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PRESENT HEALTH SERVICES FOR NOMADS

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TABLE OF CONTENTS

	<u>Page</u>
I Introduction	1
II Tribal society	2
III Health problems generated by the nomadic life style	4
IV Present health services among the nomads of Iran	4

## I INTRODUCTION

Due to ecological conditions, historical events and political incidents, the nomadic population in quite a number of countries in the Near East and Africa still constitutes a significant part of the total population, both numerically and proportionately. But these nomadic people have not been supplied with the services and public facilities which their urban and rural compatriots enjoy, although, in general, they play an important role in the national economy of their countries.

For example, in Iran some 25% of the GNP comes from agriculture, 45% of which is provided by livestock. Of this, the nomads contribute at least half. In other words, the share of the nomads in the GNP is approximately 6%. Taking into account the fact that only 12.5% of the total non-urban population of Iran is nomadic, we can better appreciate the important role played by the nomads in the provision of livestock on the national level.

Even if, in rare cases, the nomadic population of a country does not play a significant role in the national economy, one cannot remain indifferent to the necessity of providing them with all the services they need and deserve as citizens and as human beings.

This Seminar on the Health Problems of Nomads reflects the deep concern of the participant countries and the World Health Organization with the lot of the nomadic sector in the Near East and Africa. However, in such seminars we must be careful to refrain from making broad generalizations for the nomadic population of the entire region under consideration. Although the nomads may possess quite a number of health problems in general, due to the great variations in micro-ecological conditions and differences in the socio-economic set-up of individual countries, generalizations should be avoided.

Thus in this background paper, without claiming that the points discussed apply to all individual countries, an endeavour has been made to set out the facts and to raise issues which could serve as a ground for debate. It will then be for the country participants of the Seminar, in the light of their experience and in accordance with the ecological,

social and economic conditions of their respective countries, to lay down the lines along which future efforts to provide nomads with health services should be directed.

However, a last word in this introduction seems worthy of being said. That is, since the Seminar is dealing with nomadic health problems and health services among nomads, it seems advisable to briefly commence with a consideration of who the nomads are and the kinds of health problems generated by this nomadic life style. It is only after having a clear picture of these two factors that we can have a comprehensive appreciation of the present health services among nomads and the successes and failures to date in this domain. This will certainly help us plan future efforts. In fact, this is the approach followed in the present paper.

## II TRIBAL SOCIETY

In providing the nomads with health services and related facilities, it is of vital importance to take into account the fact that nomads do not live in a vacuum, but rather constitute a part of a larger society which also includes settled tribesmen. In other words, a tribal society is composed of two main groups: those tribesmen who, for one reason or another, have settled and those tribesmen who have remained migratory. The members of the latter group are the principal herders. This, of course, cannot be taken to mean that tribal territory is subsequently divided into two geographical zones, each occupied by one of the two groups. On the contrary, the settled and migratory tribesmen are closely related cousins living in one of the quarters (usually the winter quarter) either together or in one neighbourhood and having close contacts.

Moreover, the number of the nomadic population in a tribe is not always constant, but varies from year to year according to the number of animals being tended. In other words, there is an intimate relation between the total number of animals, manpower requirements and available pastures.

During those years in which there is sufficient rainfall, the total number of animals increases and, consequently, more manpower is required. On the other hand, during drought years, a high rate of animal mortality causes many nomads to temporarily settle down.

Although a great proportion of the nomads live under black tents, there are also nomadic households which live in villages located either in the winter or the summer quarters, or sometimes in both.

The number of households forming a camp is a function of the total number of animals and available pastures in the vicinity of the camp. Thus in the winter quarters where pastures are rather poor, the camps are quite dispersed (one to five kilometres apart) and the average number of households residing together hardly exceeds eight. Since in the summer quarters rich pastures are abundant, the camps are larger and less scattered.

The time of migration from one quarter to another depends on seasonal climatic conditions. Moreover, though the distance between the two quarters is fixed, the duration of the migration varies depending on the abundance or scarcity of grass along the migration route. In general, the migration route usually passes through villages of settled tribesmen or rural people and close ties are maintained.

The summer quarters of the nomads of Iran are located at high mountain altitudes and the winter quarters are in the plains or at low mountain altitudes. The distance between these two quarters varies widely in different tribes. Twice a year, the Quashqai and Bakhtiari tribes cover a distance exceeding 400 kilometres, while the distance between the summer and winter quarters of such tribes as the Shah Savan and Boer Ahmadi hardly reaches 100 kilometres.

The main economic activities in which men, women and children participate are those related to milking and the preparation of dairy products, both of which, in general, begin late in the winter and last up through mid-summer. The cultivation of wheat and barley, mostly by dry-farming methods, does not necessitate the expenditure of much labour and is handled only by the men a few weeks during the fall and a few weeks in late spring. The cultivated lands are primarily located in the winter quarters.

### III HEALTH PROBLEMS GENERATED BY THE NOMADIC LIFE STYLE

The nature of the migratory life which the nomads lead in itself creates problems which make the provision of health services to them very difficult. The following are some of these problems:

- The territory occupied by nomads is generally remote and, consequently, hard to reach.
- The nomads live in small camps dispersed over a wide area, with no roads.
- The nomads possess two residential quarters, sometimes separated by hundreds of kilometres. Thus diseases are easily communicated if one of the quarters is infected.
- Usually both humans and animals have common access to water sources. Thus certain animal diseases may easily be transferred to the nomads through the water.
- In at least one of the quarters, the nomads are in direct contact with their settled cousins. They are also in contact with villagers on their migration route. Thus contagious diseases may easily be communicated from one group to another.
- The production system of the nomads, especially in the case of animal husbandry, is such that sanitary measures can hardly be successfully introduced.
- The prevailing illiteracy among nomads is also one of the major problems. This is due to the fact that, on the one hand, the illiterate adults are not very receptive to modern health services and, on the other hand, there is not a sufficient number of educated youth who can be recruited and trained for administering health services.

### IV PRESENT HEALTH SERVICES AMONG THE NOMADS OF IRAN

This can be divided into two categories, however not without some overlapping: first, preventive measures and, second, curative measures. In this regard, the malaria eradication project has been one of the most successful projects. In fact, in several tribal areas, the project has already reached the eradication phase.

The project commenced systematic measures in nomadic areas of Iran in 1968. The emphasis was put on the two large tribal areas of the Quashqai in Fars and the Bakhtiari in Isfahan, although other tribal zones were also covered. The nomads were divided into two groups:

1. Those who migrate within one ostan.
2. Those who migrate from one ostan to another. The latter group is in turn subdivided into two categories:
  - a) Those who dwell in areas in which the summer, as well as the winter, quarters are malaria infected.
  - b) Those inhabiting areas in which one of the quarters is infected. In the latter case, migration results in the infection of those who have not themselves passed through the infected area, but who have come into contact with those nomads who have contracted the disease in the infected area. Thus, a strenuous attempt is made to control malaria in the infected area so that the disease is not spread to the settled cousins living in other malaria-free areas.

The cases of the Quashqai and the Bakhtiari illustrate the efficient approach of the Malaria Eradication Organization. In the summer quarters of the Bakhtiari, some 82,000 nomads were under study in 1968. Out of the 24,000 blood specimens taken, 1,377, that is 5%, proved to be positive. In 1969, some 14,700 blood specimens were taken and 462, i.e. 3% were found to be positive. By 1970, the percentage of positive cases had dropped to only 3%. The blood tests taken in 1971 revealed almost the same number of positive cases as found in 1970.

Among the Quashqai, the percentage of malaria-infected nomads during the four years was always below 4%.

A consideration of two points is important in appreciating the two cases mentioned above:

1. The summer quarters of both the Quashqai and the Bakhtiari tribes are located at high mountain altitudes where the climatic conditions are not conducive to the breeding of malaria-carrying mosquitoes. Thus efforts to eradicate malaria had to be concentrated in the winter quarters.

2. Preventive measures were coupled with curative ones in both cases.

The main problems faced by the malaria eradication teams occur in those cases where the summer and winter quarters are both infected.

At the present, some 80% of the nomadic population of Iran is covered by the Malaria Eradication Project. The success of the project is, however, mainly due to the following factors:

1. Preventive and curative measures have been taken together.
2. The project covers not only the nomadic population, but also the settled tribesmen and rural inhabitants.
3. The teams are mainly composed of nomads recruited and trained especially for administering health measures.
4. The measures taken by the Malaria Eradication Organization do not require any changes in the nomadic way of life.
5. From the beginning of its inception, the administration of the project has been well organized.

#### Training of midwives

Another measure taken by the government in relation to the provision of health services to the nomads was that of the training of midwives which was begun in 1970 in collaboration with the Nomadic Teachers' Training School. But since this programme was not widespread and is also quite recent, it cannot be evaluated at this stage. It should, however, be mentioned that this programme is of vital importance because the nomadic women give birth under the most unsanitary conditions. A study carried out by the writer among six tribes in the Kohgiluyeh region revealed the fact that infant mortality exceeds 350 per 1,000. This is, in fact, one of the highest rates.

This project has been of great help to the nomads because the trainees are recruited from among the nomads themselves and return to their tribes following the training programme, thus moving constantly with their nomadic cousins.



A similar project concerning the training of teachers for nomads was initiated in Fars and has already proved to be the most successful project which has ever been implemented for the nomadic population. There can be no doubt that similar projects concentrating on health services will prove to be equally successful.

#### Health Corps

The Health Corps teams are located in some tribal areas and deal primarily with settled tribesmen. The nomads living in the vicinity of the clinics may use the services. However, due to the lack of proper roads and transportation facilities, those who are critically ill are certainly not able to reach these centres in time. On the other hand, the clinics are mostly in one of the quarters, usually in the winter quarter. Thus even those nomads who reside in close proximity to the clinic in the winter, are cut off from all health services in the summer. A case of acute appendicitis is, therefore, hopeless, not to mention other serious cases which require immediate surgery or complicated treatment. Moreover, these clinics are not equipped for surgery.

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The present health services which are available to nomads are not only insufficient but, in addition, they do not embrace the whole nomadic population. Life expectancy among nomads is quite low, and both the crude death rate and infant mortality are high. The annual death rate due to epidemic diseases, especially among children, is considerable. Moreover, the incidence of trachoma and tuberculosis is extremely high. Typhoid and paratyphoid fevers, diarrhoea and dysentery and other related illnesses acquired through the gastrointestinal tract are widespread.

It should be acknowledged that, at present, the nomads lead their lives under circumstances which are undesirable by any decent or reasonable standards. This is due not only to the lack of health services available to them, but also to the shortcomings in their present social and economic life patterns. Their food supply is precarious and their economy is unbalanced and dependent on the generosity of nature and urban dealers and peddlers.

Which of these factors can be considered the cause and which the effect of the present situation? Is it disease that breeds poverty, or poverty that breeds disease? We will certainly refrain from being drawn into fruitless controversy over this vicious cycle. However, we should acknowledge the close relationship which exists between health, social and economic problems. In other words, any measures taken toward the provision of health services for nomads must of necessity be followed by an improvement in their social and economic life.

Moreover, it can be inferred from what has been discussed above that when dealing with the health problems of nomads, piecemeal measures are, in the long run, fruitless. The approach should be comprehensive, including preventive and curative measures, hand in hand.

Although the health problems of the nomadic population are a national matter, the writer is confident that the exchange of experiences among the participants in this Seminar will prove very fruitful. It will be helpful for us to consider already proven approaches, thereby avoiding, if possible, past errors. This Seminar which is being organized by the World Health Organization has provided the participants with the opportunity to come to practical conclusions regarding measures vital for alleviating the health problems of nomads in the Near East and Africa.