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A study is reported on the use of health records by families in farm work. Factors which would interfere with the use of such records are explored. Education of health personnel actually giving patient care seems to be the most significant element in improving the use of health records.

A STUDY OF USE OF HEALTH RECORDS BY 83 CALIFORNIA FAMILIES

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ONE important problem in providing medical care for migratory farm workers and members of their families is that as these people move from place to place they are unable to maintain a relationship with any one physician or health agency. Each time a migrant needs medical help he is likely seen by a new person, one who knows nothing of his medical history. Often the migrant, poorly educated, perhaps speaking only Spanish, excited and ill at ease, is unable to supply any useful information himself. Obviously, if some means could be provided for communication between the health worker caring for a migrant at one time and those health workers who see the migrant in the future, the level of care provided should be improved.

For some years various groups have been dealing with this problem by issuing different types of health records to be carried by migratory farm workers. A record is given to a migrant when he comes in contact with the issuing agency and it is expected that he will then present it at each subsequent visit to a physician or health agency. The health worker presented with such a record is expected to use it as an aid in diagnosis and treatment, enter his own findings, and return the record to the owner. Many different types of records are known to have been issued by numerous local and state agencies.

In 1954 the Association of State and Territorial Health Officers first recommended that a "basically uniform set of health record forms" be developed for use with migrant workers.[1] In 1960 the association recommended that the Personal Health Record developed by the U. S. Public Health Service be adopted by the states for this purpose. This record, a wallet-sized, folded piece of thin cardboard, contains space for an immunization history, the results of various laboratory tests, an obstetrical history, and a history of clinical visits. The record has been made available by the U. S. Public Health Service to all states.

For several years the Association of State and Territorial Health Officers has also requested that evaluations be done of health records in use by migratory workers. Although the usefulness of health records seems perfectly obvious, little evidence has been produced to show that persons carrying such records are receiving improved medical care. Indeed, it is not known once the average migrant is given a health record, what use he will make of it. It is con-

ceivable that despite careful instructions when the health records are issued, migrants will be unaware of how to use the records or unwilling to use them. On the other hand health personnel unfamiliar with health records may refuse to make use of them when migrants present them.

The present study was planned as a first attempt to answer some specific questions regarding use of health records by farm workers in the state of California and as an exploration of the problems that would be encountered in performing a large-scale definitive study of this type. It was a cooperative project between the Division of Community Health Services, U. S. Public Health Service, and Farm Workers Health Services, California State Department of Public Health carried out in February and March, 1962.

Background

Beginning in August, 1961, two different types of health records were distributed to farm workers throughout the state of California. One, the Public Health Service Individual Health Record has already been described. This is a record intended for use by individuals. The other record, the California Family Health Record, is a booklet containing individual pages for records of nine family members and an additional prenatal section. Each page includes space for an immunization history, a dental history, test results, a hospitalization record, and other details. This health record, prepared as a joint effort of the California Medical Association, the California Farm Bureau Federation, the California State Dental Association, and the California State Department of Public Health is distributed one to a family.

First notice of the availability of the records for distribution was sent in the form of a memorandum from the office of the director, California State Department of Public Health, on September 8, 1961, to all local health officers and county hospital administrators. This memorandum briefly described the records, their purpose, and how they were to be used and invited requests for supplies.

The health records were distributed to farm workers mainly by local health departments, in a number of cases through special clinics set up to serve them. As records were issued, instructions regarding their use were presumably given to the recipients by issuing personnel.

In order to provide a means of study of the recipients of the health records, several hundred post cards were also sent out by the state with some of the shipments of health records. Each post card was to be filled out with the name and home address of the recipient of a health record and mailed back to the State Department of Public Health. No instructions were given to those distributing records on how to determine which recipients were to be named on the post cards nor were detailed lists kept by the state on how many post cards were sent out. For these reasons it cannot be assumed that the recipients named on post cards represented a random sample of all recipients.

Method

The plan for this study was developed in February, 1962, by personnel from the U. S. Public Health Service and the California State Department of Public Health. The key questions to be answered as listed in the plan were: (1) Do the seasonal farm workers and families who received health records still have them in their possession? (2) What is their opinion of the value or purpose of the health record? (3) What is the opinion or reaction of professional health workers to the health record?

Of approximately 500 post cards sent out with the health records, 250 had been completed by personnel issuing health records and had been returned to the State Department of Public Health by February 1. The recipients of health records named on the 250 cards served as the subjects of this study. It was decided to obtain information on use of the health records by interviewing recipients and then examining the records and recording the entries. Health workers were to be contacted and interviewed in the areas where the health record recipients were located.

Clusters of recipients were in Tulare, Santa Cruz, Monterey, Fresno, and Sutter Counties. The remaining recipients were so scattered throughout California and neighboring states that the amount of time required to reach them would have been prohibitive.

A questionnaire was developed in order to obtain the information desired from the recipients of the records in as short a time as possible as well as to permit easy recording of the data. Important considerations in including and phrasing questions were that the respondents not be made suspicious or hostile toward the interviewer or the agency which he represented and that respondents not be influenced in answering by the interviewer.

All interviewing was done during March, 1962, by a single interviewer, a U. S. Public Health Service physician. Interviews were usually conducted in the respondent's home often with several members of the family about. Most interviews were done in English although on a number of occasions an interpreter was used when the family spoke Spanish. The interviewer introduced himself as a doctor from the State Health Department and said that he was asking some people who had been going to the local clinics questions about what happened to them in the clinics so that these could be improved. Shortly after the start of the interview, the interviewer displayed several sample health records and from that point on the focus was on the health records. Although the prepared questionnaire was generally followed, the wording and order of the questions was varied depending on the interviewer's impressions regarding the responsiveness and cooperativeness of the respondents. It was felt that because of the short time allotted to each interview and the comparatively small number of respondents this would be more effective in obtaining information than presenting questions in standard form and order. Recording the respondents' answers was done on a prepared form while the interview was in progress. In cases where a family had moved or was not at home on several occasions the name was dropped from the list to be interviewed.

Public health personnel in seven counties were also interviewed during the course of the study. These interviews were generally conducted with groups of personnel and the responses recorded were often a consensus of opinion rather than individual opinions of the members of the group. The largest number of respondents consisted of public health nurses, but personnel in several other positions in local health departments were also interviewed. Although an interview questionnaire had been prepared, the emphasis of these interviews was not on obtaining answers to specific questions but rather obtaining general opinions. Because of this and because interviewing was done in groups it was decided not to subject the results of these interviews to any sort of statistical analysis.

Findings

Interviews with Farm Worker Families

Interviews were conducted with 82 families and one person who had re-

Table 1—A Summary of Characteristics of 83 Interviewed Families

65% of household heads were farm laborers
66% of household heads did not go beyond 8th grade
33% of household heads were born in Mexico
33% of household heads could not converse in English
65% of families were of Mexican background
50% of families able to answer had incomes between $2,001 and $4,000 a year
30% of families were migratory
73% of families had contact with some medical agency since receiving health record

ceived a health record as an individual, for a total of 83 interviews. The group under study may be characterized as being mainly composed of unskilled farm laborers with large families, low incomes, and with a Mexican background. Fifty-four of the heads of the interviewed families were engaged in farm labor and 13 others were doing some other form of unskilled labor. Of 26 families that were able to give an estimate of annual family income, the largest number, 13, estimated between $2,001 and $4,000. Fifty-four out of the 83 had a Mexican cultural background with the majority of the remainder coming from the group which has traveled into California from other states since the 1930's. Twenty-seven out of 71 household heads for whom information was available were born in Mexico. About one-third of the household heads and one-quarter of the mothers were unable to converse in English. Twenty-five out of 83 families were considered to be migratory. The average family size was 6.4.

Thirty-six out of the 83 had received their health records from a single county clinic set up to serve farm workers. Thirty-four more were residents of one other county and had mainly received their records from clinics in that county. The remainder were scattered through the remaining counties studied. Of the recipients, 46 were reported by the issuing agencies to have received California Family Health Records and 37, Public Health Service Individual Health Records. The records had been issued to the recipients from one month to seven months before the interview with the mode at four months.

One of the major findings of the study is that 61 out of 83 respondents were able to produce the health record upon the interviewer's request. Seventy-three per cent of the group had definitely retained their records. Of the 22 unable to produce the record, 8 denied ever receiving a record. The possibility cannot be excluded that some of them actually did not receive it and their names were included through clerical error although this is not likely. Two others produced health records of some other type and stated that they had never received the two types under study. Again it is possible that they were correct. The 12 remaining stated that they had had the records at one time but could not produce them. In some cases this was said to be temporary since the family member who had the records was away from home, and so forth. The 73 per cent retention is then a minimum figure.

Table 2—Relation Between Presence of Various Traits and Loss of Health Records (Data Selected and Condensed)

Trait	Per cent Not Having Health Records
Mexican background	26
Do not know purpose of record	33
Do not recall instructions	22
Head of family had no schooling	43
No medical contacts	68
Head of family unable to speak English	19
Family migratory	32
Estimated income over $4,000	67
Total group—83 families	27

To see whether the group of respondents unable to present their health records had any other trait in common, the entire group of respondents was analyzed by various traits and then reexamined within these smaller groups for ability to present their records. Any deviation from the over-all average of 27 per cent inability to present the records might indicate some particular trait associated with the tendency to lose health records. By this means respondents possessing a large number of different traits were compared—cultural background, education, language, length of time since record was issued, occupation of head of house, prior military service of head of house, county of residence, and place where record was issued. Some of this data can be seen in Table 2. In only two cases was there a marked deviation from the over-all average. Respondents who reported an income over $4,000 and who had had no medical contacts since receiving the health record tended not to be able to present them.

Table 3—Respondents' Views of Health Records

	Per cent of Group Answering Question	Per cent of 83 Respondents
Thought records were immunization records	60	31
Thought records were general health records	35	18
Recalled instructions to bring health records to clinic	60	31
Recalled instructions to show record to any doctor	16	8
Would take record only to issuing clinic	18	13
Would take record to any clinic	50	36
Would take record to any doctor	30	22

A second point of importance is the picture the recipients had regarding the purpose and use of the records. This was studied by asking recipients what instructions they recalled had been given to them when the records were issued as well as what they were told the records were for. They were also asked to whom they would show the records. Finally, a history of medical contacts since receiving the records was obtained and this was compared with entries in the records. Twenty-six out of the 43 respondents who were able to answer recalled that the instructions given to them when the records were issued were to bring the record to clinic each time they came. The next largest group, seven, recalled instructions to show the record to any doctor. Twenty-six out of the 43 who were able to answer believed the record was an immunization record while 15 believed it was a general health record. Thirty out of 60 who were able to answer stated that they would take the record to any clinic that they visited, while 11 would take it only to the clinic where they had received it. Only 18 reported that they would take it to any doctor. Since 31 families reported they had a private physician at the time of interview and many more stated they would contact a private physician in case of medical emergency, this is of some importance. Thus, the majority of the recipients of the health records either recalled partly inappropriate instructions or did not recall instructions regarding the health records. Only a minority knew exactly what the records were for.

The third major finding from the family interviews is that of 37 families who had some contact with a physician or

Table 4—Examination of Records of 61 Families

7%	were not in good condition
8%	had no name on them
66%	had no address on them
18%	were known to be lacking important medical information (diabetes, TB contact, etc.)
0%	had entries by other than issuing clinic (37 families had contacts where entries might have been made)

health agency other than the agency which issued them the health record, none had had an entry made in the health record (Table 4). On the other hand, most of the subsequent contacts with the clinics issuing health records had resulted in entries. This difference may in part be explained by the almost unanimous feeling among the families that they would not offer a health record unless it was first asked for. This applied even to those who were aware that the record should be shown to all physicians. Personnel in clinics not issuing records apparently did not ask for health records, so that though a respondent was carrying the record at the time of contact it was not brought out.

In Table 4 may be seen some of the information found from examination of the records which 61 families had available. Almost all the records were in good condition—that is they were not soiled or torn and were legible. Few were lacking a family name on them but many had no address. This was particularly so for the California record. In no case had an address been written in by health personnel issuing the record. The name of the family was usually written across the front cover but blank lines for name and address were provided on the back cover only. Apparently putting the lines for name and address at the back of the record instead of the front resulted in neglect to fill them in.

Although no attempt was made to obtain detailed medical histories from any of the respondents, often the important medical problems of each family were mentioned in passing or were obvious from examination of the health record. Such casually obtained information was compared with the entries in the record. In 11 cases information important for adequate medical care of a family member was seen to be missing. Examples include presence of diabetes, positive serology, and tuberculosis contact among family members. It should be noted that since no special attempt was made to elicit medical information the 11 cases probably is a low figure. On the other hand, in some of these instances there may have been no occasion for clinic personnel to take a medical history from the particular member of the family concerned and obtain the information. The family member might have been seen for an immunization or not even been seen but merely been listed in the health record.

Several limitations need to be kept in mind in generalizing from these interviews with California families. The group involved is limited to one state and within that state is mainly within two counties. Although every attempt was made to establish rapport with the respondents, and it is the impression of the interviewer that most of the answers were true, the interviewer arrived in a car marked with an official seal, was obviously of a different social class from the respondents, asked questions with possible legal implications, and worked very rapidly. (On the other hand, a good deal of the data was automatically verified since the respondent had to produce the record to be counted as having it, and all entries in the record were examined.) The health records had been in the possession of the respondents for fairly short periods—none longer than seven months.

It is not known how much the group under study varies from an average group of migratory farm worker families. The farm workers are the ones from whom the health records are designed and about whom it had been hoped to obtain information. As it turned out, in the studied group only 30 per cent were migratory and 65 per cent were farm workers. However, in income, cultural background, schooling, and several other traits the members of the studied group were undoubtedly very similar to migrant farm workers in California. On the other hand, every family in the group showed the initiative to contact a health agency, in most cases for nonemergency care. This is definitely at variance with the practices of many people with Mexican backgrounds in the United States.[2,3] Similarly, not one member of the studied group reported going to a "curandero" or folk healer in the United States, which is also a deviation from previously reported Mexican-American custom.[2,3]

Interviews with Health Workers

The opinions of health workers and their use of the health records were studied in two ways. Interviews were conducted and, in addition, farm worker clinics issuing health records were visited.

Health workers were generally in favor of the use of a health record by migratory farm workers. They felt the Public Health Service Individual Health Record was good for single males or possibly for families with older children who would soon be going off on their own. For families with a number of younger children the California Family Health Record was preferable because a single record was less likely to be lost than many individual records. Many workers liked the idea of having two kinds of records available. One county was using individual records exclusively and had had no difficulty with losses even among large families.

Personnel issuing health records generally had received little orientation or discussion regarding the records from their supervisors. They had merely been told to distribute them. Some personnel were only familiar with one type of record or the other. Personnel who were not working in clinics where records were being issued often knew very little about them. Some were unaware of the existence of the two records under study.

There were a number of complaints regarding the extra paper work that filling out the records entailed. With a nonmigratory group there is little benefit from the records to either the health workers or the families having the records since families are dealing with clinics where their complete medical histories are already on file. This situation can produce a negative feeling toward the records among health workers.

It was found that the practice of local health departments varied greatly with regard to health records and there were wide variations within a single local department from clinic to clinic. The clinics for farm workers were issuing the two records under study and would ask every patient returning for a revisit for his record. On the other hand, in other clinics within the same departments patients would not be asked for records and if a record was offered by a patient an entry might not be made in it. Clinics which were issuing other types of records would commonly refuse to accept any records but their own type and would issue their own records to all new patients regardless of what the patient already had. A number of different types of health records were in general use in California. Clinics sometimes issued several different records to

a single patient depending on the patient's request.

Observation of personnel issuing records in clinics revealed that in instructing recipients of health records emphasis was placed on keeping records safely. There was a secondary emphasis on bringing records to the clinic. There was little emphasis on to whom to show the record. Where a patient spoke no English there was particular difficulty in getting information across regarding the health record.

As with the interviews of the farm workers, a number of cautions must be observed in interpreting these findings. The interviewer undoubtedly represented higher authority to many of the personnel interviewed. Although there was little overt evidence to indicate that personnel were holding back or modifying their statements, this possibility cannot be excluded. The personnel interviewed were employed by a small proportion of the local health departments of California and were generally those most concerned with the use of health records. They were thus a selected group. Observation in clinics was done in only two clinics and the presence of an observer undoubtedly modified the situation to an unknown degree.

Conclusions

Because of the small sample and rapidity with which the work was planned and executed, it is doubtful that more than a few points which stand out from the data very clearly are significant. These points, however, are so consistent and striking that for the population under study they can hardly be doubted.

The recipients of the health records, primarily California farm workers, generally held on to the records and three-fourths of them were able to present the records several months after they had been issued. Because of factors mentioned previously this percentage may actually be even higher. The health records were almost all legible and in good condition.

On the other hand, few of the owners of the health records realized exactly what the records were for and very few were aware that the records ought to be presented to any doctor. Moreover, even those who realized what the records were for and that they would be of importance to all doctors treating the family said they would hesitate to present the records unless asked for them. These factors undoubtedly interfere seriously with the maximum use of the health records.

Discussion with health workers revealed that few, if any, of them had received instruction or orientation regarding use of the records. Many of the workers had gaps in their knowledge about health records in general and about these particular health records. The few private practitioners interviewed looked upon the health records as immunization records.

Clinics other than those issuing the records under study might well refuse to make any entries in the records but might instead issue a new different kind of record. Practices varied widely from department to department and even from clinic to clinic within one department with regard to health records possibly leading to confusion among migrants and even among health workers.

Observation in clinics issuing the records showed that the emphasis in instructing recipients of records was on keeping the records carefully rather than showing them. Support for this observation was found in the reports of the farm workers interviewed who mostly recalled similar instructions when records were issued to them.

The obstacles to maximum use of health records in the California counties studied may be characterized as due to lack of knowledge among several groups. The public health personnel in clinics issuing records have not received any planned orientation regarding need for health records, or proper means of instructing recipients of health records. The recipients of the health records, because of lack of a planned approach to instruction, have received information on the records based only on the experience and knowledge of individual clinic workers. This has obviously been inadequate in many cases.

Personnel in the many clinics and health agencies that farm workers contact do not issue records, nor have they been educated to the existence of the health records distributed on a state-wide basis, nor to the importance of health records in general. Since apparently few farm workers will spontaneously offer a health record even when they understand its use, it is especially important that all health personnel who may work with farm workers learn of the records and the need to ask their patients for them. This, of course, also applies to private practitioners.

Assuming that the data and conclusions drawn from this study are valid generally, then further efforts to improve use of health records would best be in the area of education. It is clear that educational efforts must be aimed first at those health workers who are actively engaged in patient care—public health nurses and private practitioners. These people are the ones who issue the health records, make the entries in them, and then do or do not ask their patients for them. A simple one or two page brochure distributed to these people would do a great deal toward raising the level of knowledge about health records in all groups concerned. The present situation is not a result of lack of concern on the parts of either the farm workers or the health workers but rather a lack of opportunity to become familiar with the health records.

Summary

Eighty-three California families mainly engaged in farm work who had received health records were interviewed several months after receipt of the records. Of the group 73 per cent were able to present them upon request. Most of the records were in good condition.

Only 22 per cent of the respondents stated that they would take their health records to any physician treating them, while 36 per cent would take the records only to a clinic. Thirty-seven families had had contact with a medical agency other than the one which issued the record since receiving it. In no case had an entry been made in the health record. Most respondents reported that they would not present their health records unless they were first asked for them. These findings are considered to represent factors which would seriously interfere with maximum use of the health records.

Health personnel in seven California counties were interviewed regarding health records. They reported great variation in use of health records among local health departments and even within single departments. They had had little orientation regarding the records. Personnel who did not issue the records were generally uninformed about them. Education of health personnel actually giving patient care seems to be the most important element in improving use of health records.

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