community contacts were continuously broadened, and we trust, strengthened as time passed.

We became increasingly aware of this influence as we progressed from the early days of struggling to establish an understanding of the aims and plans of the health service to the time when we and the service were looked upon as old timers whose strengths and weaknesses were well known to all Poston. In the early days from one half to two thirds of the time of the principal medical officer and the chief nurse were devoted to conferences with disgruntled evacuee community organization members or single individuals who were arguing for what they considered their rights and just dues; to the settlement of disputes among the different factions in the evacuee personnel group; to the explanation of the functions, administrative status and professional standards of the health service and the limitations on the procurement of supplies and equipment. Many hours were devoted to the discussion of such topics as the need for W.R.A. to purchase special kinds of raw fish and shoyu sauce and their value in the patients' diet; whether nurse's aides should work in shifts of two or three hours as recommended by the evacuee

Community council and the evacuee manpower commission or in the eight hour shifts prescribed by us; why a patient can only be admitted to the hospital on the order of a doctor and not on the order of the local Red Cross, the community council or a block manager. The demand for drugs was high, particularly all the different kinds of vitamins advertised. So considerable time had to be given to breaking down the demand for promiscuous use of drugs and the indiscriminate dispensing of same thru our own clinic pharmacies by some of our ill-advised workers.

Most of the evacuee attitudes on health, as expressed in the center, were quite different, we were told, from the practices of the Japanese on the West Coast. There they used medical aid sparingly and made use of the public health facilities to a very limited degree. They generally lived on somewhat frugal diet, they worked long, hard, hours and they were not addicted to the use of all the high sounding drugs that they read about in the newspaper and the magazine ads. So all in all, the mass psychological change wrought by the evacuation of the Japanese and their forced retention in camps was a matter of daily concern to the professional members of the health service both in terms of actual treatment and the need for broad understanding of social ills.

Over and over again the patience and endurance of both the appointed and evacuee personnel were sorely tried as we were repeatedly attacked from the front, rear, and both sides by apprehensive, hysterical groups and individual evacuees who meant to see justice exercised as they saw the need. They wished to realize some compensation for their own hurt pride and frustration at no matter what expense.

From the beginning we enjoyed the excellent cooperation and a fine expression of loyalty in the health service between most of the evacuee professionals and nearly all of our few appointed personnel members. Over and over, evacuee doctors, nurses and others made unusual effort to promote good relationships between the health group and the community and between the health administrators and the lay workers in the hospital. It was not always possible for peace and harmony to be achieved but not once did some of them fail to make commendable effort. Certainly our final success in being able to carry on with a reasonable degree of understanding and good rapport was a matter of greater credit to them than us. On some occasions we were completely indebted to them for the settlement of tiresome and annoying interferences and also for the prevention of catastrophe and perhaps tragedy by their level-headed reasoning and calm approach to some disturbing problems,

During the first summer the evacuees were particularly upset by the extreme heat of the desert, the frightful dust storms, poor food in the mess halls, comfortless barrack living without furniture, and the lack of many supplies and equipment at the hospital along with the influence of the evacuation experiences that had preceded all of this. Troublesome incidences occurred again and again at the hospital and originated in everything from a dispute in the kitchen as to whether the patients should be served carrots and stewed onions at the same meal, or whether we had deliberately let some patient die without making proper effort to save his life, to who had the final say in administrative problems - the evacuee community or the principal medical officer.

We were extremely grateful to the young evacuee professionals for their courage and ability to handle their people in time of emotional stress and under the pressure of hysterical fears. The time came when we did not always appear to answer for the alleged lack of ambulance service, for the demand for more rice on the patients' trays, the requests for more courtesy from the nisei to the issei, for the failure to hospitalize all people who requested it or for whom it was requested, and for more or less of everything imaginable to restless, frustrated minds. The problems, facts, implications and possibilities were discussed with someone or more of the evacuee professionals and they represented us as our ambassadors. We, in turn, asked thru these representatives for more nurse's aides to train as replacements for those going out to seek their career in the middle west and the east, for more workers to be trained in other services, for more care and attention to be provided by the community people for the old and infirm in the blocks instead of the block residents asking the hospital to take all of them in and make bed patients of them.

The arrangement worked very well on the whole and when once in a while a low point was reached in our community-health service relationship it would be then that the chief of the community management division would be consulted and the aid of the project director enlisted by both the community evacuees and the health section. Occasionally the evacuees would go so far as to notify Mr. Dillon Myer, W.R.A. director in Washington that things were not what they should be in Poston. At other times internal friction in the health personnel group would develop over the question of service in some phase of the program to the community. Occasionally this would reach the point where a little adjustment was needed and the chief of community management would again be called in for advice and council.

At those times when the whole project was involved in a major disturbance of one kind or another the hospital was seldom included. When the big strike of November 1942 was started, the hospital was notified that it would not be disturbed and that its workers, along with those in subsistence, the police and fire departments, would continue to work. During the five days that the strike lasted the hospital remained quiet and functioned as usual with all the workers on the job. There was practically nothing heard of the trouble so near at hand except in private discussion. We admitted and took care of three victims of beatings that preceded the strike and housed three other potential victims who were threatened with violence.

E. AFTER MANY OF THE EVACUEE PROFESSIONALS LEFT POSTON

The Poston health service experienced what might well be called the second period of its existence when many of those evacuee professionals who had supported the program so faithfully and diligently relocated. By the end of 1943 and the beginning of 1944 very few of the old timers were left. We had acquired new appointed personnel members by that time in the positions of hospital administrator, dietitian, medical social workers, sanitarian and three or four doctors. We had always had four to six or seven nurses in that group but the negro nurses who started to come in the summer of 1943 were the first ones who stayed with us for any reasonable length of time except the few white nurses who were in top positions.

With the change came breaks in well established practices, new attitudes toward the evacuees and the service, the institution of programs that we had not had before and new interpretations of the needs and functions of the situation and service.

We had orientation all over again. The newcomers had to learn something of the relocation program, the evacuees, the aims and objectives of the health service and what kind of people we were who had had a hand in its organization. We had to learn something about them.

The greatest difference and the one that brought the most marked changes was in the attitudes of the new doctors. W.R.A. was not entirely fortunate in the doctors they were able to employ. There were some good ones and many not so good. They were paid reasonably acceptable salaries of from \$4600 to \$5600 per year. Their living quarters were generally comfortable, sometimes more so than any other personnel quarters at the center. They were not called upon to give a great deal of extra service out of

hours by the evacuee residents in the community as the evacuee doctors were.

The evacuee doctors had worked long, hard hours at whatever service they needed to give. They had done so with fine attitudes toward the patients (both evacuees and appointed personnel), their medical contemporaries and all other members of the health service staff and the community. They worked for nineteen dollars a month.

We missed the evacuee doctors who helped us organize the program very much when they first left us. As time passed we became more aware of our good fortune in having had them here. We missed their courtesy, their willingness to give a helping hand on any and all occasions when we needed it and their excellent interest and cooperation in all phases of the health program. And as much as anything else we missed our friendship with them as we did with the evacuee nurses. We had all come to know each other quite well and had found that we had many interests in common besides those experiences which we had shared together from early beginnings in the heat and dust of the desert in those first days.

As a group, the negro nurses have made a better adjustment to Poston than appointed personnel members in other sections of the health section generally. They have gotten along well with the evacuees, they have shown good interest in the health program and they have not complained of their environment with its lack of comforts and recreation as so many other personnel members have. They have been sympathetic in their attitudes toward the evacuation and the relocation program without bearing too far to the right or left. On the whole, their total contribution to the nursing service surpasses that of both the white nurses and the evacuee nurses that have worked in the same positions that they have held. They are the only ones who have been ready and willing to do everything requested of them within their range of ability, such as, operating room and delivery room duty, classroom teaching for nurses aides, and supervision of nurses aides on the wards, night duty as well as day duty, out patient service as needed, all of which they have done with efficiency and ease.

The handling of the problems that developed within the appointed personnel group of the health service became a very different matter than those affairs had been in the more strictly evacuee set up. There were comparable situations and difficulties but the means of finding the solutions were different. We could not

turn to our evacuee advisers and ask for a happy settlement of disputes and controversies as we had done heretofore and were somewhat amazed to find how much we had come to depend on them. We were chagrined when we could not ask them to offer appeasement and negotiate peace in response to demands for excess supplies, personal service, more comforts than Poston had and for change of many other things that were wrong, because the complaints came from appointed personnel instead of evacuees. All reasonably well balanced members of the appointed personnel were taxed to maintain a fair semblance of cooperative relationship with the more erratic members of the health group and to influence them toward acceptable and conservative action in their professional and personal dealings with the evacuees, their co-workers, and the service. The results were often far from pleasing.

We also noticed a change in the nature of our community contacts, particularly when the young doctors were leaving. Much more was heard and seen of the evacuee community council, the manpower commission, and the block managers. In a short time the concern of these groups on hospital and clinic affairs developed into some minor political issues. Movements were started to draft young girls to come in and serve as nurse's aides by a set quota of one girl from each block. Action was taken in the form of appeal to the U. S. Department of Justice to have interned Japanese doctors paroled and sent to Poston. There was much commotion involving community political groups and project administration when Camp III clinic emergency ambulance service was first discontinued between the hours of 12 midnight and 8 a.m. The Camp I ambulance night service was thought by the health section heads to be adequate for Camp III also, but not by the community organizations. The hiring and firing of ambulance drivers became another major issue for a time and so did the use of gasoline. On and on we went from one thing to another.

By this time our most dependable evacuee representatives who were willing to take active part in these affairs and work towards a satisfactory settlement of controversies, all kinds of demands for service and the labor shortage, were two men only. Both were on our staff, one in the mess hall where he struggled with the food and employment situation and was of great help to the dietitian in establishing a more efficient service there, the other one was technically trained for x-ray work and did an excellent job in that department. He also assisted in several other services either in advisory capacity or in actual performance, such as, giving anesthesia, or doing

basal metabolism testing, interpreting, escorting mental patients for off-project care and so on. His total contribution to the health service has been tremendous. As a diplomat and promoter of good will, in the help he has given to the organization of the health service and to the project administration and in his endeavors to improve understanding between individuals in both the evacuee or appointed personnel group, he has worked untiringly. It was inevitable that such a man should be greatly admired and jealously envied by members of both groups.

Our situation was further complicated in 1944 by the transfer of the assistant chief nurse to another center to become the chief nurse there and the transfer of the principal medical officer to the Washington office to become the chief medical officer for all W.R.A. We all felt the loss of these friends and professional associates very keenly.

From early in 1944, off project medical care became extremely popular and it seemed that every evacuee in the center wanted to see a specialist of some kind. There were dozens of requests to go outside at W.R.A. expense to see medical and surgical specialists for disorders of the stomach, kidneys, eyes, ear, skin, bones, chest and in fact for about all known physical ailments of the human body. The number of requests that received medical approval as being essential has not been great but outside specialists continue to be very popular in the minds of the evacuees. Some of them feel that they should not plan to relocate until some ailment that they have had for ten or fifteen years has been corrected. Others are justified in their claim of need for correction of physical conditions before attempting to resettle outside if their handicap is of recent development and constitutes a problem in making a living.

All in all, much attention continues to be centered around medical needs now that the centers are closing as has been true of the entire Poston experience.

F. POSTON HEALTH SERVICE RELATIONSHIPS WITH OTHER PROJECT DIVISIONS

The health service has never been as closely associated with the other sections and divisions as it should have been. The closest and most friendly relationships have existed with the schools and family welfare which has lately been incorporated with the relocation division. There has always been some conflict in what the other sections seemed to think the health service should be doing and in what the health service has decided it would do. There has been too little effort on the

part of the health group in keeping the other sections informed of their aims and the plans that they have set up to realize these aims. There has been some division of opinion among the health workers as to the details of the program to be carried and its ultimate goal.

On the other hand, there has never been much interest expressed on the part of the other sections to learn a great deal about the health section program. They have generally indicated concern mostly for the immediate need of the moment and appeared relatively unimpressed by the health section's record of total achievements or plans for future. There has appeared to be the marked influence of preconceived notions of what was to be expected from a health service which seemed to be largely restricted to the actual medical service given by doctors.

It is likely that a cooperative relationship between the sections would have existed to a much more limited degree than has been true without the guidance of the two chiefs of community management that Poston has had. A fair amount of the cooperative action that has been initiated has been at the instigation or on the recommendation of one or the other of the chiefs and has led, to some extent, to the recognition of need for further interchange of thinking and recommendations, particularly with the schools and welfare. Of course W.R.A. regulations and policies have had some bearing on these developments but undoubtedly the results have totaled a more fruitful yield because of the influence of the community management chiefs.

At the same time, the health section has always complained that the entire community management division, including the chief, was unappreciative and pitifully uninformed of the meaning, in terms of future welfare, of the volume of work accomplished in our service. The outstanding achievements that we have spoken of most frequently have been the one hundred percent immunization against contagion of all evacuee children in Poston; the medical examination, including of chest, of over four thousand of the five thousand and more school children; the tuberculosis survey with the subsequent diagnosis and treatment of many heretofore unrecognized cases; and the large amount of out-patient service that we have given.

An entirely adequate coordination of the interests and activities of the community services has been impossible because of the very nature of the Poston program. A disproportionate centering of interest and attention on certain phases of the total program was inevitable from the start because of the peculiar-

ities and difficulties of the circumstances upon which the whole project was based. In the beginning all activities were largely centered on the struggle for existence in an all but unendurably physical environment. The programs immediately established under community management were to provide means of meeting essential needs, such as, welfare and health, and there were also a limited number that offered diversion and recreation for the relief of the emotional stress and strain under which the evacuees were laboring. Little attention could be spared for coordination and integration of these first services by the administrators. Their development became more individualized and independent in their inception than may be considered desirable in a project of this kind. However, because of the circumstances, this type of development was not frowned upon officially as it was felt that progress and results were the essential outcomes and far more vital at that time than trying to discover ways and means of achieving well-coordinated sectional inter-relationships. The situation was never greatly changed as later on when more time might have been given to the strengthening of the organization and functioning of the sections in their association with each other, there was the continuous turnover in personnel and the never ending job of persuading certain types of individuals to work with other very different types of individuals, the struggle for supplies and equipment and dozens of other needs that kept community management occupied.

Furthermore, people did not come to Poston to take root, neither the evacuees nor the appointed personnel. Of the two groups, perhaps the evacuees indicated a more consistent trend toward permanency in their thinking and planning than did the appointed personnel. Those members of the latter group who were most deeply concerned for the welfare of the evacuees in the beginning were influenced somewhat in their attitudes by the expectation that the evacuees would be soon released from the centers or the centers might be turned over to their administration. For many other people of the same group it was difficult to see in Poston more than a war time job with higher pay than they had ever had before and little responsibility or opportunity to make a lasting contribution. Seldom did anyone outside of the administrative group speak in terms of transferring experience acquired in Poston to the development of other pioneer situations where similar needs might exist.

Not many people in appointed personnel in Poston have liked each other very well. They have seemed to have few common interests outside their work and they have not always found a congenial meeting ground there. Individual effort in the

creation of social opportunities that would provide means of becoming better acquainted with one's neighbors and associates has been limited. Administrative effort to have recreation provided by personnel for themselves has met with repeated failure. People who are not interested in each other do not find it easy to work or play together productively. With lack of interest comes an indifference that can be very deadly indeed. Illuminating examples of these attitudes may be seen in the personnel mess hall in Camp I where very few people say good morning to each other and one has to practically strike some of one's neighbors at the table a blow in the ribs to get the jam passed.

We always attributed some of our good personnel relationships in the health section between the evacuees and the few appointed personnel members of the early days, to the fact that we included recreation as a part of the planning program. This was done at the insistence of the evacuees who pointed out that we must have some fun to keep up our morale. In the first few weeks of our struggle here when we were endeavoring to get a few supplies and equipment together and it seemed all but impossible for us to survive the extreme heat and dust, we had a big party one night which included everyone in the health section and a few people from other sections. We were persuaded to have this first party by one of the young evacuee doctors and we were so impressed by our success that our routine program from that time until many of the young evacuees left, included plenty of parties with entertainment programs and music, luncheons, dinners and even a couple of weddings.

The evacuees provided outdoor pingpong, badminton and tennis for themselves on the hospital grounds and enjoyed these games at noon hour and after work hours when the weather was cool enough. This we felt was also a big help to the morale of the group and improved total relationships all around. We felt the loss of these recreational and social affairs very much after they were reduced in number or abandoned altogether.

It is hard to imagine a situation where there has been greater need for continuous operation of an orientation program for employees. The unprecedented incidence of the evacuation and its attendant relocation movement, the recruitment of workers from all over this country and the acquisition of some new arrivals from other countries, the frequent turnover of personnel. The general lack of knowledge among personnel of the Japanese people and their customs and culture, the relationship of the W.R.A. program to the U. S. War situation, and many other

aspects of the total situation made adequate orientation of employees imperative. But no such program was ever established and as far as is known there was never a plan for one that would include all divisions and sections in the entire project. Some few section and division heads carried on limited programs of their own innovation that were planned to meet the more pressing needs of their departments. There were hundreds of meetings and conferences held for the discussion of special problems and various particular phases of the Poston program but these were attended, of course, by selected individuals. The plan for weekly staff meetings attended by the division and some section heads may have been meant to serve as a means of having all employees informed of those official affairs that they needed to know about but it didn't work that way. Either the representatives didn't get much out of the meetings or they didn't bother to pass much general information along to their subordinates except sometimes when the news was of startling and unusual nature.

It was impossible under such circumstances for there to be much of a feeling of "belongingness" among the employees which every organization must have to be properly supported. This lack of a very vital essential in all democratic administrative planning finally led to bitter complaints on the part of some of the administrators as to the indifference and lack of cooperative spirit among some of the employees and between some of the divisions and sections. Wastefulness was pointed out as one of our great faults and included in the accusations of our laxness were not only the gross destructive waste and misuse of essential materials, equipment and supplies, but also negligence of duty in terms of poor observation of work hours, the lack of proper sense of responsibility toward our jobs and the evasiveness, the lack of loyalty to the W.R.A. program and so on. One never knew whether these same administrators who voiced their complaints with such strong feeling ever realized that a good part of the original fault was theirs and their predecessors in not seeing the need or insisting upon more thorough training of W.R.A. workers for W.R.A. jobs, or making more effort to increase understanding, improve attitudes and work habits and weeding out those who were hopelessly undesirable as members of the organization more promptly.

At the same time, the administrators were new at their jobs too and they could not be criticized too severely as they had not had the advantage of proper orientation either. Certainly we have been most fortunate in Poston in the type of men we have had here in the top administrative positions and it is

possible that no group of administrators in this country have had to face such particularly trying problems as the W.R.A. group.

An exaggeration of the lack of understanding among W.R.A. employees was expressed one day by a woman employee of some nine months on the job in poston when she held up her hand at a conference meeting, "I've always wanted to know something," she said to the chairman, "why did the Japanese come to Poston?"

Our association with the schools had been greatly promoted by the fact that first one and then another of our health staff spent most of their time for three years in working on school children's health problems. Thru their efforts and contacts much attention has been given to medical and dental care, routine examination, chest x-rays, food habits, interviews with parents and in fact everything and far more than such a service should have included according to strictly W.R.A. planning. The doctors have been most cooperative and interested in this program and have generously given their time to the needs of the children. Much of the work has been accomplished with the help of the teachers, who in turn have been taught a great deal about the observation and interpretation of health needs and the proper approach in the management of problems that they have discovered. All in all, the health program for the school children has yielded some amazingly profitable results.

In the last months of our work in Poston, all emphasis has been on relocation and the closing of the centers. In all of this our interests have been closely tied in with those of the relocation-welfare service as so many of their problems are health ones or are closely related. Our contact with welfare has always been a fairly close one as we have shared with them responsibilities in service for the old and depednent. The chronically ill and also the provision of some essential services related to health has also been shared with them. The welfare and health sections have probably been better informed of each others programs than have any other sections in the community management division. For these reasons, we have been more friendly with welfare than with any of the other sections and have always maintained a work-relationship that was reasonably efficient. As the load of relocation and welfare combined is now extremely heavy, the coordination of our relationship with them is the full time job of our medical social worker.

G. CONCLUSIONS

Certain phases of the organization and functioning of the

Poston Health Section as a community management service held the promise of desirable pattern for the development of other community health services. As this program was established on an emergency basis to meet needs of temporary duration, some of the factors that figured importantly here would not be encountered in a normal situation. However, many of the essentials of sound planning as recognized in Poston may be considered applicable to community health needs generally and some of the weaknesses may be noted as hazards to be avoided in other planning programs.

The success of our training programs for lay workers has far surpassed our expectations. We heartily recommend more extensive use of community members as hospital and public health nurses' aides, dietitians' aides, x-ray and clinical laboratory technicians' aides and sanitarians' helpers if good training programs may be provided to prepare the workers for the jobs to be done and adequate professional supervision is available.

A more general and widespread use of lay people as health professionals' helpers would do much to break down some of the professionally supported barriers to more intelligent lay understanding of health problems. Furthermore, if health services are to be made available to all as advocated by the Wagner, Murray, Dingell Bill and recommended by both health and social welfare leaders, will not communities be obliged to supply subsidiary workers to support the increase in health programs, as there have never been enough well trained health professionals either in years of economic depression or years of prosperity? The standards and level of technical efficiency and expertness would vary according to types of communities. In many areas a completely adequate medical set up would be out of the question and supplementary services would need to be provided by the nearby urban centers.

In the Poston situation, we attribute a large part of whatever success that we have enjoyed more to the good rapport that has existed between the health administration, health workers and the community than to any other single factor. We were particularly fortunate to have had here a principle medical officer from August 1942 to October 1944 who had the happy faculty of getting along with people and being easy to work with. Even the most rebellious of the evacuees finally got around to telling him that altho they may have had their differences with him in the beginning they were happy to have had him here as the head of the health service and shall be ever grateful to him for all he accomplished both as a doctor and as a friend interested in their welfare. Such a tribute in a relocation

center is one to be highly treasured.

It has seemed to be a good arrangement to have preventive and curative medicine and all other services that promote health in the community included in the same program under the direction of the one medical officer. Such a plan makes for a greater appreciation of the total health needs in the community by the health workers themselves and their contributions to the program are increased accordingly. Although the public health, outpatient clinic and hospital nursing services were never combined to function satisfactorily under one head in the Poston nursing program, the difficulty was in nursing attitudes rather than in functional organization. Such an arrangement, including the assignment of nurses interchangeably according to needs throughout the service, makes for more economical distribution of the nursing staff, better integration and greater efficiency in the different phases of the service and the work of the nurses becomes much more interesting and meaningful in terms of the total job to be done.

Health, operating as a section of the Poston community management division, has provided an experience that has served more as an introduction to such an administrative and cooperative arrangement rather than to produce positive outcomes upon which recommendations for such a program might be based. The plan was never fully developed as originally set up either in its administrative or cooperative phase. The interpretation of the basic motive of such an organization plan by its early promoters in the Washington community management administration differed from that by the Poston community management and health administrators who actually developed the program. That is, health activities were never so extensively integrated in all other activities of the community management division sections as was advocated by the community management planners at the time of the inception of W.R.A.

The Poston situation was much too unsettled and time and personnel too limited to permit a more intensive development of the health organization as a community management service. Such a program should have the advantages of a peacetime situation in a permanent community, and be carried by a personnel with adequate understanding of the aims and purposes of such a service along with a real appreciation and interest in community needs. Community interest and participation in health should be so directed as to provide worthwhile support and to increase availability of certain types of services.

WAR RELOCATION AUTHORITY
Colorado River Relocation Center
Poston, Arizona

FINAL REPORT
SANITATION PROGRAM
AT POSTON

Ora A. Dennis
Sanitarian

SANITARIAN'S REPORT

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I. GENERAL ORGANIZATION AND POLICY

Sanitation was organized as a division of the Public Health Department by Mr. George Kido, an entomologist. There was a bacteriologist in charge of water supply inspections and chlorination, milk supply and sewage disposal. There was a garbage crew, insect and rodent control crew and sanitary inspectors for mess halls, latrines and block sanitation. The entomologist and bacteriologist soon relocated leaving people with little scientific training in the division. When the writer arrived on the Project, February 24, 1944, the division of Sanitation had 26 employees including six garbage collectors who worked at Unit III. There was a supervisor at each of the three camps. April 1, 1944 the staff was reduced to eleven sanitary inspectors and three clerk-typists. Three inspectors were assigned to Unit II, three to Unit III, and five to Unit I. Another cut in September, 1944 reduced the total number of sanitary inspectors to seven for all three units. Weekly inspections were made of all Project facilities. Sanitary inspectors made weekly reports which the writer used together with personal observations and inspections to make the Weekly Project Sanitation Report.

Mr. T. R. Nishimoto, supervisor of the division of sanitation for the period prior to February 24, 1944, stated that he maintained a large staff of sanitary inspectors in order that insanitary conditions could be corrected as soon as possible. He felt that there often was too much delay between recommendations and actual performance of minor corrective measures. According to the standard description for the position of sanitarian issued June 30, 1943 it was planned that the sanitarian should inform the proper division or department head of insanitary conditions and make recommendations necessary to correct such conditions. With few exceptions this became the policy in all sanitary matters after February 24, 1944. The assistant project director in charge of operations once expressed the opinion that he felt that annual or bi-annual inspections would be sufficient. This is the policy of some state, county and city sanitation departments, but the War Relocation Authority no doubt realized that the use of untrained evacuee personnel would cause some haphazard maintenance, operation and construction.

Minimum United States Public Health Standards and the Arizona State Sanitary Code were used as criteria.

II. A REVIEW OF OBJECTIVES AND ACCOMPLISHMENTS

A. Water Supply

The objective was to maintain a safe water supply by inspecting water supply facilities for sources of contamination, collecting samples for bacteriological or chemical analysis and review-

ing results of such tests, and making orthotolidine tests in order that proper and adequate chlorination could be maintained.

Unfortunately mains, wells and storage facilities were not sterilized prior to use and this may have contributed to the prevalence of diarrhea in the early days of the project. This lack of sterilization at least was responsible for many positive bacteriological tests. At Unit I results of bacteriological examinations were positive very frequently until February, 1944. At that time the mains, storage tanks and three of the four wells were sterilized using approximately 50 ppm of chlorine.

1. Inspecting Water Supply Facilities

Inspections were made constantly to eliminate any possible source of contamination. Defects found by the writer included such items as wells which were not sealed, open vent holes in well pump bases, well pumps without elevated foundations (i.e. pump on pumphouse floor) uncovered storage tanks at the slaughter house and at the Unit I poultry farm, back siphonage from uncovered storage tank to well due to inlet pipe four feet below top of tank and no check valve, and submerged inlets in fish ponds.

All defects were corrected with one exception. Pumps at seven wells were not placed on elevated foundations, but since they were already installed the writer did not recommend that changes be made. Recommendations were made to prevent surface water entering these wells in case of flooding. Such contamination by surface water had occurred during heavy rains at the W.R.A. Parker Warehouse well number 1. In a few instances from two to six months elapsed between the first recommendation to correct a defect and actual performances of the work. This was especially true of wells used exclusively by the agricultural department, and was due to an underestimation of the importance of these defects by some employees of the Operations Division. Gradually the writer found that Mr. Robert Parnell, senior engineer and later acting chief of the Operations Division, was very cooperative and saw that corrections were made as soon as possible.

2. Bacteriological and Chemical Examinations

Samples were collected weekly for bacteriological examination. Between March 1, 1944 and June 2, 1945 a total of 652 samples was examined. Of this number 102 samples had one or more of the five 10 ml. portions confirmed for the Coli-aerogenes group of organisms. Samples were collected from each of the twelve wells once every four weeks, and at least two samples were collected every week from distribution system at each unit. When a positive result was reported additional samples from the same source were examined until two consecutive negative reports were received on samples collected on different days.

A record of bacteriological examinations of each well was made. Only samples from the well at the slaughter house were consistently reported not-potable bacteriologically. Samples collected from the Unit I poultry farm were potable after back siphonage from the uncovered storage tank was corrected and the well sterilized. However, samples collected from the distribution system were consistently non-potable bacteriologically. The storage tank was covered and sterilized but the mains were not sterilized as agricultural workers could not be convinced that this could be done without endangering the lives of the chickens. Water from this source was the only unchlorinated water provided by the Colorado River Relocation Authority.

Of the 652 samples examined 484 were examined at the Poston General Hospital, 140 samples were sent to the Ninth Service Command Laboratory at Precidio of Monterey, California and 18 samples were sent to the Arizona State Laboratory at Phoenix, Arizona. Examination of water, milk and sewage at the center hospital laboratory was started during April 1944. A letter from the chief medical officer in the Washington office dated February 23, 1944 stated that sanitary examinations would be made in the Health Section laboratory in order to avoid duplication and that, "the center sanitarian would take necessary samples, make arrangements for the test with the laboratory, and secure the laboratory report on water, milk and sewage." The chief laboratory technician refused to perform the sanitary examinations and was opposed to the sanitary examinations being made in what she

called the clinical laboratory. She frankly stated this opposition to the W.R.A. sanitary engineer from the Washington office on March 1, 1944, and later to the Poston principal medical officer. Since this technician was not a member of the appointed staff the principal medical officer felt that nothing could be done about her attitude. Although the writer did train sanitary inspectors to perform examinations in the laboratory the full cooperation of the laboratory technician was not received. The two best workers trained quit because it was too unpleasant working in the laboratory. One, a college graduate, stated that the laboratory technician was drunk with power. Considerable space has been devoted to this matter because agitation by this technician was a constant source of irritation, and the writer felt that this technician could have been replaced by someone more cooperative.

Chemical analysis was made on several samples from Unit I wells. The water was very hard (300 to 490 ppm. total hardness) and the dissolved solids were between 1100 ppm. and 1470 ppm.

3. Chlorination

At Units II and III Wallace and Tiernan gas chlorinators were always used. Similar chlorinators were not installed at Unit I until September 27, 1943. Prior to that date liquid hypochlorinators were used. It was difficult to maintain adequate residuals with the hypo-chlorinators and breakdowns were frequent. The hypo-chlorinators were maintained and operated by the sanitary inspectors, but when gas chlorinators were installed the Utility-maintenance department took over the maintenance of all water supply facilities. The sanitary inspectors continued to make daily orthotolidine tests and notified the maintenance department if chlorine residuals were too high or too low. Prior to June, 1944 the maintenance department employed a man for water and sewage who conscientiously did his best to maintain adequate and consistent chlorination and who cooperated very well with the sanitation department.

Chlorination at the slaughter house became a controversial matter when the project veterinarian and an assistant farm superintendent stated that chlorinated

water was causing the death of swine. Large numbers of swine died during December, 1944 and January and February, 1945. With one exception chlorine residuals were less than 0.5 ppm. during the afore-mentioned period and the water was not chlorinated at all for half of that period. No written material could be found to substantiate the claims of the harmful effect of chlorination on swine and it was recommended that chlorination be resumed. The project veterinarian stated that if chlorination were resumed the death of all swine would be attributed to the chlorinated water. Chlorination was resumed on February 13, 1945 and property loss records prepared by the aforementioned assistant farm superintendent for the period February 1 to 15 attributed the death of 39 swine to an overdose of chlorine in the water. Chlorine residuals were never excessive after chlorination was resumed and were not greater than 0.1 ppm. until April, 1945. In fact, it was April, 1945 before potable bacteriological reports were received as chlorination was inadequate. This demonstrates that education regarding chlorination of water supplies is still necessary.

B. Milk

The project was fortunate in having its milk supplied by a large Los Angeles Dairy. The milk contract provided for delivery of Type 2 pasteurized milk or in case of shortage for Type 3 pasteurized milk. Milk delivered was usually grade A, pasteurized and homogenized and in one quart containers. Project arrival temperatures were usually well under 50 degrees .F. After May 1, 1944 standard plate counts were made on two samples per week in the Health Section Laboratory.

Plate counts were less than 10,000 colonies per cubic centimeter except for a three weeks period during December, 1944. Due to a shortage of higher quality milk Type 3 milk in plain unlabeled cartons was delivered to the project and also sold at the community enterprise store. Plate counts were taken four or five times a week during this period and counts were as high as 275,000 colonies per cc. Project officials were notified immediately of the high counts and informed that the retail sale of unlabeled milk at the store violated Arizona laws. The project steward phoned the dairy officials in Los Angeles several times during this period.

C. Sewage Disposal

Primary treatment of sewage was provided at each of the

three units. Treatment facilities were similar in design at each unit and included bar screens, sedimentation with mechanical clarifier, two stage sludge digestion, sludge beds and lagooning of the effluent. Chlorine was added to the untreated sewage in the wet well and to the clarifier effluent for odor control purposes. Reductions were about average for primary treatment. Settleable solids were reduced 90 to 99 per cent, suspended solids 60 to 70 percent and biochemical oxygen demand (B.O.D.) 30 to 60 percent. Reductions in B.O.D. were inconsistent due in part to laboratory technique.

Structural, design and operational defects in the plants were listed by Arnold Nesheim, Associate Sanitary Engineer of the U.S.E.D. after an inspection in March, 1943. Most structural and design defects were soon made. The last to be made was provision for sufficient ponding area for the effluent from the Unit I plant. Use of this new ponding area also eliminated complaints of sewage backing up from the plant wet well through block latrine floor drains during periods of power outage. Complaints of sewage backing up through the latrine drains were made to the Spanish Consul by the residents. The writer first noticed this condition during March 1944 in blocks 37 and 54 and suggested the use of auxiliary gasoline driven pumps to keep the level of sewage down in the wet well. During such periods the wet well overflow could not handle the flow due to the height of the sewage in the ponding area.

The old ponding area was not cleared and was within one-fourth mile of the Southwest corner of Unit I and provided an odor and mosquito nuisance. Breaks in the dike allowed effluent to pond into roadbed ditches along the main highway between the center units during the spring of 1943. Other construction was usually considered more important than the construction of sewage ponds. However, the new ponding area was in use by the first week in September, 1944 and eliminated all ponding problems.

During the summer of 1944 small breaks in the dikes of the Unit II sewage plant lagoon allowed effluent to enter a near by irrigation waste water drain which continued down the valley through some Indian grazing land. The dilution factor was probably high, but it was constantly recommended that such breaks be repaired.

Defects in operation were constantly present due to inexperienced and untrained personnel, but in general results were as satisfactory as could be expected.

D. Garbage and Rubbish Disposal

Poston used the separate garbage system. Food wastes were separated into edible (for hogs) and non-edible garbage cans. Metal and glass were placed together and combustible material made another separation. Problems were constantly occurring such as; strikes of the collection crews, burying of food waste by kitchen crews within the blocks or fire breaks during such strikes; refusal of collection crews to provide service for Rainbow Village, the personnel housing area, and for the community enterprise market near Rainbow Village; dumping unedible garbage without providing for burial; and when trenches were provided for burial failure to cover or insufficient coverage of garbage for periods up to six weeks; and failure of residents, evacuee and appointed staff, to separate metal and glass and often food from combustible material burned within the blocks.

Disposal of non-edible garbage was the biggest difficulty. Trenches were provided for this garbage but adequate covering was a problem. Use of manual labor was not successful as it was impossible to keep workers and when workers were employed only two or three inches of earth were placed over the garbage. Covering with a bulldozer was the only alternative. This was expensive and as there was a shortage of equipment and operators, the operations division was reluctant to use this method. During the middle of August, 1944 these trenches were a mass of fly larvae and flies. Dr. Thompson, chief medical officer from the Washington office, made a routine visit at this time and while on the project spoke to the project director of this condition. Thereafter, adequate covering of garbage was usually provided once each week with mechanical equipment. Offal from the project slaughter house was also dumped in the non-edible garbage trench. By the middle of May, 1945 all project swine had been slaughtered and a private contractor began handling all waste foods reducing the non-edible garbage to one-tenth its former volume. With the reduced volume and without slaughter house wastes the once a week coverage with mechanical equipment was sufficient.

Failure of residents to separate metal, glass and food from combustible material burned within the blocks varied with the esthetic and sanitary consciousness of the residents of each block. Some block managers stated that it was impossible to secure cooperation in this matter.

E. Food Handling and Storage

On the whole food handling and storage were good. The two exceptions were handling of fresh meat during delivery and refrigeration of fresh meats, especially Poston slaughtered pork. Sanitation reports prior to February, 1944 refer to a shortage of proper storage space, refrigeration and transportation facilities. Early reports also refer to an infestation of flour and other grain products with weevils and beetles. This occurred in products which had remained in storage over nine months.

Although the temperature was over 100 degrees F. each day for four or five months, meat was delivered in open trucks without refrigeration to each mess hall kitchen. Often this meat was handled carelessly. Carcasses were often placed directly on the uncovered floor of dirty trucks, stepped on by the delivery boys, thrown off trucks onto the mess hall loading platforms and no cover was provided while enroute between camps or between mess halls. The project veterinarian also complained of these conditions during October, 1944. The stewards department changed crews several times in obtaining better handling of meat.

Refrigeration problems were due to inability to chill meat and insufficient refrigeration storage space. It was necessary to condemn carcasses several times. Improvements were made in the chill room at the slaughterhouse, the practice of placing fresh pork in the same refrigerator with stored beef or other meat was corrected, and additional hooks were provided to discourage placing meat on refrigerator floors.

F. Farm Sanitation

Farm sanitation was generally good except at the piggery. Here disposal of unconsumed garbage from the feeding platforms, of dead swine and of manure was unsatisfactory the greater part of the time. Beginning early in February, 1945 satisfactory disposal of unconsumed garbage, dead animals and manure was made daily until all project swine were slaughtered about May 15, 1945. Piggery workers stated that satisfactory disposal was made as soon as suitable mechanical equipment and suitable burial trench were provided. It was necessary to make recommendations to the chief of the operations division and to point out in the field unsatisfactory conditions to the chief of the agricultural section before results were obtained.

Sewage and waste water disposal from the piggery and slaughterhouse became a problem during the spring of 1945 when tile-gravel leaching beds became clogged. The writer felt that the sanitation department should have been consulted concerning the design and construction of these facilities as defects were found.

Each unit had a poultry project, and it was recommended that dead chickens be disposed of daily by incineration, that pens be cleaned weekly, that manure be placed in fly-proof bins until disposed of and that a sanitary privy be provided at each poultry farm. At Unit III the project was near an inhabited block and this may have caused delay in the building of a privy. Complaints were constantly received from residents until a latrine was provided.

G. Insect and Rodent Control

As the first sanitarian was an entomologist insects in the region were thoroughly studied, and information was issued to the residents concerning these insects. The black widow spider was the only poisonous insect found in Poston although one poisonous type of scorpion was claimed to have been found during 1945 by a resident. One sanitary inspector was used as a pest controller working mainly in Unit I mess halls to control flies and cockroaches. During the summers of 1942 and 1943 several inspectors were used to kill flies in mess halls. With the reduction in staff this service was discontinued after April 1, 1944. The mosquito control crew of three was discontinued at the same time. Anopheles mosquitoes were found breeding near Unit I by Dr. Reeves of the Hooper Foundation during 1942, but no further Anopheles were collected at any time after this one breeding place was eliminated. Pest type mosquitoes were often numerous, and residents were asked to eliminate all stagnant water or to treat such water with oil.

The common house fly was the most important insect found in the kitchen. Where kitchen workers continuously used all the means at their disposal to kill adult flies conditions were good. Unfortunately more than half the mess halls did little but complain of the flies. Food was often black with flies. The fly spray furnished was often of a poor quality. Screen doors all opened inward, and garbage stands outside the mess hall attracted flies. Inspectors constantly urged the kitchen workers to "Swat that Fly" and keep garbage stands clean.

Flies were more numerous at Unit III and it was here that the poliomyelitis epidemic began and where most cases occurred. Since the theory of fly transmission has not been disproved, screening of mess halls and latrines was continuously checked.

No control work was done with rodents except that a few mouse traps were issued to mess halls when complaints were received. Very few rats were reported and none in mess halls.

H. General Block Sanitation

Drainage, fish ponds, raising of fowl, control of dogs and cats and burning of rubbish were the main problems within the blocks.

Waste water from evaporative coolers and from faucets inside and outside the barracks caused a drainage problem as barracks were not provided with sewerage connections. The irrigation department provided drainage ditches where ever possible, but in a few blocks and in Rainbow Village gradients were not sufficient to entirely eliminate this condition. As of April, 1944 there were 928 fish ponds of various sizes, and more were constructed later. Many were not cared for and became mosquito breeding spots. Some were connected to the sewerage system by the residents. In such cases traps were seldom used and complaints of escaping sewer gas were received. Block managers cooperated in requesting residents to eliminate such nuisances. Project regulations should have controlled the building of fish ponds and the installation of faucets within the barracks. Waste water containing food particles was often a nuisance.

Two community council regulations sponsored by sanitarians were passed. The first, during 1943, was an ordinance controlling dogs and cats by requiring licenses and that strays be destroyed. It was not enforced until the community had a rabies scare during September, 1944. The project veterinarian destroyed one dog as rabid, but the head was not examined for Negri bodies. About a week later residents suspected that another dog was rabid. This dog died and the writer sent the head to the Arizona State Laboratory for examination. The report was negative. The second ordinance prohibited the raising or keeping of fowl and rabbits within the inhabited blocks and was passed during the spring of 1944. Enforcement of both ordinances was under the internal security department. No one wanted the job of dog catcher, and one was employed only for about two weeks during the rabies scare.

I. Mess Hall Sanitation

Early reports stated that the mess halls were not complete when the evacuees first arrived in May, 1942 and that there were several deficiencies. The sanitary deficiencies were:

1. Inadequate refrigeration.
2. Poor dishwashing facilities.
3. Shortage of soaps, cleaner and disinfectant.
4. No floor covering, thus admitting dust through the cracks.
5. Lack of impervious cover on kitchen work tables.
6. Not enough garbage cans, and garbage stands next to the kitchen door attracting flies to the improperly hung screen doors.

Most defects had been corrected by February 24, 1944. Dishwashing remained unsatisfactory in some mess halls even though three compartment basins were installed. One reason was the haste of workers to complete their task and their failure to realize the importance of their job. Only at the hospital kitchen were proper facilities provided to disinfect dishes with hot water (170 degrees F. or hotter). Some mess halls attempted to disinfect with water as cool as 110 degrees F. although some type of chlorine disinfectant was provided.

It was noticed in 1942 that there was a great deal of difference in the sanitation of mess halls. Those whose chefs had restaurant experience before evacuation were usually very clean. In November, 1942 a weekly rating system was instituted for the mess halls. Later a monthly prize was given by the stewards department to the mess hall in each camp with the highest rating. This helped sanitary standards until competition became so keen that sanitary inspectors felt unwelcome in some mess halls. Inspection of mess halls was always a difficult job, and it was necessary to employ new inspectors every six or eight weeks. At a meeting representatives of mess hall chefs recommended that Issei rather than Nisei be employed as mess hall inspectors. This did eliminate friction with the Issei kitchen workers, but it did not improve the sanitary standards.

Early reports stated that one death in the spring of 1943 was due to typhoid fever. This lead to physical examinations or medical history statements for all mess hall workers. There was a monthly turnover of from 100 to 200 mess hall workers, but

physical examinations or medical statements were not required of new workers until the fall of 1944. Tuberculosis in the community also made examinations desirable, but the medical staff was usually too small to care for such a program.

The educational film "Twixt the Cup and the Lip" was obtained, but few of the 1500 mess hall workers saw the film. Only about 50 attended the special showing for Unit I mess hall workers and inclement weather or failure of operators to show the film resulted in only a small number seeing the film on regular movie nights in each Unit. A copy of the U. S. Public Health Service ordinance and code regulating eating and drinking establishments and a copy of the pamphlet "From Hand to Mouth" were given to all mess hall inspectors; however, all Issei inspectors could not read English.

J. Block Latrine and Laundry Sanitation

In general the latrines and laundries were very well kept. There were some sanitary defects when the project first opened but these were soon corrected. Screening of latrine windows in all units was provided in August, 1942. Unit I latrines were provided with screen doors.

Athlete's foot became very prevalent among the residents. Daily use of chlorine disinfectant was urged for cleaning shower room floors and for foot baths, also the wearing of gettas into the shower room. Unfortunately the usual practice was to remove the gettas before entering the shower room.

K. Miscellaneous Items

Swimming Pool and Community Enterprise stores, barber shops and beauty parlors were reported under miscellaneous items.

1. Swimming Pools

Flow-through type pools were built in an irrigation canal at both Units I and II. During the summer of 1944 tests of samples of water collected from these pools consistently placed them in class C or D according to the United States Public Health standards. Portions containing 0.01 cc. of the sample were confirmed for B-coli and often a 0.001 dilution was confirmed. This B-coli was thought to be of animal origin, but the canals flowed

through an inhabited Indian reservation and B-coli could have been of human origin. Ear and eye infections among swimmers lead the Division of Sanitation to post signs at all pools warning swimmers of the condition of the water. The public health nurse suggested that the acting principal medical officer issue a warning in memorandum form. This was done, but signs and warnings were removed by unknown persons within 24 hours. The Red Cross, which sponsored swimming, opposed the posting of signs and warnings. However, it was gratifying in the spring of 1945 to have the Red Cross officials request that tests of the water be made because the water appeared very dirty and they wished to avoid ear infections similar to those occurring in 1944.

During July, 1944 Unit III opened a large concrete fill and draw type pool which was filled with water from the unit water supply system. Several sanitary defects were present and the pool did not meet U. S. Public Health or Arizona State standards. No plans were made or submitted to State officials as required by law. Some defects were corrected, but disinfection was not provided. The bathing load of one day often polluted the water so that samples did not meet State bacteriological requirements. Recommendations that chlorination be provided were unheeded.

2. Community Enterprises

a. Stores

Only the soft drinks sold at stores were a source of complaint. A cigarette butt, a bottle cap, glass, sandpaper, newspaper, flies, mosquitoes and other foreign matter were found in several shipments. This first occurred in the fall of 1943. During April, 1944 one-fourth to one-half the bottles in 16 cases contained foreign matter. The plant in Parker was modern but bottles were not properly cleaned. It was also discovered that dark glass bottles were used to fill Poston orders only. The manager was shown some of the samples and some were sent to the Arizona State Laboratory for examination. The Laboratory reported all samples safe for human consumption, but since foreign matter indicated insanitary handling the writer recommended

that Community Enterprises purchase soft drinks elsewhere if possible.

b. Barber and Beauty Shops

Few sanitary facilities were provided when shops first opened. This was gradually changed until all sanitary facilities found in city shops were provided.



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: B-504

DATE: 5/3/43

PHOTO LOCATION: Colorado River Relocation Center, Pecos, Arizona

DATA: Dr. George S. Kido, Ph. D. from the University of California, is shown supervising the use of his mosquito control machine. Here they are treating a pond in the campaign to rid Pecos of the mosquito menace. The mosquitoes in this section of the country are potential carriers of equine encephalitis, which is a form of sleeping sickness, but as yet, no cases of this disease have appeared.

Photographer: FRANCIS STEWART



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: R-805

DATE: 5/3/43

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: Mosquito control crew at work treating a pond in the campaign to rid Poston of the mosquito menace. The mosquitoes in this section of the country are potential carriers of equine encephalitis, which is a form of sleeping sickness, but as yet, no cases of this disease have appeared in this camp.

Photographer: FRANCIS STEWART



WAR RELOCATION AUTHORITY
Midland Savings Bldg.
Denver, Colo.

NO: B-503

DATE: 5/3/43

PHOTO LOCATION: Colorado River Relocation Center, Poston, Arizona

DATA: Mosquito control spray unit which has been developed by Dr. George S. Kido. This machine has been adapted from a fifty gallon orchard spray. Dr. Kido is shown on the left, and his crew of operators on the right. The mosquitos in this section of the country are potential carriers of equine encephalitis, which is a form of sleeping sickness. As yet, no cases of this disease have been found at Poston.

Photographer: FRANCIS STEWART