UNIT 3 HEALTH AND NUTRITION OF THE TRIBALS

Structure

3.0 OBJECTIVES

Good health is difficult to define, but it is certainly more than just the absence of disease. It reflects a state of mental, social and physical fitness and well – being of the individual and is strongly influenced by his or her lifestyle. Health and nutrition are very intimately related aspects of an individual's biological status. Both are under the influence of hereditary and environmental factors.

After reading this unit you will be able to:

- Understand the health status and health problems faced by the tribal communities,
- Understand the various factors influencing the health of the tribal communities,
- Understand the nutritional status and able to assess the nutritional deficiencies that characterize the health of the tribal communities, and
- Understand the scope and area of social work intervention in tribal health and nutrition problems and will be able to develop health strategies on how to work with the tribal communities.

3.1 INTRODUCTION

Human beings need a wide range of nutrients to lead a healthy and active life and these being derived through the diet which man consumes daily. Food contains various substances that are required for growth, development and maintenance of the body. These substances are called nutrients which are proteins, carbohydrates, fats, vitamins, and minerals. The amount of each nutrient that is required by man depends upon his age and physiological status. Adults need nutrients for maintaining constant body weight and ensuring proper body functions. Infants and young children who are growing rapidly require nutrients not only for maintenance of body functions but also for growth. Infants and young children require relatively more nutrients (2-3 times) per kg body weight than the adults. In special physiological conditions like pregnancy and lactation, adult women need additional

nutrients to meet extra demand for foetal growth and maternal tissue expansion in pregnancy and milk secretion during lactation. These extra intakes of nutrients are essential for the normal growth of an infant in uterus and during the early postnatal life.

Health is a multifaceted aspects and has been defined by WHO as "a state of complete physical, mental and social well- being and is not merely the absence of disease or infirmity". Health and the related problems are very much interlinked with the socio-economic conditions of the community, particularly the tribes who are living in remote and inaccessible areas where health care and development services of the government are not available. So there is an urgent need to understand the concept of health among tribes and their traditional knowledge and health seeking behaviour. The health seeking behaviour of the tribal groups is associated with their beliefs, customs and practices. Health status of different communities particularly the tribal group is influenced by their way of life including their social and economic conditions, nutrition and living conditions, dietary habits, taboos and superstitions, etc.

In this unit we will be discussing on the health and nutritional status, health problems of the tribal communities in general and the various factors influencing it. Also we will discuss the urgent and emerging issues concerning tribal health and nutrition. This will enable us to develop health strategies for social work intervention.

3.2 HEALTH STATUS OF THE TRIBAL

The tribal groups in India inhabit widely varying ecological and geo-climatic conditions (hills, forests, deserts, etc.) and are at different stages of social, cultural and economic development process. The scheduled tribes differ considerably from one another in their biological characteristics, language, cultural practices and beliefs, and in their socio-economic characteristics. The health of these tribal groups is a function of the interaction between socio-cultural practices, genetic characteristics and the environmental conditions (Basu, 1996). The overall health status of the tribal community is dependent upon the effects of environment in which they live, genetic characteristics, cultural patterns and the lifestyles of the tribal groups, health care delivery service in tribal areas, and their detached attitude largely accepting the modern health care services at the initial stages of the disease.

The problems of tribal health cannot be studied in isolation from the general population of India. Tribal suffer from the same diseases as others with marked preponderance of infective over degenerative diseases. The tribals who have remained isolated will soon be exposed to the rapid pace of development and industrialization in our country (Tiwari S.C., 1994). The general health problems of the tribal resemble those of the rural and underprivileged sections of our society. These comprise malnutrition, anaemia, parasitic infections like diarrhoeal and respiratory disorders. The life of the tribal is so affected with these disorders, right from birth that the average life expectancy is much lower in contrast with the national average of 58-50 years (Verma C Ishwar 1994).

Basu (1996) suggested that there is an urgent need for initiating area specific, group specific, health need specific, action research studies among the tribal communities in India so that the health oriented action research studies ultimately help the authorities in formulating effective need based health care strategies among various tribal groups in India. Widespread poverty, illiteracy, malnutrition, non-

availability of safe drinking water and sanitary living conditions, poor maternal and child health service, ineffective coverage of national health programmes and consanguineous marriages have been found to affect the health status of the tribal adversely and also responsible for some of the specific illnesses including genetic disorders. Unfortunately, proper health services are not available in many of the tribal areas. Understandably, the common beliefs, customs and practices connected with health and disease influence their choice of treatment methods. The inadequate nature of facilities in many tribal areas, lack of respect in the staff manning these facilities for the indigenous culture and further inadequate attention towards these patients is often responsible for the non-acceptance and distrust of the tribal towards the modern medicine.

It has been found that certain states like Madhya Pradesh, Orissa, Rajasthan, Gujarat, Assam and in some other areas, certain diseases like goitre, yaws, malaria and guinea-worm are endemic (Government of India, 1989). Primitive tribal groups of India have special health problems because of their ignorance, unhygienic conditions, and lack of health education and non-availability of health care facilities in their habitation areas. There is general agreement that the health status of the tribal population in India is very poor and many scholars have tried to establish this with the help of morbidity, mortality and health statistics. The low health status of tribal community in general is closely linked with factors such as their poverty, illiteracy, lack of infrastructure facilities for medical care in the area where they inhabit.

The gradual encroachment by the modern society on the natural resources of the tribal and depleting them of their habitat and exposing them to the apparently alien modern acculturation is a continuing stress which could result in a variety of health problems both mental and physical.

Therefore in order to have a better understanding of tribal health let's discuss the tribal concept of health and perception of disease and disease causation along with the health problems and dimensions.

Concept of Health and Perception of Disease

There are 705 tribes located in five major belts in India. (Census, 2011) Each tribe is not only geographical specific but also culture specific. Hence what is true in one case may not be true in the other case. The tribal belief of causation of disease can be broadly categorized into two areas. They are strong believers of natural theory of diseases. According to them when man falls out of harmony with nature, he suffers from illnesses and becomes susceptible to diseases and accidents. Hence there are the rituals to restore balance and harmony with nature.

Treatment is influenced by the cause of sickness perceived by the group. The tribals have some scientific knowledge, learnt through traditional experience. This knowledge is part of their socio-cultural religious system. The treatment procedure amongst the tribals can be broadly divided into preventive and curative methods. The preventive procedures include use of charms, amulets, animal sacrifice propitiations of disease seeking spirits, worship of God-belief in protective function of rituals. The curative practices include first worship of deities and spirits. To the tribals religion and medicine are not separate. It has also been found that some tribals practice their traditional system along with western system of medicine, if available.

Although the concept of well-being and the notion of the disease varies between different tribal groups, yet in tribal habitat, a person is usually considered to be afflicted with some diseases if he/she is incapable of doing the routine work which is usually being expected to be carried out by that individual in the society, i.e. incapacitation from work is the universal index of poor health. Thus the concept of ill health becomes functional one and not clinical. This is precisely the reason among many tribal groups, e.g. Kutia Kondha, Muria, Madia, Bhattra, Halba, Jaunsari, Santal, Lodha, Kharia, Bhil, Rathwa, Mina, Jatapu, Saora, Pando, Khairwar, Oraon, Munda, Kinnauras, Dhodias and among many others; symptoms such as pains and ache, weakness, scabies, prolonged cough, mild fever, wounds, etc. are not taken seriously as symptoms of disease.

A tribal in general, hardly makes a distinction in the magnitude of fever. However, within the limits if their own respective worldview, most of the tribal societies have definite means for identifying and classifying various kinds of aliments and diseases. It may be worth while to state that at least one component of health is universally seen among the tribal societies, and that is, committing or omitting certain acts, in other words breach of trust is thought to bring upon some kind of affliction on the individual or a family as a whole. Measles, tuberculosis, diarrhea, cholera are some such diseases where individual's action may cause some concern to the family, clan or the village. Interestingly the causation of such disease is independent of the sanitary condition of the community/individuals. The fate of the individuals and the community depends on their relationship with unseen force, which intervenes in human affairs. If human beings offend them, the mystical power punish by causing sickness, death or other natural calamities. The tribal people believe in the presence of benevolent and malevolent spirits, the former playing a protective role, while the latter are considered being responsible for causing disease and epidemics.

It is common observation across the tribal culture that the ancestral spirits play important role in the prosperity and protection of the family. And they have to be properly honored for otherwise they will bring wrath on family members. These spirits are believed to bring a state of physical, mental and social well-being to the members of the family. There are many spirits who are feared because of their power to afflict people by bringing a number of diseases. The role of the spirits, ghosts and deities in the tribal life in the causation and treatment of diseases is so important that the local tribal people have to seek the help of traditional diviners, medicine men, sorcerers (Sirha, Gunia, Bhua, Jani, Bhopa, Ojha, Pujari etc.) for appeasing, controlling or driving away the disease causing agents. The frequency of worshipping or getting in touch with malevolent spirits is more common because of their immediate effect on day-to-day life. Studies indicates that the tribals in Bastar, Phulbani, Mayurbhanj, Sundergarh, Panchmahals, Purulia, Dumka, Dehradun, Gadchiroli, Barmer, Valsad, Kinnaur, and Udaipur practices offering through sacrifice for health related purposes is very common among them.

However, it is important for us to know that the tribal scene in India does not present a uniform canvas in terms of beliefs and health seeking behaviour. Broadly speaking, about four different strata of the tribal population have been discerned. As per the strata their belief system and concept of health and disease do differ. For example on top of the strata is the acculturates layer who have adopted more or less the way of life of non-tribal sections forming the upper crust of the society. They have traveled the farthest from their original tribal habitat. The second are

the settled tribes' agriculturist in the fringe plains who have come quite some way from the tribal highlander; being no longer isolated they are in the process of transformation. Tribal from the North Eastern parts of India can be categorized in these two strata because of their lifestyles and belief system. They are much more advanced than the other tribes in India in terms of their understanding towards health and disease causation. The third category is that of the highlanders who, having hardly shifted from their habitat, have undergone little transformation and may still practice shifting cultivation. The last category is of the still isolated backward groups, including the so-called "primitive groups", who are encrusted in their original habitat, having little exposure and, consequently have preserved their original socio-economic-cultural traits. The four-fold classification does not represent any rigid or water tight compartments, but is meant merely for the sake of comprehension of the scenario in a very general way.

Dimensions of Tribal Health in India

The culture of the community determines the health behaviour of the community in general and individual members in particular. The health behaviour of the individual is closely linked to the way he or she perceives various health problems along with access to various health care institutions.

Primitive tribal group in India have special health problem and genetic abnormalities like sickle cell anemia, G-6-PD red cell enzyme deficiency and STD. Insanitary condition, ignorance, lack of personal hygiene and inadequate health education are the main factors responsible for a majority of health problems.

Some of the problems indicated by investigations in tribal areas include:

(a) Endemic diseases like malaria, introduced from outside or otherwise like TB, influenza, dysentery, high infant mortality and malnutrition. These diseases also reflect that there can be the possibility of HIV infection as TB and STD are found in great number among tribals.

(b) Venereal disease include abortion, inbreeding, addiction to opium, custom of eating tubers of DIOSCERA (may cause sterility as it contain substances used in oral contraception).

(c) Nutrition, anemia is a major problem for women in India and more so in rural and tribal belt. Anemia lowers resistance to fatigue, affects working capacity under conditions of stress and increases susceptibility to other diseases. Tribal diets are generally grossly deficient in calcium, vitamin A, B, C riboflavin and animal protein.

Similarly crude birth practices were found to exist in some tribal groups like Khurias, Gonds, Santals, Kutia Khondhs of Orissa etc. More than 90 percent of deliveries are conducted at home attended by elderly ladies of the household. No specific precautions are observed at the time of conducting deliveries, which resulted in an increased susceptibility to various infections. These practices also increased the risk of mother to child transmission of disease like HIV/AIDS. Sexually transmitted diseases are most prevalent diseases in the tribal areas. Malnutrition was common and greatly affected the ability to resist infection, leading to chronic illness and the post weaning period leading to permanent brain impairment. A high incidence of malnutrition was observed in primitive tribal groups in Phulbani, Koraput and Sundergarh districts of Orissa and also among Bhils and Garasia of Rajasthan

and Padars, Rabrig and Charans of Gujarat and Bondas of Orissa. [NFHS 3 (2005-06)]

Check Your Progress I

Note: Use the space provided for your answer.

1) Discuss the tribal concept of health and perception of diseases. What are the major factors responsible for tribal health problems?

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3.3 FACTORS INFLUENCING HEALTH AND NUTRITION OF THE TRIBAL

India is a signatory to the Alma Ata World Health Organisation (WHO) declaration of 1978 and committed to attaining the goal of "Health for All" by 2000 A.D through primary health care approach. However it seems to be a distant dream seeing the present health scenario of the country. Therefore it is necessary to realize how complex the subject is. Overall, an average Indian's health is inferior to his western and many Asian counterparts. The health of the average present day tribal is poorer. Time was when tribal was considered synonymous with a healthy human being. Some writers have dubbed this idea as a myth. However, in order to proceed to examine the health of the tribal communities, it is well to recognize it as a product of complex inter-play of several forces and factors some of which can be spelt out as:

- Physical environment
- Socio-Economic state
- Nutritional availability and dietary habits
- Psycho-social culture
- Health culture and health related behaviour
- Mortality and morbidity patterns
- Genetic disease and disorders
- Tribal Medicine
- Health delivery systems

Let's have a brief discussion on some of the vital factors influencing the tribal health.

Physical Environment

Physical environments, has a profound impact on health in multiple ways. In the case of tribal communities it has more importance as they have a direct and meaningful relationship with nature. They also derive their means of subsistence

from primary sectors like land and forest. They are dependent on the raw, natural resource provided by nature in their surroundings. But, today, such balance with nature is not very common. By and large, ecosystems have suffered degradation impairing their viability to support rising population of the tribal communities, mainly on account of depredations of some non-tribal sections. This factor is of importance and has been contended with.

Socio-Economic State

Next to availability of resources is the factor of socio economic organization of a group. It has been observed that relations within a tribal group, particularly a village community, have generally been permeated by principle of equity tending towards a socialistic order, ensuring minimal nutritional levels for all members. Tribal societies have often taken care of the weak and the destitute. Instances have been cited where the entire village production of grains etc. was distributed among the members. Such communitarian organizational-cum-distributive practices have been withering under the impact of the current individualistic-capitalistic trends.

Nutritional Availability and Dietary Habits

Within the framework of availability of food and nutrition, we must take note of social heritage and dietary habits of tribals. As in respect of any other society tribal diet is regulated by certain norms and traditions. For instance, the Saora of Orissa regards drinking milk as taboo. Under the influence of the caste society, some communities have turned vegetarian like the Tana Bhagat of Bihar and certain Gonds of Chattisgarh. Nevertheless, a large number of tribal communities are eclectic in their approach to food which is derived from farm i.e. agricultural products, as well as forest, catering to both plant and animal nutrition. The unfortunate fact today is that there has been depletion of both tribal agricultural land and forest. Despite legal and administrative measures, a sizeable percentage of his land has slipped away from the tribal. Further, it is well known that deforestation after independence has taken place on a big scale and, for this reason and otherwise, there has been large scale destruction of wild life. Shrinking of these resources has had devastatingly poisonous and depleting effect on availability of food for the tribal. Further there has been curtailment in the nutrition which went into the tribal human system through homemade alcoholic beverages. In overall result, social and medical scientists have reported high incidence of nutritional deficiency among vulnerable segments viz. infants, children, pregnant women, nursing mothers.

Genetic Disease and Disorders

There are two genetic disorders, namely sickle cell anaemia and G-6-PD deficiency found to occur in high frequencies in Scheduled Tribe populations in Indian subcontinent. Both male and female were equally affected in the case of sickle cell anaemia whereas males were more affected than females in G-6-PD deficiency cases. The sickle cell disease was found in 72 district of Central, Western and Southern India. There were more than 35 tribal population groups showing a frequency of more than 19 percent. The inter-linkage of some genetic characteristics with the environment, specific disease endemicity and therapeutic problems, has to be understood. It appears that some degree of documentation of the nature and extent of inbreeding among some tribal communities has been done, but many more tribal groups need yet to be studied.

Tribal Medicine

The tribal systems of medicine, broadly speaking, depend on herbal and psycho-somatic lines of treatment. Inadequate attention was given to tribal medicine. Prejudice should not cloud our approach. There is a need to delve into them for two reasons. One to gain access to the knowledge which this section of humanity possesses and make the best used of it to their advantage for health care and development. Second, in the light of the international protocol seeking to take away this knowledge for profit, it is important to retrieve and preserve tribal medicine. Hence, intensive and extensive research should be taken up in tribal medicine to open up new frontiers.

Health Delivery Systems

The design of the health delivery systems in the tribal areas needs to conform to the socio-economic conditions, morbidity patterns, demographic patterns, terrain and climate, and other indicators like nutrition status, life expectancy, disability rates, and alcoholism etc. It should not be just a replica of what obtains in the other rural areas of the country. Preventive approaches should be given priority over the curative approaches due to lack of infrastructure and specialized technology. Immunization programmes for infants and children and various other prophylactic programmes can pay rich dividend. Secondly, the type of health care personnel required needs consideration. Cultural differences demand posting of the right type; inhospitable condition of the tribal areas drive away the usual run of medical and para-medical staff. As a result health institutions remain unmanned along with drugs and equipment in short supply.

Check Your Progress II

Note: Use the space provided for your answer.

1) What are the factors influencing health of the tribals?

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3.4 DIET AND NUTRITIONAL STATUS OF THE TRIBAL

Health is an important aspect of development and nutrition plays a central role in determination of health and well-being of individuals and affects growth and development through out the life cycle. Nutritional status of the tribal depends on the consumption of food in relation to the needs that influences the eco system in which they live (Mohapatra and Das, 1990). The health problems of the tribals are profoundly influenced by interplay of socio-cultural and economic factors, which are quite distressing. Hence, it is necessary to understand the food habits of the tribals in view of their subsistence economy, social isolation and food insecurity. Their natural habitat renders them vulnerable to a host of astringent unsanitary living conditions, wide spread poverty, illiteracy, ignorance, absence of safe drinking water, lack of personal hygiene and health education, poor utilization of maternal

and child health services and ineffective coverage of health services. A considerable proportion suffers from malnutrition such as protein-energy and deficiencies of iron, vitamin A and iodine (Roa *et al*., 1989; Bulliya *et al*., 2002). Their common superstitious beliefs, customs, practice and taboos connected with health and disease intimately related to treatment of diseases that affect the morbidity and mortality. Maternal and child care is largely neglected, which is reflected in terms of high infant mortality and maternal mortality rates (Kumar *et al.,* 1991). Malaria, meningitis, unspecified fevers, diarrhea, respiratory infections and neonatal tetanus takes a heavy toll (Basu *et al.,* 1993). A larger number suffers from various communicable diseases like leprosy, tuberculosis, and venereal disease transmitted through contact with non-tribals (Swain, *et al.,* 1990). Worm infestations are high due to semi starvation, inferior food and unhygienic food habits, which in turn affect nutritional status. The acute food insecurity feature is commonly characterized with malnourishment, vulnerability and poor socio economic condition. It is reported that more than half of the tribal population is not consuming the recommended requirement (Patel, 1985). Their diets are grossly deficient in animal protein, fats and vital nutrients like calcium, iron, riboflavin and vitamin A. Besides scarcity of food, they have superstitions and misconceptions regarding food in spite of all sufferings and starvations. Further extremes of magico-religious beliefs and taboos tend to aggravate the nutritional problems. A high prevalence of malnutrition is reported in primitive tribal groups such as Lanjia Saura, Kutia Kondh, and Paudi Bhuiyan. Protein-energy-malnutrition and iron and vitamin deficiencies are widely prevalent among preschool children. High rate of micronutrient deficiency is documented for adolescent girls, pregnant women and lactating mothers (Rao *et al.,* 1989; Vijayaraghavan *et al.,* 1997). Owing to hard work along with poor quality of food, females suffer from different ailments since their early age and survival tasks, which result in inevitable neglect and adverse affect on health during infancy.

Measure of Nutrition Status

Malnutrition has been defined (Jetliffe, 1966) as a pathological state resulting from relative or absolute deficiency or excess of one or more essential nutrients, this state being clinically manifested or detected only by biochemical, anthropometric or physiological tests.

Clinical examination of individuals is an important practical method of assessing the nutritional status of an individual and a community. The method is based on examination for changes, believed to be related to inadequate nutrition, that can be seen or felt in superficial epithelial tissues, specially the skin, eyes, hair and buccal mucosa, or in organs near the surface of the body, such as the parotids and the thyroid glands. Occasionally this may be supplemented in the field by certain physical tests with or without instrumental aids, such as the testing of the ankle jerk. This method has the advantage as it is relatively inexpensive as neither elaborate field equipment nor a costly laboratory is required. Though the method is simple but it has its own limitations (Jetliffe, 1966).

Age and body weight largely determine the nutrient requirements of an individual. Body weight and heights of children reflect their status of health and growth rate, while adult weight and height represent what can be attained by an individual with normal growth. Height unlike weight, once gained cannot be lost as weight is not affected by chronic malnutrition. The nutritional goal of any country would be to

provide adequate nutrition and health support to its population so that they attain their full genetic potential in growth and development.

Anthropometric measurement (Vijayaraghavan, Singh and Swaminathan, 1971) of Indian children up to 14 years belonging to well-to-do groups have shown that they grow at rates similar to those of children in the developed countries.

Malnutrition in children in the tropics is important not only because it is common but also because it highlights important relationships between infection, immunity and nutrition which are of universal application.

All malnourished children show reduced growth and muscle protein deficiency. Two 'polar' types of protein energy malnutrition (PEM) are recognized, they are Marasmus and Kwashiorkor, but many children have a mixed clinical picture (Cowen and Heap, 1993).

Marusmus occurs in infant aged under 1 year when maternal milk supply is interrupted by death or illness and in older children in time of famine. The child has clearly lost muscle and subcutaneous fat. The skin is dry and wrinkled and there is no peripheral oedema. The hair is thin and dry. Body temperature is low. The child looks anxious but moves less than normal and may be hungry, but vomit any foods offered. Such children are susceptible to diarrhoeal and respiratory infections, trachoma and vitamin A deficiency.

Children with Kwashiorkor are usually aged 18 months to 4 years and have been weaned from the mother's breast. Muscle loss occurs but subcutaneous fat is preserved, and there is obvious peripheral oedema. The hair is dry, straight and depigmented. The skin is scaly and glistening, peeling and hyper pigmented, especially on the legs. The abdomen is distended and the liver enlarged. The child is fractious and irritable and often has diarrhea. Clinical vitamin A deficiency may be present.

Children with mixed 'marasmic kwashiorkor' have a varied picture with muscle loss, oedema and damaged skin (Cowen and Heap, 1993). The diagnosis of the malnutrition syndrome is primarily clinical. Anthropometric documentation is essential for the individual child and for the study of the community. Body weight on a centile chart is a measure of current nutritional status. Allowing for the presence of oedema; body length or height indicates previous progress in growth. Children with kwashiorkor have low serum albumin, potassium, zinc, magnesium and calcium levels and low blood sugar, and may be anaemic with defective blood clotting.

The treatment of marasmus requires the provision of adequate nutrients appropriate to the age of the child, with powder or cow's milk as the basis, involving the mother if possible at all stages. The management of kwashiorkor is more complicated. Clinical dehydration at present should be treated with oral rehydration solution. Adequate intake of protein and calories require frequent feeds of a mixture of skimmed milk, vegetable oil and sugar (sucrose or glucose), followed by cereals, pulses, rice, eggs and meat or fish according to availability. Supplement of potassium and magnesium and vitamin A are important early treatment and should be followed with additional iron, folic acid and B vitamins. Children with kwashiorkor may also have tuberculosis and malaria may also complicate convalescence (Cowen and Heap, 1993).

Prevention of childhood malnutrition in a community depends on :

- Adequate community food supplies;
- Education of mothers in the use of nutritious foods which are cheap and available in their community; and
- Primary health care programmes including monitoring of child development, treatment of or immunization against common infections, provision of vitamin A supplements.

In India, prevention of childhood malnutrition is not possible at the present situation because of the extremely inadequate infrastructure facilities for health care in rural India, where the people are poor and there are no adequate food supplies in interior villages, parents are illiterate, primary health centres are almost non-existent in the village.

Check Your Progress III

Note: Use the space provided for your answer.

1) What do you understand by malnutrition?

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3.5 HEALTH STRATEGIES

Tribal groups of India have specific problems, some of those are built-in problems of these communities and some are imposed upon them which jeopardize their overall development and progress inclusive of their health, therefore, the health care delivery system should be such designed for each specific needs and problems by bringing their personal involvement. NGOs working for the development and welfare of the tribal, collaboration of Voluntary Organisation/NGOs should be secured to integrate and co-ordinate their activities and services with the health development plan of the Government for the tribal population. The following strategies may be actively followed by NGO functionaries for the health development of the tribal population:

a) Socio-Cultural and Environment Awareness

- Formulation of realistic development plans based on needs of specific tribal group
- Adequate understanding of socio-cultural background of different tribal groups, perception of diseases, their beliefs and taboos, study of health culture at micro level. Positive tribal cultural values, traditional skills should be encouraged and to be inducted to mainstream of life.
- In most of the tribal communities, there are a number of folklores related to health. Documentation of folklores available in different socio-cultural systems may provide the model for appropriate health and sanitary practices in a given eco-system.

- Identification of indigenous herbs for medicinal use and their preservation and documentation in the light of the TRIPS agreement.
- Development of ethno-botanical and ethno-zoological museum at the divisional headquarters, collection, preservation and display.
- Efforts on sanitation, personal hygiene, provision of safe drinking water, dispelling the misbeliefs and taboos, magico-religious practices etc., awareness of hazards of consanguineous marriages.

b) Nutrition

- Development of horticulture with emphasis on local fruits.
- Introduction of Integrated Child Development Scheme (ICDS) in all blocks (basically strengthening the existing Government resources).
- Development of poultry and fisheries.
- Study of nutritional status and physical growth.

c) Maternal and Child Health

- Hundred per cent immunization of mothers and children with special emphasis on measles vaccination.
- Strengthening the services of the existing health programmes related to mother and child health and ensuring the services are accessible and available.
- Distribution of Vitamin A.
- Oral rehydration therapy and education.

d) Genetic Disorders

- To hold training camps of medical staff for awareness of genetic disorders and marriage counseling.
- Training of laboratory technicians in the technique of simple genetic tests like sickling, G-6-PD enzyme deficiency etc.
- Screening of villages for sicklers and G-6-PD deficient individuals, identified persons can be tattooed with dot marks.

e) Health education

- Chapters on horticulture, poultry, immunization, common diseases, genetic disorders, ORS, hygiene, sex education etc. may be included in the Middle and High school syllabus.
- Distribution of leaflets and playing of audio and, where possible, video cassettes preferably in local dialects in weekly markets, ghotuls, schools etc.
- Development of effective communication strategies on health education and health care among tribal groups.

f) Training

- Organisation of short term orientation courses on tribal culture for health workers at district and sub-divisional headquarters.
- Identification of traditional health practitioners and their training in public health.

- Training of tribal girls as nurses, midwives to generate better response.
- Strengthening of tribal research institutes which may serve as base laboratories.

g) Other Measures

- In difficult tribal/hilly areas, Mobile health teams should be formed to provide professional services for medical care and research and collect health information.
- In tribal areas, *"Haats"* (weekly market centres) are the focal point of activity. Each *"Haat"* should be provided with a Primary Health Centre (PHC).
- As some Primitive tribal Groups are reported to be stagnant or declining, efforts should be made to delineate the causative factors.

Check Your Progress IV

Note: Use the space provided for your answer.

1) What intervention strategy may be followed to promote health and prevent malnutrition among tribal communities in India?

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3.6 LET US SUM UP

General health status of the tribal is poor as compared to the modern society. They may suffer from some distinct health problems, not because they have some specific type of health, but because of specific placement in difficult areas and circumstances, in which they live. Also because of the widely varying geo-climatic and ecological conditions the different tribal societies depending on their uniqueness may have some specific health issues and problems of their own. We often tend to forget that till a few decades ago, the small tribal population did not exert any undue pressure on land, forest and other similar natural resources. The tribal health in India unfortunately was never taken seriously. The nutritional problems of different tribal communities located at various stage of development were full of obscurities and a very little scientific information on dietary habits and nutritional status were available due to lack of systematic and comprehensive research investigations. Though some intensive field work has been done by social scientists but some of the studies treated the problem of the tribal health in peripheral and casual manner. For a meaningful understanding of the tribal health, it is important to understand the people themselves their indigenous medicines and understand how under the existing social, economic and cultural setting these needs can be best met to the satisfaction of people themselves.

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