

**Information, Education and Communication in the  
context of Diarrhoea and Tuberculosis Control in  
Dausa District of Rural Rajasthan**

*Dissertation submitted to the Jawaharlal Nehru University in partial  
fulfilment of the requirements for the award of the Degree of*

**MASTER OF PHILOSOPHY**

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July 21, 1998

**CERTIFICATE**

Certified that this dissertation entitled "**INFORMATION, EDUCATION AND COMMUNICATION IN THE CONTEXT OF DIARRHOEA AND TUBERCULOSIS CONTROL IN DAUSA DISTRICT OF RURAL RAJASTHAN**" submitted by **Mr. Raghunath Prasad Saini**, in partial fulfilment of the requirements for the award of the degree of **MASTER OF PHILOSOPHY**. This dissertation has not been previously submitted for any other degree of this or any other University and is his own work.

We recommend that this dissertation may be placed before the examiners for evaluation.

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DEDICATED  
TO  
MY PARENTS

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# ***CONTENTS***

|                    | <b>TITLE</b>   | <b>PAGE NOS.</b> |
|--------------------|--|------------------|
|                    | <b>Acknowledgement</b>   |                  |
|                    | <b>List of Tables</b>  |                  |
| <b>Chapter I</b>   | <b>Introduction</b>  | <b>1-20</b>      |
| <b>Chapter II</b>  | <b>Methodology and Review of Literature</b>  | <b>21-52</b>     |
| <b>Chapter III</b> | <b>Socio-economic and Demographic Profile</b>  | <b>53-80</b>     |
| <b>Chapter IV</b>  | <b>Awareness, Understanding and Practice of Mothers About Diarrhoea and Tuberculosis</b> | <b>81-130</b>    |
| <b>Chapter V</b>   | <b>Health Workers Knowledge and Attitude about Diarrhoea, Tuberculosis and IEC</b>       | <b>131-152</b>   |
| <b>Chapter VI</b>  | <b>Discussion and Conclusion</b>   | <b>153-164</b>   |
|                    | <b>Bibliography</b>  | <b>165-176</b>   |
|                    | <b>Annexure I</b>  | <b>177-180</b>   |
|                    | <b>Annexure II</b>   | <b>181-183</b>   |

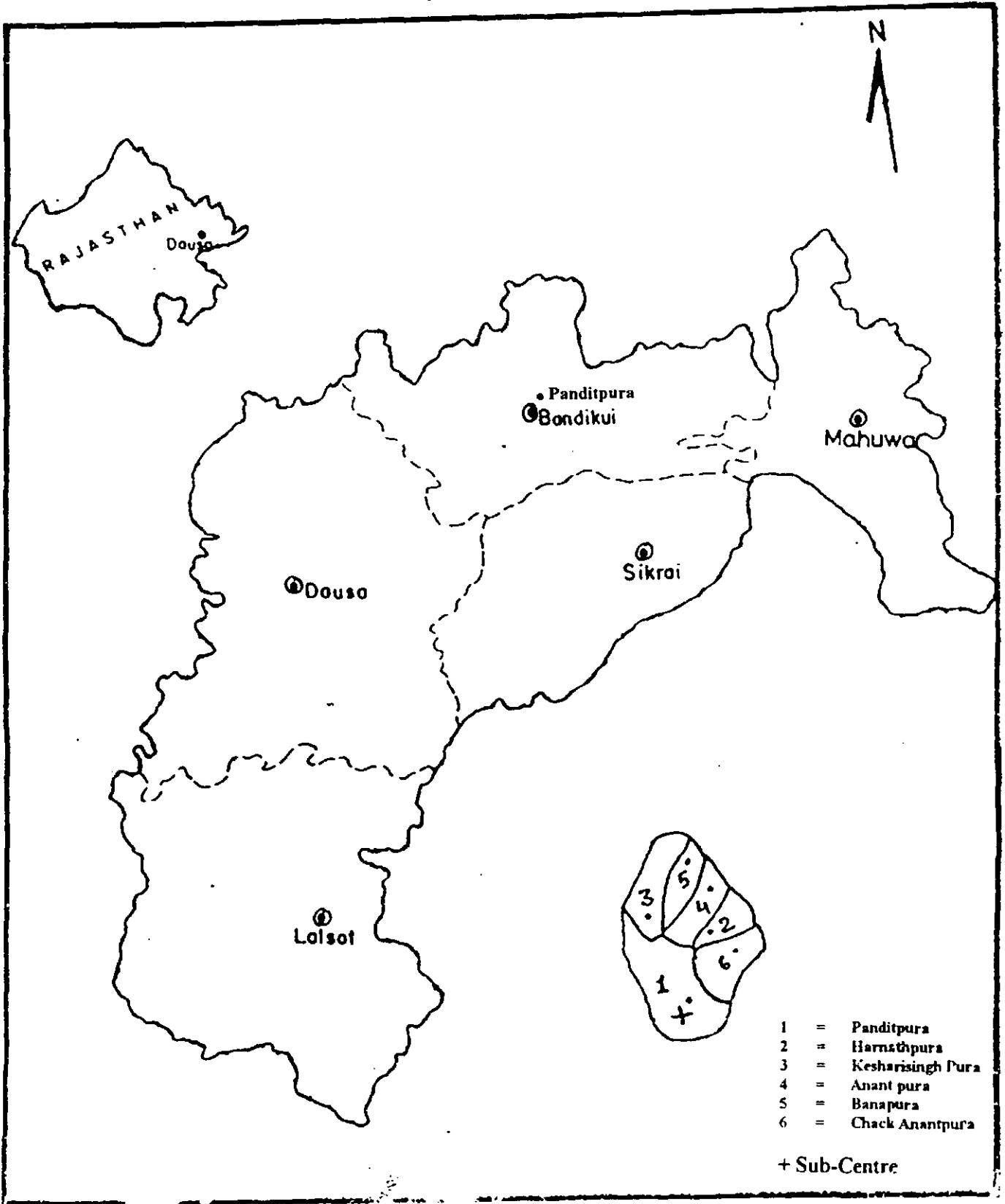
## LIST OF TABLES

| S.No.    | TITLE   | PAGE NOS. |
|----------|---|-----------|
| 1.1      | Year wise allocation of Funds to State (H&FW) AND (IEC) Activities  | 17        |
| 3.1      | Socio-economic and Demographic Profile of Dausa and State of Rajasthan  | 57        |
| 3.2      | Block wise Distribution of Govt. Health (Allopathy + Ayurvedic) Institutions Providing Health Services                              | 59        |
| 3.3      | Block wise Distribution of Health and other Institution involved in IEC activities (Inter personal Communication) in district Dausa | 61        |
| 3.4      | Distribution of Various key functionaries involved in IEC related to Health in District Dausa and the State                         | 63        |
| 3.5      | Profile of Sub-centre   | 68        |
| 3.6      | Village wise available Resource Persons might involve in IEC activities   | 69        |
| 3.7      | Socio-economic and Demographic Profile of the women   | 74-75     |
| 3.8      | Profile of Respondents MPW (Male and Female)  | 79        |
| 4.1.1    | Knowledge of Mothers regarding recognition of Diarrhoea   | 82        |
| 4.1.2    | Knowledge of Mothers regarding symptoms accompanying Diarrhoea  | 83        |
| 4.2.1    | Knowledge Regarding Causes of Diarrhoea by Socio-economic Background  | 86        |
| 4.2.2    | Knowledge Regarding Causes of Diarrhoea in Infants by Socio-economic Background   | 88        |
| 4.3.1    | Knowledge Regarding Preventive Measures of Diarrhoea by Socio-economic Background   | 90        |
| 4.4.1    | Treatment in Practice when Diarrhoea Occurs by Socio-economic Background  | 95        |
| 4.5.1    | Awareness of Mothers Regarding ORS  | 98        |
| 4.5.2    | Awareness regarding ORS but not about the correct method of preparation by Socio-economic background                                | 99        |
| 4.6.1(A) | Awareness of Mothers Regarding Food during Diarrhoea  | 101       |
| 4.6.1(B) | Awareness Regarding Feeding Diarrhoeal Child with Home available specific food by socio-economic background                         | 102       |
| 4.7.1    | Source of getting information regarding Diarrhoea   | 103       |

| <b>S.No.</b> | <b>TITLE</b>   | <b>PAGE NOS.</b> |
|--------------|--|------------------|
| 4.8.1(A)     | Awareness Regarding recognition of Tuberculosis by Socio-economic Background | 108              |
| 4.8.1(B)     | Awareness Regarding Symptoms of Tuberculosis                                 | 109              |
| 4.9.1        | Awareness Regarding Seriousness of Tuberculosis                              | 110              |
| 4.10.1       | Awareness Regarding Causes of TB by Socio-economic Background                | 112              |
| 4.11.1       | Awareness Regarding Preventive Measures of TB by Socio-economic Background   | 115              |
| 4.12.1       | Awareness Regarding Treatment of TB  | 117              |
| 4.13.1       | Awareness regarding precautions to be taken by TB Patients                   | 119              |
| 4.14.1       | Sources of getting Information regarding Tuberculosis                        | 120              |
| 4.15.1       | IEC Activities (Home visits by Health Workers) by Socio-economic Background  | 126              |
| 4.16.1       | IEC Methods and Media Working in the Area                                    | 127              |
| 4.17.1       | Practice of Sharing knowledge  | 128              |
| 4.18.1       | Opinion regarding best method or media for disseminating health messages     | 129              |
| 5.1.1.       | Knowledge of Health Workers regarding signs and symptoms of Diarrhoea        | 132              |
| 5.2.1.       | Knowledge of Health Workers regarding danger signs of Diarrhoea              | 134              |
| 5.7.1        | Knowledge of Health Workers regarding modes of Transmission of Diarrhoea     | 136              |
| 5.8.1        | Knowledge of Health Workers regarding preventive measures of Diarrhoea       | 137              |
| 5.10.1       | Knowledge regarding Health Education points for Diarrhoea                    | 139              |
| 5.11.1       | Knowledge of Health Workers regarding signs and symptoms of Tuberculosis     | 141              |
| 5.12.1       | Awareness of Health Workers regarding danger signs of TB                     | 142              |
| 5.17.1       | Knowledge of Health Workers regarding modes of Transmission of Tuberculosis  | 144              |
| 5.18.1       | Knowledge Regarding Preventive Measures of Tuberculosis                      | 146              |
| 5.20.1       | Knowledge Regarding Points of Health Education for Tuberculosis              | 148              |
| 5.22.1       | Methods and Media of Health Education/IEC Activities used by Health Workers  | 151              |

# MAP OF STUDY AREA

(Rajasthan, Dausa & Panditpura)





## CHAPTER I

### INTRODUCTION

Health education has been identified as key element of Primary Health Care. As a result of planned developments, impressive health infrastructure has been built up in the country to reach rural people for information, education and communication activities. Besides this, voluntary force of non-governmental organisation and varieties of infrastructural facilities in urban areas do exist.

For the implementation of health education/IEC activities, IEC Bureau has been established and besides health workers various other health education specialists have been posted at various levels. The fund for the health education/IEC activities has been made available at centre as well as state level. In Rajasthan itself a huge amount (budget) for health education/IEC activities has been allotted. But from the review of studies on knowledge of people shows that the knowledge about various aspects of health and disease is very limited in the community. There are very few studies done on IEC, in the context of knowledge and practice of people about disease prevention and control in Rajasthan. The only ones available were conducted during 1990-92 with increasing exposure and health education activities, knowledge and practice is expected to have changed. Current health education activities must be based on present knowledge, attitude and practice levels. Therefore the need for this study.

#### 1.1 Conceptualisation

Though it is obvious that nobody would like to fall sick, the occurrence of illness sometime or the other seems to be inevitable. We do fall sick now and then. In prehistoric times, human beings lived very much like animals. Every body was left to nature and man knew very little about how disease were occurring and how to overcome them. With the march of

time and scientific advancement man has been trying to ward off sickness and striving to live as long as possible.<sup>1</sup>

Man's concept of sickness has evolved down the centuries from the supernatural theory of disease, through the germ theory to the modern multifactorial theory of disease. The prehistoric man believed that disease was due to supernatural causes (e.g. evil spirits). In this era, the practice of medicine was based on religion magic and witchcraft or faith healing. Then folk systems, herbal and house remedies and organised indigenous system developed. In the germ theory the emphasis shifted from empirical causes (e.g. evil spirits, bad air) to bacteria and microbes as the sole cause of disease, whereas in theory of multiple cause, to disease not due to a single cause but multiple cause. These causes may be social, economic, cultural or psychological related to man and his environment.<sup>2</sup>

### **Human Behaviour in Illness**

Let us now discuss as to what people normally do when they fall sick. One method is that the sick first go for faith healing, then to traditional healer and then to private doctor/Govt. doctor for modern medicine. The other method is to go straight to nearest private doctor/Govt. doctor, and finally is the method when the people tryout some home remedies and when the disease does not respond they go to the doctor for modern medicine. In the first method there is delay and the patient may loose his or her life, second method may not always be practical as in some remote area (no. minimum facilities) dispensaries or doctors are not easily accessible, therefore, the best way is to try out home remedies and if one does not get benefit then we goes to specialised care. The main advantage with home remedies is that they are cheaper and in some cases safer. Many diseases are cured by home remedies. However, others can be treated better with modern medicine. This is true for the most serious infections.<sup>3</sup>

But Prevention is better than cure. For this the concept of public health and health education comes in mind. The realization of importance

and practice of public health and health education in India is from the ancient times. One of the Sanskrit Scriptures contains a clear description of "do's" and "don'ts" for better health by a particular group of people such as noble man, the common man, and the manual workers. This scripture also emphasises the need for general awareness about environmental sanitation and personal hygiene that help maintain better health of the people. Another historical document by Kautilya makes a reference to the ways and means to safeguard individual and community health against various health hazards. Charaka and Susruta, besides other aspects, deal in greater depth with the preventive health; and suggest the need for education of the general public for better health. Further during the third century B.C., we find an excellent example of educational effort for better health by Emperor Ashoka. Realizing the need for regulated life for happiness, he had widely popularized various prescriptions and prescriptions for better life many of which had direct relevance to health. Thus the practice of health education in India is not of recent origin.<sup>4</sup>

There are diseases occurring all over the world known as communicable and non-communicable disease. We will discuss only communicable diseases. Communicable disease occurs through respiratory infections, intestinal infections, arthropod-borne infections, zoonosis, and surface infections.<sup>5</sup>

- Respiratory infection includes small pox, chicken pox, Measles, rubella, Mumps, influenza, Diphtheria, Whooping Cough, Meningococcal meningitis, Tuberculosis etc.
- Intestinal infection includes Poliomyelitis, Viral hepatitis, cholera, Acute diarrhoeal diseases, Typhoid fever, Food-poisoning, Amoebiasis, Hookworm infection etc.
- Arthropod-borne infection includes Dengue syndrome, Malaria, Filariasis etc.
- Zoonosis diseases include Rabies, Plague etc.

- Surface infection includes Trachoma, Tetanus, Leprosy, STD, AIDS etc.

Most of these diseases can be prevented if a planned health education programme is implemented to bring awareness among the masses and that they practice health education as an important tool to save themselves.

### **Prevention**

Prevention of a disease depends upon a knowledge of causation, dynamics of transmission, identification of risk factors and risk groups, availability of prophylactic or early detection and treatment measures, an organisation for applying these measures to appropriate person or groups and continuous evaluation of and development of procedures applied. It is not necessary (although desirable) to know everything about the natural history of a disease to initiate preventive measures. Often, removal or elimination of a single known essential cause may be sufficient to prevent a disease.<sup>6</sup>

In modern day, the concept of prevention has become broad based. It has become customary to define prevention in terms of three levels: primary prevention, secondary prevention and tertiary prevention. Primary prevention can be defined as "action taken prior to the onset of disease, which removes the possibility that a disease will ever occur". In summary, primary prevention is a "holistic" approach. It relies on measures designed to promote health or to protect against specific disease "agents" and hazards in the environment. It utilizes knowledge of the prepathogenesis phase of disease, embracing the agent, host and environment. The safety and low cost of primary prevention justifies its wider application. Primary prevention has become increasingly associated with "health education" and the concept of individual and community responsibility for health.<sup>7</sup>

Secondary prevention may be defined as 'action which halts the progress of a disease at its incipient/early stage and prevents complications". The specific interventions are early diagnosis (e.g.

screening tests, case finding programmes) and adequate treatment. We do not have vaccines to prevent all diseases. For diseases of this category early diagnosis and treatment is the only solution. The earlier a disease is diagnosed the better it is from the point of view of preventing the occurrence of further cases in the community.<sup>8</sup> Tertiary prevention is defined as "all measures available to reduce or limit impairments (damages) and disabilities, minimise suffering caused by existing departures from good health and to promote the patient's adjustment to irremediable condition". The specific interventions are disability limitation and rehabilitation. The purpose of rehabilitation is "to make productive people out of non-productive people".<sup>9</sup>

## **1.2 Understanding Health Education**

Health education is an essential tool of community health. Every community health worker, be it a doctor or nurse, is a health educator. The object of health education is "to win friends and influence people" in order that they may attain the best of health. The WHO defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This definition has been so framed that it reminds one about the need for living a life of robust and sound health by knowing which diseases should be avoided. Also this definition does not consider the socio-economic conditions and culture in which people live. All the world over health care services have the goal of attaining a highest level of health. For ensuring a continued state of a high level of health for every human being it is necessary not only to provide adequate and suitable facilities for prompt detection of illness, treatment, rehabilitation, etc., but also to arrange for suitable preventive care and promotive facilities.<sup>10</sup>

But actual living of a healthful environment depends not only on facilities which are provided but also on each individual and on the community in different form of groups like family, kinship, caste, etc. should observe all necessities for healthful living. As already mentioned no one

would like to fall sick, however, in daily life man tends to do many things such as practising unhealthy behaviour or knowingly/unknowingly by which he makes himself susceptible to disease.

Many of diseases due to these trends can be avoided themselves by practising healthy behaviour involving proper personal hygiene and sanitation, immunization, eating proper kind of food which depends on food preparation and handling practices.

To ensure such behaviour consisting of proper health practices suitable education is required. The art and science of engaging people in a process of learning for the desired behaviour for preservation of health is 'health education'.

### **Definition of Health Education**

Health education has been defined in many ways by different authors and experts. These are as follows:

"Health education, like general education is concerned with changes in knowledge, feelings and behaviour of people. In its most usual forms it concentrates on developing such health practices as are believed to bring about the best possible state of well being." (WHO Technical Report No. 89 of 1954)<sup>11</sup>

Health education is "a process that informs, motivates and helps people to adopt and maintain healthy practices and life styles, advocates environmental changes as needed to facilitate this goal and conducts professional training and research to the same end."<sup>12</sup>

Health education has been defined as "a process which effects changes in the health practices and in knowledge and attitudes related to such changes".<sup>13</sup>

Health education is "a process of change within a person in his knowledge attitude and practice which is related with the development of his personal and community health".<sup>14</sup>

Health education can be defined as "any intentional activity which is designed to achieve health... related learning."<sup>15</sup>

Health education is "the combination of planned social actions and learning experiences designed to enable people to gain control over the determinants of health behaviour, and the conditions that affect their health status and health status of others".<sup>16</sup>

What is to be understood about these definitions is that health education is a process that aids people to find out their health needs and activate them for suitable behaviour. The behaviour necessary for health in any situation is referred to as 'health related behaviour'. The education given for identifying the health needs and matching it with suitable behaviour can be termed as health education.

### **Essentials of Health Education**

If we understand that the aim of Health Education is to ensure health related behaviour it should not be difficult to appreciate the following essential points which are relevant and applicable to health education in all possible situations.<sup>17</sup>

1. Health education is not a one time affair. It is continuing education which may be required for almost every one at some time or other, can be organised as a self learning process or a process of learning from others, consisting of proper communication of ideas.
2. Health education does not rule the role of non-medical and non-health personnel as health education but it only emphasizes the importance of acquisition/gain of correct and complete information and knowledge on relevant health problems and their application.
3. Since health education aims at change of behaviour a health educator has to acquire and develop skills to educate, to communicate, to motivate and involve the client. Also to combine in himself knowledge and skills of behavioural sciences with sufficient rational understanding of the health problems and their solutions from a scientific and logical stand point.

## **Communication in Health Education**

Development implies progressive improvement in the living conditions and quality of life of the individual, community and society. Development in one spheres of life leads to development in others. Thus, no distinction can be drawn between economic, social and health development. Economic development is an instrument to achieve social development which, in turn is necessary to achieve economic development. The purpose of development is to prepare people to lead economically productive and socially satisfying lives. Therefore, health development is essential for social and economic development. But no sector, be social, economic, health can function independently of each other in the process of development. Activities in one field impinge (mainly as impact) on the goals of another. Therefore, there is a need to have cooperation between social and economic sectors to bring development and to promote health development as a part of it.<sup>18</sup>

The strategy for health development Alma-Ata conference held in 1978 stress the need for Health for all by the year 2000. It also stressed "Primary health care" a key approach for achieving the objective of "the attainment of a level of health that will enable every individual to lead a socially and economically productive life". And in primary health care "health education" is one of the eight essential elements. Therefore health education is central to primary health care, which in turn leads ultimately to health development.

In the process of disseminating health information/education, communication is necessary for both understanding and what can be called mind management. In its totality of function, communication is an instrument to promote health action for changing behavioural practices which are not favourable to individual or community health development.<sup>19</sup>

The key elements in the communication process are the communicator (the person who sends the message), the message, audience



(the person who receives the message) and channels of communication. The message in health education is something that is considered important for the people in community to know or do. The source may be a local health worker or a national government or member of the community who recognize a need for change. The message may be transmitted person-to-person in private conversation, or in group meeting or health talk or indirectly through other mass media.

### **1.3 Role of Health Education/Communication in Disease Control**

It is very topical that the subject of Health Education in Disease Control as well as in Primary Health Care was taken as the theme of the conference held in Alma-Ata 1978. A major affirmation also stated which is of utmost relevance to health education is that people not only have the right to participate individually and collectively in the planning and implementation of health care programmes but also have a duty to do so. In addition, it is the responsibility of all those concerned with health education to facilitate people to achieve this task. This entailed taking a fresh look at Health Education.<sup>20</sup>

The global strategy for HFA/2000 A.D. called for ministries of health to explore appropriate ways of involving people in deciding on the health system required and the health technology they find acceptable and indelivering part of the national health programme through self-care and family care and involvement in community action for health. This has involved an orientation and training of all the health professionals to enable them to assure an active role in community health education.<sup>21</sup>

Health education has now become an integral component of all training programmes for doctors, nurses and the various categories of health workers. This implies that it is not only the health education specialist who will meet the health education needs, but it will be anyone and every one who will come in contact with people or all facilitators for social action for health.

In 1987, the Regional Committee for South-East Asia recommended that the existing academic and in-service training programmes for health professionals should be reviewed, based upon "Health for All" strategy and its implied value, and strengthened in respect of information, education and communication (IEC) services. The teaching should be participatory and field oriented.

It is now well recognised that effective health education programmes can be designed only after appropriate community research has been carried out. Health behaviour research (HBR), is seen as being concerned with "finding out what people know, believe, think and feel about health and how such cognitive and effective bases are related to what they do". HBR must expand from the conventional Knowledge, Attitude and Practice (KAP) studies towards ethnographic studies to look more closely into the origin and causes of human behaviour, social values of people and how people interact with their environments and to provide decision makers with tools which will help them predict and influence human behaviour towards participatory health development. A proper study of health behaviour calls for inputs from the biomedical as well as the social sciences. It is also extremely important that behavioural sciences should be part of the inputs in the pre-clinical stages of medical education and postgraduate medical education.<sup>22</sup>

The main objectives of Health education in any disease control are as follows<sup>23</sup> :

- To reduce the spread of the disease in the country;
- To educate people/community regarding disease aetiolog (the cause of disease) and spread;
- To educate people/community to be self-recant (withdraw and reject one's former statement or belief by one's self only);

- To educate the people/community about the risk factors of the disease;
- To create awareness about the dangerous as well as consequences of the disease;
- To educate people/community regarding to ensure health services whenever necessary and availability;
- To ensure community participation in the National Health Programme;
- To educate the patient as well as community to maintain good personal and environmental hygiene;
- To ensure utilization of health facilities.

#### **1.4 Development of Health Education in India**

The beginning of modern forms of health education as India can be traced back as early in 1916 when the state of Bihar had established a Public Health Bureau in the Directorate of Public Health. One of the main purposes of the Bureau was to disseminate health knowledge to the people.<sup>24</sup> In 1922, the Health Education Bureau was established in Uttar Pradesh which functioned as an important organ of the State Directorate of Health Services. However, the activities were concentrated in environmental hygiene publicity rather than health education per se.<sup>25</sup> By 1940s, almost all states in the country had publicity units in the Directorate of Health Services with the sole purpose of educating the masses about the preventive and promotive health practices. However, the need for independent organizational structure for health education was for the first time realized by the Bhole Committee in 1944. The Report of the committee specifically indicated the lack of health education component in health services during the British regime.

The Committee pointed out that "health Education meant not only in purely health matters but also those activities which are likely to influence

favourable individual knowledge, health attitudes and health habits. The progress of Health Education in India has been slow. The standards of teaching of hygiene in schools were low because of the poor content of the syllabuses and the methods of teaching of hygiene in schools by persons not adequately subjected to such task. Health education among the general population was also not of any worthwhile standards as compared to other countries." As a first step, it suggested by the committee that the establishment of Health Publicity Bureaus at the Centre as well as in various States so that educational aspects of preventive health can be integrated alongwith the existing preventive and curative health services. It also laid emphasis that these Bureaus should participate in promoting health education among all sections of the population and provide assistance and advice to the State Health Departments in organizing effective health propaganda in their area. In order to accomplish the tasks of health education, the committee broadly suggested that the Bureaus should publish journals on various aspects of health; training of specialists and field workers, equipping them to conduct health tasks, film shows, demonstration; and use of various educational aids.<sup>26</sup>

The year 1956-57 has been significant in the development of health education in India, in which a formal organizational structure was setup in three directions- (i) Creation of the CHEB at Delhi; (ii) Introduction of three-month certificate course in Health Education at AIH&PH in Calcutta; and (iii) Involvement of foreign consultants from WHO, and Technical Cooperation Mission (now USAID). In the year 1964, another major development took place. Health Education was integrated at the District level by launching training programmes for the District Health Extension Educators. In the same year, a three-month intensive job oriented training course was started at three Centres - (i) Gandhigram Institute of Rural Health & Family Welfare Trust, Gandhigram (Tamil Nadu), (ii) CHEB, Delhi, and (iii) Family Planning and Research Centre, Bombay. This year also significant as the post-graduate diploma course in Health education

(Diploma in Health Education) was started by the Gandhigram Institute of Rural Health and Family Welfare Trust, Gandhigram. In 1966, two major steps were taken- (1) integration of Health education in various national health programmes more intensively than before. The AIH&PH started the course- Diploma in Health education during 1966. The chronology of the development of health education in India indicates that the Health Education Bureaus have developed basically through following stages:-

1. Development of publicity activities;
2. Preparation of trained personnel in health education;
3. Utilization of trained health educators for comprehensive education activities;
4. Integration of systematic research and evaluation in health education;
5. Integration of health education in the training programmes of workers from allied developmental departments;
6. Integration of health education in schools and general educational system, and medicine;
7. Multi-disciplinary approach in health education through organizing field studies and demonstration centres.

## **1.5 Change Of The Concept From Health Education To IEC**

### **New Concept of Health Education**

Policies for health education as articulated by the World Health Assembly over the past 30 years have shifted the emphasis:<sup>27</sup>-

- from centralized to decentralized planning;
- from singular (specific disease) to diverse objectives;
- from building health literacy and skills in support of specific programmes to promoting holistic educational approach to problems;

- from focussing on individual behaviour change to a concern for organizational, economic and environmental factors which are conducive to healthy life styles, self reliance and political action for health promotion.

The most recent document in the "Health for All" series published by headquarters is the Seventh General Programme of Work of WHO, which provides for a greater integration of health education and public information activities. Thus, health education is now placed in a broad perspective in which information and education are seen as elements of the same continuum. This continuum involves activities ranging from advocacy, arousing health consciousness and reaching out to large numbers of the population through the media, to an approach involving interpersonal relations in dealing with specific individual and community aspirations and problems.<sup>28</sup> For the last few decades since the inception of health care services in the country constant efforts have been made to access to health information so as to enable people to be responsive to, their own health. However the utilization of health care facilities by the community has remained elusive, partly due to poor availability, restricted accessibility and qualitative and quantitative inadequacy, and partly due to low community awareness. A need for a new strategy in information education and communication has been realised and emphasised over successive five year plans. Therefore a new IEC strategy aimed at evolving new extension strategy with a view to improve quality of care by improving programme planning, implementation, monitoring and evaluation at various levels emphasising effective resource utilisation.<sup>29</sup>

A conference of 12 countries including India held at East and West Centre, Honolulu Hawaii, in 1975 discussed the strengthening of IEC for promoting behaviour change in health and Family Welfare and population planning.<sup>30</sup> The consensus emerging out of this conference was in line with Rogers Model which states that the communication strategy is a plan or a design for changing human behaviour on a large scale basis through the

transfer of new ideas.<sup>31</sup> The main focus is on the grassroot level workers by raising the performance level of these workers by improving the level of knowledge and skills through training and improving access and availability by ensuring predictability and regularity of visit by the providers at the door steps of the people.

Keeping in view of the attainment of HFA by 2000 A.D, now extended to 2005 A.D, and the vastness of rural community in country, strengthening of health delivery through the primary health care approach become a great cause of concern. In this direction, the concept of IEC training scheme and the proposal thereof was accepted by the Government in 1985. The development of the IEC training strategy has been brought about through a number of workshops, experience from visits in the rural areas and discussions with the health functionaries from grassroot level workers to decision makers. The IEC proposal therefore is neither to change the programme nor to add resource or materials but to evolve a new extension strategy with a view to improve programme planning and implementation, monitoring and evaluation aspects of various levels with particular thrust on efficient resource management.<sup>32</sup>

This extension strategy was adopted in November, 1987 with the following key elements<sup>33</sup> :-

- 1) Increase the reach of services by making visits of workers and supervisors more predictable and regular;
- 2) Improve quality through knowledge and skill development of workers;
- 3) Make supervision more oriented towards problem solving;
- 4) Link supervision with training at various levels;
- 5) Concentrate on local field problems both for developing training material and their use;

Organisation Structure and Staffing Pattern of the Bureau

**DIRECTOR (IEC)**

| <b>Field Operation Division</b>  | <b>Communication Material Production Division</b>   | <b>Swasthya Karmi NGO/AIDS Division</b>   | <b>Training, Planning, Monitoring and Evaluation Division</b>   | <b>Administrative and Accounts Division</b>  |
|--|---|---|---|--|
| Headed by Dy. Director (Field Operation)<br>↓<br>Assisted by one Assistant Director (Extrenson & Field Operation)<br>↓<br>Exhibition and Video-on-wheel Branch (Worked after by Exhibition Officer)<br>↓<br>Mass Mailing Unit (Distribution Officer and one Health Educator)<br>↓<br>National Health Programme Wing (Health Education Officer, one Health Educator)<br>↓<br>MEM Wing/IEC Wing (GOI)<br>↓<br>Health Education Wing<br>↓<br>Innovative Schemes | Headed by Dy. Director (Communication Material Division)<br>↓<br>Assisted by Assistant Direct (Publication & Av.)<br>↓<br>AV Studio<br>↓<br>Publication Branch (Assistant Editor)<br>↓<br>Photograph and Art Section<br>↓<br>Offset Press (Manager and Staff of Off-set Press)<br>↓<br>Public Relations Branch (PRO)<br>↓<br>CCMP (AAO, CCMP Part-time) | Headed by Dy. Director (Swasthya Karmi)<br>↓<br>NGO Co-ordinator/Health Education Officer/ Technical Officer/Incharge AIDS Cell | Headed by Jt. Director<br>↓<br>Assisted by Assistant Director/Education and Publicity Officer (one) Health Educator<br>↓<br>(UNICEF/UNFPA/IPP-IX Project) | Headed by Additional Director (Admn.)<br>↓<br>Establishment Branch<br>↓<br>Accounts Branch (Part-time AAO, Jr. Accountant, UDC)<br>↓<br>Sotre Branch |

Source : IEC Bureau Rajasthan (Organisation Structure and Staffing Pattern of the Bureau).



- 6) Combine interpersonal communication (IPC) strategy with mass-media approach;
- 7) Streamline supply system to meet the local needs of health and family welfare units;
- 8) Establish relationship between various levels and elements of the system; and
- 9) Improve performance levels through continuous interaction with village community volunteers.

## **1.6 The State Information Education and Communication Bureau Rajasthan**

The state IEC Bureau was established in January, 1990 and it started functioning from March 1990. The objectives for the establishment of the Bureau, as given in the plan of action of the UNFPA Area Project (Phase II) are as follows:<sup>34</sup>

(i) By the end of the project period to have re-organization in comprehensive manner the existing Mass Education and Media (MEM) Wing, State Health Education Bureau and other Publicity/Health Education Cells of the Directorate of Medical Health and Family Welfare into a single unit to be named as State Information Education and Communication Bureau.

(ii) By the end of the project period to have the IEC Bureau routinely, planning executing and monitoring of IEC activities in the state, training of health worker in IEC techniques, carrying out research and experimentation producing material, and providing other technical services for IEC activities in the State.

The IECB has identified following thrust areas to address which are on its agenda for action for changing the behaviour of the people.<sup>35</sup>

**Part theme I :** Age of marriage, Girl Child, Population Education, Small Family Norm (Birth Spacing, Sterilization), Child Survival (care of newborns, immunization, diarrhoea control, ARI, Vit.A.Suppl.), Safe motherhood

(Antenatal care-pregnancy risks, Tetanus immunization, Anaemia Control, care during delivery, Post-Natal care and timing of birth and birth spacing),

**Part theme II :** Blindness, AIDS, TB, Malaria, Guineaworm, Leprosy, Personal Hygiene/Environmental Sanitation/Safe Water.

For the implementation of above activities, require staff have been made available. It is given in the chart of organisation structure and staffing pattern of the Bureau. And for smooth functioning, fund to this bureau made available. The year wise allocation of funds to this bureau and expenditure incurred is given in table 1.1.

**TABLE 1.1**

**Year wise allocation of Funds to State (H&FW) & (IEC) Activities**

| Year    | Total Budget in Lacs<br>(All Sources)<br>(H. & F.W. Deptt.) | Budget for IEC Activities to Bureau in lacs<br>(All sources) |              |            |
|---------|---|--|--------------|------------|
|         |   | Allocation   | Expenditures | + / -      |
| 1990-91 | 25338.60  | 203.662  | 137.33478    | -66.32722  |
| 1991-92 | 28425.66  | 203.825  | 217.20115    | +13.37615  |
| 1992-93 | 31201.46  | 260.13789  | 178.5749     | -81.56299  |
| 1993-94 | 36326.62  | 235.63766  | 199.33017    | -36.30749  |
| 1994-95 | 47434.77  | 380.3173   | 244.949444   | -135.36786 |
| 1995-96 | 52487.84  | 575.09557  | 427.30841    | -147.78716 |
| 1996-97 | 62870.95  | 204.48   | 312.31       | +107.83    |
| 1997-98 | 69346.48  | 259.15   | N.A.         | -259.15    |
|         | 353432.38   | 2322.3054  | 1717.0089    | -605.29667 |

**Source:-** IEC Bureau Rajasthan (Organisation Structure and Staffing Pattern of the Bureau 1998.)

**Note :** + = Excess expenditure spent from allocation  
- = Less expenditure spent from allocation

To achieve the objectives of health education, which are mentioned earlier, depends on how to implement/organise the programme. For this,

there are several steps to make the programme successful. These are; target population to whom to communicate/inform; what to inform; when and where (place and time) to inform; who will do it; who will supervise, guide and co-ordinate; and what methods and media should be used, depending on availability and usefulness on the point of audience or community.<sup>36</sup>

In the country like India (where diversities of culture, religion, caste, class, literacy, socio-economic status and so on, are very much present) the goal of achieving health behaviour change should be a central point of communication, strategy which need to be operated in spirit. Merely by transferring health information to the people through various communication methods and media will not bring health development. Health communicator, therefore, should have the following components of activities if it is directed to achieve behavioural change.<sup>37</sup>

- (1) Assess the needs of community; different target groups;
- (2) Assess the local resources available to meet these needs;
- (3) Assess the areas of likes and dislikes of the people towards types of communication;
- (4) Generate need of the programme;
- (5) Provide scientific, specific and basic information;
- (6) Build up attitudinal change and assess its extent;
- (7) Create atmosphere to act for decision;
- (8) Confirm the extent of action; and
- (9) Provide support to sustain action.

Besides above components there is a need of reform and proper implementation of all rural development programmes for uplift socio-economic status of rural population.

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## CHAPTER II

### METHODOLOGY AND REVIEW OF LITERATURE



#### 2.1 OBJECTIVES

- 1) To study the knowledge, attitude and practice of rural population and the diverse social and economic sections within it about disease control and prevention.
- 2) To study the knowledge about disease prevention and treatment of health functionaries and their attitude and practice regarding health education activities.
- 3) To ascertain the availability of IEC services to rural population in Rajasthan and its relevance to them.

#### 2.2 RESEARCH DESIGN AND METHODOLOGY

##### Research Design

Two diseases, diarrhoeal disease and tuberculosis, widely prevalent in the study area were selected for focus of the study. Schedule based interviews were conducted of 131 rural women of Rajasthan and of 44 health workers of the area whose functions include health education.

The quantitative data thus obtained was placed against background data of the area and population. Qualitative data from the study villages including case studies were used to supplement the quantitative data further and to help in interpreting it.

##### Selection of Study Area

TH-7075

The study area was selected by keeping in view the rationale and objectives of the study. The area under study consisted of two villages of

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the sub centre Panditpura under the Block PHC Baswa and Sector PHC Badiyal Kalan of district Dausa. The district Dausa is one of the 90 districts of India under "Target Free Reproductive and Child Health Approach" launched in National Family Welfare Programme in the year 1995-96 through the Vikalp Pariyojana assisted by Indian Institute of Health Management and Research, Jaipur. As a part of this new approach a lot of communication inputs, better quality of services, increased coverage and spectrum of services have been put in this district to strengthen the health and family welfare services and IEC activities about disease control. This was one of the important factors for selecting this particular district as the study area.

The selection of sub centre was on the basis of lower performance of all the target achievement by the Block Primary Health Centre Baswa in the past as it is one of the 142 PHCs started functioning during second Five Year Plan period 1956-61 in Rajasthan. The PHC is strategically located between Jaipur-Alwar-Delhi Railway as well as Bus route. Villages around Baswa PHC are under different socio-economic settings with different levels of development, accessibility and availability of health institutions and services. The distance was the basic criterion for selection of sub centre Panditpura. And its villages Panditpura and Banapura was also selected on this basis.

The idea was to examine the accessibility, availability and effectiveness of IEC activities in Disease control and preventive measures

as well as broad communication channels for health education/IEC . It was decided to study two villages from two different set ups;

- 1) A village where sub centre is located and the population is more.
- 2) A village where no health institution exist, an interior village of the sub centre jurisdiction.

At the time of selection of the village care was taken to see that there should be all castes (e.g., General, OBC, SC, ST) and class (e.g. lower, middle upper).

- 1) Panditupura is the sub centre headquarter village (13 km from the BPHC Baswa).
- 2) Banapura as the interior village (19 km. from PHC and 6 km. from sub centre).

#### **Sample Size and Selection of Respondents**

Basically two types of respondents; mothers (women) having atleast one child below five years of age (service receiver) because diarrhoea in children is a major focus of IEC, and Health Workers (service provider), who are meant to carry out major part of the health education, were decided for sampling. These all the aforesaid mothers of both villages were first listed out from the eligible couple survey (recently done) register, it was around 423 (374 Panditpura + 49 Banapura) then one third of the mothers from each village was the sample size for services receiver respondents.



For respondents (service provider) all sub centres with posted staff first listed out then one half of the sub centres staff (that is MPWs (M+F)) was the sample size for service provider respondents. Care was also taken due to non equal numbers of MPW male and female, therefore almost all MPW male were included in sampling. Total 131 (mother having children below 5 year and 44 (33 female + 11 male) (service provides) were interviewed.

### **Data Required for the Study**

The required data was both quantitative and qualitative in nature. The quantitative data collected from respondents were on; Socio-economic characteristics - caste, religion, education, occupation, housing source of drinking water, production from land, etc.; Demographic - fertility, health and family welfare i.e. number of living children, knowledge of respondents and health functionaries about various aspects of disease like sign and symptom, causes, preventive measures, treatment practices, etc. and knowledge about subject and attitude to IEC and problem faced by them etc.; Communication process-media ownership, source of information, understanding of message, sharing of information and decision making for dealing with disease. The qualitative data required for the study was collected on; Physical aspects of the study area - location, physical features, housing, transport facilities, communication network etc.; socio-economic and power structure, various institution existing in the area; communication channels availability and process of information dissemination; information

from official sources on disease control programme, environmental sanitation, water supply, waste disposal, health functionaries working in the area etc.

### **Process of Data Collection**

A combination of qualitative and quantitative method was adopted for the study., The exercise was carried out in two phases : Pilot study and main survey.

A pilot study was carried out, before starting the main study, in the study area to identify the key variables and logistics involved for the study. During the pilot study a survey was carried out for detailed information of the area and the universe i.e. geographical location, number of household, nature of occupation, institutional arrangements, communication network, health development status etc. Bibliographical status i.e. census hand book, district statistical abstract, district gazettes, annual reports, books and journals and intensive and probing interviews, and direct observation were mainly the techniques used for collecting the above data. The respondents were mainly the mothers of children below 5 years of age, service providers (MPWs) village chiefs, elected representatives of gram panchayat and development functionaries etc.

Experience gathered from the pilot study provided the material for designing the main study and preparation of documents for data collection. After completion of this pilot study, a detailed discussion was held with the supervisors for the next steps.

### **Preparation of Interview Schedules**

The interview schedules administered to the respondents (service receivers as well as service providers) were designed after discussion with the supervisors to cater to the objectives of the study. The interview schedules were separate for the respondents and the providers.

The interview schedules were structured to include both closed and open ended questions. A number of questions which were either irrelevant or redundant were deleted. Care was taken to ensure that interview schedules are brief but capable of generating required data.

### **Research Techniques Used**

Besides gathering data by bibliographical methods and structured interview schedule, the other techniques used were observation (non-participant), intensive and probing interviews with selected persons. Case studies with the patients of tuberculosis as well as mothers of diarrhoeal child were also carried out. These case studies were attempts to examine in depth the overall knowledge, attitude and practice regarding disease - how the respondent deals with it, in relation to prevention, control and treatment etc. There were total 13 (8 Diarrhoea + 5 Tuberculosis) case studies conducted from both the villages.

### **Rapport Establishment**

The success of both quantitative and qualitative techniques depend to a large extent on the rapport between the investigator and respondents including other individuals i.e. village leaders/key persons, village panchayat members, health and development functionaries, etc. Care was taken not to get identified with any particular group or individuals. On the other hand, in order to create more confidence among the general public I tried myself to mix with the people as frequently as possible. Although I was not very unfamiliar with the study area and the people living there my knowledge of the local language also helped in getting closer to the people.

Besides aforesaid functionaries involved in health and development, rapport with health department officials and other department official at various levels tried best to help me to obtain required data.

### **Time Period and Limitation of the Study**

Study was conducted during the months November & December 1997 and January 1998, starting 2 November 1997 to 6 January 1998. Though time period was very short but within the time period I tried best to complete the data collection.

The respondents (mothers) were selected from the survey registers prepared by health workers of the sub centre. During field study it was seen that the survey done by the health workers was fairly satisfactory but some households were missing. Thus, some extra respondents were also interviewed.

Although precautions had been taken to the accuracy of the responses, they could contain limitations due to respondents biases regarding researcher and their diffidence regarding their own knowledge and practice. Little IEC was actually being done so one could not study impact of IEC inspite of having taken an area with stress on IEC in the official state plan and strategy for disease control.

### **Data Classification, Tabulation and Analysis**

After data collection, the process of classification, tabulation and analysis starts. As the basic objective of the study is to analyse the needs, the problems in implementation and nature of Information, Education and Communication (IEC) strategy in relation to Diarrhoea and Tuberculosis Control Programme, it required a descriptive study based on both quantitative and qualitative techniques. The data was classified, tabulated and analysed keeping in mind the essential study elements.

As there were chances of under reporting or over reporting regarding income of the household the object was only to categorize respondents by

calculating socio-economic status with the variable of Agricultural land and spouse occupation allotting points for these variable.

The formula is as follows :

|     |                         |   |          |   |
|-----|-------------------------|---|----------|---|
| (1) | Landless/No Land        | - | 0 point  | + 1 point for occupation of spouse other than daily labourer and agricultural work. |
| (2) | Land under 1 Vigha      | - | 1 point  |   |
| (3) | Land 1-5 Vighas         | - | 2 points |   |
| (4) | Land more than 5 Vighas | - | 3 points |   |

Thus, Five categories of Respondents came out by this calculation which are as follows :

- 0 = Lowest socio-economic class;
- 1 = Lower socio-economic class;
- 2 = Medium socio-economic class;
- 3 = Higher socio-economic class; and
- 4 = Highest socio-economic class.

Similarly, there are many numerically minor caste which are too small in numbers and of little demographic significance. Hence the caste group have been broadly divided into 4 major categories i.e. General, OBC, SC and ST.

Analysis has been done to see differences in perception and practice of (i) economic categories; (ii) caste groups; and (iii) educational status.

#### **Presentation of Data**

Chapter III describes the socio-economic and demographic profile of universe including Rajasthan, Dausa, Subcentre and field of present study.

Chapter IV deals with the knowledge and understanding about diarrhoea and tuberculosis of mothers of the study population. The source of knowledge and perception of health workers' activities has also been discussed.

Chapter V deals with health worker's knowledge and attitude about diarrhoea, tuberculosis and IEC.

Chapter VI is the final chapter of summary, discussion and conclusion of the study.

### **2.3 Medical Understanding of Diarrhoea and Tuberculosis**

#### **DIARRHOEA**

##### **Definition and forms of Diarrhoea**

Diarrhoea is a symptom characterized by an increase in the fluidity of stool and its frequency, beyond what is normal for an individual. According to the increase in the fluidity (i.e, the increase in fluid content), the stool of a diarrhoea patient may be loose, liquid or watery in consistency. The stool frequency also varies from as little as 2-3 perday to as many as 2-3 or even more per hour, in some cases. Moreover, the volume of stool passed per frequency also varies widely among diarrhoeal patients.<sup>1</sup> Passage of even one large watery motion among children may constitute diarrhoea. But passage of frequent formed stools, pasty stools in a breastfed child, stools during or immediately after feeding, and of frequent loose greenish yellow stools in the third or fourth day of life may not be considered as diarrhoea.<sup>2</sup> So the definition given by Banerjee, K.B. (1989)<sup>3</sup> and supported by several social scientist as well as epidemiologists Singh.J.et.al (1992)<sup>4</sup>, Patnaik, S.K.(1990)<sup>5</sup> as passing of 3 or more than 3 loose motions in a day cannot be generalised.

Diarrhoea has been further classified as acute, persistent, chronic and weanling diarrhoea. Acute watery diarrhoea starts suddenly and may continue for a number of days but lasting not more than 14 days. Most of them are self limiting and will last for 3 to 7days.<sup>6</sup> Persistence diarrhoea begins acutely but is of unusually long duration that is, lasting more than 14 days.<sup>7</sup> Diarrhoea lasting 21 days or more may be called chronic. Where as

diarrhoea and dysentery come with the transition of babies from a breastfed existence to a mixed diet called weanling diarrhoea.<sup>8</sup>

### **Problem, and Magnitude of Diarrhoea**

In almost all developing countries, diarrhoea has been identified as one of the major causes of morbidity and mortality among children. When the WHO initiated the Diarrhoeal Disease Control Programme in 1980, approximately 4 million children were dying each year of the dehydration caused by diarrhoea. In the tropical belt 15 to 40% of all deaths among children under 5 years are diarrhoea-related. In the recent reports by WHO, World Bank and Harvard University (1996) at least 19% of deaths among children under 5 years were diarrhoea-related.<sup>9 10 11</sup>

In India at least 1.5 million children under the age of 5 die every year owing to acute diarrhoea. The incidence of diarrhoea may be as high as 6 to 12 episodes per child per year in most developing countries, and these episodes are generally associated with other infectious diseases, making treatment and prevention more difficult.<sup>12</sup> Incidence of persistent diarrhoea 6/100 child years among children 0-71 months of age, and highest incidence of 31/100 child years observed in 0-11 months of age group (Bhan.et.al 1987).<sup>13</sup> Donosa, G. 1978 study shows that the first three years of life are characterised by an incidence of weanling diarrhoea 3 times higher than that shown by children during their fourth year of life and 10 times higher than the rest of childhood, the peak incidence is found at the age in which weaning begins in the traditional village setting (i.e. during the second half of the first year of life).<sup>14</sup> Bhandari, N. 1992 study shows that the overall incidence of diarrhoea under the age of 5 is 3.34 episodes/child/year.<sup>15</sup> According to NIHF National Health Programme series 9 (1989) indicates

that as many 10% of total infant deaths are caused by diarrhoeal diseases and on an average, it is estimated that diarrhoea is responsible for about 23-30 percent of all deaths in children below five years. It is also indicated that the incidence of diarrhoea is much lower in babies up to 6 months of age and highest in babies between 6 month to 2 year of age.<sup>16</sup> Patnaik, S.K. (1990)<sup>17</sup> study shows that the overall incidence of diarrhoea was 7.5 percent. The incidence was found to be two times more frequent in infants (13.8%) than in the 1-4 years age group (6.3%). A similar observation was made earlier in Calcutta in which the incidence was found to be highest in children below 2 years of age with a sharp decline from third year onwards. In this study, the annual episode of diarrhoea per child worked out to 1.8.

#### **Mode of Transmission, Causes and Prevention**

Most of the pathogenic organisms that cause diarrhoea and all the pathogen that are known to be major causes of diarrhoea in many countries, are transmitted primarily or exclusively by the faecal-oral route. Faecal-oral transmission may be water-borne; food-borne, or direct transmission which implies an array of other faecal-oral routes such as via fingers, or fomites, or dirt which may be ingested by young children.<sup>18</sup> In some cases, as in shigella infection, spread by person-to-person transmission also occurs. This kind of direct transmission may also take place in case of *E.histolytica*, *G.lambliia* and possibly also in case of Rotavirus and *V.cholerae*. Domestic animals and their products like meat, milk and eggs are some natural source for *Salmonella* and *Compylobacter*, and if taken inadequately cooked, can cause infection. Sometimes *Salmolella* and *Staph aureus* produce



enterotoxin which causes food poisoning without the presence of the offending organisms in the foods.<sup>19</sup>

Transmission of faecal-oral route is given in the following Fig.1.

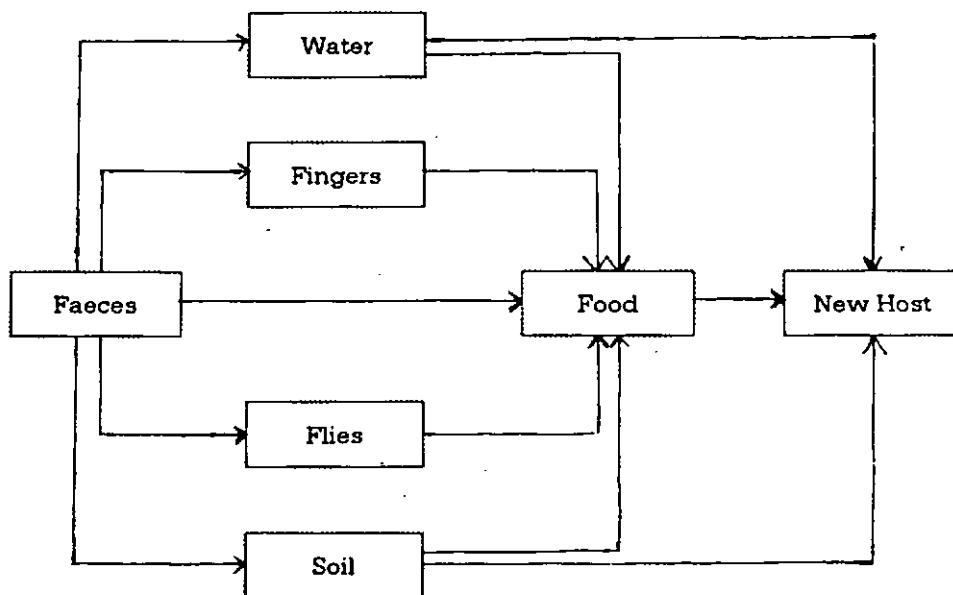


Fig. 1 Transmission of faecal-borne diseases, Adapted from Wangner and Lanoix, Excreta Disposal for Rural Area and Small communities, W.H.O. Monograph Series No. 38, 1958. (Quoted from Park's Preventive and Social Medicine.)

There are important environmental and behavioural factors that facilitate transmission of diarrhoea. These include poor standards of environmental hygiene, overcrowding, flies, inadequate sewerage service, inadequate disposal of other waste, unsanitary personal and community disposal of human and animal excreta, contamination at food and water supplies, and unsatisfactory infant feeding and weaning practices. Indiscriminate defaecation around houses and other living compounds as well as lack of latrines are significantly associated with increased risk of diarrhoea.<sup>20</sup>

According to Ehandari, N. (1992)<sup>21</sup> study shows the socioeconomic factors related to high diarrhoeal attack rates are low household incomes,

mothers illiteracy, lower caste and large family size. It also found that both malnutrition and diarrhoea have common determinants. Peoples perceptions about causality and severity of diarrhoea to be caused by a number of factors, predominantly based on the humoral theory of hot and cold foods or climatic conditions, Teething, too frequent eating by children and eating foods that mothers consider inappropriate are considered the main causes of diarrhoea by lay people was also found in the study (Patnaik 1990).<sup>22</sup>

Regarding the knowledge by schooled and unschooled mothers about causes of diarrhoea studies by Vimla, L.Patel et al (1988)<sup>23</sup> shows that the unschooled mothers attributed causality to person doing somethings wrong (50%), heat (40%) and teething (10%) whereas schooled mothers considered the causes of diarrhoea to be dirt or dirty things (100%), teething (40%), change of season (8%), and coughing (8%). There does not appear to be a gradual change in the mothers causal attribution with schooling but rather a dramatic change from one set of attributes to another.

Mothers of Rajasthan did not consider loose motions to be a disease. Loose motions were seen as symptoms of stomach or digestive system disorder. Disorder of the stomach or the digestive system were considered the disease, the main symptoms of which were frequent and loose motions. Therefore all causes mentioned by the mothers were causes of stomach disorder or disorders of the digestive system. Mothers of Rajasthan, whether Muslim, Hindu, upper or lower caste, all believed that their lives were monitored and run by "God" (supernatural forces). Therefore any happening, good or bad, was attributed to the "will of God". This attitude to life was also reflected in their attitude towards disease and illness. Whatever be the cause of the disease, it was seen as God's will and therefore beyond human control. Diarrhoeal diseases were perceived by mothers to be caused by the weather, faulty eating habits, etc. Mothers however believed that the weather, etc., could effect the child only if "God

wills it". Mothers believed that some children were healthier than others inspite of getting the same care. This aspect was also attributed to God. Mothers believed that unhealthy children succumbed to diseases for more easily than healthy children. Underlying beliefs apart, the causes of diarrhoea were related to faulty feeding practices, weather, and other diseases. Unhygienic environment was also considered to cause diseases, particularly diarrhoea, though the reason behind this was not known to mothers.<sup>24</sup>

Prevention of Diarrhoea at home, and in community with large numbers of infants and young children, methods and practices used for disposal of the faeces of infants and toddlers, water handling and sanitation, breast feeding as well as weaning practices, personal and domestic as well as community hygiene, food handling practices are of very important issues. In spite of these issues secondary preventive measures are also very much important when diarrhoea occurs. Further more, not surprisingly, there is a close correlation between risk factors for diarrhoea and socioeconomic status. This is because of their close association with overcrowding, inadequate housing, unsatisfactory water supply, and inadequate sewage and waste disposal as well as their common association with undernutrition or malnutrition in infancy and early childhood. Processes that are determined by attitudes, behaviour and education are also very important in preventing childhood diarrhoea. In urban slums in India, rates of diarrhoea were related to female illiteracy, as well as to defective sanitation and indiscriminate defaecation.<sup>25</sup> Again, the nutritional status of infants and young children has an influence on diarrhoea risk. For example, there is an association between low birth weight and diarrhoea which persists for at least two to three years of age.<sup>26</sup> The relationship between childhood diarrhoea and malnutrition is complex. Diarrhoeal episodes have a significant negative impact on nutritional status which, in turn, makes children more prone to infections including gastrointestinal infections.<sup>27</sup> Dietary supplementation can have a very positive impact on growth and

help overcome these deficits; early refeeding has now become accepted as an important part of the management of diarrhoeal episodes to assist recovery and nutritional rehabilitation. Continued breastfeeding is an important part of these nutritional<sup>1</sup> strategies.<sup>28</sup> There have been some impressive reports about the impact of nutritional therapy with vitamin A on childhood mortality rates in southern India (54%).<sup>29</sup>

It has been seen that dehydration occurs due to diarrhoea. ORS solution is the fluid recommended by WHO and UNICEF for the treatment of dehydration. The developing countries are striving to make ORS accessible to the whole of their population to bring down mortality and reduce the ill effects that diarrhoeal dehydration causes, especially in children under 5 years of age. Where ORS is available, it may be used, but family self-sufficiency would increase and perhaps be cheaper, more convenient, and nearly as effective by using other fluids that are already available in the home. But, at the moment we lack sufficient information on the one effectiveness of many possible solutions in preventing dehydration, so it is not possible to make global recommendations regarding the use of any particular fluid. However, certain fluids have recognized potential and should be preferred.<sup>30</sup> These include food based fluids (cereals, gruels, soups, diluted yogurt-like drinks, and other fluids that may be commonly prepared in the home), salt-sugar solution and oral rehydration salts solution.<sup>31 32</sup> In spite of these home available fluids Huttly S.R.A. et al (1997)<sup>33</sup> suggest nonvaccine interventions like promotion of breast feeding and personal as well as domestic hygiene, improving weaning practices/education and food hygiene and offers evidence that, subject to cost-effectiveness examination, two other strategies-vitamin A supplementation and the prevention of low birth weight-should be promoted. Martines et al.<sup>34</sup> suggest that over the coming years, the effectiveness and cost-effectiveness of many of these preventive strategies

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will improve since nonvaccine interventions involve behaviour change and to achieve this public health education has to become more effective. No national diarrhoeal disease control programme is likely to implement all potential preventive strategies, the choice depending on a number of factors such as different etiologies, existing infrastructure, and government priorities.

## **TUBERCULOSIS**

### **Defination of Tuberculosis**

Tuberculosis (TB), an ancient infectious disease which was known as the dreaded "white plague", "pthisis" or "consumption" in the English terminology of the last century and as "Rajyaroga" (King of diseases) in India, is now defined as a specific infectious disease caused by the bacillus *Mycobacterium tuberculosis*.<sup>35</sup> The disease primarily affects lungs and causes in most cases pulmonary tuberculosis. It can also effect intestine, meninges, bones and joints, lymph glands, skin and other tissues of the body. The disease is usually chronic with varying clinical manifestations. The disease also affects animals like cattle; this is known as "bovine tuberculosis", which may sometimes be communicated to man.<sup>36</sup>

In new borns and small children the infection progresses either in the primary site or metastatic foci or lung, and serious forms of tuberculosis may develop in particular, miliary (very small nodules) tuberculosis and tuberculous meningitis. These forms of tuberculosis also occur in adolescents and adults but much less frequently than in newborns and small children.<sup>37</sup> Clinical disease, however, may occur weeks to years after the primary infection with the bacillus, although about 80% of all cases occur during the first two years after infection.<sup>38</sup> The occurrence depending upon the host-parasite relationship and dose of infection.

The commonest symptoms which are likely to bring the patient to medical care institutions are continous slow fever with wasting, cough

lasting over 2 weeks, persistent pain in the chest, haemoptysis and loss of weight.<sup>39</sup> These are symptoms suggestive of pulmonary tuberculosis.

As the tubercle bacilli can live and multiply as obligate aerobes under almost all climates from arctic to tropical the disease is a world wide public health problem despite the fact that the causative organism was discovered more than 100 years ago and highly effective drugs and vaccine are available making tuberculosis a preventable and curable disease. As per global review by the WHO the highest prevalence of infection exists in the Asian and certain African countries as compared to that in the western world. Even through well managed and effective control programmes, no country has yet been able to reach a level of control i.e. less than 1% of tuberculin positivity in children of 0-14 years age group. The total number of infectious cases in the world has been estimated as 15 to 20 millions with the annual increase of 3.5 millions new cases, and 2.3 million deaths each year.<sup>40</sup> The problem of TB is acute in the developing countries which account for more than three fourths of the cases in the world and where the majority of cases are never diagnosed at all, still less get correctly treated.<sup>41</sup>

Almost a quarter of a century after the formulation and implementation of NTP, it is apparent that still a very large proportion of the infectious tuberculosis patients, who are literally knocking at the doors of health institutions of country, are still being thrown back with bottles of cough mixture.<sup>42</sup> In the country, it is estimated that 1.5% of the population is suffering from Radiologically active tuberculosis and with about 1/4 of the cases being sputum positive or infectious. There are 5 lakh deaths annually on account of this disease, while a similar number of person achieve cure. This is balanced by an addition of one million sputum positive cases annually.<sup>43</sup> The present status of T.B. in the health scenario is grim and the problem is staggering.<sup>44</sup>

In Rajasthan, the overall prevalence of tuberculosis is 7/1000 with considerable variations by sex and age. Males are nearly twice as likely to

suffer from tuberculosis as females. This difference is more marked in rural than in urban areas. Age differences are also highly significant, with prevalence rates one per 1000 for persons age 0-14, 9 per 1000 for those age 15-59, and 30 per 1000 for those age 60 and over. The incidence of tuberculosis is similar in rural and urban areas.<sup>45</sup>

The public health authorities occasionally refer to an entity they call "the problems of tuberculosis" in a given country or area. The problem of pulmonary tuberculosis is, in the final analysis, the total sum of all the suffering, discomfort and economic dislocation directly or indirectly brought about by the tubercle bacillus destroying human lung tissue. Until recently, the measurements of the tuberculosis problem was usually in the form of mortality and morbidity figures based on notification to public health authorities. The measurement of the extent of suffering in terms of the symptoms experienced by persons who harbour the disease provides an additional dimension for assessing the problems of pulmonary tuberculosis in a community as a problem of human suffering.<sup>46</sup>

### **Mode of Transmission**

The infective agents find their way into the human body through inhalation, ingestion, inoculation, transplacental spread etc.<sup>47 48</sup>

Inhalation - Pulmonary tuberculosis caused by inhalation of aerosolized droplet nuclei and dust containing human tubercle bacilli is the primary of mode of transmission. Organisms can remain viable in dried sputum for long period of time. Droplet nuclei may remain infectious for 8-10 days. Transmission by fomites is rare.

Ingestion - for bovine infection the important vehicles of transmission are milk, milk products, meat, and less frequently sputum to cause cervical and mesenteric lymphadenitis and intestinal tuberculosis. This is a rare form in India.

Inoculation - It is an infrequent mode of transmission to skin that can occur in the operation theatre, at the autopsy room, or during handling of tuberculosis contaminated foods.

Transplacental spread - It is an extremely rare mode of transmission which may take place in case of placental lesions due to miliary tuberculosis of the mother through placental blood circulation to the foetus, a real haematogenous spread. Furthermore tubercle bacilli may also be found in pus, urine, faces and gastric contents in human type of infection.

Poor housing, overcrowding, ill ventilation, large families, low level of literacy, ignorance regarding mode of transmission, poor quality of life, population explosion, undernutrition, early marriages, lack of awareness of causes of disease etc.,<sup>49</sup> are all predispose to the occurrence of the disease. These interrelated factors favour transfer of the bacilli to others and it is not always possible to effectively and concurrently deal with them as a result of which tuberculosis exists as a difficult public health problem inspite of availability of appropriate technology of quick detection and treatment of cases.<sup>50</sup> The explicit-pro-privatisation policies in state-run health services which are used most often by the poor to whom private care is inaccessible for long term serious illness, also predispose to increase incidence of tuberculosis.<sup>51</sup>

It may be frightening to know that almost all of us are infected by the bacteria for tuberculosis at some time of our life. Then why all of us do not suffer from Tuberculosis ? It is due to the fact that natural defensive mechanism, which is inbuilt in our system by mother nature, takes care of the invading micro-organism. Situations of increase exposure and/or lowered resistance therefore increased chances of becoming diseased. It either destroys them or makes them ineffective.

In the last two decades, the AIDS-the Acquired Immuno Deficiency Syndrome, a virus disease which shatters the natural defensive mechanism



of the human body has hundred times increased the incidence of TB in the world.<sup>52</sup>

### **Prevention and Control of TB**

Tuberculosis control or prevention means reduction in the prevalence and incidence of disease in the community. The WHO defines that tuberculosis "Control" is said to be achieved when the prevalence of natural infection in the age group 0-14 is of order of 1 percent,<sup>53</sup> or less 1% of the tuberculin positivity.<sup>54</sup> To achieve this, there are three main strategies for preventing/controlling T.B.: BCG vaccination, chemoprophylaxis, and decreasing sources of infection through case management and health education/IEC. Each will be discussed separately here:

#### **BCG Vaccination**

The Bacillus of Calmett and Guerin (BCG) was developed in 1921. Since that time it has become one of the most widely used yet controversial vaccines. It consists of living bacteria derived from an attenuated bovine strain of tubercle bacilli. Although BCG coverage has been up to now quite high on average compared with other immunizations, the effectiveness of BCG in preventing tuberculosis in adults remain controversial. From clinical trials conducted in the United Kingdom and United States it was found that BCG was upto 80% effective.<sup>55, 56</sup> Important vaccine trial in southern India, however, revealed no effectiveness of BCG.<sup>57, 58</sup> Although there is no consensus on the effectiveness of BCG. Some experts have estimated that BCG is between 40 and 70 percent effective in preventing TB in children age zero through fourteen when given at birth.<sup>59</sup>

The BCG vaccine is given as early as possible in life, preferably at birth in the vast majority of developing countries. Serious consideration is also given to "indiscriminate (re) vaccination" (that is, without prior tuberculin testing) at older ages, irrespective of vaccination at birth.<sup>60</sup> In India as well as Rajasthan the same strategy is being implemented.

## **Chemoprophylaxis and Chemotherapy**

Secondary prevention of clinical TB can be accomplished by treating patients with TB infections. Chemoprophylaxis is applied either to freshly infected so called tuberculin converters or to those who have been infected with virulent tubercle bacilli in the more distant past. The latter either have or do not have abnormalities in the lungs on X-ray.

Treatment or so called curative care is divided into tuberculosis detection and Chemotherapy. For detecting clinically significant tuberculosis cases, there are two main tools; active and passive. Active detection means an attempt to screen the population at large or target populations such as military recruits, for evidence of TB. Passive detection means screening and diagnosis of only those patients who visit a health service provider because of symptoms suggestive of tuberculosis. In the 50s and 60s the choice between active and passive detection was a controversial topic.<sup>61</sup> In the last two decades, a consensus for passive case detection of tuberculosis in all countries has developed because active case detection is more expensive. The second issue in case detection is the choice of technology (sputum microscopy, sputum culture and radiology).

In India under District Tuberculosis Programme (DTP), the first priority is given to direct smear examination of sputum of patients who attended hospital and health centres with the symptoms of persistent cough of about 3 or more weeks duration, continuous fever, chest pain and haemoptysis. But case detection is of little value as a control measure unless followed by chemotherapy.

Chemotherapy has completely revolutionized the treatment of pulmonary tuberculosis. The objective of Chemotherapy is to achieve 'bacterial cure' rapidly. Current chemotherapy is based on multiple drugs (short-course chemotherapy) with the addition of rifampicin and pyrazinamide to conventional drugs (i.e. streptomycin and INH). The potent regimens of short-course chemotherapy have reduced the duration of

treatment from 18 months to 6-8 months. But if treatment is irregular or interrupted, the patient may develop drug resistance and it becomes more difficult to treat the patient. Moreover Chemotherapy requires patient's full cooperation.<sup>62</sup>

### **Domiciliary treatment or Ambulatory treatment**

The self-administration of drugs (generally oral drugs) by the patients themselves without recourse to hospitalised is called domiciliary or ambulatory treatment. Until recently, the standard duration of tuberculosis chemotherapy was 18 months. In 1972, Wallace Fox and his colleagues from the British Medical Research Council showed that the addition of rifampicin or of pyrazinamide to regimens containing INH made possible to reduce the duration of treatment.<sup>63</sup>

There are now a number of short-course regimens of 6 months duration that are highly effective, of low toxicity, and well-tolerated given as follows:

### **Short-Course Chemotherapy**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. 2RHSZ + 4 HR</li> <li>2. 2RHSZ + 4 H<sub>2</sub>R<sub>2</sub></li> <li>3. 2RHZ + 4 HR</li> <li>4. 2RHSZ + 5 S<sub>2</sub>H<sub>2</sub>Z<sub>2</sub></li> <li>5. 2RHSZ + 6 T H</li> <li>6. 6 R<sub>2</sub>H<sub>3</sub>Z<sub>3</sub>S<sub>3</sub></li> </ol> | <p>Prefix number to a regimen indicates the number of months of that regimen/phase (e.g. 2 RHZ means RHZ for 2 months in the initial phase).</p> <p>Number suffixed indicates the frequency of administration (e.g. 4H<sub>2</sub>R<sub>2</sub> means INH and Rifampicin given twice weekly for 4 months). No suffix means daily administration (e.g. 4 HR means INH and Rifampicin once daily for 4 months).</p> |
| <p>S= Streptomycin,<br/>R= Rifampicin,<br/>H= INH<br/>Z= Pyrazinamide<br/>T= Thiacetazone<br/>E= Ethambutol</p>   | <p>In case of intolerance to Thiacetazone or Streptomycin, either can be replaced by Ethambutol.</p> <p>Intermittent regimen must be administered under full supervision.</p>   |

**Source :** Park's Text Book of Preventive and Social Medicine.

All these regimens are of proven efficiency and anyone of these can be prescribed depending on the circumstance of the patient.

The World Health Organisation (WHO) declared TB a global emergency in 1993. This increased intervention by the WHO, World Bank and bilateral agencies in the control of TB in "low cost and middle-income" countries. In the response of WHO, new approach, universally known as Direct Observation Treatment, Short Course Chemotherapy (DOTS) is being used in India. In this therapy health workers have to watch patients swallowing their pills three times a week for at least two months, out of a six month treatment.<sup>64</sup>

### **Objectives of Health Education in Diarrhoea and T.B. Control**

In spite of main objectives of health education in any disease control, which are mentioned in chapter I, there are specific objectives for the particular disease control. In diarrhoea and tuberculosis these are as follows:

#### **Diarrhoea**

- Educate the people/community, specially mothers of the children below 5 years age, regarding benefits by giving fluids HAF/ORS during and after diarrhoea;
- To educate about continue feeding during and extra feeding for some days after diarrhoea cured;
- To ensure treatment/health facilities whenever necessary;
- To educate about wrong beliefs associated with diarrhoea (e.g., stop feeding during diarrhoea);
- To educate about causes, mode of transmission, preventive measures;

- To educate about importance of safe water and its hygienic practices, food handling etc.

### **Tuberculosis**

- To educate the patients to practice prolonged domiciliary treatment without breaking or interruption during treatment period upto fully cured;
- To identify the people at risk and educate to ensure treatment;
- To inform the community as well as patient about free health services/treatment facilities rendered by the government agencies;
- To educate the patient about proper disposal of sputum and others things containing organism;
- To educate about symptoms and the need for testing, early diagnosis for prevention etc.

## **2.4 Review of Studies On Knowledge of People**

There have been a number of studies in disease control and prevention through various measures in India as well as world but very limited studies on IEC about disease control and prevention. A study was carried out in rural West Bengal on causation of diarrhoea in children. Comparison was made between behaviours of mother in 108 families having diarrhoeal children case families with mothers of 72 families having age and neighbourhood matched non diarrhoeal children (control families) using a logistic regression model. Five risk behaviours were identified and these are bottle feeding; non-use of soap for cleaning feeding container; water storage in wide-mouthed container, use of pond water for the same; and indiscriminate disposal of children's stool. Around 83% of diarrhoeal families could be predicted using these five variable only. The first three of these five risk behaviours were responsible for occurrence of significantly higher incidence (3 or more episodes) of diarrhoea in the case families. All

these risk behaviours are amenable to change through effective communication and intervention at the home level.<sup>65</sup> A study titled "an outbreak of acute diarrhoeal diseases caused by E. Coli in a tea garden of Upper Assam" revealed the factors responsible for rapid spread of disease which included poor sanitary conditions, lack of health awareness and poor personal hygiene among the tea garden workers and non initiation of proper domiciliary management.<sup>66</sup>

In one of the rural Rajasthan area, the knowledge about the causes of some common disease, their curative and preventive measures were very limited. The proper concept about the causation of Nightblindness was known to 57% of the respondents (n=497). Causes of Guinea worm, measles and diarrhoea was known to 58%. Causes of T.B. and Leprosy was observed to be relatively low (26%). Knowledge of prevention was very limited and ambiguous, only 12% seemed to know about preventive measures for night blindness, in case of infectious diseases, the highest 27% known about prevention of Malaria, followed by fever (25.6%). In case of Diarrhoea and T.B. the figures were 23.6% and 20% respectively. Curative measures for diarrhoea to 21% while 12% know about Tuberculosis. Wrong concepts did exist about diarrhoea and worm infestations too.<sup>67</sup>

The studies conducted by Tuberculosis Research Centre Chetput-Madras regarding Awareness of tuberculosis among the general population as compared to the awareness among patients shows that only 27% of the general population had heard of TB as compared to 60% of the patient of tuberculosis. 40% of the patients had come to the clinic without even having heard of TB. Awareness appears to spread mostly by word of mouth-from relatives and other TB patients. Books, magazines and mass media appear to have had only a limited role in spreading the awareness of TB. In all 71% in the general population and 42% among TB patients had 'No idea' about the cause of the disease. Only 14% of the population and 3% of the patients attributed TB to germs. Regarding spread of TB, 60% patients believed the

disease to be hereditary, but 53% of those from the general population said that the disease was infectious.<sup>68</sup> 'Prepare' is a voluntary organization in Sriperumbudur taluk rendering comprehensive welfare services including health. In this area, 24 villages were selected at random and 466 household were visited by a Medical Social Worker. Sensitisation was done through health education on Tuberculosis. The head of the house hold were interviewed after health education to assess the knowledge. Regarding the category of people affected, area of prevalence and the type of people prone to illness, 45%, 37% and 38% answered correctly before health education. With regard to the duration of treatment, precautions while coughing and preventive measures, their knowledge was very poor (14-15%). After finding the basic awareness, a one-page hand-out containing important facts on tuberculosis in the local language (Tamil) was distributed, with a view to sensitise the community on Tuberculosis. The utility of hand out in spreading the message was assessed and reported, among these people, their knowledge had improved and the proportion of correct answer ranged from 86% to 99%, except for duration of treatment (39%), precautions while coughing (41%) and about preventive measures (29%). However, their knowledge regarding these three aspects had been much poor when questioned initially.<sup>69</sup> Delay in tuberculosis case-finding is a common problem throughout the world. Various authors have explored the reasons for patient delay. A study of West Bengal showed that people were aware of tuberculosis, but at the same time held negative social attitudes towards the disease.<sup>70</sup>

In Honduras, TB was perceived negatively which led to rejection of anything related to it including medical diagnosis and treatment.<sup>71</sup> A study from Japan reported that only 10% of patients had considered that they might have TB whereas over half though that their symptoms were related to a cold.<sup>72</sup> In South Africa, it has been found that black TB patients have very little knowledge of signs and symptoms of the disease, its prevention or the duration of treatment.<sup>73</sup> A measurement study with black non-TB

clinic attenders also reported a low level of T.B. knowledge.<sup>74</sup> In addition, T.B. was perceived as threatening and sufferers were thought to be dirty and ate bad food. The findings of these aforesaid studies indicate that patient delay may be influenced by several factors, namely lack of knowledge, lack of awareness of the significance of symptoms, negative social attitudes or different combinations of these three factors. According to Mechanic<sup>75</sup>, illness behaviour depends upon the recognition of disease and perception of its danger. According to Westaway M.S.<sup>76</sup> majority of black hospitalised TB patient thought that TB affected many people, it was rarely discussed, they considered their family were not at risk, it was easy to prevent, there was complete recovering after treatment and it was an acceptable disease to family and friends. It was concluded that denial of personal involvement and a positive attitude towards cure and preventions may be factors that allow tuberculosis patients to cope with their disease.

Health service provider's knowledge regarding disease epidemiology, prevention, curative treatment and use of appropriate technology to disseminate information is also very important part of Health education activities. If he/she does not has full knowledge about particular disease it will play negative role also. A study by B.S. Nagi shows that the non-governmental functionaries, like private practitioners and pharmacists, have limited knowledge about diarrhoea management. For instance, in Rajasthan there was not a single private practitioner who mentioned all the three aspects (more fluids should be given, breast feeding (for infants)/solid foods should be given as usual, and medical help should be sought in case of dehydration or when blood is noticed in the stools). Also the majority of the pharmacists did not know about all the four ingredients of ORS. It also shows that almost all the pharmacists said that they explained to customers how to prepare ORS solution, but surprisingly only 40.6 percent themselves knew how to prepare it correctly. There are only 0.8 percent who said that breast feeding should be continued during diarrhoea. As far as type of advice about prevention was concerned, 45% mentioned that



unhygienic food and unclean water should not be given to the children. It was interesting to note that a very small percentage of pharmacists gave this kind of advice in Orissa and Rajasthan.<sup>77</sup>

Regarding Govt. functionaries the material could not be found regarding diarrhoea but of some other disease, study by N.K. Saini *et al* shows that, regarding ARI 42% AWWs recognized pneumonia by fast breathing and 36% recognized severe pneumonia by chest indrawing. Only 16% AWWs knew infective origin of ARI. Although most of them were in favour of continuation of breast feeding, 70% of them were advising food restriction. Use of herbal tea was commonly advised, only 2% knew the correct dose of sulphadimidine and 12% knew the correct dose of paracetamole, the drug most common advised for treatment of ARI.<sup>78</sup>

Regarding AIDS a survey of 409 college students (largely undergraduate) in three cities of Maharashtra revealed that fewer than 5% of the respondents were aware that AIDS could be transmitted through infected blood; fewer than 11% mentioned that sexual relations with sex workers could be a mode of transmission; and as many of 13-19% thought that AIDS was curable.<sup>79</sup> A Mumbai slum study observed that awareness of sexually transmitted disease (STDs) was generally poor. Specific knowledge of AIDS and its mode of transmission was very limited and misconceptions were widespread.<sup>80</sup>

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## CHAPTER III

### SOCIO ECONOMIC AND DEMOGRAPHIC PROFILE

#### PROFILE OF THE UNIVERSE

##### 3.1 THE STATE

Rajasthan- a desert state - located in the North-West of India, with a population of approximately 440 lacs. It is the ninth most populous state in India where 77 percent of population reside in rural areas. And in area wise it is second largest state in India. Prior to independence, the state was known as Rajputana or the home of Rajputs, a martial community who ruled over this area for centuries.

Entire western flank of the state borders with Pakistan while Punjab, Haryana, Uttar Pradesh and Madhya Pradesh bound Rajasthan in north, north-east and south-east respectively and Gujarat in south-west.

Total cultivable area in the state was 274.65 lacs hectare (1994-95) and sown area 201.67 lacs hectare. Irrigation potential has been raised to a level of 51,090 hectare by March 1993 in the state. Number of villages electrified have been 29,982 and 4,61,367 wells have been energised up to January 1995.

Rajasthan has many festivals and fairs. Besides the national festivals like Holi, Deepawali, Vijaydashmi, Muharram, Christmas etc., birth anniversaries of Gods and Goddesses, saintly figure, folk heroes and heroines are celebrated. Important faires are Teej, Gangaur (Jaipur) annual Urs of Ajmer Sherif and Galiakot, tribal Kumbh of Beneshwar (Dungarpur), Mahaveer Fair at Shri Mahaveerji in Sawai Madhopur (Ramdeora, Jaisalmer), Janbheshwarji Fair (Mukam-Bikaner), Kartik Poomima and Cattle Fair (Pushkar-Ajmer) and Shyamji Fair (Sikar), etc.

At the point of tourist, Jaipur (Pinkcity), Jodhpur, Udaipur (place of lakes), Bikaner, Mount Abu (Shimal of Raj), Sariska Tiger Sanctuary in Alwar, Keoladeo National Park at Bharatpur, Ajmer, Jaisalmer (desert) and Chittorgarh are important places of tourist interest in the state.

Recently it has been recognized that there are eight distinct demographic zones in the country. Rajasthan is recognized as one of the BIMARU states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh), which are all in the high fertility zone, together account for close to 49% of the population of the country.

The state is divided into two socio-cultural regions, Mewar and Maru Pradesh. Maru Pradesh is the desert area of Rajasthan bound by Pakistan in west.

Rajasthan is divided into a total of 31 districts. The districts of Maru Pradesh are much larger in area. In terms of population per square kilometre, the region is thinly populated. This is because most of this region is desert. Mewar, on the other hand, is a more fertile and populous region.

It is more urbanised and agriculturally more prosperous. Dausa district is a part of Mewar socio-economic regions.

### **3.2 THE DISTRICT**

District Dausa was carved out from the Dausa, Lalsot, Baswa and Sikrai tehsils of district Jaipur in April, 1991 and was expanded by including the neighbouring tehsil of Mahuwa from Sawaimadhopur district in the year 1992.

#### **Physical Characteristics**

District headquarter is located in Dausa town at a distance of 55 km. from the state capital-Jaipur (situated on national highway-11, Bikaner Jaipur-Agra route). It lies between 25.33<sup>o</sup>N to 27.33<sup>o</sup>N latitude and 76.50<sup>o</sup>E to 76.90<sup>o</sup>E longitude.

## **Area and Administrative Divisions**

The total land area of Dausa district is 3394.09 square kilometres, which is 0.99% of the total land area of Rajasthan. According to 1991 census total 1052 villages including 43 uninhabited villages are unevenly distributed into 4 blocks/tehsils with one Panchayat Samiti in each tehsil. About 3.4 lacs hectare area is inhabited by 8.89 lacs rural population of district. Tehsil Dausa is biggest while tehsil Mahuwa is smaller in terms of area as well as population.

## **Origin**

The origin of term Dausa is stated to be from the "Dev-Alagari", "Devgiri", "Dev-Vasa" which means town of Gods. Mythologically, name of the town might have originated from corrupt form of 'Dhonsa' (high sound of traditional music instrument 'Nobat') used as a communication system to inform about the arrival of invaders. Archaeological evidences support the existence of town for more than 6000 years.

Dausa was ruled by the Chauhan and Badgurjar in 10th Century and Kachhawhas of Amer state in 13th Century. It has been the first capital of Dhundar state in medieval period. "Dhundhari" is the dialect spoken by people of the district.

## **Climate**

An average temperature ranging between maximum 44.0<sup>o</sup>c and minimum 3.33<sup>o</sup>c has been recorded in the district. The hot climate of the district becomes humid only in the arrival of south-west monsoon.

An average rainfall in the district 805.5 mm and 712.2 mm was recorded in the year 1992 and 1993 respectively. Whereas, the average highest rainfall i.e. 850 mm and recorded in the year 1993 in Block Baswa in which the sub-centre area lies. Rivers i.e. 'Banganga', 'Sanwa' and other seasonal rivulets (small rivers) flow across the district. There is no perennial river (flowing whole year) and surface source of water except some small



artificial as well as natural ponds which are only for few months. Irrigation purely depends on ground water specially in the subcentre area. Now a days source of ground water for irrigation adversely affect the agricultural yields, which are major source of economy of an overwhelmed rural population.

### **Socio-economic and Demographic Profile**

Table (3.1) reveals about the socio-economic and demographic characteristics of newly created Dausa district. It's total 9.94 lacs population constitute 2.26 percent of state population. It is predominantly a rural district with 10.58 percent of urban population unevenly distributed in five towns of four tehsils, while Sikarai tehsil does not have any town. The percentage of urban population in the district (10.58%) is lesser than the state level (22.87%).

The district comprises of 21.34 percent of schedule caste and 26.23 percent of schedule tribe population. In the district predominant tribe Meena is maximum (29.03%) in Lalsot tehsil.

The population density per square kilometre for the year 1991 was 293, which is more than two folds high for the district compared to 129 for the state. The district has registered annual population growth rate of 2.7 percent which is more than 2.5 percent at the state level. Correspondingly the crude birth rate 37.5 per thousand in the district has been higher than 35.0 in the state in 1991.

Sex ratio reveals that the proportion of women per 1000 men in the district (884) is lower than the already low state average (910). Female literacy is also only 14.2 percent as compared to 20.2 percent in the state. Likewise lower percent of main-workers (30.7%), marginal workers (7%) and non-workers (62.3%) remained in district as compared to corresponding figures of 31.62 percent, 7.25 percent and 61.13 percent respectively at state level.

**Table 3.1**  
**Socio-economic and Demographic Profile of Dausa**  
**and State of Rajasthan**

|   | Items   | Dausa            | Rajasthan   |
|---|---|------------------|-------------|
| • | Total Population (Lacs)                                       | 9.94             | 440         |
| • | Male Population (Lacs)  | 5.28             | 230         |
| • | Female Population (Lacs)                                      | 4.66             | 209         |
| • | Percent of Population   | 2.26%            | 100%        |
| • | Percent of Urban Population                                   | 10.58%           | 22.87%      |
| • | Percent of Rural Population                                   | 89.42%           | 77.13%      |
| • | SC Population Lacs  | 2.12<br>(21.34%) | 76.08       |
| • | ST Population Lacs  | 2.62 (26.34%)    | 54.75       |
| • | Population Density 1996-97                                    | 293              | 129         |
| * | Per School Population 1996-97                                 | 793              | 856         |
| * | Percent Student attending Schools 1996-97                     | 11.41%           | 22.56%      |
| * | Per Teacher (school teacher) Population                       | 149              | 165         |
| • | Total Literacy Rate   | 36.9             | 38.6        |
| • | Male Literacy Rate  | 56.8             | 54.9        |
| • | Female Literacy Rate  | 14.2             | 20.4        |
| ♦ | Main Worker (% of Total Population)                           | 30.70%           | 31.62%      |
| ♦ | Marginal Workers (% of Total Population)                      | 7.00%            | 7.25%       |
| ♦ | Non-Workers (% of Total Population)                           | 62.30%           | 61.13%      |
| + | Per Health Institution Population (Feb 98)                    | 3823             | 3687        |
| + | Per Subcentre Population (Feb. 98)                            | 3627             | 3517        |
| + | Per Health Institution Bed (Feb. 98)                          | 1.79             | 3.14        |
| + | Per Health Institution Area covered Km <sup>2</sup> (Feb. 98) | 11               | 29          |
| + | Per Bed Sereve Population (Feb. 98)                           | 2133             | 1175        |
| + | Percent Deliveries by T.B.A. (Feb. 98)                        | N.A.             | 16.1 (1989) |
| × | Crude Death Rate 1991   | 10.5             | 10.1        |
| × | Infant Mortality Rate 1994                                    | 108              | 84          |
| × | Mortality (1-5 year) [(119) India 1994]                       | 162 (1994)       | 176 (1989)  |
| × | Crude Birth Rate 1991   | 37.5             | 35.0        |
| × | Total Fertility Rate 1991                                     | N.A.             | 4.6         |
| × | Natural Growth Rate 1991                                      | N.A.             | 24.9        |
| × | Annual Growth Rate (1991)                                     | 2.7              | 2.5         |
| × | Sex Ratio   | 884              | 910         |

N.A - Not Available

- - District Statistical Abstract (1994), Directorate of Economic Statistics, Rajasthan, Jaipur.
- \* - Annual Report, Department of Primary and Secondary Education Rajasthan 1996-97.
- +
- Annual Report, Directorate of Medical and Health Services, Rajasthan 1997-98.
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- SRS 1997.

Regarding mortality, district recorded as slight high crude death rate 10.5 per thousand population than the state average (10.1) upto the year 1991, when Infant mortality rate is significantly high (108) per thousand live birth in comparison to the state average (84). Mortality (1-5 year) is very much high as compared to national level 119.

About educational facilities at district and state level, it is found that the educational facilities are better in the district than the state. In Dausa, a school opened for 793 population where as it is 856 for the state. But the achievement of attending schools the score is just reverse and it is two fold less than the state average. Also, in district one teacher made available for 149 population which is lower than the state average 165. Thus, the educational facilities is better than the state but literacy as well as enrolment of the children are very low. Total literacy rate is little bit lower in the district compared to overall rate of the state.

In case of health facilities made available for population are somewhat worse than the educational facilities. Table (3.1) shows that, for 3823 population only one health institute in the district, more than the state 3687 population for one health institute. Similarly, a subcentre serve for 3627 population in the district more than state (3517). Like-wise Ratio of Bed; institute and Bed Population Ratio is higher in the district than the state. Thus, health facilities are not good in the district compare with the state average.

### **Facilities Available**

#### **Health Facilities**

Table (3.2) depicts about a network of health facilities created from Referral Hospital/Community Health Centre (CHG) to Sub Centres (SCs) at grass root level, to provide preventive, promotive and curative health services to the people in the district. Total 353 (260 Allopathic and 93 Ayurvedic) health centres are catering the needs of 9.94 lacs population

(according to 1991 Census) an average coverage of 3229 population per centre in 1995. Now this average come down up to 2817 because of upgrading some PHCS into CHCs or Referral hospitals and creating more Sub Centres in the district whereas Ayurvedic hospitals are remain same as earlier. Each Block PHC owns administrative responsibility for executing National Health Programmes including IEC activities in the district with the support of higher level administration.

**Table 3.2**

**Block wise Distribution of Govt. Health (Allopathy + Ayurvedic)**  
**Institutions Providing Health Services**

| Health Institutions                 | Block PHCs (Number) 1991 |           |           |           |           |            | Total upto Feb 1998 |
|-------------------------------------|--------------------------|-----------|-----------|-----------|-----------|------------|---------------------|
|                                     | Baswa                    | Bhandarej | Mandawari | Manpur    | Mandawar  | Total      |                     |
| <b><u>Allopathy</u></b>             |                          |           |           |           |           |            |                     |
| Referral Hospital/ CHCs*/Dispensary | 1                        | 1*        | 1         | 1         | 1         | 5          | 8                   |
| Block PHCs                          | 1                        | 1         | 1         | 1         | 1         | 5          | 5                   |
| Mini PHCs                           | 5                        | 6         | 5         | 4         | 5         | 25         | 23                  |
| Upgraded SC                         | 3                        | 5         | 4         | 4         | 5         | 21         | -                   |
| SC                                  | 32                       | 33        | 37        | 26        | 25        | 153        | 221                 |
| MCH Centres                         | 1                        | 1         | 2         | -         | -         | 4          | 3                   |
| Post-Partum                         | -                        | 1         | 1         | -         | -         | 2          | -                   |
| <b>Totally Allopathy</b>            | <b>43</b>                | <b>48</b> | <b>51</b> | <b>36</b> | <b>37</b> | <b>215</b> | <b>260</b>          |
| <b><u>Ayurv. &amp; Unani</u></b>    |                          |           |           |           |           |            |                     |
| Ayurvedic & Unani                   | 16                       | 23        | 17        | 17        | 19        | 93         | 93                  |
| <b>GRAND TOTAL</b>                  | <b>59</b>                | <b>71</b> | <b>68</b> | <b>53</b> | <b>56</b> | <b>308</b> | <b>353</b>          |

*Source* : CM & HO Office, Dausa, Dept. of Health and Family Welfare, May 1995

- \* Dausa CHC is a refferal hospital with 100 beds remaining 4 CHCs are 30 beded.
- District Ayurvedic and Unani Officer, Dausa, District Statistical Abstract 1994, District Dausa, Directorate of Eco. and Stat. Rajasthan.

Besides aforesaid government run health facilities of allopathy and ayurvedic system, private hospitals and nursing homes are also available to the people of Dausa district, run by trained (degree holder) and untrained (without any degree) doctors in the urban as well as rural areas. These private hospital and nursing homes mainly concentrating on curative health rather than preventive and promotive health services.

Under ICDS (Integrated Child Development Services ) Scheme MCH work also undertaken. The services rendered by ICDS comprises; health checkup, immunization, supplementary nutrition, pre-school education, health education, and referral services. Thus, ICDS Centres also considered under supportive health service institution in the state as well as in the district Dausa. The ICDS scheme implemented in the district in a phase manner. First ICDS project initiated in the year 91-92 in Mandawar Block PHC area then Bhandarej, Mandawari and Manpur, and at last in Baswa in the year 92-93, 93-94, and 94-95, respectively. Total 865 such ICDS Centres are functioning in the district to provide package of services to the women under the age of 15-44 years and children below 5 year of age. (see table 3.3).

### **Education Facilities**

Total literacy rate of Dausa district is only 36.86% as compare to 38.55% slight low of the state. To facilitate educational backwardness schools, colleges, Teachers training institutes etc. are functioning in the district Table (3.3) shows that besides 1218 informal educational health institutions there are total 1255 school (basic education) comprises 784 primary, 358 Upper Primary and 111 secondary or Senior Secondary Schools functioning in the district in which total 32% students of total population studying. But the percentage of girl students studying in these schools is lower (10%) which is more than half of the total boys students (22%) studying in the schools of the district.

**Table 3.3**

**Block wise Distribution of Health and other Institution involved in IEC activities (Inter personal Communication) in district Dausa**

| Health Institutions                         | Blocks PHCs (Number) |            |            |            |            |                  | Total upto  |
|---|----------------------|------------|------------|------------|------------|------------------|-------------|
|   | Baswa                | Bhandarej  | Mandawari  | Manpur     | Mandaawor  | Total            |             |
| (Informal) Part of Public Health Activities | 249                  | 278        | 235        | 199        | 211        | 1173             | 1218        |
| Allopathy                                   | 43                   | 48         | 51         | 36         | 37         | 215*             | 260         |
| Ayurvedic & Unani                           | 16                   | 23         | 17         | 17         | 19         | 93*              | 93          |
| ICDS  | 190                  | 207        | 167        | 146        | 155        | 865 <sup>+</sup> | 865         |
| (Formal) Part of School Curriculum          | 201                  | 263        | 210        | 138        | 138        | 950              | 1255        |
| Primary School                              | 136                  | 183        | 150        | 94         | 101        | 664 <sup>x</sup> | 784         |
| Up. Pri. School                             | 48                   | 51         | 42         | 31         | 28         | 200 <sup>x</sup> | 358         |
| Sec. & Senior School                        | 17                   | 29         | 18         | 13         | 9          | 86 <sup>x</sup>  | 111         |
| <b>GRAND TOTAL</b>                          | <b>450</b>           | <b>541</b> | <b>445</b> | <b>337</b> | <b>349</b> | <b>2123</b>      | <b>2473</b> |

*Source* : \* CM&HO Office, Dausa, Dept. of Medical & Health, Dausa (For the year 1992-93), May 95.

- District Ayurvedic & Unani Officer, Office Dausa, Directorate of Eco. & Stat. Rajasthan (District Statistical Abstract 1994).
- + Annual Report 1996-97, Dept. of Woman and Child Development, Rajasthan, Jaipur, March, 1997.
- x Annual Report 1996-97, Dept. of Primary and Secondary Education, Rajasthan.

**Other Facilities**

Out of total 1009 villages, 76.71% villages, have been electrified up to the year 1992-93. Regarding facility of roads connected to villages, data are not available. There were 284 cooperative societies (Gram Seva Sahakari Samittee) functioning, in which 9.5 percent of total population of district have membership in the aforesaid year 1992-93. One society made available services for 3.68 villages (near about 4 villages per society) population in the district.

### **Institutions for IEC in Health and Development**

Table (3.3) shows that out of total 2473 institutions 49.2 percent including Allopathy, Ayurvedic and ICDS Centres involved in IEC activities at present to disseminate information about health and disease control to the people and rest provide the same as well as development schemes through classroom teaching (formal method) to the growing children attending schools. These formal institute are also expected to provide education for the other people who are not attending schools. These total 2473 such institutes are catering to the needs of 9.94 lacs population an average of 400 population per institute which shows that there is a good infrastructure in the district to disseminate information regarding Health and development programmes.

### **Manpower/Functionaries for IEC Activities**

Table (3.4) shows that the overall population per IEC functionary is better in the district (125) than in the state (140). As we have discussed earlier that educational (school) facilities are better in the district than the state, same situation found regarding educational functionaries (teacher). In the district one primary school teacher is available for 445 population which is less than the state ratio of 462. While in case of health functionaries the position just reverse except Angan Wadi Workers (AWWs). The population served by per MPW in the district is 3627 while in the state it is only 2860. The same thing found in case of other functionaries like upper primary school teacher-population ratio, secondary and senior secondary etc., due to total number of teacher in the district the over all functionary-population ratio is better in the district than the state.

**Table 3.4**

**Distribution of various key functionaries involved in IEC  
related to Health in District Dausa and the State**

| Department                                   | IEC Functionaries   | Dausa<br>(No.) | Rajasthan<br>(No.)    | Per Functionary<br>Population (1991) |            |
|--|---|----------------|-----------------------|--------------------------------------|------------|
|  |   |                |                       | Dausa                                | Rajasthan  |
| Education<br>(1996-97)                       | Primary School Teacher<br>(M+F)                           | 2232           | 95044                 | 445                                  | 462        |
|  | Upper Primary School<br>Teacher (M+F)                     | 2553           | 91643                 | 389                                  | 480        |
|  | Secondary and Senior<br>Secondary School Teacher<br>(M+F) | 1882           | 79561                 | 528                                  | 553        |
| Woman &<br>Child<br>Development<br>(1996-97) | AWWs + Superv. (M+F)                                      | 907            | 28545                 | 1095                                 | 1541       |
| Medical and<br>Health<br>Jan. 1998           | MPHW (M+F) 64+210   | 274            | 15384<br>(Sanctioned) | 3627                                 | 2860       |
|  | (H.A. (M+F) 24+19   | 43             | 2228<br>(Sanctioned)  | 23116                                | 19748      |
| <b>TOTAL</b>                                 |   | <b>7891</b>    | <b>312405</b>         | <b>125</b>                           | <b>140</b> |

- Source**
- Annual Report 1996-97, Dept. of Women & Child Development, Rajasthan.
  - Annual Report 1996-97, Dept. of Primary and Secondary Education, Rajasthan.
  - Annual Report 1997-98, Dept. of Medical and Health, Rajasthan, Jaipur.

**Communication System**

There are various systems of communication functioning in the district Dausa since long back. These are as follows:

**Interpersonal Communication - Traditional Methods**

As it mentioned earlier, the district Dausa is a place of Gods that is why fairs and festivals are celebrated through out the year. These are



important social as well as religious occasions where people come together/gathered.

In these social as well as religious occasions interpersonal communication takes place amongst people across village, caste, class, culture, age, sex etc.

The oral-tradition of communication among people, while meeting together has been recognised as a very effective in the rural social structure for centuries. The other form of interpersonal communication in the district taking place, specially in the rural areas, e.g. gathering for Chaurasy (that is one kind of problems solving Panchayat of the particular caste or community). In these forms of interpersonal communications information about the social occasions, religious functions and other events of life are communicated verbally by them within and outside the village and kinship. 'Jajam Baithak', 'Chaupal meeting', conversation and dialogue with people etc. exemplify the same. Some proverbs, e.g. ....

- (1) जो रोज़ पपीता खाये । ता घर वैद्य न आये ॥
- (2) मोटी दतुअन जो करे, नित सोंठ हर्ग खाय ।  
बासे पानी जो पिये, ता घर वैद्य न जाय ॥
- (3) हर्ग बहेडा आँवला, घी शक्कर में खाय ।  
हाथी दाबै कोंख में, साठ कोस ले जाये ॥
- (4) नीबू आधा काटिये, सेंधा नमक मिलाय ।  
भोजन प्रथमहि चूसिये तो अजीर्णता जाये ॥
- (5) धोरहिं माठा पियत है, जीरा नमक मिलाय ।  
बल और बुद्धि बढ़त है, सबै रोग जरि जाय ॥

.... and stories are also examples of traditional inter-personal mode of communication found popular in the district.

#### Interpersonal Communication - Modern Method

Modern form of interpersonal communication to disseminate information regarding health, development and other schemes are formal classroom teaching as well as home visit by a person who communicate to

the people. For this in the district various institutions (Table 3) set up and relative staff has been posted. Health professionals in various health institutions, Teachers in the educational institutes (schools), AWWs in the ICDS schemes, Prachetas in Mahila Vikas Abhikaran, Secretaries of the Co-operative Societies, Agriculture Supervisors in the Agriculture dept., Post-man, Sarpanch and Panchs in Gram Panchayats, etc. are considered as the key functionaries or resource persons of interpersonal communication in the district.

But the main key functionaries who have considered as functionaries for disseminating health information regarding health and disease already discussed in the earlier paragraph (Functionaries for IEC activities).

#### **Organisation of IEC Activities**

The overall incharge of all health services conducted in district is CM&HO with the help of Dy. CM&HO (Malaria/Family Planning/Health), District Tuberculosis Officer and District Leprocy Officer .

In the District, IEC activities are being decentralised by establishing an independent office of "District IEC Bureau" headed by EPO at Dausa town under state IEC Bureau. The infrastructure, material and manpower has been provided for the smooth functioning of IEC to promote Family Welfare programme as well as other health programmes in the district.

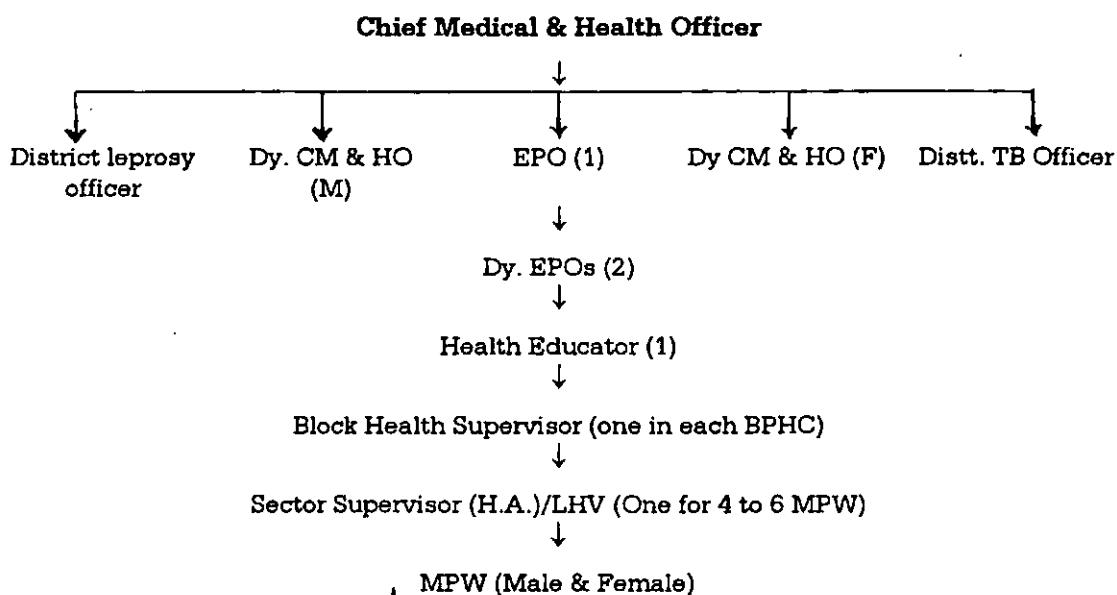
To conduct health programmes smoothly there are other independent officer i.e. office of Dy. CM&HO (Health and Malaria), Office of District Tuberculosis officer, office of Leprocy officer etc. These officer are having independent charge to conduct relevant disease control activities but the IEC activities are conducted or guided by all the officers with the support of District Education and Publicity officer (EPO), Dy. EPO, District Health Educator etc. (see Figure 1). These health professional suppose to educate over all population as well as other health professionals at various levels

viz. PHC, SC, AWW, MSS members, Jan Mangal couples, community leaders, social workers etc.

**Figure No.1**

**Organisational Structure and Staffing Pattern of**

**IEC Activities at District Dausa**



**3.3 THE SUB CENTRE**

The Subcentre, headquarter is located in the village Panditpura at a distance of 12 km from the Block PHC Baswa, and 40 km by road from the district capital. It is situated in between (Dausa-Bandikui-Alwar) and (Dausa-Bandikui-Biwai) state roads as Railway lines. Table (3.5) reveals that the total land area of subcentre is 1217 hecters which is unevenly distributed in 6 villages including one uninhabited according to the Tehasil records. Village Panditpura, which is a Panchayat headquarter also, is the biggest while village Harnath pura is smallest in terms of area as well as population. The other villages are Kesharisingh pura, Anantpura, and Banapura. Village Panditpura also very near (i.e. 4 km) to CHC and the concern mini PHC Badiyal Kalan at a distance of 9 km. Banapura is the most

remote village of the sub-centre without direct connection by road to the SC.

Table (3.5) also reveals about the socio-economic and the demographic characteristics of the sub-centre Panditpura. Its total 5694 population comprises 52.50% male and 47.50% female population unevenly distributed in these aforesaid villages with the total 52.51% in Panditpura and 5.11%, 19.85, 16.10, and 6.43 percent in Hamathpura, Kesharisingh pura, Anantpura, and Banapura respectively. In the villages Hamathpura, Kesharisingh pura and Anantpura there is no Schedule Tribe and in Hamathpura no Scheduled Caste population also. Scheduled Tribe population in the study villages represent only 1.12% of total population of the sub-centre, while Scheduled Caste population represent 16.84% of total population . The highest percentage (13.10%) of the total scheduled caste population belongs to Panditpura only than 2.59, 0.74 and 0.40 percent to Anantpura, Banapura and Kesharisinghpura respectively. Thus village Panditpura represents the highest general, SC and ST percentage of the total population comparatively other villages of sub-centre area. Thus, sub centre is General and OBC dominant. In the subcentre predominant general, OBC, SC and ST are Brahmin, Saini (Mali), Bairwa and Meena respectively.

Sex-ratio reveals that the proportion of women per 1000 men in the sub-centre (906) is quite high than district (884) and very near to state average (910). But within, the subcentre variation is there; the highest (966) in Hamathpura and lowest (886) in Banapura. There is no much difference between Banapura and Panditpura villages in sex ratio.

Female literacy is only 8.94 percent as compared to already low district average (14.2%) in the subcentre. Within sub-centre village Hamathpura's female literacy is highest (21.68%) while in Kesharisingh pura it is lowest (1.29%). Banapura's (15.12%) female literacy is a little bit high and Panditpura's (10.50%) quite low as compare to district average (14.2%).

Total male literacy of the subcentre also below (49.38%) the district average (56.8%).

**Table 3.5**

**Profile of Sub-Centre**

| ITEMS                      | VILLAGE WISE |              |                    |             |            | Total        |
|----------------------------|--------------|--------------|--------------------|-------------|------------|--------------|
|                            | Panditpura   | Harnath-pura | Keshari Singh Pura | Anantpura   | Banapura   |              |
| •Male Population           | 1580 (27.75) | 148 (2.59)   | 587 (10.31)        | 478 (8.39)  | 194 (3.41) | 2987 (52.50) |
| •Female Population         | 1410 (24.76) | 143 (2.51)   | 543 (9.54)         | 439 (7.71)  | 172 (3.02) | 2707 (47.50) |
| •Total Population          | 2990 (52.51) | 291 (5.11)   | 1130 (19.85)       | 917 (16.10) | 366 (6.43) | 5694 (100)   |
| •General + OBC             | 2210 (38.81) | 291 (5.11)   | 1107 (19.44)       | 769 (13.51) | 294 (5.16) | 4671 (82.03) |
| •SC                        | 746 (13.10)  | NA           | 23 (0.40)          | 148 (2.59)  | 42 (0.74)  | 959 (16.84)  |
| •ST                        | 34(0.60)     | NA           | NA                 | NA          | 3.0 (0.53) | 64 (1.12)    |
| •Houses                    | 405          | 42           | 141                | 138         | 54         | 680          |
| •Male Literacy Rate        | 53.27        | 83.78        | 34.41              | 43.33       | 50.51      | 49.38        |
| •Female Liter. Rate        | 10.50        | 21.68        | 1.29               | 6.83        | 15.12      | 8.94         |
| •Total Literacy Rate       | 30.08        | 53.26        | 18.49              | 26.17       | 33.88      | 30.15        |
| •Sex Ratio                 | 832          | 966          | 925                | 918         | 886        | 906          |
| •Eligible Couple (No.)     | 673          | 51           | 238                | 206         | 81         | 1239         |
| •Preg. Mother (No.)        | 94           | 2            | 29                 | 29          | 12         | 166          |
| •Children < 1 year         | 90           | 13           | 45                 | 31          | 8          | 157          |
| +Land Area (Hact.)         | 476          | 71           | 148                | 225         | 197        | 1217         |
| •Distance from S.C.        | NA           | 1 Km         | 3 Km               | 4 Km        | 6 Km       |              |
| •Crude Birth Rate          | NA           | NA           | NA                 | NA          | NA         | 33.4         |
| •I.M.R.                    | NA           | NA           | NA                 | NA          | NA         | 75           |
| •M.M.R.                    | NA           | NA           | NA                 | NA          | NA         | Nil          |
| •C.P.R.                    | NA           | NA           | NA                 | NA          | NA         | 45           |
| •Functionaries (all types) | 56           | 9            | 20                 | 18          | 16         | 119          |

• District Statistical Abstract, 1994, Directorate of Eco. & Stat., Rajasthan.

\* As per MPW's Survey (Vikalp Pariyojna) Record

+ As per Tehesil Record

According to subcentre record there were 673 eligible couples (married women in the reproductive age group of 15-44 years), 166 pregnant women, 157 children below one year during 1996-97. Crude Birth Rate was

33.4 per thousand population, in the same year. Infant mortality Rate (death under 1 year/1000 live births) was 75 and CPR (% of eligible couples effectively protected against childbirth by one or the other approved methods of Family Planning) was 45 of the subcentre for the aforesaid year (1996-97). There are 119 resource persons for IEC and development communications available to the subcentre; MPW (M+F), AWWs, Trained or untrained Dais, CHW/VHG (not functioning but trained) Jan Mangal Couples, M.S.S. members, Depot holders, school Teacher and some volunteer social workers also available within the subcentre area. (See details in Table (3.6).

**Table 3.6**

**Village wise available Resource Persons might  
involve in IEC activities**

| ITEMS                                 | VILLAGE WISE AVAILABLE RESOURCE PERSONS             |              |                    |                  |                  | Total      |
|---------------------------------------|---|--------------|--------------------|------------------|------------------|------------|
|                                       | Panditpura  | Harnath-pura | Keshari Singh Pura | Anantpura        | Bonapura         |            |
| M.P.W. (M+F)                          | 2   | -            | -                  | -                | -                | 2          |
| A.W.W.                                | 3   | -            | 1                  | 1                | -                | 5          |
| Trained Dai                           | 1   | -            | -                  | -                | -                | 1          |
| Untrained Dai                         | 10  | 2            | 4                  | 4                | 4                | 24         |
| CHW/VHG                               | 2   | -            | -                  | -                | -                | 2          |
| Jan Mangal Couple                     | 1<br>(untrained)                                    | -            | 1<br>(Trained)     | 1<br>(untrained) | 1<br>(untrained) | 4          |
| M.S.S. Member                         | -   | -            | -                  | -                | -                | -          |
| Depot holder                          | 1   | -            | 1                  | 1                | 1                | 4          |
| RMP/PMP                               | 10  | 1            | 4                  | 2                | -                | 17         |
| Tradi. Practitioners/<br>Faith healer | 6   | 2            | 4                  | 4                | 1                | 17         |
| School Teacher<br>(M+F)               | 7   | 2+1=3        | 3                  | 3                | 6+1=7            | 23         |
| Social Workers/<br>Panchayat Member   | 10  | 1            | 2                  | 2                | 2                | 17         |
| Other Functionaires                   | 1 - Post master<br>1 - Pancha. Sec.<br>1 - Ag. Sup. | -            | -                  | -                | -                | 3          |
| <b>TOTAL</b>                          | <b>56</b>   | <b>9</b>     | <b>20</b>          | <b>18</b>        | <b>16</b>        | <b>119</b> |

## **Facilities Available**

### **Health Facilities**

Subcentre is only the government health organisation for providing health services in the area, where both (male and female) health workers are posted. But there are other health facilities provided by the private (without any formal degree) experienced based, which is gain under other senior practioners either degree or without degreeholder, practioners are available. There are 16 Private doctor's clinics available in the subcentre area comprises 8 in Pandit pura, 1 in Hamathpura, 4 in Kesharsingh pura, 2 Anantpura and 1 in Banapura. Inspite of these private doctors traditional practioners as well as faith healers also present there. Within the villages T.B.A/Untrained Dais, CHW/VHG, Jan Mangal Couples, M.S.S. members also provide health services but these functionaries centralised mainly in the Panditpura village (sec. Table -2). Thus, within subcentre, including all health facilities, it is a good position in the area as it is only a subcentre area. Panditpura's health infrastructure is better than other villages due to its status as the subcentre headquarter.

### **Educational facilities**

There are 8 schools [(one secondary (Pvt.), 3 middle (Govt.), 4 Primary (3 Govt. + 1 Pvt.)] functioning in the subcentre area. Educational facilities are by far the most important development inputs made available in the villages. The non-formal Education Centres (ICDS) are helping children < 6 years, as they are not in school attending/going age group.

### **Other facilities**

Drinking water is not a problem in winter as well as in summer because there are lots of hand pumps and wells available. But in some part of the village people felt water crisis because of uneven distribution of hand pumps in the subcentre area. As there is no protected source of water supply, water borne diseases are, therefore, quite common in the villages.

In addition people also suffer from minor ailments like coughs, cold, scabies, and serious disease like malaria, ARI, diarrhoea etc.

Housing patterns in the area varies from pucca stone buildings to huts built with mud plastered walls and thatched roofs. These housing patterns themselves manifest the owner's economic conditions, exposure to urban influence etc.

In some villages, mostly in Panditpura, few small shops are available at various places. Majority of the families in the villages are nuclear family. Joint families are more common among upper castes as well as big land holders, whereas nuclear families are common among other castes and as well as small land holders or landless families.

Almost in all castes and classes the women take active part in agricultural work.

As the headquarter of subcentre situated near to the Bandikui town (CHC area), outside exposure is more common in the villages Panditpura, Hamathpura, Kesharisinghpura as compared to other two villages Anantpura and Banapura. Information from outside reaches the people through different channels like visitors to the villages and mass media. Information however, does not reach all the people in the villages in similar ways. Eventhough the economic conditions of the village only a few economically well off families have access to mass media like radio/TV etc.

Among the mass media, Radio and T.V. play an important role in disseminating information but people use them for entertainment only. Most of the T.V. owners are from the landowner and business families and some people having salaried job also have own T.Vs. T.V. is only a mode of entertainment "Mahabharat", "Ramayan", "Om Namoh Shivay", films, etc are keenly watched by village people specially children and adults. However, small farmers and land less labour have absolutely no access to mass media. In Panditpura majority of the people do not have their own



radio and T.V.

As Panditpura got a daily market, some of the shopkeepers have radio. The people generally sit near the shop during morning and evening hours and listening to news and other programmes.

Direct exposure to newspaper in the village Panditpura is somewhat better than Banapura. But information from the newspapers is conveyed to many of the villagers through inter personal channels as some readers discuss about what they have read in the newspaper with other villagers. The people are generally more interested in political news rather than developmental news or related to health and diseases.

Drama is another form of informative and entertainment which has been in existence since long time. In the village Panditpura only, there is a drama/Ramalila Mandali. Dramas are held on different occasions mostly done by the youth of the village. The theme is generally mythological. The play on different events of Lord Rama's as well as Krishan's or king Harish Chandra out skirts of the village for a number of days just before Dashahara festival. The people from surrounding villages gather in good numbers. This event brings people from different walks of life, in contact with each other. It helps in information diffusion.

Within the village, information spreads through public announcement, inter-group and intra-communication. Public announcements are made by a person (beating drum or without drum) to whom a nominal fee is paid to go around the village beating drum and announcing the news. This is the most efficient way to passing the information to every resident of the village also some times all the villages under Gram Panchayat. The information is mainly related to government announcements regarding, Gram Sabha, selection of the families below poverty lines, agricultural loan and public meetings etc.

The frequency of visit by health supervisors eg. H.A., BHS, and other

higher officials of health as well as other departments is very less in Panditpura as well as other villages under the subcentre. Whenever they visit, they contact with the staffs or some people/families belonging high caste/socio-economic groups/Panch/Sarpanch etc. Hence, the general public have no access to these functionaries, as a result developmental communication/information is unevenly spread in the subcentre area. Banapura villagers hardly get these information. There are some places in the villages (Panditpura and Banapura both) where people gather to spend their time talking to one another. These informal gathering take place mostly in the mornings and evenings and help in the dissemination of information in the form of discussion.

Traditional media or folk media have not lost its importance despite the presence of modern mass-media in its commercial form.

Road facility for all the villages is there but it is not motorable during rainy season specially in the village Banapura. In this season it becomes too difficult for any vehicle to enter into the village. Besides these, all villages electrified, moreover Panchayat head quarter have the facility of public phone but it is not easy to access for the villagers of Banapura because of much distance.

Although Panditpura is a subcentre village but the subcentre building is not available, it is running in a room of Panchayat building.

#### **3.4 THE RESPONDENTS (WOMEN WITH CHILDREN 0-5 YEARS)**

This section of the chapter deals with socio-economic and demographic profile of the Respondents who have at least one child below one year of age.

Table (3.7) shows that out of total 131 Respondents, 114 that is 87% belongs to Panditpura and rest 13% to Banapura, unevenly distributed into caste, class, age group, No. of children, educational status, housing, occupation etc.

**Table (3.7)**  
**Socio-economic and Demographic Profile of**  
**the Respondents (Women)**

| Indicator          |                   | Panditpura |         | Banapura |         | Total       |
|--------------------|-------------------|------------|---------|----------|---------|-------------|
|                    |                   | No.        | %       | No.      | %       |             |
| 1. Caste           | General           | 25         | (21.93) | 11       | (64.71) | 36 (27.48)  |
|                    | OBC               | 55         | (48.25) | 1        | (5.88)  | 56 (42.75)  |
|                    | SC                | 32         | (28.07) | 4        | (23.53) | 36 (27.48)  |
|                    | ST                | 2          | (1.75)  | 1        | (5.88)  | 3 (2.29)    |
| 2. Family          | Nuclear           | 85         | (74.56) | 13       | (76.47) | 98 (74.81)  |
|                    | Joint             | 29         | (25.44) | 4        | (23.53) | 33 (25.19)  |
| 3. Age group       | Up to 20 years    | 8          | (7.02)  | 1        | (5.88)  | 9 (6.87)    |
|                    | 21 to 25          | 34         | (29.82) | 5        | (29.41) | 39 (29.77)  |
|                    | 26 to 30          | 40         | (35.09) | 6        | (35.29) | 46 (35.11)  |
|                    | 30 +              | 32         | (28.07) | 5        | (29.41) | 37 (28.25)  |
| 4. Children        | 1                 | 24         | (21.05) | 1        | (5.88)  | 25 (19.08)  |
|                    | 2                 | 22         | (19.30) | 5        | (29.41) | 27 (20.61)  |
|                    | 3                 | 24         | (21.05) | 4        | (23.53) | 28 (21.37)  |
|                    | 4                 | 33         | (28.95) | 1        | (5.88)  | 34 (25.96)  |
|                    | 5 & above         | 11         | (9.65)  | 6        | (35.29) | 17 (12.98)  |
| 5. Education       | Illiterate        | 90         | (78.95) | 12       | (70.59) | 102 (77.87) |
|                    | Literate          | 24         | (21.05) | 5        | (22.41) | 29 (22.13)  |
|                    | Primary           | 16         | (14.03) | 3        | (17.64) | 19 (14.50)  |
|                    | Middle            | 3          | (2.63)  | 1        | (5.88)  | 4 (3.05)    |
|                    | Secondary + Above | 5          | (3.39)  | 1        | (5.88)  | 6 (4.58)    |
| 6. Economic Status | Lowest Class      | 5          | (3.39)  | -        | -       | 5 (3.82)    |
|                    | Lower Class       | 8          | (7.02)  | -        | -       | 8 (6.11)    |
|                    | Middle Class      | 50         | (43.86) | 6        | (35.29) | 56 (42.75)  |
|                    | Higher Class      | 44         | (38.60) | 6        | (35.29) | 50 (38.17)  |
|                    | Highest Class     | 7          | (6.14)  | 5        | (29.42) | 12 (9.16)   |
| 7. House           | Katcha            | 14         | (12.29) | 2        | (11.76) | 16 (12.21)  |
|                    | Semi Pucca        | 5          | (3.39)  | 1        | (5.88)  | 6 (4.58)    |
|                    | Pucca             | 95         | (83.33) | 14       | (82.35) | 109 (83.21) |

| Indicator                              |                     | Panditpura |         | Banapura |         | Total       |
|--|---------------------|------------|---------|----------|---------|-------------|
|  |                     | No.        | %       | No.      | %       |             |
| 8. Source of Drinking / Washing Water  | Tube Well/Bore Well | 47         | (41.23) | 13       | (76.47) | 60 (45.80)  |
|  | Hand Pump           | 58         | (50.88) | 3        | (17.65) | 61 (46.56)  |
|  | Mixed               | 9          | (7.89)  | 1        | (5.88)  | 10 (7.63)   |
| 9. Occupation Spouse*                  | Labour              | 63         | (55.75) | 6        | (35.29) | 69 (53.07)  |
|  | Agriculture         | 14         | (12.38) | 2        | (11.76) | 16 (12.30)  |
|  | Traditional         | 4          | (3.53)  | -        | -       | 4 (3.07)    |
|  | Govt. Employee      | 6          | (5.30)  | 4        | (23.53) | 10 (7.69)   |
|  | Other               | 26         | (23.00) | 5        | (29.41) | 31 (23.48)  |
| 10. Laterine                           | Yes                 | 5          | (3.39)  | -        | -       | 5 (3.82)    |
|  | No                  | 109        | (95.61) | 17       | (100)   | 126 (96.18) |
| 11. Foodgrain production for the year+ | Insufficient        | 39         |         | 4        |         | 43          |
|  | Sufficient          | 65         |         | 9        |         | 74          |
|  | Excess              | 3          |         | 4        |         | 7           |
| 12. Land                               | No Land             | 7          | (6.14)  | -        | -       | 7 (5.34)    |
|  | Upto 1 Bighas       | 6          | (5.26)  | -        | -       | 6 (4.58)    |
|  | to 5 Bighas         | 78         | (68.42) | 9        | (52.94) | 87 (66.41)  |
|  | > 5 Bighas          | 33         | (28.95) | 8        | (47.06) | 31 (23.66)  |
|  |                     | 114        | (87%)   |          | (13%)   | 131 (100%)  |

+ - Not included land less respondents from Panditpura.

\* - One respondent from Panditpura spouse less (because death of husband) not included.

Caste-wise distribution shows that of total 131 respondents, the highest 56 (42.75%) represent OBC, and an equal numbers 36 (27.48%) of respondents represent General and SC, whereas only 3 (2.29%) respondents represent ST community. Thus, the study area is OBC dominated area and with in OBC it is Saini (mali) caste dominant. Village wise comparison shows that village Panditpura comprises 55 (48.25%) OBC respondents followed by 28.07% SC and 21.93% General Caste, But the representation of the village Banapura is just reverse of Panditpura because it 11 (64.71%) respondents represent General Caste followed by 23.53% SC, while OBC and ST are in equal number that is only 1 (5.88%) come in third position.

Thus it can be said that village Panditpura is OBC (mali) dominant and village Banapura is General Caste (Brahmin) dominant.

Regarding type of family, from total 131 respondents 98 (74.81%) having nuclear family that is near about 3/4 of the total respondents, only 33 (25.19%) residing in joint families, also this proportion almost all same for both the villages.

About age group, 9 (6.87%) belong to age up to 20 years and 37 (28.25%) belong to age more than 30 years. The highest percent found in the age group of 26 to 30 years representing equal percent in both the village. Important thing here is that (6.87%) mothers up to the 20 years age group whatever numbers of children they have, they delivered it in a high risk age group called early primy case.

Regarding children, respondents lies between having one child to 9 children. As number of children increase up to 4 children, the number of respondent also increase. The 13 percent of total respondents having children five or more than five. The highest percentage (35.29%) of respondents from the village Banapura found that they are having 5 or more than 5 children in the family compare to Panditpura's 11 (9.65%) respondents.

Educational data shows that a high percentage (77.87%) of women are illiterate in the study area. As low as 9.16 percent attended school up to primary level, 3.05% up to upper primary (middle) and only 4.58% percent have secondary or higher education. Those who completed secondary education, out of 6 respondents, 3 got job as AWW in Panditpura and one Teacher in middle school run by Lok Jumbish Pariyojana in the village Banapura.

By calculate economic status, Middle Class, higher class, highest class, lower class and lowest class are in descending order comprises 56 (42.75%), 50 (38.17%), 12 (9.16%), 8 (6.11%) and 5 (3.82%) respondents

respectively. Banapura's respondents (as far as they did not belong to lowest and lower classes as compared with Panditpura) are in better economic status than Panditpura's respondents. In Panditpura 10% respondents belong to lower and lowest class of economic status and 43.86% lie in Middle, and rest 44.74% both (higher + highest) classes, whereas in Banapura it is 35.29 and 64.71 percent respectively. Thus, Respondents of Banapura live in better economic status than the Respondents of Panditpura.

Regarding housing, Majority 109 (83.25%) of the respondents, in both villages having pucca house (at least two rooms with or without Barandha) only 16 (12.21%) respondents reside in Katcha house (but with mud plastered walls and thatched roofs). In both the villages proportion of Katcha, semi pucca and pucca houses almost equal. Thus, there is no difference in housing patterns between the study villages.

Drinking water is not a problem in the study area. Majority of the respondent using hand pumps and tubewell/borewells or both for drinking as well as washing purpose. Only difference is that tubewells/borewells are the source of easy access as well as plenty of water, whereas hand pumps are time consuming and required more energy that is why use of water from hand pumps is limited. Also the use of handpumps by respondents of Panditpura is highest 58 (50.88%) comparatively better than Banapura's respondents' 3(17.65%), whereas Banapura's respondents 13 (76.47%) using tube/bore wells are higher than Panditpura 47 (41.25%).

As there is no provision of public water supply in both the villages, water borne disease are, therefore, quite common in both the villages. In addition, people suffer from minor ailments like cough, cold, scabies, as well as Malaria etc.

Regarding defecation pattern, only 5 (3.39%) respondents from village Panditpura have sanitary latrines. There is no single latrine in the house of Banapura's respondents. Usually people go to open field for the defecation.

The land owning patterns are vary from village to village and caste to caste. Out of total 131 respondents 7(5.34%) and 6 (4.58%) respondents are landless and having upto 1 bigha land lies only in the village Panditpura. 78(68.42%) respondents of the village Panditpura are having land between 1 bigha to 5 bigha, more than Banapura's 9(52.94%) Respondents. Whereas Banapura's respondents 8(47.06%) having land above 5 bighas is more than Panditpura's 33(28.95%) respondents. Thus the respondents of Banapura are far better in holding land more than the respondents of Panditpura. This is the most important factor that Banapura's respondent have excess food production than the Panditpura's Respondents.

### **3.5 THE RESPONDENTS (HEALTH WORKERS)**

As a part of study, there are 44 health workers (male and female) interviewed. Table (3.8) shows that out of total 44 respondents 36 belong to Hindu and rest 8 are Christian. Also there is no male respondents among the Christians. 33 respondents are female and rest are male. The respondents comprises 21 of general caste, 12 of OBC, 7 of SC and rest 4 are of ST. Moreover 29 respondents having rural background whereas only 15 respondent belong to urban area.

Out of total 44 respondents 16 respondents, are female, under the age of 30 years, where as 9 male respondents are in the age 41 years or above, correspondingly only 6 female respondents are in this age group. It shows that there is no recruitments has done for male health workers as government postponed and the training of male health workers and also no promotions for them.

Regarding population of subcentre in which one male and one female worker are working, there are 22 (50%) subcentres below 4000 population, significantly a few subcentres are made for below 2000 population. In these subcentres 20 female respondents are working on below 4000 population,

whereas 9 male respondents are working on above 4000 population of subcentres.

**TABLE (3.8)**  
**Profile of Respondents MPW (Male and Female)**

|   |                    | MPWs (No.) |           |           |
|---|--------------------|------------|-----------|-----------|
|   |                    | Total      | Male      | Female    |
| Religion                                | Hindu              | 36         | 11        | 25        |
|   | Christian          | 8          | —         | 8         |
| Caste                                   | Gen.               | 21         | 5         | 16        |
|   | OBC                | 12         | 3         | 9         |
|   | SC                 | 7          | 2         | 5         |
|   | ST                 | 4          | 1         | 3         |
| Background                              | Rural              | 29         | 7         | 22        |
|   | Urban              | 15         | 4         | 11        |
| Age Group                               | Upto 20 years      | 1          | —         | 1         |
|   | 21-25 years        | 6          | —         | 6         |
|   | 26-30 years        | 9          | —         | 9         |
|   | 31-35 years        | 8          | 1         | 7         |
|   | 36-40 years        | 5          | 1         | 4         |
|   | 41 year and above  | 15         | 9         | 6         |
| Working at the subcentre for population | Below 4000         | 22         | 2         | 20        |
|   | Above 4000         | 22         | 9         | 13        |
| Education                               | Middle             | 8          | 5         | 3         |
|   | Secondary          | 22         | 5         | 17        |
|   | Hr. Secondary      | 13         | 1         | 12        |
|   | Graduate and Above | 1          | —         | 1         |
| Residence                               | With in SC Area    | 11         | 3         | 8         |
|   | Outside SC Area    | 33         | 8         | 25        |
| Pre Service Training Duration           | Upto 3 months      | 10         | 10        | —         |
|   | 1 year             | 1          | 1         | —         |
|   | 1½ year            | 26         | —         | 26        |
|   | 2 years            | 7          | —         | 7         |
| Service duration                        | Below 2 years      | 12         | —         | 12        |
|   | 2-5 years          | 4          | —         | 4         |
|   | 5-10 years         | 8          | 1         | 7         |
|   | 10-20 years        | 10         | 3         | 7         |
|   | Above 20 years     | 10         | 7         | 3         |
| Monthly salary                          | Upto Rs.3000       | 18         | 2         | 16        |
|   | 3001-4000          | 12         | 2         | 10        |
|   | 4001-5000          | 7          | 3         | 4         |
|   | 5001-6000          | 6          | 4         | 2         |
|   | 6001+ Above        | 1          | —         | 1         |
| <b>TOTAL</b>                            |                    | <b>44</b>  | <b>11</b> | <b>33</b> |



Educational background reveals that out of 44 respondents, 8 respondents do not fulfill the minimum educational qualification for the post they hold, and out of them 5 are male respondents. Correspondingly 10 respondents are also not fully trained for the post. As per rule professional qualification is must for Health Worker and that is one and half year basic training course for MPW (male or female). But these respondents earlier (before MPW scheme launched) were unipurpose worker. So they just trained for one and half month at various places then converted for the MPW post.

If we look upon service duration on present post (MPW) 20(10M+10F) are working beyond more than 10 years, moreover 10 of them are working beyond than 20 years also and interestingly some of them are near to their retirement date. But they did not get any promotion in their service period. Same thing happening with their salary also. MPW (male) getting less than MPW (female).

There are only 8 health worker who resides within the premises of subcentre while all other resides out side of the subcentre area..

## CHAPTER IV

### AWARENESS, UNDERSTANDING AND PRACTICE OF MOTHERS ABOUT DIARRHOEA AND TUBERCULOSIS

This chapter deals with awareness understanding and practice of Mothers regarding various aspects of diseases diarrhoea and tuberculosis. It also deals women's practice and opinion regarding IEC activities. For this purpose the chapter is divided into three parts, part one is concern about Diarrhoea, part two about Tuberculosis and part three about practice and opinion regarding IEC activities.

#### **PART I: DIARRHOEA**

This part of the chapter deals with the awareness, understanding, preventive and curative measures about diarrhoea of respondents (mothers of children below 5 years age).

##### **4.1(a) Definition of Diarrhoea**

Respondents (mothers of children below 5 years age) of the study area did not considered loose motions to be a disease. Loose motions was seen as symptoms of stomach or digestive system disorder. Diarrhoea was defined by mothers as passing loose motion (*patali tatti*).

The understanding of mother regarding what is diarrhoea, is reflected in the following table 4.1.1. It shows that as expected, 100 percent mothers were aware about diarrhoea as loose motion but the percentage of responses according to frequency of loose motion in a day is varied. The highest percentage (63%) of mothers considered diarrhoea as frequent loose motions in a day followed by 23 percent who considered it as loose motion only. Thus 86 percent mothers considered diarrhoea as loose motion without any specific frequency. The rest 14% gave varied responses of

diarrhoea as loose motions with a frequency ranging from 2 to 6 and more in a day.

**Table 4.1.1**

**Knowledge of mothers regarding recognition of Diarrhoea**

| Recognition of Diarrhoea  | Mothers    |              |
|---|------------|--------------|
|   | No.        | (%)          |
| 1. Loose/watery/liquid motions but no frequently mentioned                  | 30         | (22.90)      |
| 2. Frequent loose/watery/liquid motions but no specific frequency mentioned | 82         | (62.60)      |
| 3. Loose/watery/liquid motions 2-3 times per day                            | 6          | (4.58)       |
| 4. Loose/watery/liquid motions 3-4 times per day                            | 1          | (0.76)       |
| 5. Loose/watery/liquid motions 4-5 times per day                            | 4          | (3.05)       |
| 6. Loose/watery/liquid motions 5-6 times per day                            | 6          | (4.58)       |
| 7. Loose/watery/liquid motions more than 6 times per day                    | 2          | (1.53)       |
| <b>TOTAL</b>  | <b>131</b> | <b>(100)</b> |

Loose motions were identified by colour - white (safed), yellow (pele), green (hare) etc. A few mothers considered diarrhoea when there was blood in stool passed by the child. Motions with blood were considered to occur more in summer season.

The general attitude towards loose motions was that it is a common part of life.

#### 4.1.(b) Symptoms accompanying Diarrhoea

The awareness and understanding of mothers regarding what else happens in diarrhoea is reflected in the table 4.1.2. It shows that almost all mothers, except 4, were aware about symptoms such as weakness but the awareness about dehydration due to diarrhoea is not considered by all. Out of 131 respondents 49 percent and 47 percent mothers considered weakness only and weakness with dehydration respectively. Understanding about weakness described by mothers were *ankhen mich jawe* (close eye), *moonda utar jawe* (face looks worn out and weak), *khada he nahin ho sake* (not able to stand) etc. Dehydration (thirst-related symptoms) noticed by mother during diarrhoea were, dry mouth and tongue, and chapped and wrinkled skin. Mothers associated these signs with the drying up of the body due to diarrhoea. Drying up of the body was perceived to be due to the drying up of its water. However the loss of fluid through stools was not directly linked with the drying up of the body and its water. Rather it was linked with weakness. Mothers believed that when weakness set in, the body dried up.

**Table 4.1.2**

**Knowledge of Mothers Regarding Symptoms**  
**Accompanying Diarrhoea**

| Symptoms of Diarrhoea        | Mothers    |              |
|------------------------------|------------|--------------|
|                              | No.        | (%)          |
| 1. Weakness                  | 64         | (48.86)      |
| 2. Weakness with dehydration | 62         | (47.33)      |
| 3. Child stops feeding       | 4          | (3.05)       |
| 4. Don't know                | 1          | (0.76)       |
| <b>TOTAL</b>                 | <b>131</b> | <b>(100)</b> |

#### **4.1.(c) Danger/seriousness of Diarrhoea**

The accompanying weakness too is generally considered by all the mothers as worry-causing symptoms. Blood content in the stool is considered worry-causing symptom. Vomiting with diarrhoea is also considered worry-causing symptoms and this condition is known as *Haiza* (Cholera).

All 131 mothers, except 6, perceived that diarrhoea is dangerous or serious. But the seriousness was described in the form of just 'weakness' by 61 percent mothers, weakness with dehydration by 13 percent and weakness with dehydration and death by 13 percent. Out of rest 13 percent mothers, 8 percent considered diarrhoea serious as not cured in expected duration and not cured at home, 1 percent mothers perceived it as not serious where as 4 percent don't know that it is serious or not.

#### **4.1.(d) Diarrhoea as contagious/communicable**

Regarding diarrhoea as contagious/communicable the most significant thing is that 6 percent mothers believe it is a contagious disease. Understanding regarding it being contagious described by mothers was that is spread through the contact with each other or eating together with diarrhoeal patient but 90 percent mothers responded that it is not contagious communicable. These mothers believe that diseases including diarrhoea are not a matter of human control. It happens to all and is in God's hand. Rest 4 percent mother did not know that it was contagious/communicable or not.

#### **4.1.(e) Common Sufferer of Diarrhoea**

Regarding the question, 'In which group/category diarrhoea is more common', all mothers answered that the children below 5 years of age are more common sufferer. But 11 percent mothers also considered that diarrhoea can occur at any age. For this, as mentioned above, mothers perceived that diarrhoea or any disease is not a matter of human control. It

happens to all and is in God's hands.

#### **4.2 Causes of Diarrhoea**

The main symptoms of diarrhoea i.e. frequent loose motions and loose motions only were considered to be caused by disorder of the stomach or digestive system due to faulty eating habits. Therefore majority of causes mentioned by the mothers were causes of stomach disorder or disorders of the digestive system. The causes mentioned were as follows : Housing insanitation including not keeping clean surrounding, faulty eating habits including overeating and eating foods that are difficult to digest were perceived to cause indigestion (*Apach, Kabji, Badhazami*). Faulty eating habits of lactating mothers were believed to cause diarrhoea among neonates; Feeding a child the milk other than breast milk, even milk of pregnant mother was also considered to cause diarrhoea; It was believed that heat in summer and catching cold in winter affected the digestive system of mother and this in turn affected the breast milk, so ultimately breast feeding affected child's digestive system and caused diarrhoea in children; It was also believed that certain intrinsically "hot" and "cold" food, eaten excessively in summer and winter respectively or eating stale foods could also cause diarrhoea. Other diseases like pain abdomen, *kabji* etc., since the child digestive system was perceived to become weaker during illness, mother was more likely to succumb (give way to something over powering) to stomach disorders during this period, than when she was healthy; Teething - as in the case of other diseases and illness, during teething too the child's system was considered more vulnerable, and mothers said that because of this, stomach disorders with loose motions usually occurred during teething; Dislocation of nerves by fall down during child learn standing up and stepping.

These causes described by mothers have been classified in three broad heading (cause A, cause B and cause C) according to their importance in occurrence of diarrhoea (see foot notes table 4.2.1 and 4.2.2).

**Table 4.2.1**

**Knowledge Regarding Causes of Diarrhoea by  
Socio-Economic Background**

|                               | Cause 'A' |               | Cause 'B' |                | Cause 'C' |                | Total      |
|-------------------------------|-----------|---------------|-----------|----------------|-----------|----------------|------------|
|                               | No.       | (%)           | No.       | (%)            | No.       | (%)            |            |
| <b><u>CASTE</u></b>           |           |               |           |                |           |                |            |
| General                       | 6         | (16.67)       | 21        | (58.33)        | 9         | (25.00)        | 36         |
| OBC                           | 2         | (3.57)        | 33        | (58.93)        | 21        | (37.50)        | 56         |
| SC                            | 1         | (2.78)        | 17        | (47.22)        | 18        | (50.00)        | 36         |
| ST                            | -         | -             | 1         |                | 2         |                | 3          |
| <b><u>Education</u></b>       |           |               |           |                |           |                |            |
| Illiterate                    | 4         | (3.92)        | 58        | (56.86)        | 40        | (39.22)        | 102        |
| Literate                      | 5         | (17.24)       | 14        | (48.27)        | 10        | (34.48)        | 29         |
| Primary                       | 1         | (5.26)        | 9         | (47.36)        | 9         | (47.36)        | 19         |
| Middle                        | -         | -             | 3         | (75.00)        | 1         | (25.00)        | 4          |
| Secondary+                    | 4         | (66.67)       | 2         | (33.33)        | -         | -              | 6          |
| <b><u>Economic Status</u></b> |           |               |           |                |           |                |            |
| Lowest                        | -         |               | 3         | (60.00)        | 2         | (40.00)        | 5          |
| Lower                         | 1         | (12.50)       | 5         | (62.50)        | 2         | (25.00)        | 8          |
| Medium                        | 3         | (5.36)        | 27        | (48.21)        | 26        | (46.43)        | 56         |
| Higher                        | 4         | (8.00)        | 27        | (54.00)        | 19        | (38.00)        | 50         |
| Highest                       | 1         | (8.33)        | 10        | (83.34)        | 1         | (8.33)         | 12         |
| <b>TOTAL</b>                  | <b>9</b>  | <b>(6.87)</b> | <b>72</b> | <b>(54.96)</b> | <b>50</b> | <b>(38.17)</b> | <b>131</b> |

**Note :** Cause 'A' = Housing insanitation/eating stale food/feeding other milk instead of breast milk using unhygienic utensils.

Cause 'B' = Due to teething, eating 'hot and cold' foods/breast feeding after working in the hot and catching cold during summer and winter respectively.

Cause 'C' = Dislocation of nerve by fall down during child is in learning stage of standing up and stepping.

Cause 'A' = Knowledge in concurrence with current medical understanding.

Cause 'B' = Knowledge explainable by medical understanding and acceptable.

Cause 'C' = Not acceptable to medical science.

Table 4.2.1 deals about causes of diarrhoea, in general, including children below one year. It shows that out of 131 mother 7 percent considered diarrhoea as a result of cause 'A' which includes housing insanitation, feeding other milk instead of breast milk and eating stale foods. 55 percent mother considered diarrhoea as a result of cause 'B' which includes eating hot and cold foods in summer and winter respectively, feeding child after working in the heat and catching cold in summer and winter respectively. Where as 38 percent mothers considered diarrhoea as a result of cause 'C' which includes dislocation of nerve by fall down during their learning stage (standing and stepping).

The cause 'A' can be considered as knowledge in concurrence with current medical understanding, cause 'B' as knowledge explainable by medical understanding and accountable and cause 'C' as not acceptable to modern medical science.

Regarding diarrhoea in children below one year the mothers understanding about causes of diarrhoea were far better than causes of diarrhoea in general. Table 4.2.2. shows that, 18% mothers considered diarrhoea as a result of cause 'A' which includes eating unclean objects like mud, when child plays on the ground, housing insanitation, feeding other milk instead of breast milk, etc. 68 percent mothers considered diarrhoea as a result of cause 'B' which includes teething, feeding after working in heat and catching cold in summer and winter respectively. While only 14 percent mothers considered diarrhoea as a result of cause 'C' which includes dislocation of nerve by fall down during a child's learning of standing up and stepping, to be influenced by an evil eye (*najar lag jana*) and walking over flowing water stream (*pani ka dhora ondalana*). This last one notion (evil eye and walking over flowing water stream) are not clear to mothers itself but they just follow what their ancestor believed.



**Table 4.2.2**

**Knowledge Regarding Causes of Diarrhoea in  
Infants by Socio-Economic Background**

|                               | Cause 'A' |                | Cause 'B' |                | Cause 'C' |                | Total      |
|-------------------------------|-----------|----------------|-----------|----------------|-----------|----------------|------------|
|                               | No.       | (%)            | No.       | (%)            | No.       | (%)            |            |
| <b><u>CASTE</u></b>           |           |                |           |                |           |                |            |
| General                       | 4         | (11.11)        | 29        | (80.56)        | 3         | (8.33)         | 36         |
| OBC                           | 13        | (23.22)        | 34        | (60.71)        | 9         | (16.07)        | 56         |
| SC                            | 6         | (16.67)        | 24        | (66.66)        | 6         | (16.67)        | 36         |
| ST                            | 1         |                | 2         |                | –         | –              | 3          |
| <b><u>Education</u></b>       |           |                |           |                |           |                |            |
| Illiterate                    | 18        | (17.65)        | 69        | (67.65)        | 15        | (14.70)        | 102        |
| Literate                      | 6         | (20.68)        | 20        | (68.96)        | 3         | (10.34)        | 29         |
| Primary                       | 2         | (10.52)        | 14        | (73.68)        | 3         | (15.78)        | 19         |
| Middle                        | –         | –              | 4         | (100)          | –         | –              | 4          |
| Secondary+                    | 4         | (66.67)        | 2         | (33.33)        | –         | –              | 6          |
| <b><u>Economic Status</u></b> |           |                |           |                |           |                |            |
| Lowest                        | –         | –              | 4         | (80.00)        | 1         | (20.00)        | 5          |
| Lower                         | 3         | (37.50)        | 5         | (62.50)        | –         | –              | 8          |
| Medium                        | 8         | (14.29)        | 40        | (71.42)        | 8         | (14.29)        | 56         |
| Higher                        | 12        | (24.00)        | 29        | (58.00)        | 9         | (18.00)        | 50         |
| Highest                       | 1         | (8.33)         | 11        | (91.67)        | –         | –              | 12         |
| <b>TOTAL</b>                  | <b>24</b> | <b>(18.32)</b> | <b>89</b> | <b>(67.94)</b> | <b>18</b> | <b>(13.74)</b> | <b>131</b> |

**Note :** Cause 'A' = Housing insanitation/eating mud or unclean objects/other feeding inspite of breast feeding.

Cause 'B' = Teething/Breast feeding after eating spicy food, 'hot and cold' food, working in heat (sun light) and catching cold/other diseases like pain abdomen, fever, etc.

Cause 'C' = Dislocation of nerve by fall down during learning stage of standing up and stepping/to be influenced by on evil eye.

Cause 'A' = Knowledge in concurrence with current medical understanding.

Cause 'B' = Knowledge explainable by medical understanding and acceptable.

Cause 'C' = Not acceptable to medical science.

- Caste-wise knowledge regarding cause 'A' of diarrhoea in general shows that it is decreasing from General Caste towards other backwards classes and schedule caste. It was 17%, in general caste, 4% in OBC and 3% in schedule caste. But in case of cause 'B' it was almost same in all caste groups. Regarding cause 'C' it is increasing from General caste towards OBC and SC. Interestingly knowledge about cause 'A' of diarrhoea in infants is just reverse to cause 'A' of diarrhoea in general while knowledge about cause 'B' is lightly decreasing from General Caste to toward OBC and SC in causes of diarrhoea in both in general as well as infants.
- Educational status wise understanding regarding cause 'A' of diarrhoea in general as well as in infants was highest in the mothers who have 10 years or more schooling. But knowledge regarding cause 'B' of diarrhoea was highest in mothers who have 8 years schooling.
- Economic status wise knowledge regarding cause 'A' of diarrhoea in general as well as in infants was highest in the lower economic status groups followed by lowest class. While knowledge regarding cause 'B' of diarrhoea in both general as well as infants was highest in the highest economic class group followed by middle class group.

#### **4.3 Preventive measures of Diarrhoea**

Mothers of the study population considered preventive measures of diarrhoea as; cleanliness (house and surroundings); using clean as well as covered water; not using stale food and keeping food covered; use gripe water during infancy; use *janam ghunti*; use *harade* (myrobalant), *heeng* (asafoetida), *jeera* (cuminseed) etc.

Mother believed that the child's digestive system was affected during diarrhoea which started malfunctioning. Therefore it was felt that

diarrhoea could be cured by strengthening the child's digestive system. For strengthening digestive system they use *janam ghunti, heeng, jeera* etc.

**Table 4.3.1**

**Knowledge Regarding Preventive Measures of Diarrhoea  
by Socio-economic Background**

|                               | Preventive Measure 'A' |               | Preventive Measure 'B' |               | Don't Know |                | Total      |
|-------------------------------|------------------------|---------------|------------------------|---------------|------------|----------------|------------|
|                               | No.                    | (%)           | No.                    | (%)           | No.        | (%)            |            |
| <b><u>CASTE</u></b>           |                        |               |                        |               |            |                |            |
| General                       | 3                      | (8.33)        | 4                      | (11.11)       | 29         | (80.56)        | 36         |
| OBC                           | 3                      | (5.36)        | -                      | -             | 53         | (94.64)        | 56         |
| SC                            | 2                      | (5.55)        | 1                      | (2.78)        | 33         | (91.67)        | 36         |
| ST                            | 2                      | -             | -                      | -             | 1          | -              | 3          |
| <b><u>Education</u></b>       |                        |               |                        |               |            |                |            |
| Illiterate                    | 6                      | (5.88)        | 1                      | (0.98)        | 95         | (93.14)        | 102        |
| Literate                      | 4                      | (13.79)       | 4                      | (13.79)       | 21         | (72.41)        | 29         |
| Primary                       | -                      | -             | 2                      | (10.52)       | 17         | (89.47)        | 19         |
| Middle                        | -                      | -             | -                      | -             | 4          | (100)          | 4          |
| Secondary+                    | 4                      | (66.67)       | 2                      | (33.33)       | -          | -              | 6          |
| <b><u>Economic Status</u></b> |                        |               |                        |               |            |                |            |
| Lowest                        | -                      | -             | -                      | -             | 5          | (100)          | 5          |
| Lower                         | 1                      | (12.50)       | 1                      | (12.50)       | 6          | (75.00)        | 8          |
| Medium                        | 3                      | (5.36)        | -                      | -             | 53         | (94.64)        | 56         |
| Higher                        | 6                      | (12.00)       | 3                      | (6.00)        | 41         | (82.00)        | 50         |
| Highest                       | -                      | -             | 1                      | (8.33)        | 11         | (91.67)        | 12         |
| <b>TOTAL</b>                  | <b>10</b>              | <b>(7.63)</b> | <b>5</b>               | <b>(3.82)</b> | <b>116</b> | <b>(88.55)</b> | <b>131</b> |

- Note :** Pre. Measure 'A' = Housing sanitation/Use clean and covered water/not use stale food.
- Pre. Measure 'B' = Not use 'hot and cold' foods/use gripe water/use traditional home medicine for prevention.
- Pre. Measure 'A' = Full knowledge.
- Pre. Measure 'B' = Partial knowledge.
- Don't Know = No knowledge.

Other preventive measures considered by the mothers were that certain "hot and cold" foods should not be eaten by lactant mothers in summer and winter season respectively; should not eat excessively without appetite (*kachchi-pacci bhookh*). Regarding use of gripe water mothers believed that it would be helpful in easy teething so that the child's digestive system would not be affected and ultimately they (children) would not fall sick, as sickness was considered more vulnerable in occurrence of diarrhoea.

These preventive measures considered by mothers are classified as preventive measures 'A', 'B' and don't know. These measures could be known as full knowledge, partial knowledge and no knowledge according to modern medical understanding (see Table 4.3.1).

Table 4.3.1 shows that out of 131 mothers majority 88% mothers don't know the preventive measure of diarrhoea. Only 8% mothers have full knowledge as they responded to the preventive measure 'A', while 4% have partial knowledge as preventive measure 'B' of diarrhoea.

Because, very less number of mothers have full as well as partial knowledge it is very difficult to calculate accurate knowledge regarding preventive measure of diarrhoea according to their socio-economic background like caste, educational status and economic status.

#### **4.4 Treatment of Diarrhoea**

Almost all mothers of the study area believed that cure lay entirely in the hands of God. Therefore, treatment administered by them could only bring relief to child. From past experience mother believed that allopathic treatment could cure the child, however if they found that the treatment had not been effective, then the practitioners were also changed but finally God was blamed if the child was not cured and it was to God's credit if the child was cured.

The treatments which were used by the mothers are as follows : (a) Modern medical treatment (b) Traditional as well as modern home remedies.

### **Modern Medical Treatment (Allopathy)**

Modern medical treatment seeks almost always from the practitioners located in the village and nearby. The 'doctors' by which name the practitioner whatever may be private or government were known in general, had a positive image. Mother did not doubt that they had the power to save the child. However, there was some confusion as to what finally saved the child, the doctor or the traditional medicine they used. Mothers also believed in the power of injections. Apart from injections, tablets, electral powder and certain mixture or syrups were prescribed by the doctors.

Usually mothers delayed in consulting a medical practitioner till child's condition looked serious. Once a practitioner was consulted, mothers expected immediate results. If signs of improvement (A reduction in the number of motions passed by the child and an increase in the child's level of activity were perceived as the first signs of improvement) were not seen soon after (1-2 days) the medicine of first practitioner administered, a second practitioner (may be Govt. hospital doctor) would be consulted. Each time the practitioner was changed, a better known one was consulted, till finally the child was taken to the nearest big hospital or district hospital.

If at any stage a practitioner was doubtful about recovery of the child the mother either stopped consulting doctors or resorted to prayers. If the child then passed away, the incident was accepted as 'God will'. The attitude towards treatment practices for children as well as adult were almost all equal. But the knowledge regarding treatment in practice varies from mother to mother or say one another.

### **Traditional as well as modern home remedy**

Since diarrhoea was essentially perceived to be a stomach disorder, treatment was administered with a view to giving relief to the child's digestive system. In this treatment the ingredients used could be purchased from market or were already available at home. Opium was not so common but still it was used by some of the mothers. These mothers believed that during diarrhoea, use of opium, gives relief to the child from stomach pain (aches), grip and sleep. Opium is known as *amei* and is also not available at home, they purchased it from the market for medicine purpose.

Home made remedies and other modern home remedies - hot warming was given to the child during winter. In summer the situation was reversed. During summer the child was kept cool and away from the heat and in winter child was kept warm.

The main ingredients used in the remedies made at home are as follows :

*Laung, saunf, harar, jaiphal, pudina, tulsi, isabgol husk, lemon juice, flowers and leaves of babul, tea, chhachh, chini, ajawaine, makada's/kateli's rice, jeera, bilpatter, methi, lakh of Bertree, Kala bhonra, goolar doodh, Ounga leaves and roots, sonth etc.*

Most of the above ingredients grinded and mixed in water/milk/butter milk and served to the child in sips (small quantity to drink). These ingredients were perceived to combat the gas (wind) produced in the stomach as well as give strength to the digestive system.

The main traditional home remedies being used by the mothers are as follows :

- 1) *Laung, sonth karha* by grinding it and warming in the water then cooling it for a few minutes;
- 2) *Ajwaine-ka-kash, jeera* and salt given with water;

- 3) *Jaiphal syrup* by grinding and then boiled it in water;
- 4) Dry *methi ki phanki* with water/buttermilk;
- 5) *Saunf ki phanki* with water/butter milk;
- 6) Tea adding some water/lemon juice;
- 7) Isabagol husk/opium with water/butter milk;
- 8) *Makada rice/kateli rice/jhad ki lakh/kala bhonra ka kasha*/flowers and leaves of *babul/pudina* leaves *kasha/ounga* leaves or roots *kasha/etc.* by grinding or crushed then given with water/butter milk; and
- 9) *Sonth, Ghee* and *Boora* mixing in equal quantity is also given to young children as well as adults.

Some of these above traditional home remedies are being used in diseases other than diarrhoea also by the mothers of study population.

Besides these traditional home remedies/modern home remedies like ORS (two recommended); electral powder; salt, sugar solution (SSS) etc. also used by the mothers of the study population.

The treatment responded by the mothers of the study area is divide in three broad categories as A, B and C.

The knowledge regarding treatment practices of diarrhoea which have been discussed above is reflected in table 4.4.1 according to the number of mothers and their responses. It shows that out of 131 mothers majority (61%) of them were using only modern medical treatment, while 34% were using traditional home remedies as well as modern home remedies but if diarrhoea was not cured they go for self-medication or modern medicine treatment. Significantly 5% mothers were using only traditional home remedies.

**Table 4.4.1**

**Treatment in Practice when Diarrhoea Occurs by  
Socio-economic Background**

|                               | Treatment 'A' |                | Treatment 'B' |                | Treatment 'C' |               | Total      |
|-------------------------------|---------------|----------------|---------------|----------------|---------------|---------------|------------|
|                               | No.           | (%)            | No.           | (%)            | No.           | (%)           |            |
| <b><u>CASTE</u></b>           |               |                |               |                |               |               |            |
| General                       | 16            | (44.44)        | 15            | (41.67)        | 5             | (13.89)       | 36         |
| OBC                           | 15            | (26.79)        | 39            | (69.64)        | 2             | (3.57)        | 56         |
| SC                            | 12            | (33.33)        | 24            | (66.67)        | –             | –             | 36         |
| ST                            | 1             |                | 2             |                | –             | –             | 3          |
| <b><u>Education</u></b>       |               |                |               |                |               |               |            |
| Illiterate                    | 34            | (33.33)        | 66            | (64.71)        | 2             | (1.96)        | 102        |
| Literate                      | 10            | (34.48)        | 14            | (48.27)        | 5             | (17.24)       | 29         |
| Primary                       | 5             | (26.31)        | 10            | (52.63)        | 4             | (21.05)       | 19         |
| Middle                        | 2             | (50.00)        | 2             | (50.00)        | –             | –             | 4          |
| Secondary+                    | 3             | (50.00)        | 2             | (33.33)        | 1             | (16.67)       | 6          |
| <b><u>Economic Status</u></b> |               |                |               |                |               |               |            |
| Lowest                        | 2             | (40.00)        | 2             | (40.00)        | 1             | (20.00)       | 5          |
| Lower                         | 4             | (50.00)        | 4             | (50.00)        | –             | –             | 8          |
| Medium                        | 18            | (32.14)        | 37            | (66.07)        | 1             | (1.79)        | 56         |
| Higher                        | 16            | (32.00)        | 29            | (58.00)        | 5             | (10.00)       | 50         |
| Highest                       | 4             | (33.33)        | 8             | (66.67)        | –             | –             | 12         |
| <b>TOTAL</b>                  | <b>44</b>     | <b>(33.59)</b> | <b>80</b>     | <b>(61.07)</b> | <b>7</b>      | <b>(5.34)</b> | <b>131</b> |

**Note :** Treatment 'A' = Traditional/modern home remedies with self medication but if patient not cured go to medical practitioners.

Treatment 'B' = Treatment by medical practitioners only.

Treatment 'C' = Only traditional home remedies.

- Across caste - practice of treatment 'A' was found highest (44%) in General Castes, followed by 33% in Scheduled Castes and lowest (27.7%) in other backward classes. While treatment 'B' was found highest (70%) in OBCs followed by 67% in scheduled castes and lowest (42%) in General Castes. Whereas treatment 'C' was found



highest in General Castes which is only 14% and lowest (4%) in OBCs.

- According to educational background - practice of treatment 'A' was found almost same in literate as well as illiterate. Difference was found only in literate mothers who attended 8 years or more schooling. Regarding treatment 'B' it shows difference between literate and illiterate, that illiterate 65% mothers believe in modern medical treatment while the percentage of literate mothers was only 48%. Regarding treatment 'C' it shows significant difference between literate and illiterate that 17% literate mothers practised only traditional home remedies while the percentage of illiterate mothers was only 2%.
- Economic status wise - practice of treatment (all kinds) no significant difference found among all economic classes.

But in case of treatment used last year for the children, 84% mothers belongs to almost all castes, education and economic groups in equal percentage. They went for modern medical treatment. Here we can say that the mothers were giving importance to modern medical treatment rather than home remedies.

Regarding treatment of diarrhoea at home, 86% mothers believed that it is not possible. While 11% mother strongly believed that it is possible at home if the use of home remedies is correct in relation to preparation, quantity etc. As we discussed earlier in this section that awareness regarding traditional/modern home remedies was found near about 40 percent mothers of total respondents. Thus there is a need of education regarding correct use of traditional/modern home remedies.

Regarding 'when need of medical care should be taken', almost all mother believe in modern medical care as ultimate solution of any disease. This generalisation is also considered for diarrhoea. But seeking doctor's

help with duration of diarrhoea is varying. It was found that out of 131 mothers 33 percent considered doctor's help should be taken after 4 days of diarrhoea but in these four days traditional/modern home remedies should be continued. Here it is important that if these remedies are used correctly then there will be no need of seeking doctor's help. While 50 percent mothers considered doctor's help should be taken after 3 days of diarrhoea but in this period modern home remedies as well as drugs directly purchased from pharmacists should be continued. Here it is important that mother said drugs can be given without consulting any doctor, it can be purchased from pharmacists/medical stores. Mother thought that it will be cheap/economic rather than going to clinic/hospital with patient. But at the point of health/disease is concerned it will be dangerous to take medicine without consulting doctor. Rest 11% mother considered doctors help should be taken within 2 days and diarrhoea become severe.

#### **4.5 Oral Rehydration Therapy**

In the discussion of treatment we found that there are lots of fluids used by mothers as treatment of diarrhoea. These may be considered very important and useful if the method of preparation is appropriate and known to mothers. Although already nearly 40% of mothers know these home remedies but the knowledge regarding 'ORS' (WHO recommended) is very limited.

Table 4.5.1 shows that only 18 percent of mothers were aware about ORS regarding what is it. And of these 18% mothers only 3 mothers have correct knowledge regarding preparation of solution. Here it is important that these 3 mothers all working as a AWW in ICDS. Regarding duration of using this solution only 3 mothers said that it can be use 9-24 hours while 14 mothers who were aware about ORS prepared solution of one packet many times taking small quantity according to taking capacity of patient. Thus important thing here is that either mothers of the study population are not getting information or they forget the information.

**Table 4.5.1**

**Awareness of Mothers Regarding ORS**

| <b>Recognition of Diarrhoea</b>  | <b>Mothers</b> |              |
|--|----------------|--------------|
|  | <b>No.</b>     | <b>(%)</b>   |
| <b><u>About ORS and Preparation</u></b>  |                |              |
| Know of ORS as medicine and know correct method of preparation                   | 3              | (2.29)       |
| Know about ORS but do not know correct method of preparation                     | 21             | (16.03)      |
| Don't know anything about ORS  | 107            | (81.68)      |
| <b><u>About duration of use of solution</u></b>                                  |                |              |
| Use once only because it is prepared as per taking capacity of the patient/child | 14             | (10.68)      |
| Prepare it once with the whole packet and use within 1-8 hours                   | 7              | (5.34)       |
| Prepare it once with the whole packet and use within 9-24 hours                  | 3              | (2.29)       |
| Not applicable because don't know anything about ORS                             | 107            | (81.68)      |
| <b>TOTAL</b>   | <b>131</b>     | <b>(100)</b> |

According to socio-economic back ground of 21 mothers who were aware about ORS but did not know the correct method of preparation Table 4.5.2 shows that across caste 10 mothers belong to General Caste followed by 7 OBC and 4 SC. According to educational status majority (12) of mothers were illiterate followed by 9 literate mothers . And across economic status

majority (14) of mothers were from higher economic class followed by 3 medium class, 2 highest class while only 1 from lowest and one from lower class.

**Table 4.5.2**

**Awareness regarding ORS but not about the correct method of preparation by socio-economic background**

| <b>Know about ORS but not about correct method of preparation (21 mothers)</b> | <b>Mothers (21)</b> |          |
|--|---------------------|----------|
|  | <b>No.</b>          | <b>%</b> |
| <b><u>CASTE</u></b>  |                     |          |
| General  | 10                  | 17.77    |
| OBC  | 7                   | 12.5     |
| SC   | 4                   | 11.11    |
| ST   | -                   |          |
| <b><u>Education</u></b>  |                     |          |
| Illiterate   | 12                  | 11.76    |
| Literate   | 9                   | 31.03    |
| Primary  | 4                   | 21.05    |
| Middle   | 2                   | 50.00    |
| Secondary+   | 3                   | 50.00    |
| <b><u>Economic Status</u></b>  |                     |          |
| Lowest   | 1                   | 20.00    |
| Lower  | 1                   | 12.5     |
| Medium   | 3                   | 5.35     |
| Higher   | 14                  | 28.00    |
| Highest  | 2                   | 16.66    |
| <b>TOTAL</b>   | <b>21</b>           |          |

**4.6 Feeding Practices**

**During diarrhoea**

All mothers of the study population were aware regarding continuation of breast feeding or whatever food available at home during diarrhoea. Their attitude towards feeding during diarrhoea is that if they

stop breast feeding or food child cried for hunger and also child became weak that is why they (mothers) continue feeding to the child. Thus their attitude towards continue to feed to remove hunger and save child from weakness but this attitude is similar to that in normal conditions.

Now regarding what foods to be given during diarrhoea to the child/patient is the point of discussion. As we discussed earlier that children and infants were perceived by mothers to have vulnerable digestive system. As a result light, soft and liquid foods were considered by mothers good for the child/infant. Further, excessive consumption of hot foods in summer and cold foods in winter were considered harmful to the child having diarrhoea because these foods create too much heat in the body during summer and cooled the body excessively during winter, causing fever/diarrhoea etc.

In case of lactating mother the properties of the food eaten by her were perceived to be passed on to the child through breast milk. Therefore the same restrictions were placed on children who were able to eat and for lactating mothers both. But the normal diet of the children did not include any specific preparation. Usually what is being prepared in the family it also fed to the children. Over spiced vegetables and oiled preparation were not given, but instead these children were fed sugar, curd, milk with *roti* (wheat flour bread). Wheat flour bread is the staple food in this area.

Few mothers claimed that the diet of the child should be changed during diarrhoea. Therefore the child was fed light and soft foods which would be easy to digest and in some cases the quantity of food should also be reduced so that digestive system of child will not be upset (become weak). The foods which were considered specific during diarrhoea by few mother are as follows : *khichari*, boiled rice without separation of water called *ganji*, *rabadi*, rice with curd, *roti*, biscuits, *moong dal* etc. Besides these, few mothers also considered fruits like orange, anar, banana, apple etc. should be given to the child during diarrhoea.

Now what is the proportion of mothers who considered above mentioned foods during diarrhoea is reflected in the table 4.6.1(A). It shows that almost all (95%) of mothers were using home available foods excluding 'hot and cold' foods during summer and winter for the diarrhoeal child. While 14 mothers considered home available specific food which was discussed in the above para for the diarrhoeal child. Two mothers considered that the quantity of food should be reduced and the same (2)

**Table 4.6.1(A)**

**Awareness of Mothers Regarding Food During Diarrhoea**

| Food  | Mothers |         |
|---|---------|---------|
|   | No.     | (%)     |
| 1. Home available food excluding 'hot and cold' during summer and winter respectively | 110     | (83.96) |
| 2. Home available specific food   | 14      | (10.68) |
| 3. Reduced quantity of food/diet  | 2       | (1.56)  |
| 4. Only breast feeding  | 2       | (1.56)  |
| 5. Not applicable*  | 3       | (2.29)  |
| <b>TOTAL</b>  | 131     | (100)   |

**Note :** \*These mothers said that their children did not get diarrhoea.

mothers considered only breast feeding during diarrhoea. Regarding feeding child with home available specific food by socio-economic background of mothers Table 4.6.1(B) shows that across caste 17% mothers of General caste used these foods followed by 9% OBC and 8% SC. It was also found that 24% literate mother used specific food while economic status wise no significant difference was found.

**Table 4.6.1(B)**

**Awareness Regarding Feeding Diarrhoeal Child with Home Available  
specific Food by Socio-economic Background**

| Socio-economic Background     | Mothers (21) |              |
|-------------------------------|--------------|--------------|
|                               | No.          | %            |
| <b><u>CASTE</u></b>           |              |              |
| General                       | 6            | 16.66        |
| OBC                           | 5            | 8.92         |
| SC                            | 3            | 8.33         |
| ST                            | —            |              |
| <b><u>Education</u></b>       |              |              |
| Illiterate                    | 7            | 6.86         |
| Literate                      | 7            | 24.13        |
| Primary                       | 3            | 15.78        |
| Middle                        | 1            | 25.00        |
| Secondary+                    | 3            | 50.00        |
| <b><u>Economic Status</u></b> |              |              |
| Lowest                        | —            |              |
| Lower                         | 1            | 12.50        |
| Medium                        | 3            | 5.35         |
| Higher                        | 8            | 16.00        |
| Highest                       | 2            | 16.66        |
| <b>TOTAL</b>                  | <b>14</b>    | <b>10.68</b> |

**After diarrhoea cured/treated**

All mothers considered that due to diarrhoea weakness occurs. But they did not bother about the weakness because they thought this weakness will be overcome within few days, when the child starts normal eating/diet. Also mothers did not differentiate food between normal child and child who recovered from diarrhoea. However few mothers considered extra diet/food for some days to the child who recovered from diarrhoea. Few mothers also assumed that some tonics for good health should be

given to the child. But almost all mothers did not consider any extra/specific diet or any thing else for the child who recovered from diarrhoea.

#### 4.7 Source of Information about Diarrhoea

Regarding source of getting information about diarrhoea table 4.7.1 reflects that majority (94%) of mothers were getting information by local knowledge through inter-personal communication (family member, kin folk, neighbours etc.). Information/education disseminated by health professionals and mass media were very limited/less, only 4% and 2% of respondents responded that they were getting information from these sources respectively. Thus question arises that, are these media working or not, health workers during home visit disseminating or not? A question also arise that these health workers are doing home visit or not? Regarding the answers of these questions we will discuss in part third of the chapter.

**Table 4.7.1**

**Sources of getting information regarding Diarrhoea**

| Sources                                  | Mothers    |              |
|--|------------|--------------|
|  | No.        | (%)          |
| 1. Local knowledge only                  | 113        | (86.25)      |
| 2. Local knowledge + Health Professional | 5          | (3.82)       |
| 3. Local knowledge + Mass media          | 5          | (3.82)       |
| 4. Health Professional only              | 5          | (3.82)       |
| 5. Mass media only                       | 2          | (1.53)       |
| 6. All Sources                           | 1          | (0.76)       |
| <b>TOTAL</b>                             | <b>131</b> | <b>(100)</b> |

**Note :** Local knowledge = Information through family members, kin folks and (Traditional media) neighbours etc.  
 Health Professionals = Institutional media (Govt. Health Officials).  
 Mass Media = Radio, T.V. , Newspaper.



### Case Studies on Diarrhoea

As a part of research for collection of qualitative data there were 8 case studies done on diarrhoea. In which one each from lowest and lower, and 3 each from medium and higher economic background families belong to OBC. In medium economic background 2 belong to SC and one General while in higher economic background one each from General, OBC and SC. Except one mother of diarrhoeal case who belongs to higher economic and OBC have primary level education, all other are illiterate. Like wise except one case family belongs to medium economic and SC have *Katcha* house, all other families have a *pucca* house. All the case families used protected source of water as handpumps or bore wells. As for as environmental sanitation and hygiene practices are concerned, three families belong, one OBC higher economic and two SC medium economic background. At the first glance apparently they have satisfactory environmental sanitation and hygiene practices while other families were found very poor in this relation. However the practices related to defecation by children near the house, of hand-washing and of handling stored water for drinking are similar in all families. For diarrhoea transmission the latter hygienic practices are most significant and they are not different. The common environmental and hygienic conditions lead to a high incidence of childhood diarrhoea in all. However differences appear in outcomes of disease. This difference and its impact on perceptions and behaviour are illustrated by two case studies.

1. Twenty six year old Soma, an OBC, lower economic background nuclear family, living in a *pucca* house is a mother of diarrhoeal child of three year old. She has 3 bigha land growing only rainy season's crop because of irrigation problem. Her husband, a daily wages labourer works outside but doing up and down daily. Being a house wife she also takes part in agricultural work in working seasons. She used drinking water from her own hand pump which was very near to the house. As observed the environmental hygiene in and around the house was very poor, also she

ignored her personal hygiene as well as food and stored water hygiene. when I reached there I found that her child had already passed loose motion and was laying on the cot. The child was too weak and looking like a marasmus patient. He was not able to sit by himself. At this time Soma was doing some job in the field. A neighbour's child called her. She came, lifted up the child and laid him on the earth near the house. Then she took water from their stored drinking water pot with a tumber (*Ghanti*) catching it in a hand with the help of a corner of their unclean *lugadi* (*odani*). Then she lifted up the child in another hand, took child near one side of her house, washed and again laid him on the mud plastered platform. Then she took the cot at the same place cleaned it and left in the sunlight to dry. After washing the child and cleaning the cot, she again took water following same procedure, washed her hands with mud. After all this, she took some medicine (modern) from her house and gave it to the child. The medicine was also not kept carefully and was intermixed with other medicine in the plastic bag. The child was suffering from diarrhoea since 12 days and medicine was started 4 days after occurrence diarrhoea. But she told that child was not improving. She also spoke of the child getting frequent episodes of diarrhoea in a very short duration. So she had already decided that there is a need to go to the Devata for exorcising the 'something'. This she believed because she had lost one child in the same condition earlier. The child was bottle fed because she did not have breast milk. The bottle was found to be unclean and smelly. But asking questions regarding ORS/SSS it was found that she did not know about these as well as home remedies and about extra feeding after diarrhoea was cured.

2. Meera is thirty two year, higher economic background, SC, nuclear family, living in *pucca* house, a mother of diarrhoeal child of nine month age. She was having 2 bigha non-irrigated land. Her husband is a government employee working in another town and came once in a month. She was mainly a house wife but all the responsibilities of family, child care etc. were on her only, and in the agricultural season she also took part in

agricultural work. She was using drinking water from a Govt. hand pump which was also very near to her house. As observed environmental sanitation and hygiene practices at the first glance were satisfactory. When I reached there, Meera was cooking food. Her younger child was eating roti (wheat bread) with his elder sister sitting on the mud plastered platform. I saw the child was licking mud from the earth by the fingers. As soon as mother came out she saw the child licking mud, she lifted him and sat on the cot. After few minutes the child passed loose motions sitting on the cot. After finishing all the house work she lifted him and took outside the house boundary with a tumber following same procedure of taking water as Soma (above case) used but Meera was not using her lugadi. She washed the child, his clothes and cot. After washing all the things she came back washed her hands with water only and sat near by me. I asked some questions regarding diarrhoea. She considered causes of diarrhoea as eating mud. Also she knew about ORS but not correct methods of preparation. Because her husband was on duty so she took care immediately as she told that the child got diarrhoea yesterday morning and she started medicine by the afternoon. She knows some of the home remedies such as *methi ki phanki*, *chi ki phanti*, butter milk with *jeera* etc., but at present she using only modern medicine, because her experience is that these home remedies does not give immediate relief. She continued to breast feed the child during diarrhoea. But she fed the child as in normal days, with no knowledge of the need for extra food after diarrhoea. The child was soon cured.

On the basis of the above case studies the most important finding is that in lower economic back ground family the child was malnourished and getting diarrhoea frequently. Therefore the child becomes more malnourished and the well known cycle of malnutrition - diarrhoea goes on continuously and ultimately child becomes marasmus or dies. This happens despite treatment from the doctor. Thus mother of the child blames on Devata or evil eye as a cause of diarrhoea. While child of higher economic

background family got cured due to comparatively better nutrition and treatment practices than the lower economic background family.

After overall discussion on awareness, understanding and practices about diarrhoea of the mothers as well as case studies we reached on the conclusion that there was a universal awareness about recognition of sign and symptoms of diarrhoea. Regarding awareness of causes, no one spoke of primary causative factors as understood by medicine but majority of mothers spoke of secondary or tertiary level causative factors. The doctor's medicine was considered the ultimate treatment but a large percentage gave traditional home fluids as remedies. However awareness regarding preventive measures, use of modern home remedies (i.e. WHO recommended oral rehydration solution), and giving extra food for some days soon after diarrhoea was cured, was found to be very limited.

## **PART II : TUBERCULOSIS**

Awareness and understanding of women regarding various aspects of tuberculosis is being analysed in this part of the chapter. The recognition of tuberculosis as a serious disease was almost universal in the study population. With a high prevalence of the disease, most had direct contact with one or more known patient of tuberculosis. 63% of the women had seen a tuberculosis patient.

### **4.8 Disease Sign and Symptoms**

The awareness and understanding among women regarding TB, have they seen TB patient or not ? are analysed in table 4.8.1(A) . It shows that out of 131 women 63 percent have seen tuberculosis patient. Also majority of the women (93%) said that tuberculosis is a bad disease (*marine ki bemari/disease of death*).

**Table 4.8.1(A)**

**Awareness Regarding Recognition of Tuberculosis by**  
**Socio-economic Background**

|                               | Saw TB patient and said TB is a bad disease |                | Didn't see TB patient but said TB is a bad disease |                | Didn't see TB patient and No response about TB |               | Total      |
|-------------------------------|---|----------------|--|----------------|--|---------------|------------|
| <b><u>CASTE</u></b>           |   |                |  |                |  |               |            |
| General                       | 23  | (63.88)        | 11   | (30.55)        | 2  | (5.55)        | 36         |
| OBC                           | 34  | (60.71)        | 17   | (30.35)        | 5  | (8.92)        | 56         |
| SC                            | 23  | (63.88)        | 11   | (30.55)        | 2  | (5.55)        | 36         |
| ST                            | 2   |                | 1  |                | -  | -             | 3          |
| <b><u>Education</u></b>       |   |                |  |                |  |               |            |
| Illiterate                    | 65  | (63.72)        | 30   | (29.41)        | 7  | (6.86)        | 102        |
| Literate                      | 17  | (58.62)        | 10   | (34.48)        | 2  | (6.89)        | 29         |
| Primary                       | 9   | (34.48)        | 8  | (42.10)        | 2  | (10.52)       | 19         |
| Middle                        | 2   | (50.00)        | 2  | (50.00)        | -  | -             | 4          |
| Secondary+                    | 6   | (100)          | -  | -              | -  | -             | 6          |
| <b><u>Economic Status</u></b> |   |                |  |                |  |               |            |
| Lowest                        | 5   | (100)          | -  |                | -  |               | 5          |
| Lower                         | 3   | (37.5)         | 4  | (50.00)        | 1  | (12.5)        | 8          |
| Medium                        | 35  | (62.5)         | 16   | (28.57)        | 5  | (8.92)        | 56         |
| Higher                        | 32  | (64.00)        | 16   | (32.00)        | 2  | (4.00)        | 50         |
| Highest                       | 7   | (58.33)        | 4  | (33.33)        | 1  | (8.33)        | 12         |
| <b>TOTAL</b>                  | <b>82</b>                                   | <b>(62.59)</b> | <b>40</b>  | <b>(30.53)</b> | <b>9</b>                                       | <b>(6.87)</b> | <b>131</b> |

Table 4.8.1(B) deals about awareness and understanding of women regarding symptoms of TB. It shows that 88 percent women were familiar with cough followed by 68 percent familiar with sputum, 60 percent with blood in sputum or coughing as symptoms of tuberculosis. Whereas only 21 percent were familiar with weakness (weight less), 17 percent with fever, 8 percent with chest pain etc. The other symptoms were described by the women are less appetite, eating more chilies, asthma, joint pain, increase in smoking etc. but these (other symptoms) were only 21 percent.

**Table 4.8.1 (B)**

**Awareness of Women Regarding Symptoms of Tuberculosis**

| Symptoms                                     | Women |       |
|--|-------|-------|
|  | No.   | (%)   |
| Coughing                                     | 115   | 87.78 |
| Sputum                                       | 89    | 67.93 |
| Blood in sputum/cough                        | 78    | 59.54 |
| Weakness                                     | 27    | 20.61 |
| Fever  | 22    | 16.79 |
| Other  | 28    | 21.37 |
| Chest pain                                   | 10    | 7.63  |
| Decrease eating                              | 3     | 2.29  |
| No Response including Don't know (one woman) | 10    | 7.63  |

In these symptoms blood in sputum is very important, which is considered by 60 percent women, but as we know that blood in sputum/cough is very late sign and symptoms. If blood in sputum or cough is found very late it will be difficult to control or treat the patient in the short duration. Moreover, the symptoms cough, fever and chest pain which are very important at the point of recognition of disease and point of health education described by women were without time duration. Because the duration in which these symptoms recognised if it is as early as possible the possibility of control or treatment will be more easy and duration of treatment will be shortest.

From the above description we found that, there is a strong stigma that TB is a disease of death. The common perception of mothers behind this notion is that they saw the tuberculosis patients to be taking treatment/drugs always and at last they passed away. While we know that T.B. is, no doubt, fully curable disease and patient will not die if she/he take appropriate treatment from a qualified doctor without interruption and if there is favourable attitude of the family members as well as community towards tuberculosis patient.

#### 4.9 Seriousness of Disease

Seriousness of disease is analysed in the table 4.9.1. It shows that almost all women considered tuberculosis as a serious disease. But their understanding was found to vary. The majority of women (66%) considered it as incurable in which 37% said that once infected it means it will continue forever, followed by 29% who thought that once infected means the patient will at last die. 16% women understanding was that once infected means there will be life long treatment if the patient wants to be alive. 5% women considered tuberculosis serious as it is contagious and will spread to others. As we will discuss later, majority of the women considered it as a contagious disease, but did not see this as a criterion of serious disease. 4 percent considered tuberculosis as a serious disease because of its serious symptoms as blood vomiting and severe weakness. No significant variation was found on this point among the different socio-economic groups.

**Table 4.9.1**

**Awareness Regarding Seriousness of Tuberculosis**

| Reasons for TB Considering Serious             | Women      |              |
|--|------------|--------------|
|  | No.        | (%)          |
| Never cured                                    | 49         | (37.40)      |
| Patient at last die                            | 38         | (23.00)      |
| Treatment go on long time                      | 21         | (16.03)      |
| Contagious                                     | 6          | (4.58)       |
| Patient become very weak/blood vomitting (2+3) | 5          | (3.81)       |
| No responses                                   | 9          | (6.87)       |
| Don't know                                     | 3          | (2.29)       |
| <b>TOTAL</b>                                   | <b>131</b> | <b>(100)</b> |

**Note :** Never cured and Patient at last die is considered as incurable  
(37.40% + 23.00%) = (66.40%).

Majority of the women (61%) considered it to be common in all age groups and sections of the population. 19 percent considered adults to be more affected, whereas only 2 women considered that children are more vulnerable.

Regarding contagiousness almost all women considered it as highly contagious (said *Ud ke lagati hai or bahuat buri bimari hai*).

The above description reveals that there is a common belief that tuberculosis is an incurable disease therefore it is serious. But it is not like as we have discussed in the above paragraph. No doubt, it is a serious disease if proper treatment is not started in time or not taking full treatment regularly. Because irregular treatment develops drug resistance therefore the treatment which is restarted will not give relief and patient would become severe. Although there are other factors which support irregularity in treatment but these factors should not be given priority. These can be solved with the help of other resources available within community or outside the community.

#### **4.10 Causes of Disease**

Table 4.10.1 deals about causes of Disease tuberculosis. It shows that majority of the women (78%) are not aware about causes of TB and responded as 'don't know'. But here one thing should be kept in mind that the women who responded as 'don't know', why they are responding like this? It maybe because of their thinking that their knowledge about causes of tuberculosis may not be similar to the knowledge of interviewer or researcher as he/she know more than us (respondent) or as he/she urban background or educated one. Thus it doesn't make sense whether the respondent don't know any thing about causes of tuberculosis. Only 12 percent women responded that tuberculosis occurs due to personal (close) contact or eating together with TB patients or smoking with patient using same *bidi* as well as *hucca* and not eating or weakness due to insufficient quantity and quality foods in the house. The other causes considered by women were : due to typhoid which was not cured fully; smoking and drinking; due to hate/dislike TB patients; due to up set of cold; due to up set hot and cold etc. These causes were considered by only 10 percent women.



Thus total 12+10=22 percent women were aware the causes of tuberculosis as mentioned above.

**Table 4.10.1**

**Awareness Regarding Causes of TB by Socio-Economic Background**

|                               | Cause<br>'A' |                | Cause<br>'B' |               | Cause<br>'C' |                | Total      |
|-------------------------------|--------------|----------------|--------------|---------------|--------------|----------------|------------|
|                               | No.          | %              | No.          | %             | No.          | %              |            |
| <b><u>CASTE</u></b>           |              |                |              |               |              |                |            |
| General                       | 5            | (13.88)        | 4            | (11.11)       | 27           | (75.00)        | 36         |
| OBC                           | 7            | (12.50)        | 5            | (8.92)        | 44           | (78.57)        | 56         |
| SC                            | 3            | (8.33)         | 4            | (11.11)       | 29           | (80.55)        | 36         |
| ST                            | 1            | -              | -            | -             | 2            |                | 3          |
| <b><u>Education</u></b>       |              |                |              |               |              |                |            |
| Illiterate                    | 8            | (7.84)         | 9            | (8.82)        | 85           | (83.33)        | 102        |
| Literate                      | 8            | (27.58)        | 4            | (13.79)       | 17           | (58.62)        | 29         |
| Primary                       | 4            | (21.05)        | 3            | (15.78)       | 12           | (63.15)        | 19         |
| Middle                        | -            | -              | -            | -             | 4            | (100)          | 4          |
| Secondary+                    | 4            | (66.66)        | 1            | (16.66)       | 1            | (16.66)        | 6          |
| <b><u>Economic Status</u></b> |              |                |              |               |              |                |            |
| Lowest                        | -            | -              | -            | -             | 5            | (100)          | 5          |
| Lower                         | 1            | (12.50)        | 3            | (37.50)       | 4            | (50.00)        | 8          |
| Medium                        | 7            | (12.50)        | 4            | (7.14)        | 45           | (80.35)        | 56         |
| Higher                        | 7            | (14.00)        | 4            | (8.00)        | 39           | (78.00)        | 50         |
| Highest                       | 1            | (8.33)         | 2            | (16.66)       | 9            | (75.00)        | 12         |
| <b>TOTAL</b>                  | <b>16</b>    | <b>(12.21)</b> | <b>13</b>    | <b>(9.92)</b> | <b>102</b>   | <b>(77.86)</b> | <b>131</b> |

**Note :** Cause 'A' = Personal contact and eating together with TB patient (10); Smoking with TB patient using same Bidi/Hucca etc. (7); Weakness of eating in house/not eating sufficient quantity and quality of food (4).

Course 'B' = Due to typhoid not cure fully (3); Smoking (7) and drinking (9); Other (hate/disklike TB patient, due to upset of cold, due to upset hot and cold (7).

Cause 'C' = Don't know (93); No Response (9 respondents).

Across caste there was not much difference among women about the awareness regarding causes of diarrhoea considered by them. Similarly the economic status also gives the same picture, The difference was seen only between literate and illiterate women. The The table shows that literate women were more aware than illiterate regarding the causes of tuberculosis but this is by keeping in view the fact that in literate women there were three AWW's and one respondent's brother was a male nurse so they have more exposure to information regarding the causes of tuberculosis. Therefore it can be concluded that while education does make a difference it becomes more significant for those who attain secondary level or more.

Besides the general schooling they obtain a greater access to such information by becoming functionaries in health and health related jobs.

In economic status, there was interesting finding that those who belong to highest economic class were comparatively less aware than other economic class groups. Highest class women believed that if they become ill, they will take treatment as they have capacity/ resources to take treatment but they did not bother about the awareness regarding causes of tuberculosis. Where as other class women wanted to know more about the diseases and said that no one came from the medical department or other health staff except sister (ANM). But the ANM also irregularly visited and did not talk about tuberculosis. Whenever she (ANM) visited she talked about fever, cold, immunization, family planning etc.

In this description it is clear that no one spoke of primary factors as understood by medicine (that is bacteria/causative organism) but spoke of secondary and tertiary level causative factors. Though primary factor is the only factor responsible which make a person from healthy to patient and present in secondary and tertiary factors of causes of disease tuberculosis. Thus the factor/causes of disease responded by women should be

considered as indirect knowledge regarding causes of tuberculosis or say that they are aware about mode of transmission of disease tuberculosis.

#### **4.11 Preventive Measures**

Table 4.11.1 deals about preventive measures of tuberculosis. It shows that out of 131 women, majority (78%) of the women were not aware regarding preventive measures of tuberculosis. Only 22 percent were familiar about the preventive measures. Out of these 22% women, 9 percent were aware, not more than two preventive measures such as do not use left over food of TB patient or don't eat together with TB patient; cover mouth while talking with TB patient; keep separate arrangement for TB patient; take treatment in initial stage of the disease; and other preventive measures including immunization, sanitation etc. While rest 13 percent were aware with only one of the preventive measures mentioned above.

Across caste the awareness of women about any two preventive measures decreases from General Caste to OBC, SC etc. General Caste women were more aware about the preventive measures than other backward caste and Schedule Caste. But the percentage of women about awareness of preventive measure in General Caste is also not significant because it is only 17% and 14% in both the preventive measure as two measures and only one measure respectively.

Across educational status table shows that literate women were more aware than illiterate regarding the preventive measures but this needs to be interested keeping in view the fact that in literate women there are three AWW's and one women's brother is a male nurse so that they have more exposure to information regarding the preventive measures. Therefore it can be concluded that while education does make a difference, it becomes more significant for those who attain secondary level or more. Besides the general schooling they obtain a greater access to such information by becoming functionaries in health and health related jobs.

**Table 4.11.1****Awareness Regarding Preventive Measures of TB  
by Socio-Economic Background**

|                               | Preventive Measure 'A' |               | Preventive Measure 'B' |                | Preventive Measure 'C' |                | Total      |
|-------------------------------|------------------------|---------------|------------------------|----------------|------------------------|----------------|------------|
|                               | No.                    | %             | No.                    | %              | No.                    | %              |            |
| <b><u>CASTE</u></b>           |                        |               |                        |                |                        |                |            |
| General                       | 6                      | (16.66)       | 5                      | (13.88)        | 25                     | (69.44)        | 36         |
| OBC                           | 5                      | (8.92)        | 7                      | (12.50)        | 44                     | (78.57)        | 56         |
| SC                            | 1*                     | (2.77)        | 4                      | (11.11)        | 31                     | (86.11)        | 36         |
| ST                            | -                      | -             | 1                      |                | 2                      |                | 3          |
| <b><u>Education</u></b>       |                        |               |                        |                |                        |                |            |
| Illiterate                    | 6*                     | (5.88)        | 10                     | (9.80)         | 86                     | (84.31)        | 102        |
| Literate                      | 6                      | (20.68)       | 7                      | (24.13)        | 16                     | (55.17)        | 29         |
| Primary                       | 3                      | (15.78)       | 3                      | (15.28)        | 13                     | (68.42)        | 19         |
| Middle                        | -                      | -             | 1                      | (25.00)        | 3                      | (75.00)        | 4          |
| Secondary+                    | 3                      | (50.00)       | 3                      | (50.00)        | -                      | -              | 6          |
| <b><u>Economic Status</u></b> |                        |               |                        |                |                        |                |            |
| Lowest                        | -                      |               | 1                      | (20.00)        | 4                      | (80.00)        | 5          |
| Lower                         | 2*                     | (25.00)       | 2                      | (25.00)        | 4                      | (50.00)        | 8          |
| Medium                        | 3                      | (5.35)        | 8                      | (14.28)        | 45                     | (80.35)        | 56         |
| Higher                        | 6                      | (12.00)       | 6                      | (12.00)        | 38                     | (76.00)        | 50         |
| Highest                       | 1                      | (8.33)        | -                      | -              | 11                     | (81.66)        | 12         |
| <b>TOTAL</b>                  | <b>12</b>              | <b>(9.16)</b> | <b>17</b>              | <b>(12.97)</b> | <b>102</b>             | <b>(77.86)</b> | <b>131</b> |

**Note :** Preventive Measures = 1) Do not use left over food of TB patient or Don't eat together TB patient (12 respondent).  
2) Cover mouth while talking with TB patient (8 respondent).  
3) Keep separate arrangement for TB patient (12 respondent).  
4) Take treatment in initial stage of TB (1 respondent).\*  
5) Other (Immunization, sanitation), (5 respondents).

Preventive Measure 'A' = Any two, (including preventive measures No.4).

Preventive Measure 'B' = Any one except preventive measure No.4.

Preventive Measure 'C' = Don't know - No Response 9 respondents.

Across economic status, it is found that awareness about preventive measures is highest (25%) about the preventive measures both in 'A' and 'B' lies in lower economic status group. The understanding about awareness in this group was that they have less opportunity to get treatment when anyone of the family member got infection of TB. Another important understanding in this group is that if head of the family member gets infection of TB then whole family will suffer because he/she is only the member who earns and manages the family. Therefore this economic status group women are more keen/familiar to know regarding disease its causes, preventive measures etc. than the other higher economic status groups women in the study population.

#### **4.12 Availability of Treatment**

Regarding availability of treatment table 4.12.1 shows that no one except for 2 of the 131 women viewed home remedies or indigenous systems as possible forms of treatment for tuberculosis.

Majority of the women (87%) were aware about the tuberculosis facilities available at big hospitals or district level hospitals or big cities like Vrandavan, Jaipur, Alwar, Delhi etc. Only one woman was aware about treatment facility that it is available at CHC/PHC, while 5 percent women did not know about where treatment facilities are available.

Regarding availability of free medicine or treatment facilities again 77 percent women were not aware about this facility only 11 percent women were aware that for tuberculosis there is free medicine or treatment available to all the tuberculosis patients at government hospitals but they also said that the free medicine or treatment is meant only for government servants, not for common people.

Majority of the women understanding regarding medicine from hospital is that there is no free medicine for common people, only prescription slip is given to them, thus medicine has to be purchased from

private medical stores after paying money for such medicines prescribed by the doctors for tuberculosis.

**Table 4.12.1**  
**Awareness Regarding Treatment of TB**

|  | <b>Women</b> |              |
|--|--------------|--------------|
|  | <b>No.</b>   | <b>(%)</b>   |
| <b>Treatment of TB Possible at home</b>  |              |              |
| No   | 119          | (90.83)      |
| No Response  | 9            | (6.87)       |
| Yes (Nadi Vaidhya, <u>Wine*</u> )  | 2            | (1.52)       |
| Yes (8-10 days hospital than after home it self)                                   | 1            | (0.76)       |
| <b>Where</b>   |              |              |
| Big Hopitals/cities  | 114          | (87.02)      |
| CHCs/PHCs  | 1            | (0.76)       |
| No Response  | 9            | (6.87)       |
| Don' know  | 7            | (5.34)       |
| <b>Is medicine for TB available free of cost</b>                                   |              |              |
| No   | 101          | (77.09)      |
| Yes, Govt. Hospitals (including CHC/PHC)   | 14           | (10.68)      |
| No Response  | 9            | (6.87)       |
| Dont' Know   | 7            | (5.34)       |
| <b>If free treatment not available during treatment period what should be done</b> |              |              |
| Continue treatment at any cost   | 21           | (16.03)      |
| Not applicable because free treatment not available                                | 101          | (77.09)      |
| No response  | 9            | (6.87)       |
| <b>TOTAL</b>   | <b>131</b>   | <b>(100)</b> |

\* : One respondent said, use of wine give relief in respiration and coughing of TB patient.

The most important finding regarding treatment is that, if a patient get medicine free of cost from the hospitals regularly for some times or few months and if these medicine are not available for the rest duration of treatment period which was prescribed by the doctors then only 16% of

women considered it should be continued at any cost without any interruption. Most of the women also said that if patient have money or are economically well then treatment can be continued but if not economically well then patient stops the medicine. While completion of treatment is very important for getting rid of the disease.

Thus it can be concluded that from the treatment point of view there is a strong need of awareness regarding free available treatment centres and full information about treatment duration, importance of regular treatment without breaking and other treatment related information in the local language or understandable language of the patient. Because treatment facilities are made available at PHC/CHC and for dissemination of information the health workers are available upto the village level.

#### **4.13 Precautions during treatment period**

Table 4.13.1 shows that majority (85%) of the women were not aware about what precautions should be taken during the treatment period or period of taking medicine. Only 5 percent women were aware about the precautions as medicine should be taken on time and upto the whole treatment duration advised by doctors. As we know that after about three months of treatment, the patient is relieved from the distress symptoms and he/she feels better. But because of the ignorance about the nature of disease and treatment he/she stops by himself/herself the treatment, which will recur shortly and again he/she has to seek medical assistance. Therefore by again and again seeking treatment drug resistance develops and it becomes more difficult to treat the patient. As we know that the drugs for the treatment of tuberculosis are very costly, therefore ordinary person can not afford such costly drugs for a long duration of tuberculosis treatment. Incidentally, majority of the patients of tuberculosis are very poor, even though the tuberculosis bacilli is no respecter of caste, class, sex etc.

**Table 4.13.1**

**Awareness Regarding Precautions to be Taken by the T.B. Patient**

|  | Women      |              |
|--|------------|--------------|
|  | No.        | (%)          |
| <b>Precaution in taking medicine/treatment</b>           |            |              |
| Take medicine on time and upto full treatment duration   | 7          | (5.34)       |
| Eat good food and take care (PARHEJ) in eating           | 4          | (3.05)       |
| No Response  | 9          | (6.87)       |
| Don't know   | 111        | (84.73)      |
| <b>Care during sneezing/coughing talking</b>             |            |              |
| Covering mouth while coughing/talking                    | 12         | (9.16)       |
| Don't sneezing in front of other (face to face sneezing) | 12         | (9.16)       |
| Don't know   | 98         | (74.80)      |
| No Response  | 9          | (6.87)       |
| <b>TOTAL</b>   | <b>131</b> | <b>(100)</b> |

Note : Good food means Nutritious food

Regarding care during sneezing, coughing and talking loudly majority (75%) of women were not aware of what precaution should be taken. Only 18 percent women were aware that during coughing the patient should cover mouth and sneezing should not take place face to face or one should avoid face to face sneezing.

**4.14 Source of getting Information about Tuberculosis**

Regarding source of information about various aspects of tuberculosis table 4.14.1 shows that the majority (90%) of the women were getting information by local knowledge through inter-personal communication (family members, neighbours or kin folk etc). Information reached through the mass media and health professional up to the women



**Table 4.14.1**

**Source of getting information regarding Tuberculosis**

| Source                       | Women |         |
|------------------------------|-------|---------|
|                              | No.   | (%)     |
| Local Knowledge              | 57    | (43.51) |
| Local Knowledge + By patient | 52    | (39.69) |
| Local knowledge + Mass media | 9     | (6.87)  |
| Health Professional          | 4     | (3.05)  |
| No Response                  | 9     | (6.87)  |
|                              | 131   | (100)   |

**Note :** Local Knowledge = Information through family members, kin folk and neighbours etc. (43.51% + 39.69% + 6.8% = 90.07%).

Health Professionals = Institutional media (Govt. Health Officials)

Mass Media = Radio, T.V., Newspapers, Film show, Hoarding boards, Magazines.

or rural population was very less. It is only up to 7 percent and 3 percent respectively. Here question arises that the mass media and health professional are working or not ? If the mass media and health professionals are working well then why the rural population is not getting information from these media and health professional. If the health professional is visiting house to house then they are giving health education or not, or is the information (health education) given by these functionaries understood by the rural people. If the language is difficult to understand, then the rural people can not understand, and they will not get correct information about the disease.



### Case Studies on Tuberculosis

There were five case studies done on TB, one each from lower and medium and three from higher economic background families. Both lower and medium economic background cases belong to OBC and rest 3 cases of higher economic background families each one belongs to OBC, SC and ST. The medium economic class case age of 30 years, educated up to primary school and one higher economic class case belongs to OBC (a student studying in class seventh) only 14 year old. While all other 3 cases were illiterate and out of them 2 cases in the age group of 25-30 year belong to SC and ST and rest one case in the old age i.e. 60 year belongs to SC. Thus 4 cases are upto the age of 30 year and one above 30 year of age group. All cases resided in pucca house, using protected source of drinking water. As far as environmental sanitation and hygiene practices concerned, all cases showed same picture as not satisfactory. However difference appears in treatment taking behaviour. We will discuss two case studies here.

1. Batto Devi is a twenty five year old married women belonging to OBC, lower economic class family. She got married at the age of fifteen and after five years of marriage she gave birth to a daughter. Batto Devi was illiterate while her husband was literate up to primary school. She was house wife only in these days but 6 year ago she also started to take part in agricultural work, while her husband basically did agricultural worked on his own land but in non-agricultural days he also work out side as daily wage labour. Food production from the land is sufficient for the whole year and they also had buffalo. The sanitary conditions were found to be very poor in and around the house. This house had two rooms but no windows and there was no provision for chimney in the kitchen. Her father and brother both are old tuberculosis patient suffering from last 15-20 years. They had taken treatment from many doctors but not regularly and still they were taking treatment. Before coming to her husband's house she was suffering from cough, fever and pain in ribs for 6-7 months but at that time

771-7075

she took medicine from a government hospital and got cured within 10-15 days. But after coming here to her husband's house within three months she again got same illness and again took medicine from the same hospital and got cured within few days. But since last two years her condition became serious, so her husband took her to a private doctor near by the village. The doctor gave her treatment for 4 months but she did not get relief. Then she took some herbal medicine from a traditional healer near by the village but again no relief was observed by her. Now once again she started modern medicine from a private MBBS doctor, and had taken treatment for 14 days. There were three types of tablets (Streptomycin, Ethambutol and Rifampicin) with one bottle of cough syrup and one bottle of multivitamin syrup. She was taking these medicine according to the doctor's advice. When I asked the question that upto how many days will you continue these medicines, she replied "till we have money". While the doctor advised her to take all medicines continuously for 2-3 months, after that he would reduce some medicine but two tablets will be continued for next 6 or 7 months. Now her husband understood that Batto become a tuberculosis patient, but he was not aware about the preventive measures of tuberculosis. All the family members were living together but she herself was taking food separately with her child. They have common utensils and bed room. Thus the practice of isolation could not be found. Her husband also felt weakness and looked like very thin person but he was himself sure that he is not having disease because there was not sign and symptoms of TB like continuos cough, fever and sputum which her wife had. Regarding home visit by health worker she, said that there were no home visit made by any health worker or nurse.

2. Mohan Lal is a thirty year old married person belonging to ST, higher economic background farmer and head of the family. He did not get any level of formal education. He married at the age of eighteen. His wife was working as a part time Class IV employee in a Shiksha Karmi School within the village. The sanitary and hygiene conditions in and around the house

were found to be satisfactory. He had three rooms in *pucca* house with separate *katcha* house for the animals. But in the house where they live there was no provision of windows in the rooms and no chimney in the kitchen. Seven year ago once he suffered from high fever, so he took hot strong tea prepared from *laung* and *sonth*, then he took hot *Rabadi* prepared from *Bazara* at night and also some other herbal medicines. He got some relief from above remedies but the slight fever continued for a long time. Slowly cough started and he himself decided that it is the sign and symptoms of typhoid. Then he felt worried and he took treatment from the traditional healers but felt no relief. Moreover blood in sputum also started. At this point he felt that his lungs had been damaged. Upon hearing from his neighbours about free treatment he went to the government hospital at CHC Bandikui where the medical officer incharge advised him for X-Ray and sputum test. After these tests, doctor diagnosed it to be tuberculosis and prescribed the medicines. In spite of a Govt. hospital, medicine for TB was not provided to him, so he had to purchase the prescribed medicine from a medical store. He took the prescribed dose regularly for six months, and he found that there was relief from cough, fever and blood stained sputum. But due to economic problem he has to stop the treatment at this stage, even though the doctor insisted him to continue treatment for another six months. After six months the disease become serious so he went to another hospital at Alwar as he came to know that medicine for tuberculosis was provided free of cost. In this hospital the doctor went in for another X-Ray and sputum test. Report of these tests came after three days. Due to which he has to stay at Alwar on his own expenses. After going through these report, doctor advised him to take the treatment for 24 months regularly without any irregularity. He was advised by the doctor to report after one month and gave medicine to him for that period. So he has to report to the hospital every month for medicine. This time he was determined to continue his treatment regularly for 24 moths. Besides this doctor also advised him to take care to cover his mouth and nose while sneezing/coughing/talking and

not to spit indiscriminately, and also insisted not to mix his belongings with those of his family members. He followed most of the advice but could not avoid mixing belongings of his daily use with his family members. Since last one year he has stopped taking medicine and finds himself better.

The most important observation from these case studies is that the treatment practices of all cases is almost all same in the initial stage or say up to 3-4 years after the appearance of sign and symptoms of the disease TB. But there is a difference after 3-4 years of initial treatment which is taken from various doctors of different places, the lower economic background case not getting information regarding availability of free medicine, not believing them and capacity to continue them for whole prescribed period. While higher economic background case got information about free available medicine and believed on them. If some time medicine was not available free then they had the capacity to purchase it themselves for continuity of the prescribed treatment period.

Thus, we reached on the conclusion after overall discussion on awareness, understanding and practices about TB of the women of study population as well as case studies that majority of them have awareness about sign and symptoms and seriousness of disease and not availability of free medicine. For causes and preventive measures of TB, no one spoke of primary factors as understood by medicine. They spoke about secondary or tertiary level factors, and that too only one fourth of the study population. Few knew about availability of free medicine or about specific duration of treatment. Their experience of irregular supply of drugs at the Govt. hospital and of years of illness and treatment of cases deters them from regularity and has created the perception of tuberculosis as a disease which has to be treated life long and eventually ends in death. Thus the overall knowledge of the study population about the disease was found to be very inadequate.

**PART III : WOMEN PRACTICE AND OPINION REGARDING  
IEC ACTIVITIES**

**4.15 Home visit by Health Workers**

As a part of health services, health workers have to visit at least twice a month (once in every fortnight) each family of every village under the sub centre area. But according to women of the study population responded that health workers are not visiting regularly. Home visits made by the health workers is reflected in table 4.15.1. It shows that out of 131 mothers only 32 percent women considered that in the last week/month health worker visits their home but these women also considered that visits made by the health workers are not regular. While 50 percent women clearly said they visit their homes occasionally (just 3-4 times in the year). Rest 18 percent said that there was no visit by any health worker at their home during last one or more years.

Women who were saying that there was no visit during last one or more year by socio-economically makes a difference. Only 6 percent general caste women said that there was no visit during last one year while 23 percent OBC and 22 percent SC community respondent spoke of in the same manner.

Literate and illiterate respondent also make a difference. 21 percent illiterate women said that there was no visit during last one year while only 7 percent literate respondent said the same.

There was also much difference in remarks made by women of different economic status. 50 percent lower and 40 percent lowest economic status women said that there was no visit during last one year while only 12 to 17 percents women from medium to highest economic background said the same.

But in case of visit made last week/month or occasionally did not gave the significant difference.

**Table 4.15.1**

**IEC Activities (Home visits by Health Workers) by**  
**Socio-economic Background**

|                               | RESPONSES OF WOMEN'S ABOUT HOME VISIT BY HEALTH WORKERS (M+F) |                |              |                |                           |                | Total      |
|-------------------------------|---|----------------|--------------|----------------|---------------------------|----------------|------------|
|                               | Last week/month   |                | Occasionally |                | No visit in the Last year |                |            |
|                               | No.   | %              | No.          | %              | No.                       | %              |            |
| <b><u>CASTE</u></b>           |   |                |              |                |                           |                |            |
| General                       | 17  | (47.22)        | 17           | (47.22)        | 2                         | (5.56)         | 36         |
| OBC                           | 13  | (23.21)        | 30           | (53.58)        | 13                        | (23.21)        | 56         |
| SC                            | 12  | (33.33)        | 16           | (44.45)        | 8                         | (22.22)        | 36         |
| ST                            | -   | -              | 3            |                | -                         | -              | 3          |
| <b><u>Education</u></b>       |   |                |              |                |                           |                |            |
| Illiterate                    | 30  | (29.41)        | 51           | (50.00)        | 21                        | (20.59)        | 102        |
| Literate                      | 12  | (41.37)        | 15           | (51.72)        | 2                         | (6.89)         | 29         |
| Primary                       | 8   | (42.10)        | 10           | (52.63)        | 1                         | (5.26)         | 19         |
| Middle                        | 1   | (25.00)        | 3            | (75.00)        | -                         | -              | 4          |
| Secondary+                    | 3   | (50.00)        | 2            | (37.50)        | 1                         | (12.50)        | 6          |
| <b><u>Economic Status</u></b> |   |                |              |                |                           |                |            |
| Lowest                        | 3   | (60.00)        | -            | -              | 2                         | (40.00)        | 5          |
| Lower                         | 3   | (37.50)        | 1            | (12.50)        | 4                         | (50.00)        | 8          |
| Medium                        | 18  | (32.14)        | 31           | (56.36)        | 7                         | (12.50)        | 56         |
| Higher                        | 15  | (30.00)        | 27           | (54.00)        | 8                         | (16.00)        | 50         |
| Highest                       | 3   | (25.00)        | 7            | (58.33)        | 2                         | (16.67)        | 12         |
| <b>TOTAL</b>                  | <b>42</b>   | <b>(32.06)</b> | <b>66</b>    | <b>(50.38)</b> | <b>23</b>                 | <b>(17.56)</b> | <b>131</b> |

Regarding why health worker visited their home? Answers given by almost all women were that they visit for giving medicine of the minor diseases like fever, diarrhoea, cold etc. for vaccination of children as well as pregnant mothers, and well chlorinating only. No single respondent responded that health workers educating them regarding various aspects of disease like sign and symptoms, severness, causes, preventive measures, home management/treatment, hygiene (food, water) etc.

#### 4.16 IEC methods and media used

Mothers as well as other community key members, leaders said that there were no health meeting, documentary/slide picture, demonstration, folk media programme by the medical and health department in the villages till now. Also there were more than 58 radios, 110 TVs and 30 mikes in the villages but only one respondent listening radio, 6 watching TV while there is no use of mikes for the publicity of any health message (see table 4.16.1). Those who listened radio and watched T.V. said that they use them occasionally for listening songs and watching religious serials, pictorial films etc. but no one was interested regarding any health programmes/message given by these instruments.

**Table 4.16.1**

**IEC methods and media working in the Area**

Total Women = 131

| Methods & Media                      | Women     |             |
|--------------------------------------|-----------|-------------|
|                                      | No.       | %           |
| Health Meeting/talks done            | –         | –           |
| Folk media used                      | –         | –           |
| Radio listening                      | 1         | 0.76        |
| T.V. watching                        | 6         | 4.58        |
| Documentary/Slide Displayed          | –         | –           |
| Pamphlet/leaflet/booklet distributed | 3         | 2.29        |
| Demonstration done                   | –         | –           |
| Newspaper read or read out           | 2         | 1.53        |
| <b>TOTAL</b>                         | <b>12</b> | <b>9.16</b> |

**Note :** There were no health meeting, folk media, documentary/slide, demonstration done by Health Dept. or Health Professional in the study area in the past.



Regarding receiving pamphlet/leaflet/booklet containing health message only three women told that they got these education material. Interestingly these three women are working as AWW so that they got from their office only but no other respondent received these education material from the health worker or any government agency.

About news paper read or readout, only two women told they use news paper but occasionally not regularly. News paper does not reach in sufficient numbers in the study area, it only reaches in the village Panditpura and not more than 10 people of the study area read news but they are more interested in political news not in health and its related messages.

Thus concludingly it can be said that there is no IEC/health education methods and media working in the study population.

#### **4.17 Sharing knowledge**

Information or awareness gathered from various sources (methods and media) by the women is shared with neighbours or those who asked them. The practice of sharing knowledge shared by the women with neighbour or other peoples is reflected in table 4.17.1. It shows that out of 131 women 72 percent of them shared knowledge with their neighbours or who required and felt women that he/she has need of awareness regarding

**Table 4.17.1**

#### **Practice of Sharing Knowledge**

| Sharing knowledge with                                    | Women |         |
|---|-------|---------|
|   | No.   | (%)     |
| Neighbours or anybody                                     | 94    | (71.75) |
| Anyone who asks   | 14    | (10.68) |
| Not sharing because saying that they don't know any thing | 23    | (17.55) |
| <b>TOTAL</b>  | 131   | (100)   |

their health problems. Here it is important that the women who are sharing knowledge whatever they have is not matter of the needed person that they are asking or not. While 11 percent respondent responded that they are sharing but only in case if person asked them.

Whereas 17 percent women responded that they don't know anything about the diseases or health problems that is why they are not able to share knowledge with other people.

Thus the attitude of women towards sharing knowledge is favourable at the point of disseminating information but it is important that the information or knowledge which is shared by the women is correct or not, if it is not correct than the situation become complex at the point of disease control. Because the information or message disseminated by the known person as well as influencing person is more acceptable by the rural community.

#### **4.18 Opinion about best method and media for health education**

Regarding best method and media of health education or disseminating health information related to various aspects of any health problems/diseases, table 4.18.1 shows that majority (87 %) of the women of

**Table 4.18.1**

**Opinion regarding best method or media for disseminating health messages**

| Opinion   | Women      |              |
|---|------------|--------------|
|   | No.        | %            |
| During home visit by Health workers or at home by health professional | 113        | (96.25)      |
| Arrange group meeting (male + female)                                 | 2          | (1.52)       |
| During home visit provide educational materials also                  | 2          | (1.52)       |
| Repeatedly oral education   | 3          | (2.29)       |
| Don't know/No response  | 11         | (8.39)       |
| <b>TOTAL</b>  | <b>131</b> | <b>(100)</b> |

study population considered that home visits by the qualified health worker is the best way of disseminating health awareness in the community. While very few only 2 women considered group meetings and also same number of women considered besides home visits educational material like pamphlets, booklets etc. should be distributed in the community. There were two women saying that besides home visits and educational material, repeated face to face health education should be given to the community.

A universal opinion about the best method or media is home visit by health professional for dissemination of awareness about health and diseases considered by the study population. But we found that during home visits health workers are giving more importance to curative health rather than preventive health, even home visits made by them was also irregular and not covering whole population. There is also a universal opinion about health information, which is gathered by the study population, that they shared it with their neighbours or to whom they should know it. Regarding mass media like health meeting, demonstration, documentary or slide display are not available to the study population. Those available in the village itself i.e. Radio, T.V. Newspapers etc. are also not utilized by the study population. Thus in the study population modern health education/IEC activities are very poor.

## **CHAPTER V**

### **HEALTH WORKERS KNOWLEDGE AND ATTITUDE ABOUT DIARRHOEA, TUBERCULOSIS AND IEC**

This chapter deals with understanding of IEC activity of the MPWs and their knowledge regarding diarrhoea and tuberculosis. Health workers are considered as the main health service provider in the rural area, posted at the sub-centre under primary health centre to work for all the essential elements of primary health care. Among the 8 essential elements of PHC 'health education' is one. But before going on to discuss what health education they are providing, we will discuss their own knowledge about diarrhoea and TB. For this purpose the chapter is divided into three parts, Part one is concerned about Diarrhoea, Part two about Tuberculosis and Part three about IEC activities.

#### **PART - I DIARRHOEA**

##### **5.1 Signs and Symptoms**

The knowledge of health workers regarding signs and symptoms of diarrhoea is reflected in table 5.1.1. It shows that majority of the health workers considered dehydration and loose motions as the main sign and symptom of diarrhoea. Out of 44 health workers, 39 considered dehydration and out of these 39 health workers, 8 specified as sunken eyes, again and specified as dry skin (pinch goes back slowly) while 3 considered dehydration as dry mouth. Of 44 health workers, 34 considered loose motions as the sign of diarrhoea and out of these 34, only 2 considered diarrhoea as loose motion more than two times a day while 6 considered loose motion 3-4 times, 2 considered loose motion 4-5 times, likewise, 3 considered loose motions 7-8 times a day. In addition, 2 and 8 health workers also spoke of sign and symptom as loose motions with blood and

loose motions with pain abdomen respectively. Another 9 and 3 health workers considered sign and symptom of diarrhoea as weakness and amebiasis respectively.

**Table 5.1.1**

**Knowledge of Health Workers Regarding Signs and Symptoms of Diarrhoea**

| <b>Signs &amp; Symptoms</b>         | <b>Health Workers No.</b> |
|-------------------------------------|---------------------------|
| Dehydration                         | 39                        |
| - Sunken eye                        | 8                         |
| - dry skin (pinch goes back slowly) | 8                         |
| - Dry mouth/tongue                  | 3                         |
| Loose motions                       | 34                        |
| - More than two times               | 2                         |
| - 3-4 times                         | 6                         |
| - 4-5 times                         | 2                         |
| - 7-8 times                         | 3                         |
| - with blood                        | 2                         |
| - with pain abdomen                 | 8                         |
| Weakness                            | 9                         |
| Amebiasis                           | 3                         |

But there are twelve major signs or symptoms through which children under five years of age can be assessed for diarrhoea. These are : stools per day, vomiting, thirst, urine, condition of child, skin pinch, sunken eyes, mouth/tongue (dry-wet), tears absent/present, pulse rate, fontanelle sunken (in infants), and respiratory rate (Nagi, 1990).

The responses show that the health workers are giving greater emphasis on signs of dehydration, reflecting the training they have received. They also indicate that the milder forms of simple diarrhoea may not be taken seriously by them.

## **5.2 Danger signs of Diarrhoea**

Dehydration due to diarrhoea is generally considered by the majority of health workers as the danger sign of diarrhoea. Table 5.2.1 shows that out of 44 health workers 29 considered dehydration as the main danger sign of diarrhoea. However few health workers know all the sign and symptom for dehydration. Sunken eye, dry mouth and dry skin as sign and symptom of dehydration commonly known to them. Also 12 health workers considered loose motions themselves as danger signs. Loose motions with blood and loose motions with vomiting were considered danger signs of diarrhoea by only 2 and 3 health workers respectively.

The other danger signs described by the health workers are weakness and unconsciousness by 3 & 2 health workers respectively.

Regarding danger sign of diarrhoea all the health worker are not aware about dehydration, number of stools per day, unconsciousness etc. which considered by them. While besides these danger signs several other like vomiting with diarrhoea, thirst, urine, pulse rate, respiratory rate etc. also are very important symptoms which to be now by a health worker as he/she is considered to health educator, as well as treatment provider at the sub centre level for the rural population.

**Table 5.2.1.**

**Knowledge of Health Workers Regarding Danger Signs of Diarrhoea**

| <b>Danger Signs</b> | <b>Health Workers</b> |
|---------------------|-----------------------|
| Dehydration         | 29                    |
| Loose Motions       | 12                    |
| watery              | 5                     |
| with blood          | 2                     |
| with vomitting      | 3                     |
| Weakness            | 3                     |
| Unconscious         | 2                     |

Note : Under dehydration : Sunken eye<sup>4</sup>, dry skin (pinch goes back slowly)<sup>5</sup>, dry mouth<sup>2</sup>.

**5.3 Sources of infection**

The major source of diarrhoeal infection described by the majority of health workers are contaminated water and food, and housing in sanitation. Out of 44 health workers, 24 considered the main source of diarrhoeal infection is contaminated water, 21 considered as contaminated food and 19 considered as housing insanitation. The other source of diarrhoeal infection are files, bottle feeding, indigestion, by air and excreta of diarrhoeal patient and during summer extreme heat also described by a few health workers. But how water and food become contaminated were not described by the health workers which are most important at the point of health education.

**5.4 Causative Agent**

The major causative agents described by the health workers are Bacteria and Viruses. Out of 44 health workers 16 considered viruses and 11 considered bacteria as the main causative agent of diarrhoeal infection. While 17 health workers don't know any causative agent of diarrhoeal infection. Here health workers are not concerned with the specific viruses and bacteria which are the main causative agent of diarrhoeal infection.

## **5.5 Age and Sex**

The majority of health workers considered diarrhoea common for both the sexes and it is most common in children below 5 years of age. Out of the 44 health workers, 41 considered it is common in both the sex and most common in children below 5 years of age. But instead of this, 6 health workers considered that diarrhoea may occur in any age group.

## **5.6 Socio-economic factors**

In the understanding of health workers poverty and illiteracy are the major socio-economic factors which lead to infection of diarrhoea. However the well known malnutrition-diarrhoea cycle in children was not spoken by any health worker. But they relate illiteracy as leading to lack of personal and domestic hygiene as well as lack of knowledge regarding causes and preventive measures of diarrhoea. So that illiteracy leads to infection of diarrhoea.

## **5.7 Mode of Transmission**

Table 5.7.1 deals with the knowledge of health workers regarding mode of transmission of diarrhoea. It shows that out of 44 health workers, 25 health workers considered that flies are the common mode of transmission of diarrhoea because these contaminate water and food so that using contaminated water and foods are the main mode of transmission of diarrhoeal infection. Out of 25, health workers, 16 and 9 health workers considered that flies contaminate water and food respectively. The other modes of transmission considered by the health workers are environmental insanitation by 5, open air defecation by 5, bacteria by 2, eating rotten fruits, bottle feeding utensils, contact with patient, bare foot walking each by one health worker.

It is a significant gap that no one spoke of the faeco-oral mode or of unclean hands as a mode of transmission.



**Table 5.7.1.**

**Knowledge of Health Workers Regarding Mode of  
Transmission of Diarrhoea**

|                            | Health Workers |      | Total |
|----------------------------|----------------|------|-------|
|                            | Female         | Male |       |
| Flies                      | 18             | 7    | 25    |
| Contaminated water         | 14             | 2    | 16    |
| Contaminated food          | 7              | 2    | 9     |
| Environmental insanitation | 5              | 4    | 5     |
| Open air defecation        | 2              | 3    | 5     |
| Bacteria                   | 1              | 1    | 2     |
| Eating rotton fruits       | 1              | -    | 1     |
| Bottle feeding             | 1              | -    | 1     |
| Others                     | 4              | 1    | 5     |

**Note :** Others : Utensils<sup>1</sup>, Contact with patient<sup>1</sup>, bare foot walking<sup>1</sup>, by air<sup>2</sup>.

**5.8 Preventive measures**

The preventive measures described by the health workers are reflected in the table 5.8.1. It shows that out of 44 health workers, 30 say that rehydration is one of the most important preventive measures for prevention of diarrhoea. Out of these 30 health workers 26 tracing on ORS, 10 tracing on Salt Sugar Solution, Boil as well as filter water and home available fluids were considered by 10 and 8 health workers respectively. Improve sanitation which includes water sanitation, domestic and personal hygiene food hygiene were considered by 26 health workers as second most important preventive measure of the diarrhoeal infection. while treatment and avoid bottle feeding were considered by 11 & 2 health workers respectively as preventive measures of diarrhoeal infection. The other

preventive measures were considered by a few of the health workers are use semisolid foods, use covered water, cut nails time to time, eating time to time, breast feeding, washing hands before eating etc.

Thus the workers emphasise both prevention of diarrhoea through sanitation and prevention of dehydration after diarrhoea has occurred by rehydration.

**Table : 5.8.1**

**Knowledge of Health Workers. Regarding Preventive Measures of Diarrhoea**

| <b>Preventive Measures</b> | <b>Health Workers</b> |
|----------------------------|-----------------------|
| Rehydration                | 30                    |
| ORS                        | 26                    |
| SSS                        | 10                    |
| Boiled and filter water    | 10                    |
| Home available fluids      | 8                     |
| Sanitation                 | 32                    |
| Improve water sanitation   | 22                    |
| Improve domestic hygiene   | 10                    |
| Improve food hygiene       | 12                    |
| Improve excreta disposal   | 1                     |
| Treatment                  | 11                    |
| Use semisolid foods        | 3                     |
| Others                     | 6                     |

Note : other = use covered water, time to time nail cutting, time to time eating, personal hygiene, only breast feeding, washing hands before eating.

Improve food hygiene includes avoid bottle feeding and use of fresh and good quality food or fruits.

### **5.9. Treatment Measures**

The majority of measures for management of diarrhoea described by the health workers were used of oral rehydration solution, use treatment (modern medical as well as home treatment) purification of water and informed higher authorities of the medical department. The minority of controlling measures were described by the health worker were give light food, green vegetable, proper excreta disposal of patient, use more water, and cleanness. Regarding home treatment majority of the health workers tracing on home available fluids including SSS, Sikanji (lamon water), Rice water, butter milk, pudina water, coconut water, pulse water (Dal ka pani) etc. Health workers also described that during diarrhoea semi solid foods like boiled potatoes, khichadi, daliya, and fruits should be given to the diarrhoeal patient. But they are not describing about extra food for some days after diarrhoea curd to be continue.

### **5.10. Health Education Points**

The points of health education to discuss with the people regarding various aspects of diarrhoea were described by the health workers are reflected in the table 5.10.1. It shows that majority of the health workers considered as cleanliness, food hygiene and water purification as the major points of health education. According to them the other points of health education regarding diarrhoea are personal hygiene, ORS and SSS, home available fluids and treatment, breast feeding etc.

Regarding the overall points of health education all the health workers are not aware and specific. The health workers are not talking about how the infecting organism contaminate water, food, utensils, environment etc. They simply talked that cleanliness should be maintained, food hygiene, water purification, personal hygiene etc. should be maintained but how cleanliness, sanitation and hygiene of food and water to be maintained is not described by them.

As we found in the study area that the mothers are not aware about the requirement of extra food soon after diarrhoea recovered which is very much important to save child from well known malnutrition-diarrhoea cycle and ultimately cause of marasmus or death also not considered as a most important point of health education.

It is surprising that fewer health workers spoke of rehydration oral therapy as an important point for health education.

**Table : 5.10.1**

**Knowledge Regard Health Education Points for Diarrhoea**

| Health Education Points                         | Health Workers |      |       |
|---|----------------|------|-------|
|   | Female         | Male | Total |
| Cleaners  | 27             | 4    | 31    |
| Food hygiene                                    | 18             | 7    | 25    |
| Water sanitation /hygiene/purification of water | 15             | 4    | 19    |
| Personal hygiene                                | 9              | 2    | 11    |
| Oral rehydration therapy                        | 12             | 7    | 19    |
| ORS   | 5              | 1    | 6     |
| SSS   | 5              | 1    | 6     |
| Home available fluids other them SSS            | 2              | 5    | 7     |
| Home treatment/remedies other than fluids       | 4              | -    | 4     |
| Breast feeding                                  | 1              | -    | 1     |
| Avoid feeding/food                              | -              | 1    | 1     |

## **PART- II - TUBERCULOSIS**

Part second of this chapter is concerned with the knowledge of health workers regarding various aspects of tuberculosis. The main aspects of tuberculosis are as follow:

### **5.11. Sign and Symptoms**

The awareness regarding sign and symptoms of tuberculosis of health workers is reflected in table 5.11.1. It shows that the majority of the health workers considered, continuous cough and fever and blood stained sputum as the main sign and symptoms of tuberculosis. Out of 44 health workers, 37 considered continuous cough but not specific duration, only 4 health worker were aware about the continuous cough with specific duration of 10-15 days coughing and one health workers considered up to 3 months continue coughing . Likewise continuous fever was considered by 32 health workers which again without specific duration only 2 health workers were aware about the continuous fever with specific duration of one month fever. The third most important symptoms considered by the 27 health workers were blood stained sputum. The other important sign and symptoms considered by the health workers were chest pain, loss of weight and appetite, vomiting with blood and weakness but the number of health workers in very less except the symptom of weakness which was considered by 14 health workers.

The awareness regarding signs and symptoms of health workers is very important because knowledge of signs and symptom is important to early recognition of any disease. In case of tuberculosis, it is most important to early case detection and start treatment. It is also important at the point of health education as health workers is the main functionaries of disseminating information regarding various aspects of diseases.

**Table 5.11.1**

**Knowledge of Health Workers Regarding Signs and Symptoms of Tuberculosis**

| Sign and Symptoms       | Health Workers |           |            |
|-------------------------|----------------|-----------|------------|
|                         | Female (33)    | Male (11) | Total (44) |
| 1. Continuous Cough     | 27             | 10        | 37         |
| 10-15 days cough        | 3              | 1         | 4          |
| 3 months cough          | 1              |           | 1          |
| old cough               | 1              |           | 1          |
| 2. Continuous Fever     | 24             | 8         | 32         |
| Slight fever            | 4              | 2         | 6          |
| One month fever         | 2              | -         | 2          |
| old fever               | -              | 1         | 1          |
| 3. Chest Pain           | 3              | 4         | 7          |
| 4. Blood stained sputum | 23             | 4         | 27         |
| 5. Sputum only          | 10             | 7         | 17         |
| 6. Loss of weight       | 2              | 1         | 3          |
| 7. Loss of appetite     | 5              | 1         | 6          |
| 8. Vomitting with blood | 3              | -         | 3          |
| 9. Weakness             | 10             | 4         | 14         |

**5.12. Danger Signs of TB**

Among the danger signs the majority of the health workers considered blood stained sputum as the only major danger sign of tuberculosis. The danger signs of tuberculosis considered by the health workers are reflected in table 5.12.1. It shows that out of 44 health workers, 31 considered blood stained sputum as a major danger sign of TB. Other danger signs were considered by the health workers are vomitting with blood, sputum only, continuous loss of weight, fast breathing, continue cough etc. In any disease danger signs have the most important role in

creating worry awareness regarding immediate taking care as well as seeking treatment. Danger signs also important at the points of seriousness of disease and continuity of taking treatment.

Knowledge about these signs of TB of the health workers also important at the point to create awareness regarding tuberculosis in the community as it is highly infectious disease and having resistance to drugs if the treatment discontinue before its period.

**Table 5.12.1**

**Awareness of Health Workers Regarding Danger Signs of TB**

| Danger Signs              | Health Workers |            |             |
|---------------------------|----------------|------------|-------------|
|                           | MPW(Female)    | MPW (Male) | Total (M+F) |
| Blood stained sputum      | 26             | 5          | 31          |
| Vomitting with blood      | 6              | -          | 6           |
| Sputum only               | 2              | 1          | 3           |
| Continuous loss of weight | 1              | -          | 1           |
| Fast breathing            | 3              | 2          | 5           |
| Continuous cough          | 4              | -          | 2           |
| Don't Know                | 1              | -          | 1           |

**5.13 Source of infection**

Almost all the health workers know the source of infection as tuberculosis patient (human source). The health workers considered all the patients of TB are the source of infection, they are not specific regarding sputum of tuberculosis case is positive for tubercle bacilli or not. As common consideration regarding source of infection is only sputum positive for tubercle bacilli is the main source of infection. Also the other source of infection (that is bovine source) the health workers were not aware.

Source of infection is also very important to prevent other non-infected population from the diseases of tuberculosis. At the family level (if there is a TB patient with in the family) it is also important to take care of other family members from getting infected.

#### **5.14 Causative agent**

Regarding causative agent all health workers are not aware. Those who aware about causative agent are not aware about the name of causative agent, they simply say that bacteria or organism is the causative agent. Out of 44 health workers, 18 health workers were not aware while rest 11 health workers know as tubercle bacilli, 7 by organism, 6 by bacteria one health worker did not respond.

#### **5.15 Age and Sex**

Regarding in which age group tuberculosis is more common, the majority (22) of health workers consider that it is more common in old age. Whole 11 health workers consider that it is more common after the age of 30-35 years. Also 6 health workers consider that it is common in all age groups.

Regarding sex again majority (22) of the health workers consider that in both the sexes it is equally prevalent while 19 health workers consider that tuberculosis is more prevalent in males than in females. Only 3 health workers considered that it is more prevalent in females than in males.

#### **5.16 Socio-economic factors**

Poverty and illiteracy are considered as main socio-economic factors which lead to tuberculosis infection considered by the majority of the health workers. But these health workers are not able to describe how poverty leads to tuberculosis infection, they consider that due to poverty patient is not able to take treatment. Other factors like working in wooden and other dust related jobs, drinking etc. is considered by very few health workers.



### 5.17 Mode of Transmission

Table 5.17.1 deals about knowledge of health workers regarding mode of transmission of tuberculosis. It shows that out of 44 health workers, majority (38) of health workers consider that disease tuberculosis is transmitted mainly through inhalation of tubercle organism generated/come out from the breathing of tuberculosis patient as well as coughing and sneezing. While 10 health workers consider that it is transmitted through the sputum containing organism of disease including 7 of them considered that spitting is the most important mode of transmission. Where as 8 health workers considered that TB is transmitted through eating together or to much close contact with tuberculosis patient. The other mode of transmission were considered by the health workers are used utensils, water, air and excreta of TB patient.

**Table 5.17.1**

**Knowledge of Health Workers Regarding Mode of  
Transmission of Tuberculosis**

| <b>Mode of Transmission</b>           | <b>Health Worker No.</b> |
|---------------------------------------|--------------------------|
| Through Breathing/inhalation          | 38                       |
| Coughing                              | 7                        |
| Sneezing                              | 3                        |
| Through sputum containing bacteria    | 10                       |
| Spitting                              | 7                        |
| Through eating together/close contact | 8                        |
| Through fomites/utensils              | 2                        |
| Other                                 | 4                        |
| Water                                 | 1                        |
| Air                                   | 2                        |
| Excreta                               | 1                        |

Here one thing is very important that all the health workers were not aware about all the modes of transmission which are most important for the health worker as he/she is working for disseminating health education at grass root level. Because if a health worker is aware about all the modes of transmission of any disease then it is not possible to educate the people regarding mode of transmission of respective diseases.

#### **5.18 Preventive measures**

Awareness regarding preventive measures of disease tuberculosis of the health workers is reflected in table 5.18.1. It shows that majority of the health workers considered isolation of the patient from other family members and BCG vaccination are the most important preventive measures of tuberculosis. But out of 44 health workers, 25 considered isolation and 23 considered BCG vaccination. While 12 health workers considered that treatment is the best preventive measure of tuberculosis. The other preventive measures considered by the health worker are live away or keep distance from tuberculosis patient, proper disposal of sputum, maintain cleanness, covering mouth by patient during sneezing and coughing, over crowding, do not work in dust, do not use aluminium utensils for eating purpose, good environment, etc.

Here one important thing regarding isolation is that it may be important and possible but usually it is not done in the family because the patient feel hatefulness as the patient not guilty.

Another important thing is that all the health workers were not aware regarding all possible preventive measures of tuberculosis which are again important to him/her as he/she working at the grass root level from the government health department as only the health educator for educating the community.

**Table 5.18.1**

**Knowledge Regarding Preventive Measures for Tuberculosis**

| Preventive Measures                            | Respondent |      | Total |
|--|------------|------|-------|
|  | Female     | Male |       |
| Isolation                                      | 19         | 6    | 25    |
| BCG Vaccination                                | 16         | 7    | 23    |
| Treatment                                      | 10         | 2    | 12    |
| Live away from the patient/<br>Keep distance   | 4          | 1    | 5     |
| Proper disposal of sputum                      | 4          | -    | 4     |
| Maintain cleanness                             | 7          | -    | 7     |
| Covering mouth during<br>coughing and sneezing | 1          | -    | 1     |
| Nutritious food/diet                           | -          | 1    | 1     |
| Other  | 6          | 1    | 7     |

**Note :** Others : Overcrowding<sup>1</sup>, Don't work in dust<sup>2</sup>, Don't use<sup>1</sup> aluminium utensils for eating purpose<sup>1</sup>, covering mouth<sup>1</sup> during coughing/sneezing, Good environment<sup>1</sup>.

**5.19 Controlling measures**

Majority of the health workers's awareness regarding controlling measures of tuberculosis is that patient should take regular treatment. while other controlling measures considered by the health workers are Isolation, treatment at right time, BCG vaccination, environmental hygiene, and informed to higher authorities of the health department. Here one thing come into notice that not a single health worker is aware about the combination of case finding and treatment which is the most powerful weapon of tuberculosis control.

Regarding home treatment majority of the health workers considered that there is no home treatment but patient can take medicine from the Govt. Health Centre and use them in home itself. But the word domiciliary treatment were not coming from their mouth. Interestingly 3 health workers were not aware regarding home/domiciliary treatment. The other responses regarding home treatment responded by health workers are Isolation, use eggs, good nutrition, and refer cases at health centre.

#### **5.20 Health Education Points**

The points of health education to be discussed with the people regarding various aspects of tuberculosis described by the health workers are reflected in the table 5.20.1. It shows that majority of the health workers considered cleanness is the most important point of health education regarding tuberculosis. Out of 44 health workers, 25 considered cleanness, while 19 health workers considered isolation, 11 considered live away/keep distance from the patient, 10 considered treatment regarding tuberculosis should be discussed. Whereas BCG vaccination, diet, sign and symptoms, living condition, eating left over food, communicability of disease, smoking, open environment, covering mouth during sneezing and coughing, proper excreta disposal of patient considered by some of the health workers.

But the disease transmission, dangerness of disease, causation of disease, domiciliary treatment, passive smoking, breast feeding, nutrition value, early sign and symptoms, proper disposal of sputum, importance of open environment etc. were not described by the majority of the health workers.

**Table 5.20.1**

**Knowledge Regarding Points of Health Education for Tuberculosis**

| Points of Health Education               | Health Workers |      | Total |
|--|----------------|------|-------|
|  | Female         | Male |       |
| Cleanness                                | 18             | 7    | 25    |
| Isolation                                | 13             | 6    | 19    |
| Live away from the Patient               | 8              | 3    | 11    |
| Treatment                                | 9              | 1    | 10    |
| Proper excreta disposal of patient       | 4              | 3    | 7     |
| BCG Vaccination                          | 4              | 4    | 8     |
| Diet                                     | 5              | -    | 5     |
| Continue cough fever (sign and Symptoms) | 2              | 1    | 3     |
| Covering mouth during coughing/sneezing  | -              | 1    | 1     |
| Other                                    | 9              | -    | 9     |

**Note :** Others : Open environment, Living Condition<sup>1</sup>, Left over food<sup>1</sup>, Education<sup>2</sup>, Communicable disease<sup>1</sup>, Smoking<sup>2</sup>, Cloths<sup>1</sup>.

**PART III : RESOURCE AVAILABILITY AND PROBLEMS FACED BY  
HEALTH WORKERS IN PROVIDING HEALTH EDUCATION**

In the above two sections of the chapter we discussed the knowledge of health workers regarding diarrhoea and tuberculosis. In this section, we will discuss about resources available to the health workers and problem faced by them in implementing or providing health education /IEC services at the grass roots level.

### **5.21 Resources available**

As expected almost all health workers reckon that people from all the caste and class visit subcentre during illness to take medicine but majority of them resides in surrounding area of subcentre only. While some people visit without any sickness for getting medicine in advanced to treat the general health problems like fever common cold, vomiting, diarrhoea, pain etc. In these people majority of them is male.

To fulfill the demand of medicine, health workers getting medicine from the Primary Health Centre during monthly staff meeting exception in case of an epidemic. But most of the health worker complained that drugs are being supplied in loose form which is not showing expiry date and most of them are very near to expiry date, one another complained by male health worker is that most of the essential drugs is being supplied to female health workers only.

Regarding educational material all the health workers getting pamphlets, posters, leaflets etc. but in case of health problems majority of these materials supplying related to diarrhoea, family planning, seasonal disease, polio, AIDS, environmental sanitation, cancer, nutrition, ARI, Immunization etc. Only two health workers responded that they got pamphlet on tuberculosis long back. As quantity of these material is concerned majority of health workers responded that they are getting in very less number like 2 to 4 only. So they assume that it is not possible to distribute in the whole community. Thus it is clear that as we have seen mothers of the study area are not receiving educational material because of health worker are also not getting educational material in sufficient quantity.

Regarding instruments and permanent articles e.g. syringes and needles, stove or sterilizer, fuel (kerosene), stationary, etc. supplied in very poor condition. Even the health workers not getting fuel for sterilization of

seringes and needles but the higher authorities forcibly ordered health workers to work with whatever resources or material/instruments are available and fixed the target for the respective months.

Interestingly in case of arranging meeting for Mahila Swasthya Sangh (MSS) there is a provision of a small refreshment for the MSS members but for that the female health workers have to spend money from their own pocket for arranging refreshment and after the meeting they have to fill up a form to get money back which they have spend, it takes quite long time. Some times money has not been sanctioned by mistake or say due to financial crisis, and that is why the female workers also not interested to arranging the refreshment and even MSS meetings too. One another important thing told by the majority of female health workers in relation to MSS meetings is that supervisor must attend the meeting but they hardly attend.

## **5.22 Health Education/IEC Activities Undertaken by Health Workers**

Health education/IEC activities undertaken by the health workers is reflected in table 5.22.1. It shows that almost all health workers know that the group meetings and house to house contact are the best methods. To disseminate health awareness. While Mahila Swasthya Sangh (MSS) was considered by 23 health workers, the other methods and media used for dissemination of health awareness are poster/pamphlet/booklet, panchayat meetings, schools, AWWs, vaccination days, depot holders, wall slogan etc.

It was observed that many health workers are actually conducting these activities but the procedure of conducting group meeting is that they invite just 3-4 people land discuss more about the family planning, its

methods or vaccination of children and pregnant mothers, distribute them nirodh, oral pills, iron and folic acid tablets or if they have found any patient of minor ailments like fever, cold, cough, some times diarrhoea, ARI etc. They distribute medicine if available, but they are not giving much more emphasis on talking about various most important factors of disease e.g. direct or indirect mode of transmission, causes preventive/controlling measure etc. During vaccination day it was observed they discuss only about family planning or gave all the doses of vaccine to both pregnant mothers as well as children. While other methods or media which described by health workers were not observed in their practices, even the visits to be made by health workers were not found regularly in the villages.

**Table 5.22.1**

**Methods and Media of Health Education/IEC Activities  
used by Health Workers**

| <b>Methods and Media</b>    | <b>Health Workers</b> |
|-----------------------------|-----------------------|
| Group meeting               | 41                    |
| House to house contact      | 40                    |
| Mahila Swasthya Sangh (MSS) | 23                    |
| Poster/pamphlet/booklet     | 12                    |
| Panchyat meeting            | 6                     |
| Schools                     | 4                     |
| AWW                         | 2                     |
| Others                      | 5                     |

**Note :** other = Vaccination Day<sup>1</sup>, Depot holder<sup>1</sup>, Wall Slogan<sup>1</sup>, Patients<sup>1</sup>, Subcentre visitors<sup>1</sup>.



## **Conclusion**

From the overall discription, we reached the conclusion that except few health workers all others do not have scientific or complete knowledge about the various most important aspects of both the diseases. They have knowledge but often it is very similar to the knowledge of women of the study population. As far as the quantity of health educational materials received by health workers is concerned, it shows that, it is very inadequate for education of the subcentre population. But they do not utilize it to gain more knowledge for themselves. Thus, with their lack of knowledge about the diseases it cannot be expected that they do well with the community even if they do undertake health education regarding these diseases.

## CHAPTER VI

### DISCUSSION AND CONCLUSION

The study was an attempt to understand the reach of Information, Education and Communication (IEC) in relation to diarrhoea and tuberculosis control in the existing socio-economic background i.e. caste, class and literacy of the village population in Dausa. The knowledge and practice of mothers of underfive children were studied. In addition an attempt was made to know the knowledge of the main IEC providers i.e. the male and female multipurpose Health Workers regarding IEC.

The main findings of the study can be summarized as follows:

#### ABOUT SOCIO-ECONOMIC BACKGROUND

- \* The study area is one of the better off districts of the state. The study villages, though with wide stratification, had a major proportion of households in the middle and higher category with a large number of males in salaried jobs. Agriculture and unskilled labour are the major occupations.
- \* The study area is otherbackward class (OBC) dominated which represent 43% population, within OBC it is Saini (mali) caste which represent alone 37% of total population. General castes and scheduled caste represent equal percentage i.e. 27% of total population.
- \* More than three-fourth women population are illiterate. Only 22% women, in which 10% belongs to General Caste, are literate.
- \* Availability of drinking water and food-grain for the house-holds are no longer the great problems in the study population. Environmental and domestic sanitation (i.e. proper excreta disposal, food and water hygiene) and personal hygiene were found to be significant public

health issues. For the small section of the poorest, however, the former still had serious indications.

## **ABOUT DIARRHOEA**

### **Mother's Understanding**

- \* Weakness is the major accompanying symptoms mentioned by almost all mothers of the study population, while dehydration due to diarrhoea was considered by less than half of the mothers. This is due to their perception of the serious consequences of the practices related to diarrhoeal disease.
- \* The mother's perception about serious or dangerous results of diarrhoea was weakness by 61%, while dehydration and death were considered by only 13% of mothers. This is likely to be related to their experience. As the mothers continue to give the child with diarrhoea both food and drink as well as a high proportion give traditional home fluids so dehydration would be less common. A decline in nutritional status and deepening of malnutrition are likely to be more frequently observed.
- \* Diarrhoea is perceived to be caused by a number of factors, majority (55%) of the mothers considered diarrhoea as a result of humoral theory of 'hot and cold' food and teething. Frequent eating by children and eating foods by the lactating mothers which are considered inappropriate to them, dislocation of special nerve by fall down of children during learning stage of standing and stepping are considered to be the other causes of diarrhoea in children. The notion of contamination of food and water with germs or pathogens is absent and the role of housing insanitation, eating stale foods, feeding other milk instead of breast milk using unhygienic utensils are perceived by only 7% mothers. In case of infant diarrhoea this 7% increases upto 18%

because children eating mud or unclean earthen objects are also considered as causes by mothers in the study population.

- \* Mother's knowledge about preventive measures, 88% denied any knowledge and related to this poor knowledge of causation was the only 12% gave a response which included housing sanitation, food and water hygiene, care about 'hot and cold' foods, use of gripe water for easy teething and use of traditional home remedies.
- \* Majority of the mothers believe that modern medicine is the most important treatment to stop diarrhoea and nearly 61% of mothers sought only modern medicine from the practitioners of nearby village. Rest of the mother used traditional as well as modern home remedies along with modern medicine in case of diarrhoea. Of these mothers 5% depended only on traditional home remedies. The case studies show that experience of childhood mortality with diarrhoea leads to resort to faith healing and almost all mothers of the study population believe that cure eventually lay in the hands of God.
- \* Traditional home available fluids are commonly used while knowledge about use of ORS solution is very limited. Only 18% of mothers had heard about ORS solution and out of them only 2% (who were themselves Angan Wadi Workers) knew the correct method of preparation of solution but about 40% use traditional remedies with fluids.
- \* Feeding was continued during diarrhoea by routine home available foods but 11% of mothers also considered special foods e.g. *Khichdi* and fruits. However no one was aware of extra food to be given to children after diarrhoea is cured.

#### **Health Worker's Knowledge**

- \* There is a universal awareness of the health workers that diarrhoea is more common in children under five years of age. No difference is known between girls and boys.

- \* Dehydration is considered the major danger sign of diarrhoea by the health workers. Weakness is given importance by an insignificant proportion.
- \* Majority of the health workers know the causative agent of diarrhoea as bacteria and viruses. Nearly half of the health workers know the source of infection of diarrhoea as contaminated water and food. The majority gave predominated place to flies as the transmitters of contamination. No one mentioned the faeco-oral route or hands as transmitters.
- \* Poverty and illiteracy are considered the major socio-economic factors which leads to diarrhoeal infection.
- \* Majority of the health workers knew the preventive measures such as rehydration and improvement in sanitation conditions. However, they knew the specific measures for the formers and spoke only in very general terms about the latter.
- \* Majority of the health workers considered that cleanliness of environment, personal, water and food as well as ORT are the most important points of health education to be discussed with the community. Knowledge regarding continuation of feeding is very limited and one health worker even spoke of stopping feeding. Not even one considered extra feeding for few days after diarrhoea was cured as an important point.

In the light of these findings regarding knowledge and understanding about diarrhoea of both lay population and IEC providers we reached on the following conclusions:

1. There is a common understanding of symptoms of diarrhoea in both mothers and health workers.
2. About preventive measures both mothers and health workers spoke of common preventive measures. Also both spoke of sanitation in

general terms only, while specific faeco-oral route of transmission is not considered.

3. Knowledge about causes of diarrhoea is incomplete for both mothers and health workers.
4. The difference found in the recognition of danger signs of diarrhoea. Mothers of study population considered weakness as danger sign while health workers spoke of dehydration.
5. Treatment with packed ORS or SSS is known to the health workers but not to the mothers of study population. Home based fluids are known to both mothers and health workers. So mothers use more traditional home fluids and remedies which include fluids. But the health workers give greater emphasis on ORS.
6. Both mothers and health workers give little importance to extra feeding after diarrhoea is cured.

#### **Implications for Health Education Programme**

There is a strong need to train health workers:

- (a) Regarding causes of diarrhoea. Besides all possible factors more emphasis should be given on the most common route of transmission i.e. faeco-oral route of transmission with spread from excreta, hands and clothes of symptomatic and asymptomatic carriers.
- (b) About preventive measures of diarrhoea, specific measures for environmental sanitation, domestic and personal hygiene feasible in the villagers conditions should be emphasized. Moreover emphasis of health workers should be to promote rehydration based on home based fluids which is more common and easily available in the community.

- (c) The need of extra feeding should be emphasized in the training of health workers and its importance should be disseminated in the community.

## **ABOUT TUBERCULOSIS**

### **Women's Understanding**

- \* Cough, sputum and blood in sputum/cough are the major accompanying symptoms mentioned by majority of the women of the study population, while fever, chest pain and loss of weight considered by few of the women.
- \* Women's perception about serious or dangerous results of tuberculosis was incurable and patient at last die was considered by 66%, while treatment go on long time was considered by only 16% of the women. This is likely to be related to their experience as almost all women have seen the tuberculosis patient to be taking treatment which was always prolonged for several years and many died of the disease.
- \* Tuberculosis is perceived to be caused by a number of factors but majority of the women denied knowledge of cause. Only 22% of the women were aware about the causes of tuberculosis, in which only 12% considered it due to personal contact, eating and smoking together with the patient. Weakness of eating in house or not eating sufficient quantity and quality of food, hate/dislike TB patient, due to upset 'hot and cold' of non cure of typhoid were considered the other causes of tuberculosis. Women's knowledge about preventive measures was also found to be very limited.
- \* 87% of women considered treatment to be available in big cities or hospitals only, while only one woman spoke of it as available at PHC/CHC too. Majority of the women also considered it is not available free of cost to the common people. It is likely to be because of their

experience that the tuberculosis patients are taking treatment from Alwar, Jaipur, Vrandavan etc. which are no doubt big cities and having separate tuberculosis hospitals and that it involves expenditures over a long period.

- \* Knowledge of women about precautions during treatment period is found very limited. Only 5% women spoke of continuity of treatment as advised by the doctors.

#### **Health Worker's Knowledge**

- \* Majority of the health workers have knowledge of at least three sign and symptoms of tuberculosis such as continuous cough, fever and blood stained sputum or sputum only. Whereas other important sign and symptoms such as loss of weight and appetite, chest pain etc. are considered by a few health workers.
- \* Blood stained sputum is considered the major danger sign by majority of the health workers, while other signs such as continuous loss of weight, chest pain etc. is given by an insignificant proportion.
- \* There is a universal awareness of the health workers about source of infection as tuberculosis patients but they considered all patients (sputum positive or negative both) as the source of infection. Whereas only sputum positive case, as we know, is the main source of infection.
- \* About causative agent of tuberculosis, nearly half of the health workers are aware of such as tubercle bacilli or bacteria as a causative agent. Poverty and illiteracy are considered to be the major socio-economic factors which lead to tuberculosis infection.
- \* There is a universal awareness of the health workers about tuberculosis being more common in adults of both sexes. Inhalation is considered to be the mode of transmission by almost all health workers.



- \* Majority of the health workers knew the preventive measures such as isolation of the patient and BCG vaccination to all the children .
- \* Taking regular treatment by the patient is considered as controlling measure of tuberculosis by majority of the health workers. They also knew about free availability of drugs for tuberculosis at CHC/PHC/TB clinics.
- \* Cleanliness and isolation of the patient are the most important points of health education considered by majority of the health workers. Covering mouth while sneezing/coughing/talking loudly, proper excreta and sputum disposal, diet etc. considered by a few of the health workers. Only about 25% spoke of IEC about treatment.

From the above findings regarding knowledge and understanding about tuberculosis of both lay population and IEC providers we reached on the following conclusions:

1. There is a common understanding of symptoms of tuberculosis in both women and health workers which show a good recognition of the disease.
2. Both considered blood stained sputum as most serious sign. Many women however also felt that its being incurable makes it a serious disease.
3. Both consider causes of TB to be contact with a patient of TB. Workers further knew of the tubercle bacillus.
4. Majority of the health workers know at least two preventive measures i.e. isolation and BCG vaccination, while only 22% women know one or two preventive measures which are indirectly same as those the health workers spoke of.
5. Majority of the women considered that medicine for TB is not available free of cost in Government hospitals of big cities too, while

health worker know that it is available free of cost at CHC/PHC/TB clinics etc. But the workers have little knowledge of the specific treatment regimen and its precautions.

### **Implications for IEC**

Training of health workers must include:

- (a) All the related sign and symptoms to be considered serious in tuberculosis cases, other than blood in sputum.
- (b) About treatment regimen and its precautions especially about emphasising direction, continuity and completion of treatment.
- (c) Preventive measures besides isolation and BCG vaccination e.g. covering nose and mouth, environmental sanitation, personal and domestic hygiene, open air, treatment etc. They need clarification about the requirement of isolation of patient. As we know only sputum positive cases require isolation and not all cases, and that too only for the initial period, not throughout treatment. This is important for correct information being communicated to the community. Further there is a need to educate the community about free availability of tuberculosis medicine at CHC/PHC/TB clinics etc. and ensure that regular, free drugs are available there.

## **ABOUT EXISTING HEALTH EDUCATION ACTIVITIES**

### **Views of Women**

- \* Majority of the women are getting information about health and disease from their family members/neighbours i.e. by oral spread of information within the community. Only 10% of the women considered that besides this they also got information from health workers or modern media.
- \* 82% of the women considered that the health workers are not making home visits regularly and whenever they visit, they talk about family planning sterilisation, immunization and give medicine for fever and for

pregnant mothers IFA tablets, not about diarrhoea or tuberculosis.

- \* About mass health meeting/demonstration/display of documentary or slide picture, all the women of the study population spoke of nothing had been done till date.
- \* Practice of sharing information regarding health and disease with their neighbours, whatever information they have, is very high.
- \* Home visits by health professionals is considered as the best method/media of getting information by more than 90% of the women of the study population.

#### **Views of Health Workers**

- \* All the health workers spoke of that they are doing house to house visits, arranging small group meetings, MSS, attending Panchayat meetings etc. for dissemination of health message in the community. Moreover health workers considered that the community people are accepting their advice.
- \* Health workers considered that 60-70% health problems diseases/ in which diarrhoea and tuberculosis also included, can be prevented through effective health education only.
- \* Problems considered by health workers are; vast area, no residential facility, travelling problem, short supply of drugs, not posting of both male and female workers at the subcentre, less supply of educational material etc., besides these problems there are other problems e.g. no stationary, no timely promotion, bias in training (basic as well as promotional), salary and opportunity in getting promotion between male health worker and female health worker, not getting TA/MR timely, no resources for the arrangement of mass health meetings or documentary/slide picture shows, no co-operative support from health supervisors etc. Besides these problems in carrying out IEC work, the health workers do not spend time on because their supervisors and

medical officers do not give it importance, either during their visits or in monthly meetings.

Both the women and the health workers reflect a dissatisfaction with health education activities. Both recognize its importance and yet the health workers are not able to engage in it effectively.

### **Implications**

The Primary Health Care system needs to take its role in IEC seriously. For this, the supervisor and managerial functionaries need to be sensitized and IEC as well as communicable disease such as diarrhoea and tuberculosis made priority concerns.

From the above findings and discussion it is clear that knowledge regarding various aspects of health and disease among lay population is not complete.

In this regard there is a common complaint of the health workers that members of the village community ignore their advice and continue to practise health damaging behaviour even if they know that these behaviour are harmful. It is easy to condemn the community and put the blame on traditional beliefs or backwardness but the real reason for failure were found to be the lack of effective IEC and back-up services. There is a demand from the community for knowledge about health and diseases. But health workers themselves did not have scientific and complete knowledge about the diseases. They do not even go regularly, and rarely do preventive work and health education about communicable disease.

From the study we found that there are many reasons for the lack of knowledge of the health workers. The main reasons are:

1. That the MPW (male and female) were inadequately trained. They got training for only one and half month when converted from Auxiliary Nurse Midwives, Basic Health Workers, Vaccinators, Malaria Surveillance Workers, Health Education Assistants

(Trachoma), Family Planning Health Assistants etc.

2. That concentration was given to work on population control activities (e.g., fixed monthly targets for motivation of family planning cases, distribution of nirodh and oral pills etc.) and not to prevention of communicable diseases such as diarrhoeal disease and tuberculosis.
3. That none of the MPWs got any inservice training or refresher course in relation to preventive health or health education activities. They got a few days training on family planning activities at the Primary Health Centres only.
4. That non-availability of health educational materials and media in terms of quantity and quality, and proper knowledge about their use in the community is also a lacuna for not carrying out of proper health education activities.
5. That the health workers understanding of people's behaviours and living conditions is also lacking in many respects. For example, they do not recognize the important link of malnutrition in children with diarrhoea and only recognize 'dehydration' which has been emphasised in their training . They do not recommend specific measurers for sanitation and hygiene which are feasible under the conditions in which the villagers live.

They do not recognize the value of traditional remedies adequately. Further, they do not understand the reasons for which the women turn to faith healing and only label such behaviours as 'backward' and 'superstitious'.

Thus there is the need to improve health workers knowledge, both technical and socio-cultural. Secondly, IEC and the prevention of communicable diseases such as diarrhoea and tuberculosis must be given due importance by the administration, managers, trainers, and supervisors in the Primary Health Care system.

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## ANNEXURE-I

**Interview Schedule for Respondents (women)**  
**Centre of Social Medicine and Community Health**  
**School of Social Sciences**  
**Jawaharlal Nehru University**  
**NEW DELHI**

Sch. No. \_\_\_\_\_

Information, Education and Communication in the Context of Diarrhoea and  
Tuberculosis Control in Dausa District of Rural Rajasthan

### PART-I

- |                                      |  |
|--------------------------------------|--|
| 1. Name of the Village               | Gram Panchayat                         |
| 2. Name of the Head of the Household |  |
| 3. Type of the Respondent            | Family : Joint / Nuclear               |
| 4. Name of the Respondent            | Religion :                      Caste: |

|            | Sex | Age | Education | Occupation |            |
|------------|-----|-----|-----------|------------|------------|
|            |     |     |           | Main       | Subsidiary |
| Respondent |     |     |           |            |            |
| Spouse     |     |     |           |            |            |
| Children   | 1.  |     |           |            |            |
|            | 2.  |     |           |            |            |
|            | 3.  |     |           |            |            |
|            | 4.  |     |           |            |            |
|            | 5.  |     |           |            |            |

5. Type of House : Katcha/Pucca/Mixed
6. Source of drinking water : Tubewell/Borewell/Pond/River /Hand Pump/other
7. Source of wasting water : Tubewell/Borewell/Pond/River /Hand Pump/other
8. Place of defecation : sanitary laterine/other laterine/open field/mixed
9. Irrigated Agricultural land owned :  
Non-irrigated land
10. Is the overall production from land sufficient/insufficient/  
excess for your family for the whole year  
If insufficient, how do you manage for the year?  
If excess, what you do ?
11. Are you sharing/involve in agricultural/any other work?                      Yes/No.  
If yes, how much time (give details since morning to evening).
12. Are you having milk-giving animals ?    Yes/No  
If yes, then milk is sufficient/insufficient/excess for the family ?  
If no, then you buying milk?    Yes/No.    If yes, then daily/occasionally.

## PART-II

13. What is Diarrhoea ?
14. What else happens in Diarrhoea?
15. Is Diarrhoea dangerous ? Yes/No, if yes, why
16. What are the causes of Diarrhoea occurrence ?
17. In which group/category Diarrhoea is more common ? Children below 5 years/  
school age children/adult/old age people/other.
18. Do you consider Diarrhoea is a serious problem in children below one year age?  
Yes/No. If yes, how
19. What are the main causes of Diarrhoea in children below one year ?
20. What do you do when Diarrhoea occurs in children ?  
Adults ?
21. Did your child get Diarrhoea in the last one year ? Yes/No.  
If yes, then how many times ?  
What did you do ?
22. (A) Did you continue breast milk/food during Diarrhoea ? Yes/No.  
If yes/no (give reasons).  
What food  
(B) Is treatment of Diarrhoea possible at home ? Yes/No.  
If yes, when it should be started ?  
What treatment
23. What is ORS/Jiwan Rakshak Ghol ?  
Where it is available ?  
How you will prepare
24. What is salt-sugar solution ?  
How you will prepare ?  
What type of test should be of the solution ?
25. How many hours we can use the solution (ORS/sugar-salt) once prepared ?
26. When Health Workers/Doctor's help needed/should be taken in Diarrhoea ?
27. What care should be taken during going to health centre/doctor ?
28. What care should be taken in the weakness due to Diarrhoea or after diarrhoea  
treated/cured?
29. Do you know the preventive measures of Diarrhoea ? Yes/No  
If yes, explain  
Any more

30. By which source you got above information regarding Diarrhoea ?  
Any more
31. Is Diarrhea contagious/communicable disease ? Yes/No  
If yes, what do you mean by communicable diseases?
- 

### PART-III

32. Do you know anyone who had T.B.? Yes/No.  
If yes, What is T.B. ?  
What happens in T.B. ?
33. What are the causes of T.B. ?
34. Can T.B. infects : children/adults/all people ? Yes/No.  
If yes, who are the most sufferer ?
35. Is T.B. a serious disease ? Yes/No. If yes, why ?
36. Where treatment/examine facilities available ? SC/PHC/CHS/T.B. Clinic any other.
37. Is medicine for T.B. patient available at home ? Yes/No  
If yes, how
38. What care should be taken by T.B. patient at home while sneezing/coughing/talking ?  
Personal hygiene
39. What precautions should be taken by T.B. patient in taking medicine during treatment period ?
40. If sometime free medicine not available during treatment period what should be done? Stop-treatment/continue treatment at any cost/don't know/any other
41. Do you know the preventive measures of T.B. ? Yes/No  
If yes, explain (what are these)
42. Is T.B. a communicable/contagious disease ? Yes/No  
If yes, how
43. By which sources you got above information regarding T.B ?  
Any more
-

**PART-IV**

44. Has any Health Worker visited your home in the last week/last month ? Yes/No  
If yes, why he/she visited
45. Was any Health meeting held in your village in the last year ? Yes/No/don't  
remember. If yes, have you attended ? Yes/No/don't remembers. If yes, what  
was the discussion in the meeting ?
46. Was there any folk media programme held in your village in the last year ? Yes/No.  
IfYes, What message was transmitted ?
47. Have you ever heard anything regarding health on radio ? Yes/No, Don't  
remember. If yea, what message was transmitted ?
48. Have you ever watched anything regarding health on T.V. ? Yes/No/Don't  
remember. If yes, what message was transmitted ?
49. Have you ever seen any documentary/slide on Diarrhoea/T.B. in your village  
organised by Govt. Health Dept. ? Yes/No/Don't remember. If yes, what did you  
learn ?
50. Have you ever received any pamphlet/leaflet/booklet on health ? Yes/No/don't  
remember. If yes, what was the message on them ?
51. Have any demonstration done in your locality on health ? Yes/No/don't  
remember. If yes what did you learn ?
52. Have you ever read/read out to you anything regarding health in newspapers?  
Yes/No/don't remember. If yes, what did you learn ?
53. Was the language used in all above media easy to understand/difficult to  
understand/can't say/no response ?
54. Did you share the knowledge gathered from the above media with anyone ?  
Yes/No. If yes, with whom ?
55. According to your opinion which method/media is more useful easy to understand  
?
56. When anyone of your family suffer from fever/cough what you do?  
(a) (upto one week fever/cough)  
For children :  
For adults :  
(b) (Longer than one week fever/cough)  
For children :  
For adults :
57. How health workers/professionals behaving with you and your community ?
58. Was any death occurred below 5 years of age in your family? Yes/No.  
If yes (give descriptions)

| S.No. | Age and Sex of Child | Causes of death of the Child |
|-------|----------------------|------------------------------|
| 1.    |                      |                              |
| 2.    |                      |                              |
| 3.    |                      |                              |

**ANNEXURE-II**

**Interview Schedule for IEC Services Providers (Health Workers)  
Centre of Social Medicine and Community Health  
School of Social Sciences  
Jawaharlal Nehru University  
NEW DELHI**

Sch. No. \_\_\_\_\_

Information, Education and Communication in the Context of Diarrhoea and  
Tuberculosis Control in Dausa District of Rural Rajasthan

**PART-I**

1. Name of sub centre population PHC
2. Sub centre in Rural/Urban  
Total no. of village in SC.
3. Distance of the village from SC 1   2   3   4   5
4. Date of posting  
Total service period on present post
5. Residence facility of sub centre.    Yes/No  
If yes, are you residing there,    Yes/No  
If no, where you reside  
Distance from SC
6. Your home town/native  
R/U Distance from SC
7. Is transport facility available from SC to  
PHC            CHC            Dist. HQ            Native
8. Name of the Respondent :  
Religion : Caste :

|            | Sex | Age | Qualifications |               | Land | Occupation |             | Monthly income all sources |
|------------|-----|-----|----------------|---------------|------|------------|-------------|----------------------------|
|            |     |     | Educa-tional   | Profess-ional |      | Main       | Subsidi-ary |                            |
| Respondent |     |     |                |               |      |            |             |                            |
| Spouse     |     |     |                |               |      |            |             |                            |
| Father     |     |     |                |               |      |            |             |                            |
| Mother     |     |     |                |               |      |            |             |                            |

9. Pre-service training duration Place :

10. Post-service/in-service training if any with duration

11. Promotional opportunity in your service :

1                      2                      3                      4

12. Promotions you got during service :

1                      2                      3                      4

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**PART-II**

13. Are people visiting sub centre ?                      Yes/No.

If yes, when (during illness/healthy/P.P. supply)

Who are the common visitors/users

If no, why

14. What are the problems you are facing in your work ?

15. Do people accept your suggestions/service ?                      Yes/No

If no, why

16. What are the drugs available at sub centre ?

17. Are the essential drugs available at sub centre all the time ? Yes/No

If no, why (give reasons) :

18. What are the major health problems in your area ?

19. What are the major health problems in children in your area ?

20. Do you know Diarrhoea/Tuberculosis ? Yes/No.

If yes, give details as follows :

|   | Diarrhoea | Tuberculosis |
|---|-----------|--------------|
| a. Signs and symptoms                                   |           |              |
| b. Danger signs   |           |              |
| c. Source of infection                                  |           |              |
| d. Mode of transmission                                 |           |              |
| e. Causative agent                                      |           |              |
| f. Commonly affected age and sex                        |           |              |
| g. Related socio-economic factors                       |           |              |
| h. Preventive measures                                  |           |              |
| i. Control measures                                     |           |              |
| j. Home treatment                                       |           |              |
| k. Health education points to discuss                   |           |              |
| l. What prevents/control of these diseases in your area |           |              |

21. Can these health problems be prevented by Health Education/IEC activities ?  
Yes/No  
If yes, upto what extent; fully/partially/some extent  
If no, why
22. What are the methods and media available/used in health education/IEC activities ?
23. What are the methods and media you apply in your area to solve these health problems ?
24. Are you getting/receiving educational material ? Yes/No.  
If yes, what are these material  
Is it regular : Yes/No
25. What happens/discussion in the monthly meeting usually at PHC ?
26. What is the role/doing health supervisors ?
27. Are supervisors visiting your sub centre regularly ? Yes/No. If yes, what is her/his role.  
If no, who supervised/support you
28. What are the facilities Govt. provide you ?
29. What are your suggestions for better health services providing at rural/sub centre area ?
30. How concerned medical officer/supervisor behave with you ?  
And supporting you ?