# STRUCTURE AND ORGANISATION OF SCHOOL DENTAL HEALTH SERVICE IN THE SCHOOL HEALTH PROGRAMME OF NRHM IN WEST TRIPURA DISTRICT

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*in partial fulfillment of the requirements*

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**MASTER OF PHILOSOPHY**

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## CERTIFICATE

This dissertation entitled "**STRUCTURE AND ORGANISATION OF SCHOOL DENTAL HEALTH SERVICE IN THE SCHOOL HEALTH PROGRAMME OF NRHM IN WEST TRIPURA DISTRICT**" is submitted in the partial fulfillment of six credits for the award of the degree of MASTER OF PHILOSOPHY (M.Phil.) of Jawaharlal Nehru University, New Delhi. This dissertation has not been submitted to the award of any degree of this university or any other university and is my original work.

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*Dedicated to my children*

*Megh (Debaleen) and Chand (Sangeet)*

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*I am solely responsible for any error that might remain in this work.*

**Abbreviations:**

AD—Anno Domini

ADC—Autonomous District Council

AIIMS—All India Institute of Medical Science

AMC—Agartala Municipal Corporation

ASHA—Accredited Social Health Activist

ATTF—All Tripura Tiger Force

AYUSH—Ayurveda Yoga Unani Siddha Homeopathy

BA—Bachelor of Arts

B.Ed—Bachelor of Education

BDS—Bachelor of Dental Surgery

BHMS—Bachelor of Homeopathy Medicine and Surgery

BPL—Below Poverty Line

B.Sc.—Bachelor of Science

CHC—Community Health Centre

CMO-Chief Medical Officer

CPI (M) –Communist Party of India (Marxist)

CRC—Cumulative Record Card

DCI—Dental Council of India

DEIC—District Early Intervention Centre

DEO—District Education Officer, District Education Office

DHE—Dental Health Education

DH&FWS—Directorate of Health & Family Welfare Society

DMHT—Dedicated Mobile Health Team

DM&CW—Diploma in Maternity &Child Health

DNO—District Nodal Officer

DSE—Directorate of School Education

‘e.g’. -- (L. *exempli gratia*; ‘for the sake of example’)—for example

‘et al’ – (L.*et alii*)—and others

‘etc’.—(L. *et cetera*,--and other similar things

EPC—Empowered Program Committee

FDI—Freedom Dentaire International

GOI—Government of India

HBNC—Home Based Newborn Care

HDI—Human Development Index

H/M—Head Master

H/S—Higher Secondary

html—hyper text mark-up language

http—hyper text transport/transfer protocol

ICMR—Indian Council of Medical Research

IDA—Indian Dental Association

IDA-TSB – Indian Dental Association – Tripura State Branch

IDSP—Integrated Disease Surveillance Programme

‘i.e.’ (L.*id est;* ‘that is’)—that is to say

IEC—Information Education and Communication

IFA—Iron Folic Acid

IPHS—Indian Public Health Standard

I/S—Inspectorate of Schools, Inspector of School

JB—Junior Basic

JMS—*Jana Mangal Samiti*

JSS—*Jana Sikhsa Samiti*

KAP—Knowledge and Practice

LDS---Licentiate in Dental Science

LMF—Licentiate of Medical Faculty

MA—Master of Arts

MCGM—Municipal Corporation of Greater Mumbai

MCH—Maternal & Child Health

MD—Mission Director,

MDM—Mid Day Meal

MO—Medical Officer

MO I/C – Medical Officer In charge

MoH&FW—Ministry of Health and Family Welfare

MPS—Multi Purpose Supervisor

MPW—Multi Purpose Worker

M/S—Member Secretary

MSG—Mission Steering Group

NCC—National Cadre Crops

NCHS—National Centre for Health Statistics

NE—North Eastern

NFHS—National Family Health Survey

NGO—Non Government Organisation

NHM—National Health Mission

NRHM---National Rural Health Mission

NHP—National Health Policy

NIDDCP—National Iodine Deficiency Disorder Control Programme

NIT—National Institute of Technology

NLEP—National Leprosy Eradication Programme

NLFT—National Liberation Front of Tripura

NOHCP—National Oral Health Care Program

NOHP—National Oral Health Program

NP—Nagar *Panchayat*

NVBDCP—National Vector Borne Disease Control Programme

OBC—Other Backward Class

OPD—Out Patient Department

‘p’—page (plural pp)

PHC—Primary Health Center

PPI—Plan of Programme Implementation

RBSK—*Rashtriya Bal Swasthya Karyakram*

RCH—Reproductive & Child Health

RMNCH+A—Reproductive Maternal Newborn Child Health and Adolescent Health

RNTCP—Revised National Tuberculosis Control Programme

SAM—Severe Acute Malnutrition

SB—Senior Basic

SC—Scheduled Cast, Sub Centre

SED—School Education Department

SHP—School Health Program

SHS—School Health Services

SNO—State Nodal Officer

SPO—State Programme Officer

ST—Scheduled Tribe

THDR—Tripura Human Development Report

TPM—*Tripura Praja Mandal*

TRGMP—*Tripura Rajya Ganamukti Parishad*

TNV—Tripura National Volunteers

TTAADC—Tripura Tribal Area Autonomous District Council

TUJS—*Tripura Upajati juba Samiti*

UGBT—Under Graduate Basic Training

VC—Village Council

‘vol’.-- volume

WB—West Bengal

WHO—World Health Organization

WIFS – Weekly Iron Folic Acid Supplementation

WWW—World Wide Web


**Fig: 1 Map of Tripura**

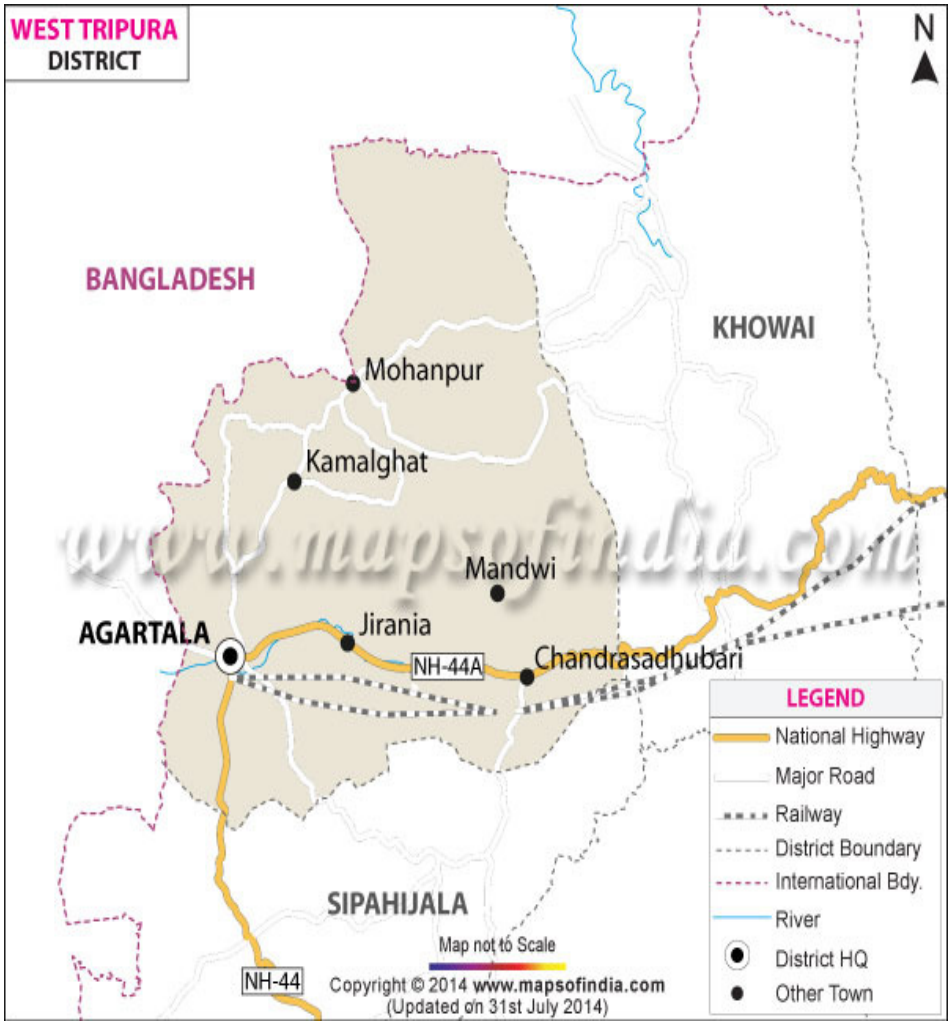



**Fig: 2 Map of West Tripura District**

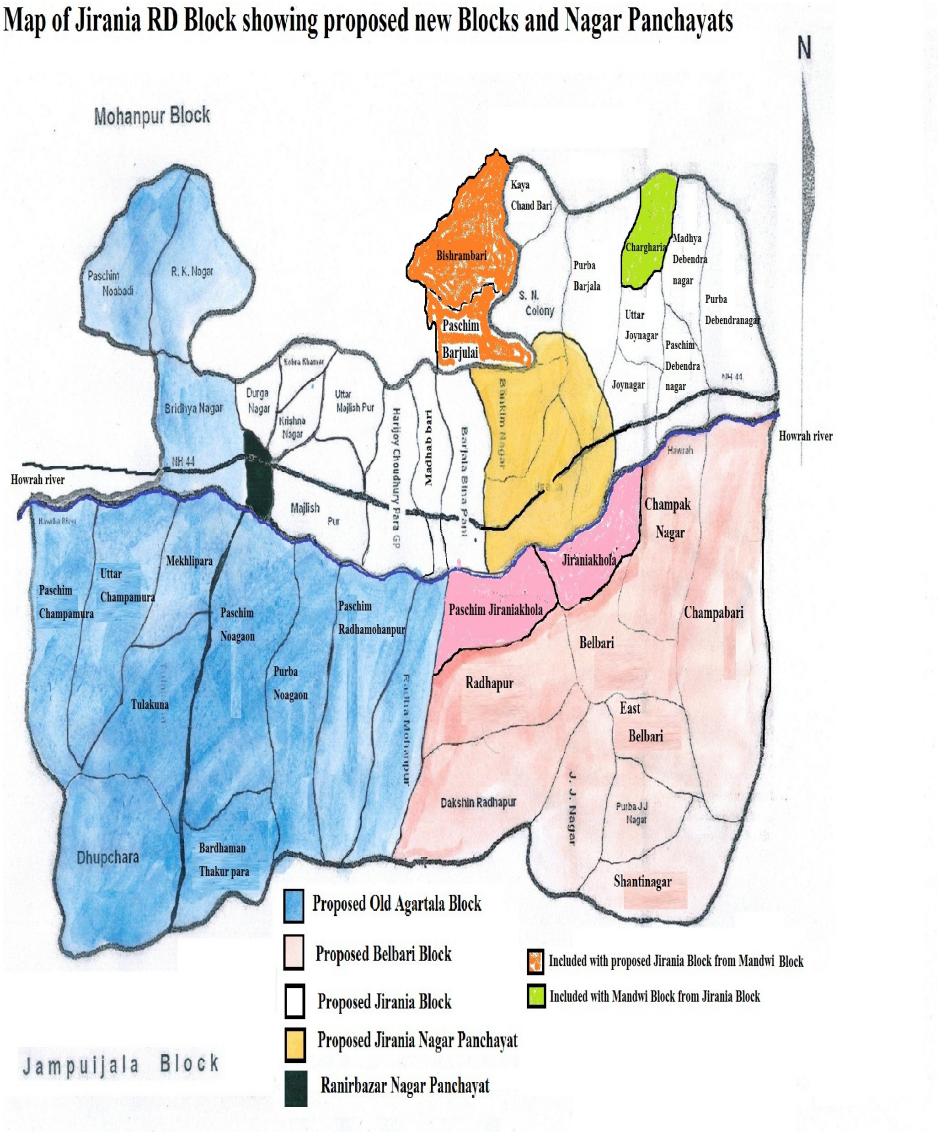
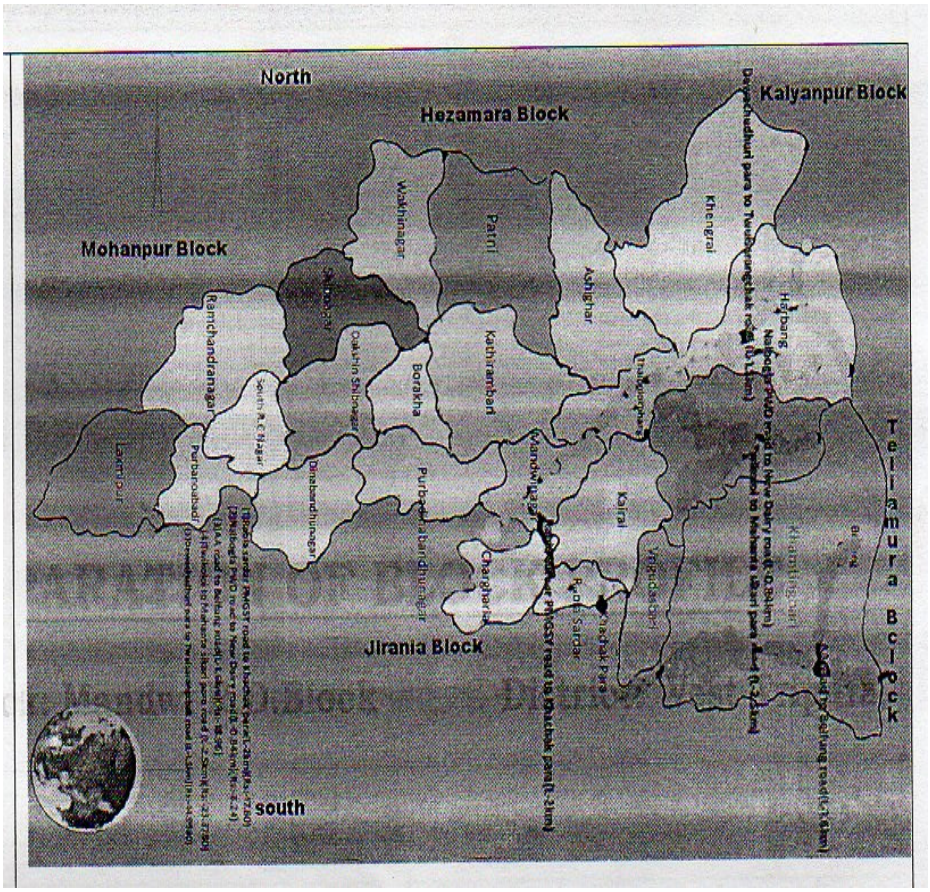



**Fig: 3Map of Jirania Block**

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# DENTAL HEALTH SERVICE IN THE SCHOOL

# HEALTH PROGRAMME OF NRHM

# IN WEST TRIPURA DISTRICT

# CHAPTER I
# INTRODUCTION

# Introduction

Children are the future of a nation. A healthy mind resides in a healthy body. It is said that "prevention is better than cure". Not only preschool children but also school children from 6-18 years was thought of as important age group for initiating preventive programmes . For the later age group School Health Programme (SHP) was launched in many parts of the world. School Health Programme addresses the promotion of positive health, prevention of diseases, early diagnosis and treatment and follow- up of defects and creating health awareness in children. It contributes to the maintenance and improvement of the health of school children that includes health services, healthful living and health education. It also addresses the health needs of the children of school and adolescent in the age group of 6-18 yrs.

In India SHP was launched in Government and Government aided schools to address the health needs of the children, physical, mental, nutritional intervention, promotion of physical activities, counseling and provision of fixed day immunisation with health education. More recently as part of National Rural Health Mission, the Rashtriya Bal Swasthya Karyakram (RBSK), programme not only addresses 4D's –that is Diseases, Deficiencies, Defects at birth, Developmental delays including disabilities but also Reproductive, Maternal, Newborn, Child Health and Adolescent Health Strategies (RMNCH+A) (GOI,2013).

Among the thirty diseases conditions included under the RBSK dental caries is on the list. National Health Survey 2004 shows that prevalence of dental caries among 5 years old is 51.9%, in 12 years old 53.8%, and 63.1% in 15 year old children in India. WHO epidemiological data shows that a 60% to 90% school children suffers from dental caries in industrial countries. It is the most prevalent dental disease in the world and next is periodontal disease. It also shows that the poor and disadvantaged sections of people suffer more and the burdens of oral diseases are most among them. Nutrition plays an important part in causing oral/dental diseases ((Masuma 2012, Chatterjee 2012, Dahiya 2013, Psoter 2008, Sweeney 1971*).*Despite the high prevalence in dental problems in children this has been a neglected field. Dental Morbid conditions can lead to systemic complication as well as psychological morbidity and low self esteem and that affects the quality of life. (Midcr nd; Sowmya 2011;Sheiham 2006).

Though dental caries is a component in the School Health but there has been no study so far done on the functioning of the School Dental Health Services under SHP of NRHM. This study tries to examine the status of School Dental Health Service in the School Health Service under NRHM in West Tripura District of Tripura. It uses the concept of Power and

authority Dental Health Services has in the given structure of School Health Services. It also tries to bring out the problems in delivering dental health service to school children.

This study is done in rural and difficult to reach areas in West Tripura District. Students of four selected schools for the study are mostly from poor socio-economic background and belong to Schedule tribes and Scheduled Caste categories.

**An Overview of Chapters:**

Chapter I provide an introduction that gives an overall view of the study.

Chapter II "Evolution of School Health Programme in India: An overview" tries to look at the history of School Health Programme and evaluation of the Programme in India.

Chapter III "Dental/ Oral Health Programme in India" is examines the Dental Health Programme in India that was initiated by the Governments. The objective of this initiative was to start a programme for Indian people but remained only on paper. This chapter also tries to bring out the relation between private organisations i.e. Colgate-Palmolive India in implementing their own Dental/Oral Health Programme in the country covering not only children but also wide range of common people along with collaboration of IDA.

The chapter IV is all about the study area i.e. Tripura. Its historical background as a princely state, emergence with Indian Union after independence of India, This also deals with geographic character, demographic character of the state, ethnicity and related insurgency problem. This chapter also looks at the health service structure of Tripura and evolution of School Health Programme, formation of IDA-TSB, and its role in oral/dental health programme in Tripura.

A review of relevant literature and conceptualization of the study is discussed in the first section of the fifth chapter .The second section of this chapter deals with methodological and research process.

Chapter VI is divided into two segments. First section is about the structure and organisation of school health services, its dual structure and authority. It also examines the place of school dental health service in the overall structure of school health services under the NRHM in West Tripura District of Tripura. It analyses the interaction at different levels and role played by the diverse actors in terms of power and authority among them.

The next section is about the problems while delivering the school dental health programme at the district and block levels.

The last chapter of this dissertation is the

# CHAPTER II

# EVOLUTION OF SCHOOL HEALTH PROGRAMME IN INDIA: AN OVERVIEW

## Introduction:

School health programme (SHP) contributes to the maintenance and improvement of the health of school going children that includes health services, healthful living and health education. This chapter elaborates on the evolution of school health programme in India starting from pre-independence era to till date. I will also try to touch briefly on the history of School Health Programme in other countries also.

## Historical Overview of School Health Programme:

The subjects of health of children who are the future generation of every nation were received early attention as early as the 18$^{th}$ century in Western Europe. It is said that the earliest record of organized effort to improve the health of school children was done in Bavaria, Germany in the year 1790. Lunch was provided to them in school. (NA Akani et al 2001).

During the 19$^{th}$ century school health services originated in Europe. France became interested in the health of school children and they enacted a law about the responsibility of public schools for health of school children in the year 1833 AD. In 1886 AD the periodic inspection of schools by physician was started. Following France school physicians were appointed in Brussels in the year 1874. School medical inspections were also started in different countries in Europe like Germany, England, Sweden, Russia, Austria and Hungary and other countries, Argentina, Chile and Egypt later on. In USA Benjamin Franklin wanted to create a "Healthful situation" promoted physical exercise in the school. In 1840 AD Rhode Iceland first passed the legislation in USA to make health education mandatory. Headmaster of Dummer Grammer School, Sammuel Moody taught value of physical exercise. He also took part in it. This was the first private boarding school which taught value of physical exercise. This school was opened in 1763. "Modern School Health era" started in 1850. Lemuel Shattuck who was head of Sanitary Commission of Massachusetts produced a report and this report received major attention and also promotes public health and prevention of diseases in school programmes. The report says:

*"Every child should be taught early in life, that, to preserve his own life and his own health and lives and health of others, is one of the most important and constantly abiding duties. By obeying certain laws or performing certain acts, his life and health may be preserved; by disobedience, or performing certain other acts, they will both be destroyed. By knowing and avoiding the causes of disease, disease itself will be avoided, and he may enjoy health and live; by ignorance of these causes and exposure to them, he may contract disease, ruin his health, and die. Everything connected with wealth, happiness and long life depends upon health; and even the great duties of morals and religion are performed more acceptably in a healthy than sickly condition."* (nap.edu nd)

Due to immigration to New York City, even after taking preventive measures outbreak of small pox could not be prevented and in 1860 there was a small pox outbreak. But there were no mechanisms for providing free vaccination for the people who were in need. Board of Health then started to vaccinate in schools. During 1870 small pox vaccine was mandatory in schools. This Board of Health also started sanitary inspection programme in all public schools twice a year during the period of late 1860s to early 1870s.

"Medical Inspection" era of schools started at the end of nineteenth century. Boston appointed "Medical visitors" who used to visit schools and examine "ailing" children in the year 1894. Such 50 medical visitors were employed. By the year 1897 other cities like New York (1897), Chicago (1895), and Philadelphia (1898) all started the programme. New York City in the year 1902 started routine examination in schools for detecting skin diseases and contagious eye diseases. School health nurse was employed to reach out to parents of students also. (nap.edu nd)

Image of modern school health programme started emerging after World War I. It is seen that most of the young men were in poor health and nutritional status hence not eligible to be recruited as soldiers. When evaluated it is observed that school health programme focuses only on inspection and hygiene and gave knowledge about anatomy and physiology. Due to change in social scenario after World War I need for renewed method was felt. This new approach mainly based on understanding of behaviour and motivational psychology.

Within the efforts to establish school health services the first known school dental health programme was carried out in 1890 AD in London. A dentist W Mac Pherson Pisner of Dundee was the person who was behind this. In 1890 AD a committee was formed and they carry out oral hygiene procedure in school (Veera nd).

## Evolution of School Health Programme in India:

Evolution of School Health Programme in India can be divided into two phases, one in colonial period, through the initiative of the British Government. The colonial government set up school health services based on the experiences of England and Scotland. So the recommendations made for school health services in India reflect the picture of those two countries.

**Before independence:**

There was no formal School Health Programme in India. In 1909 AD in Baroda City School medical inspection was started. During the colonial period there were some form of school health programmes in middle and high schools in every province. In a meeting of the Central Advisory Board of Health in July 1940 a memorandum was placed by the Punjab and Madras Government and An Educational Commissioner with the Government of India was appointed for teaching hygiene in schools and for medical inspection. Since the board found these two to be interrelated to each other and importance of these two recommend to appoint a special Committee. ('History of Medical Inspection of School Children and the Teaching of Hygiene in Schools' http://www.education.nic.in *accessed on 08/04/2015)*

In January 1941, the decision of Central Advisory Board of Health was informed to the Central Board of Education. Keeping in mind a committee was formed. On 3rd &4th November 1941 the committee met in New Delhi under the chairmanship of the Director-General, Indian Medical Service. They defined health not only free from disease but in a broader sense. The committee considered following main points for school children:

> "(1) the medical inspection of school children, (2) the treatment of the defects discovered, (3) the improvement of the nutrition of the pupils, (4) the provision of a reasonable standard of environmental hygiene, (5) the teaching, theoretical and practical of the principles of hygienic living, (6) physical education and (7) the development of healthy habits through the medium of corporate activities such as school camps and scout organizations." ('History of Medical Inspection of School Children and the Teaching of Hygiene in Schools' http://www.education.nic.in *accessed on 08/04/2015*; Baru, R .V 2008: 146)

The committee also elaborated about the number of visit to schools, its administration, follow up, record keeping and the nature of inspection in schools. Three types of inspection were recommended. These were:

"(1) The full routine medical inspection at specified ages, (2) the re-inspection of children found defective at such routine inspections and (3) the special inspections of children selected by the parent or the teacher for examination by the doctor in the intervals between the routine inspections. The extent of these special inspections will depend on the ability of the parents, and still more so of the teacher, to recognize those children who are failing to develop satisfactorily either physically, mentally or socially."('History of Medical Inspection of School Children and the Teaching of Hygiene in Schools' http://www.education.nic.in *accessed on 08/04/2015*; Baru, R .V 2008: 146*)*

The committee recommended that teachers of school should keep the record of height and weight of children and if there is any aberration that should be brought to the notice of medical officer who is entitled to school health inspection. Emphasis was given for training so that eye (refractive error), ear, throat diseases can be diagnosed properly. Even it was recommended that special arrangement for dental caries, malnutrition, adenoids, and tonsils should be there. Simple correction of eye and ear problem can be corrected in schools. ('History of Medical Inspection of School Children and the Teaching of Hygiene in Schools' http://www.education.nic.in *accessed on 08/04/2015)*

Here is the list of provinces which were having some form of school health inspection in undivided India.

**Table no.: 2.1 chronological evolutions of School Health Services in undivided India before Independence**

| Sl.no | Name of place/province | Year |
|---|---|---|
| 1. | Baroda | 1909 |
| 2. | Punjab | 1915 |
| 3. | United Province | 1919 |
| 4. | Bengal | 1920 |
| 5. | Bihar | 1920 |
| 6. | Bombay | 1921 |
| 7. | Madras | 1925 |
| 8. | Bangalore city | 1926 |
| 9. | Mysore | 1926 |
| 10. | Delhi | 1927 |

| | | |
|---|---|---|
| 11. | Hyderabad | 1935 |
| 12. | Peswar city | 1937 |
| 13.* | Tripura | 1946 |

**Source:** compiled from "History of Medical Inspection of School Children and the Teaching of Hygiene in Schools" http://www.education.nic.in (accessed on 08/04/2015

*this data is collected from key informant from Tripura. 2014

Part time Oculist and Dentist in New Delhi and Notified area were given in 1937 AD

In Calcutta a scheme was come in to force in 1928 .there three doctors were employed. They were part time basis. Voluntary service of Oculist and a Dentist was also there.

**After Independence-- Committee reports:**

After Independence in 1947 there was not much progress in the school health programme. Different recommendations were made by different committees to improve the school health services in India. In the following section role of these committees and their recommendations is discussed.

**Bhore committee:**

In1946 the Bhore Committee report mentions School Health Services. This committee gave details of what is the function of School Health Services, what would be the organization. Bhore committee clearly defined the function of health organization and education staffs. There is also mention about training for teachers and remuneration for those extra duties. The committee also mentioned in detail how to develop School Health Services and what organization should play the role in developing School Health Services gradually.

Role of different personnel involved in delivering SHP or those who are directly indirectly involved in the programme also defined in the report. Such as role of Medical Officer in primary unit, Public Health Nurse (PHN), role of parents and teachers are mentioned. Role of the administration and human force working in these administrative set up also was mentioned. The committee elaborated clearly the duties of School Health Services Programme:

> (1) Health measures, preventive and curative, which include (a) the detection and treatment of defects and (b) the creation and maintenance of a hygienic environment in and around the school and (2) measures for promoting positive health which should include: (a) the provision of supplementary food to improve the nutritional state of the child, (b) physical culture through

games, sports and gymnastic exercises and through corporate recreational activities and (c) health education through formal instruction and practice of the hygienic mode of life"(GOI 1946:29)

In this the first one was duties of health department and second was entitled to perform by teachers. The committee also recognized the need for specialist service in the school health service. So they have a suggestion of school clinic at the Headquarter of each primary unit. In which dental care, eye, ear, nose and throat diseases conditions are mentioned in which children suffer more.

**Sokhey Committee:**

This Committee mentioned School Health Examination and School Sanitation in the Rural Health Services. It is mentioned that for promotion of child health interest of parents and children can be aroused by the health examination of children, school health examination and baby show.

**Mudaliar Committee:**

This committee observed that in spite of having nutrition related diseases and poor health status of children there is no proper functioning School Health Services in the country. Though, some states have their own version of School Health Programme, but in a limited scale.

In the second five year plan there was plan for a National Integrated School Health Programme but this never was implemented. In urban areas Education Department through School Health League carry out School Health Programme for school students but this does not cover follow up or specialist services like eye, dental services. In rural areas there is no such programme except in some rural areas where Primary Health Centre is nearby.

Due to this Government of India in February, 1960 set up a Committee. This committee was set up to assess health & nutritional status of school going children and give suggestion to improve them. This committee recommended for inclusion of private practitioners in the delivery of school health services to schools. It was their view that it may not be possible for staffs of Primary Health Centre to cover all the villages so in other areas which could not be covered by Primary Health Centre's personnel there private practitioner from nearby town should be employed by providing per capita fees or some honorarium for the service they would provide to schools. The committee recommendation was:

"1. The Advisory Boards to be set up at the headquarters and district levels in States on which the Departments of Education, Health, Housing, Agriculture and Social Welfare, are represented, should play an important part in the developing policies and programmes connected with the health services for school children.

2. Each Directorate of Health Services should have a Bureau of School Health Services to plan and initiate School Health Service Programmes, to co-ordinate the activities of the Government, the local bodies and voluntary, organizations and to establish close liaison with the Education Departments in the States.

3. General hygiene and sanitation in school premises and their surroundings should be improved. Every school must have a source of wholesome water supply, sanitary facilities and regular and proper cleaning up of the class rooms and the school campus.

4. Officers of the PHC should consider it their duty to see that sanitary facilities in schools are adequately maintained.

5. The production of birth and vaccination certificates should be made compulsory for admission to schools.

6. Teachers should see to it that lists of students are prepared for revaccination after three years and such lists are made available to the medical officers of the PHC for necessary action.

7. The school staff should actively assist in inoculation of pupils at the time of epidemic.

8. The school feeding programmes being carried out in certain states should be watched carefully and steps taken in the light of experience to improve and extend them

8. a. Kitchen garden should be cultivated in a large majority of village schools for supplementing the menu for school meals.

9. The PHC staff may not be able to cater to the medical coverage of the school population except 20-25 villages. Therefore for the remaining portion of the block area the services of the private practitioners in the nearest town may be made use of either through a system of per capita fee or payment of an honorarium. These private practitioners may do periodical examinations and inoculation, while minor ailments may be attended to by the PHC staff and more detailed investigations may be done by the district hospitals, the mobile specialists and the ambulance services." (Report of the health survey and planning committee, vol:I section II, Summery of recommendation, 1961:14-15)

**Other Committees:**

Secondary Education Committee in 1953 stressed for school nutrition programme and need for it. In the year 1957 the WHO (World Health Organization) assisted school education project were set up.

In the year 1960 a committee was set up whose Chairman was Smt. Renuka Ray, to review the programme at National level. In the first phase (1962-66) the committee made some

gradual recommendation to expand the programme. They recommended that "School Health services should be developed in an area close to Primary Health Unit" and 40 primary school in rural areas, all primary school children in cities and all slum children should be covered.

In the second phase (1966-71) these services were extended to all primary schools both rural and urban areas.

Then in the year 1977 centrally sponsored National School Health Scheme was started and it was handed over to state Government in 1979 AD. To know the progress of School Health Programme which was implemented in various states Government of India MH&FW (Ministry of Health and Family Welfare) in 1981 established a Task Force. This Task Force recommends a project in the country on a pilot basis. A project proposal was given by NIHFW and School Health Division of the Central Health Education Bureau (CHEB). They even formulated a detailed guideline.

The states - Andhra Pradesh, Kerala, Tamil Nadu, Sikkim, Maharashtra, Gujarat, Pondicherry, Goa, Delhi, Punjab and Haryana covered comprehensive school health services. The task force reported that 14 states had put effort from their own budget to set up school health programme. Task force also reported that their work was not up to the mark. Except Delhi rural primary school children were covered by National School Health Scheme. This was a centrally sponsored scheme.

In the year 1988 there was a proposal for comprehensive School Health Service, Central Health Education Bureau; Directorate General of Health Services launched an Intensive School Health Education project in 1989. (books.google.co.in/books?isbn=9350258781 *accessed on 16/8/ 2014*)

The National Health Policy, 2002 gave priority to School Health Programme. This programme aims at positive health education. This positive health education is gained by providing regular health checkups, promotion of health seeking behaviour among children. This 2002 National policy give priority to a well dispersed network of comprehensive primary health care services. This service should be linked to health education. Their main motive is to promote "health promoting behaviour" among school children through awareness. They also gave emphasis on the girl child of rural area. The policy recognized involvement of various sectors to have a better health status outcome of citizen. For this

synergistic action the policy recognized the need of adequate nutrition, basic sanitation, safe drinking water, a clean environment and primary education.

## Programmes relating to child and maternal health:

From womb to birth and afterwards health of child is an important issue. So child health is not only the health of school children but includes preschool child also. In the mean time importance to maternal and child health also was given to reduce infant and child mortality and morbidity and maternal morbidity and mortality, health care for mother and children, adolescent. It is not that these problems are thought after independence but before independence also in the year 1880 in Amritsar Dais Training was established. After independence in the year 1952 Family planning programme was launched. Later on MCH (Maternal and Child Health) and family planning service incorporated. It now includes Universal Immunisation Programme also in it. MCH programme was later on known as Reproductive and Child Health (RCH-I) in 1997(15-10-1997) after International Conference of Population Development at Cairo in the year 1994and RCH-II was launched in 2005 (01-04-2005).

RCH programme give emphasis on maternal and child health, nutrition, safe abortion, adolescent health, RTIs and STIs and fertility regulation. In NFHS-2 infant mortality rate was 68 per 1000 live birth and maternal mortality ratio was 540 per 1000 live birth. In NFHS 3 infant mortality came down to 57 per 1000 live birth and child mortality rate from 29 in NFHS-2 to 18 in NFHS-3 in 2005 A.D

Under RCH –II components are Maternal Health, Population Stabilization, Newborn and Child Health, Reproductive Tract Infection (RTI), Sexually Transmitted Infections (STI), Adolescent Health, Initiative for vulnerable groups, Mainstreaming gender and equity, Strengthening Systems and Partnership. By providing wide range of services starting from contraceptive measure to nutritional needs, awareness of adolescent and also taking care of marginalized section of society of under this, the programme addresses health needs of not only mothers and children but also future generation of the country in a comprehensive manner. Newer RBSK programme also brought Reproductive, Maternal, Newborn, Child health and Adolescent health (RMNCH+A) under one umbrella in a comprehensive manner.

## NRHM and School Health Programme:

Before going to School Health Programme under NRHM, the structure and role of NRHM is discussed here.

Health of citizens is an important factor. For improving social, economic quality of life of citizens NRHM was launched on 12/04/2005.It was launched to correct the basic health care delivery system. It was launched in the year 12 Apr 2005 with the aim of providing effective health care to rural population throughout the country with special focus on 18 States. Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Madhya Pradesh, Orissa, Uttaranchal, Uttar Pradesh, Rajasthan and North Eastern states. It has also taken into consideration to take the indigenous health system into main stream health service.

NRHM tried to bridge gap in health care facilities, facilitate decentralized planning in health sectors .it converges with social sectors departments such as women and child development, AYUSH, *Panchayat* Raj etc.

**Objective of NRHM:**

The main objectives of NRHM are:

1."Reduction in child and maternal mortality

2.universal access to public services for food and nutrition ,sanitation and hygiene and universal access to public health care services with emphasis on services addressing women 's and children 's health and universal immunization .

3. Prevention and control of communicable and non communicable diseases including locally endemic diseases.

4. Access to integrated comprehensive primary health care

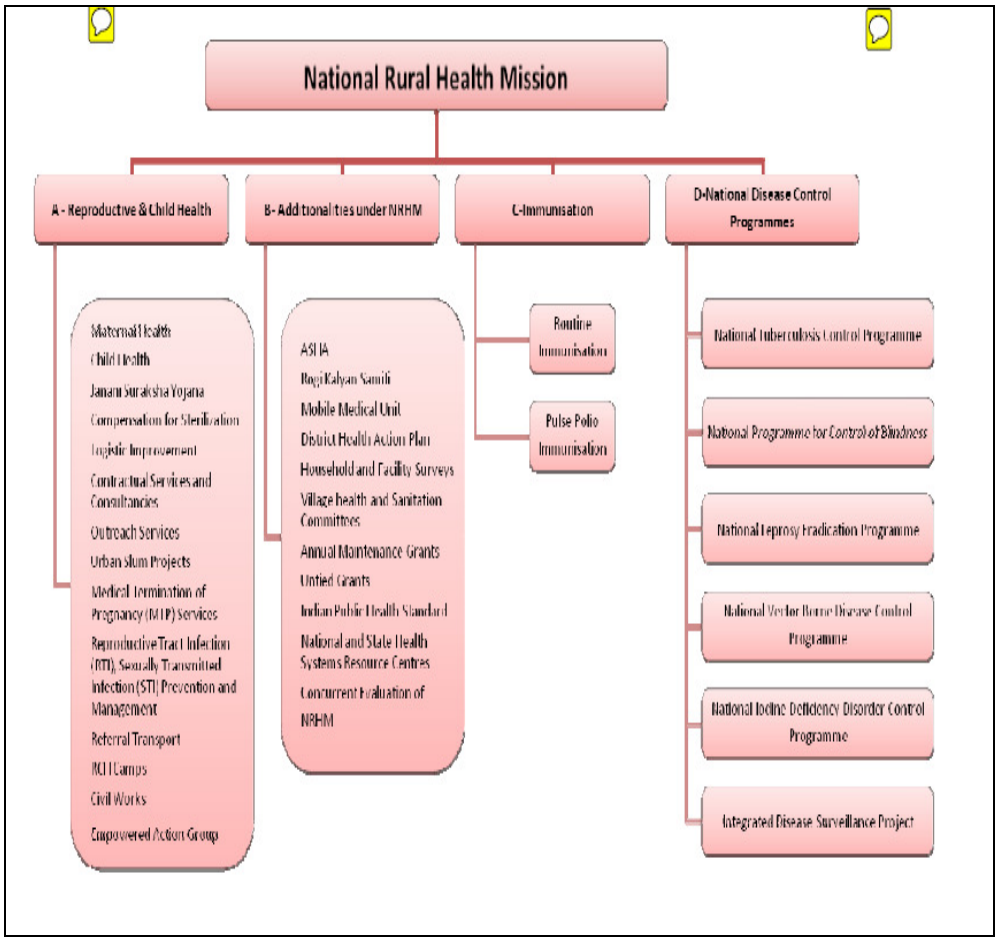
5. Population stabilization, gender and demographic balance

6. Revitalize local health tradition and mainstream AYUSH

7. Promotion of healthy life style. (report no. 8: 2009-10)

For attaining these objectives different programmes are covered under NRHM. These programmes are:

**Figure 2.1 National Rural Health Mission Programmes**




**Source:** Report No. 8 of 2009-10

**Organisational structure of NRHM:**

There is a Mission Steering Group (MSG) and an Empowered Program Committee (EPC). MSG is headed by Union Minister of Health and Family Welfare and is headed by Union Secretary for Health and Family Welfare. Functions of MSG are to approve financial norms for schemes and components of NRHM and periodical monitoring of progress of Mission. On the other hand EPC along with periodical monitoring can also have freedom to change financial norms approved by MSG within range of (+) 25%.

There is a Mission Directorate which is headed by Mission Director. It plans, implements and monitors mission activities and day to day administration. RCH-II and Immunization program are headed by respective joint secretaries who again are controlled by Secretary, Health and Family Welfare. Different programs are administered by respective Program Divisions headed by Director /Deputy Director General. They function under the control of Director General of Health Services. The disease control program divisions report to Mission Director through their respective Joint Secretaries.

**School Health Programme under NRHM:**

School Health Programme is a program of School Health Services of NRHM. It is the only public sector program which looks into the school age children. It focuses health needs of the children physical, mental, gives nutritional intervention counseling, yoga facilities, ensures good current and future health, better education outcomes and improves social equity. The services are provided in a cost effective manner. The implementation strategy defers from every state and every state has its own version. NRHM is implemented in decentralized manner components of the School Health Program.

The objectives of School Health Services are prevention of illness, promotion of health and well being of the students through:

1. "Early detection and care of students with health problems
2. Development of healthy attitudes and healthy behaviours by students
3. Ensure a healthy environment for children at school
4. Prevention of communicable diseases at school." (School health services, moh nd)

Health Service provisions under School Health Programme are:

a. Screening, health care and referral
b. Immunisation
c. Micro nutrient (Vit A & I, FA) Management
d. De-worming

e. Health promoting schools
f. Capacity building
g. Monitoring and evaluation
h. Mid day meal

**Screening, health care and referral:**

Screening is done for—

- General health
- Assessment of anaemia/nutritional status
- Visual acuity
- Hearing problems
- Dental check up
- Common skin conditions
- Heart defects
- Physical disabilities
- Learning disorders
- Behaviour problems

For taking health care basic medicine kit was provided for common ailments which are more prevalent in school going children.

Referral card was given to those who were referred to District or Sub-District hospitals so that priority is given to these cases.

**Immunization:**

- National immunization schedules
- One fixed day activity for immunization
- Information and education about these immunization

**Micronutrient management:**

- Weekly distribution of Iron FA (Folic Acid) tablets to school children with education about these. This distribution is done under supervision
- If Vitamin—A is needed that should be administered

**De-worming:**

- Biannual supervised de-worming programme in schools
- Prior to that information, education and communication should be there
- Siblings of the students also should be covered
-

**Health Promoting Schools:**

- Yoga practice, physical and health education
- Adolescent health education and counseling service
- Peer leaders who can act as health educators
- Health cabinets and health clubs
- First aid room, corners or clinics in schools (MoH&FW, Guidelines of school health programme)

## New form of School Health Programme under NRHM—RBSK:

School Health Programme under NRHM now has taken a different dimension. It is now known as RBSK—Rashtriya Bal Swasthya Karyakram. This programme not only covers school going children but also covers all the children from 0—18 years old. For taking child health care NRHM extended its service in a comprehensive manner. This programme addresses four "D", s --- Diseases, Deficiencies, Defects at birth, Developmental delays including disabilities. This programme also take care of Reproductive, Maternal, Newborn, Child Health and Adolescent Health Strategies (RMNCH+A).

The program was launched in Mahabalipuram, Tamil Nadu. An Action Summit was held from February 7-9, 2013 there.

In this program first level screening is done at delivery point through existing health facilities, medical officers, staff nurses and ANMs. From 48hours to six weeks the screening of new born will be done by ASHAs at home as a HBNC (Home Based Newborn Care) package.

Outreach screening done by Dedicated Mobile Health Team (DMHT) from each block level at *Anganwadi* centre (6weeks to 6 years) and Government and .Government aided school from 6-18 years of children.

Block has made its main centre. At least three Mobile Health Teams in each block will screen children from the villages of its jurisdiction. Depending upon the number of *Anganwadi* centre, children enrolled in school, difficult to reach areas the number of team may vary. The screening at *Anganwadi* centre will be done twice a year and in school once a year.

The Dedicated Mobile Health Team Consists of

**Figure 2.2**

**Number of Members of DMHT**

| S. No | Member | Number |
|---|---|---|
| 1 | Medical officers (AYUSH) - 1 male and 1 female at least with a bachelor degree from an approved institution | 2 |
| 2 | ANM/Staff Nurse | 1 |
| 3 | Pharmacist* with proficiency in computer for data management | 1 |
| *In case a Pharmacist is not available, other paramedics – Lab Technician or Ophthalmic Assistant with proficiency in computer for data management may be considered. | | |

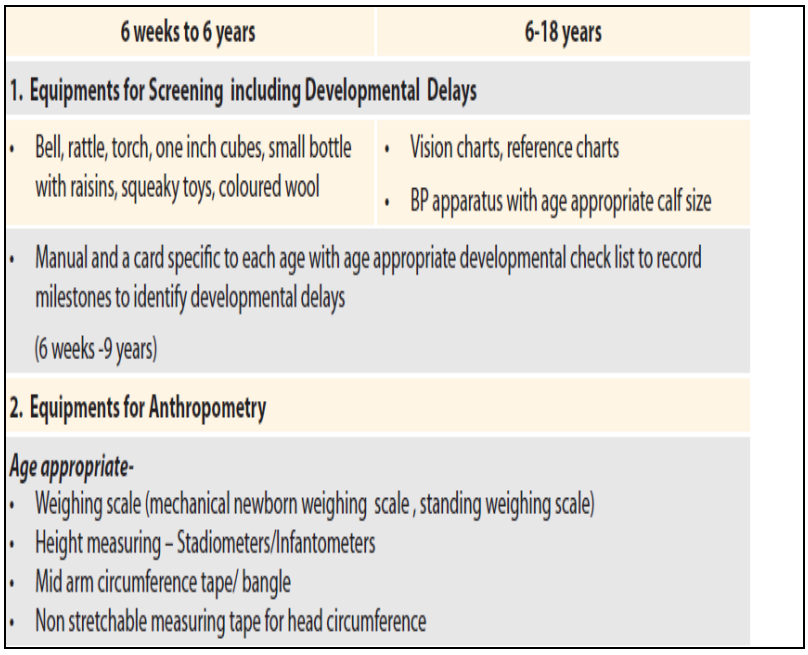
**Source:** Operational Guidelines, RBSK, MH&FW, GOI, Feb.2013

Provision of vehicle will be there for movements of the teams to *Anganwadi* centres, Government and Government aided schools. A tool kit also will be provided to the mobile health team members.

Composition of Tool Kit for Mobile Health Team

**Figure 2.3**

**Composition of Tool Kit for Dedicated Mobile Health Team**



| 6 weeks to 6 years | 6-18 years |
|---|---|
| **1. Equipments for Screening including Developmental Delays** | |
| • Bell, rattle, torch, one inch cubes, small bottle with raisins, squeaky toys, coloured wool | • Vision charts, reference charts<br>• BP apparatus with age appropriate calf size |
| • Manual and a card specific to each age with age appropriate developmental check list to record milestones to identify developmental delays<br>(6 weeks -9 years) | |
| **2. Equipments for Anthropometry** | |
| *Age appropriate-*<br>• Weighing scale (mechanical newborn weighing scale , standing weighing scale)<br>• Height measuring – Stadiometers/Infantometers<br>• Mid arm circumference tape/ bangle<br>• Non stretchable measuring tape for head circumference | |

**Sources:** Operational Guidelines, RBSK, MH&FW, GOI, February 2013

There are thirty selected health conditions for which screening, early, detection and free management will be done.

**Figure 2.4**

**Selected Thirty Disease Conditions**

| Identified Health Conditions for Child Health Screening and Early Intervention Services | |
|---|---|
| **Defects at Birth** | **Deficiencies** |
| 1. Neural Tube Defect | 10. Anaemia especially Severe Anaemia |
| 2. Down's Syndrome | 11. Vitamin A Deficiency (Bitot spot) |
| 3. Cleft Lip & Palate / Cleft Palate alone | 12. Vitamin D Deficiency (Rickets) |
| 4. Talipes (club foot) | 13. Severe Acute Malnutrition |
| 5. Developmental Dysplasia of the Hip | 14. Goiter |
| 6. Congenital Cataract | |
| 7. Congenital Deafness | |
| 8. Congenital Heart Diseases | |
| 9. Retinopathy of Prematurity | |
| **Childhood Diseases** | **Developmental Delays and Disabilities** |
| 15. Skin conditions (Scabies, Fungal Infection and Eczema) | 21. Vision Impairment |
| 16. Otitis Media | 22. Hearing Impairment |
| 17. Rheumatic Heart Disease | 23. Neuro-Motor Impairment |
| 18. Reactive Airway Disease | 24. Motor Delay |
| 19. Dental Caries | 25. Cognitive Delay |
| 20. Convulsive Disorders | 26. Language Delay |
| | 27. Behaviour Disorder (Autism) |
| | 28. Learning Disorder |
| | 29. Attention Deficit Hyperactivity Disorder |
| 30. Congenital Hypothyroidism, Sickle Cell Anaemia, Beta Thalassemia (Optional) | |

**Source:** Operational Guidelines, RBSK, MH&FW, GOI, February 2013

The Dedicated Mobile Health Team will refer the children to District Early Intervention Centre (DEIC) for secondary & tertiary level care according to necessity.

The Early Intervention Centre has to be in District Hospital. It acts as a referral centre for children who were screened for health conditions.

The DEIC consists of ----

**Figure 2.5**

**Composition of team at District Early Intervention Centre**

| Composition of Team at District Early Intervention Center | |
|---|---|
| **Professionals** | **Number** |
| Medical Professionals (Paediatrician -1, Medical Officer 1, Dental Doctor -1). | 3 |
| Physiotherapist | 1 |
| Audiologist & Speech Therapist | 1 |
| Psychologist | 1 |
| Optometrist | 1 |
| Early Interventionist cum Special Educatorcum Social Worker | 1 |
| Lab Technician | 2 |
| Dental Technician | 1 |
| Manager | 1 |
| Data Entry Operator | 1 |

**Source**: Operational Guidelines, MH&FW, GOI, February 2013

The fund is provided by the NRHM for management at tertiary level. The rate is fixed by the state Government in consultation with Ministry of Health and Family Welfare.

## Conclusion:

The evolution of school health services from pre independence era to till date came a long way. The need of proper school health programme is felt by everyone, but is really this programme has got that importance? Now even the school health service is subsumed within the Maternal and Child health component in the name of RBSK.

# CHAPTER III

# DENTAL/ORAL HEALTH PROGRAMME IN INDIA

## Introduction:

In the School Health Programme dental health always remained as a small component. In general health dental/oral health is not seen as important. In India for dental health some oral or dental health programme were proposed and taken into consideration but it always remain a neglected field and this proposal remain only in papers never been implemented. In the following section we review the evolution of the oral/dental health programme in India.

## Evolution of Dental/Oral Health Programme in India:

**Government's initiative:**

In the previous chapter we have discussed that there was provision of having a dentist in the school health service programme in Delhi and Calcutta.

Starting from the Bhore Committee Report there was hardly any mention of dental health programme or policy. The Bhore Committee recognized the need for dental college and dental council for regulations and three types of dental health personnel. He mentioned that there should be

1. Dental Surgeon
2. Dental Hygienist
3. Dental Mechanics.

The report also recommended establishment of dental colleges in Calcutta, Bombay, Madras, Lucknow and Patna. That time dentistry was unrecognized in India as a profession. First government regulation in India for dentistry was formation of Bengal Dentist Act in 1939 with the help of Dr. Rafiuddin Ahmed. Indian Parliament passed Dentist Act with the help of Indian Dental Association on 29$^{th}$ March, 1948. This act regulates the profession of dentistry in India. Jammu & Kashmir amended the Act on 1$^{st}$ July in 1955 and made it applicable for the state. (Indian Dental Association, Kerala State nd)

In the Sokhey Committee report there was mention of dental clinic in mobile medical unit for village health service as dental treatment is expensive and not accessible for the village people. Interestingly first dental college established in Calcutta in 1924 by Dr. R. Ahmed, this was also first in Asia. In 1933 in Bombay Nair Hospital Dental College started. It was named after Dr. A L Nair and run by MCGM (Municipal Corporation of Greater Mumbai). It is the only dental college in the world by a municipal authority. But there was no governmental initiative about the policy or programme of dental health of this country even there is no proper Dental Health Services.

Shrivastava Committee recognized the importance of dental service as a specialized service so the committee recommended to reform of the dental education and other paramedical education along with medical education. They only recommended setting up a Dental Council.

June 17th - 20th 1984 Indian Dental Association organized a workshop in Mumbai. They were worried about the increase prevalence of dental diseases in the country. IDA (Indian Dental Association) made a document on National Oral Health policy in the year 1986. There were two more National workshops by DCI (Dental Council of India) in 1991 and1994 in Delhi and Mysore respectively. National Oral Health policy was formulated than WHO (World Health Organization) focused its attention to oral health in the year 1994.

The Ministry of Health and Family Welfare along with WHO drafted oral health policy in a workshop held in January 5th to 7th 1995. Ministry of Health and Family Welfare appointed a core committee under the Chairmanship of honorary dental advisor. Draft on oral health policy was made and placed before the Central council of the ministry of health. This draft was discussed at the fourth conference of Central Council of Health and Family Welfare in October 11th to 13th 1995 and a 10 point resolution was taken. Ministry of Health and Family Welfare, GOI in the same year accepted National Oral health policy and included in National Health Policy.

"National Oral Health Care Programme" was launched as a "Pilot Project" in 1999 by DGHS (Directorate General of Health Services) and MOHFW (Ministry of Health and Family Welfare) and covered Delhi, Punjab, Maharashtra, Kerala and NE States for its implementation. Dental surgery department of AIIMS (All India Institute of Medical Science) was made the nodal agency for its implementation. The implementation strategies were:-

a. Oral Health Education by involving health workers, school children, teachers and mass media
b. Preventive Programme
c. Curative Service Programme (Kumar S, 2013: 171-178)

This project also gives importance of production of IEC materials for awareness generation, module formation for trainers like dental surgeons, Health workers and School Teachers.

The programme was divided into three phases for implementation purpose.

1. Developing the implementation strategies:

   For sensitizing dental personnel about the programme four regional and two national workshops were held in different parts of the country.

2. Training and re-orientation of the Dental Surgeons:

   To teach health workers and school teachers' dental surgeons from Government hospitals, from various parts of the country provided training and re-orientation programme and made them master trainers. In Arunachal Pradesh, Meghalaya, Manipur, Tripura, Assam, Delhi, Maharashtra, Punjab and Indian Railways workshops were held for training of master trainers.

3. Training of health workers:

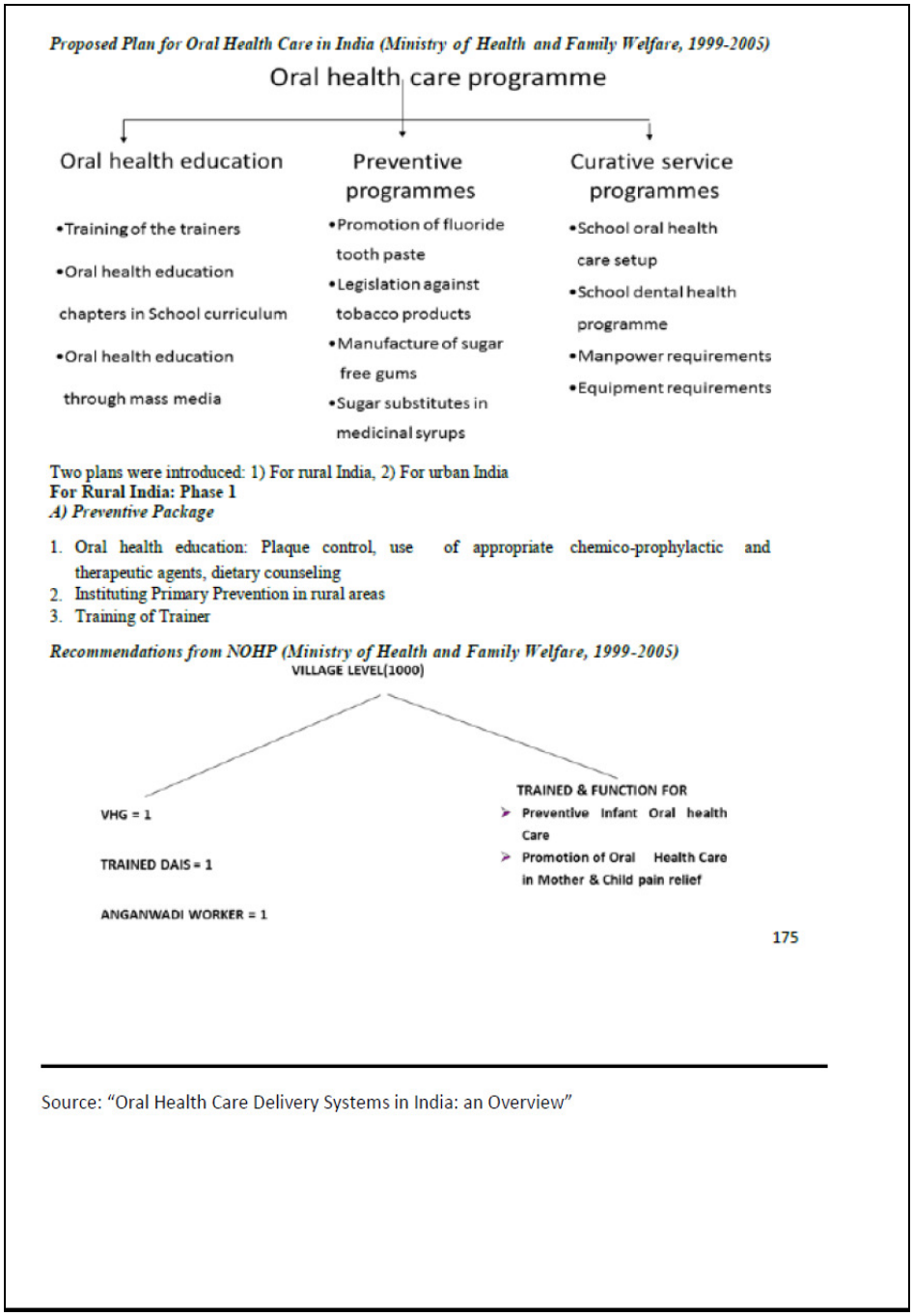
   For training of health workers video film:" *Kripaya Muskuraiye"* and pictorial material were given to health workers.

   For this IEC materials were published and distributed at different time in different places like various Government organizations, State Health Education Bureau, IDA branches and Dental Colleges, NGO's in English and Hindi language to make aware about the Oral Health Awareness Programme.

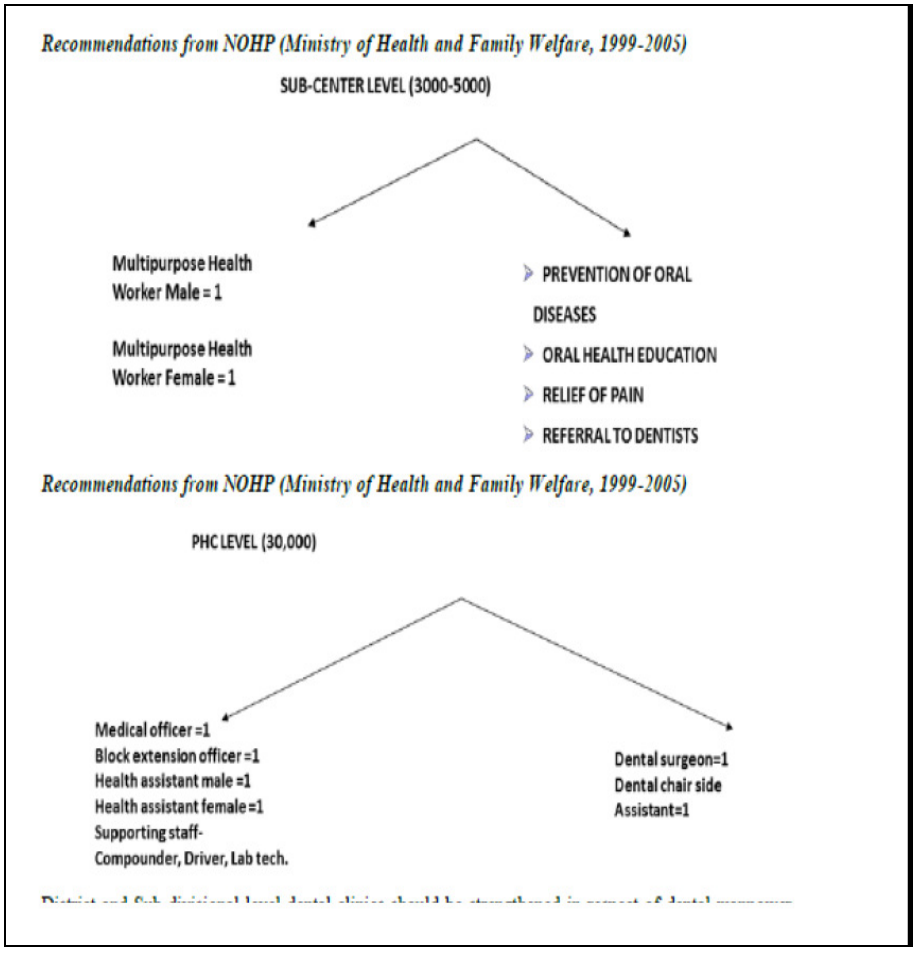
This programme was proposed in different level like in village, Sub Centre, PHC level. Two plans were planed, for rural and urban area. Proposed plan were like-

**Figure 3.1**

**Proposed Plan for Oral Health Care Programme**




Source: "Oral Health Care Delivery Systems in India: an Overview"




**Source**: Oral health care systems in India: An Overview

But this proposed plan was not implemented, and remains in paper only.

## Role of Colgate - Palmolive India and IDA:

There was less government initiative about oral health of population of this country but Colgate - Palmolive along with IDA was working on oral health in India since 1976. They were delivering oral health education and prevention through "Bright Smile, Bright Futures". They collaborated with IDA and dental professionals to reach school children across India. They also conduct a teachers training program along with IDA. They also introduced a programme "Adopt a school" to their employees. Employees are offered an opportunity to volunteer their time to teach oral hygiene procedure and importance of good oral hygiene in a simple, interactive manner to primary school children in municipal and government aided schools. They also fund research. Colgate—Palmolive (India) also sponsor almost all seminars, conferences, specialized workshops for dental professionals. In collaboration with IDA they also arrange Dental Education Programme all over the country. They even provide

scholarship for post graduation in dental profession other than giving prize and scholarship to top scorer in BDS courses in each year. (Colgate.co.in *accessed on 15/8/ 2014).*

On the other hand IDA with the aim for "Optimal Oral Health 2020" started addressing the "silent epidemic of oral disease". This aims at "prevention of oral diseases in school children, timely interception and treatment of oral disease. Appropriate oral health care for rural population". Their view is to improve the quality of life by organized effort to prevent oral diseases and by promoting oral health. So "National Oral Health Programme" is initiated by IDA. Under this Programme the programmes are:-

**(a) National Oral Health Card:**

This aims to give optimal oral health care to nation by offering a unique identification card, which offers a *"passport for oral health for a lifetime*". Under this National Oral Health Card different schemes are:

(i) Child Oral Health Card
(ii) Family Oral Health Card
(iii) Corporate Oral Health Card
(iv) Platinum Oral Health Card
(v) Special Privileged Card" (Indian Dental Association nd )

**(i) Child Oral Health Card:**

It is Oral Health Card for future generation. It is given to the children so that children can obtain timely preventive, educational or treatment services. Under this scheme children are divided into three categories, mild, moderate and high risk categories. Children whose parents have periodontal and tooth decay are recognized as high risk category. This card holder gets following benefits:

- "Online oral health status;
- Unique ID & password for each individual to login and view his/her reports online;
- It is a cost-effective way to save money on child's oral healthcare expenses;
- 20 % discount on all kinds of dental treatment;
- 1 free-annual dental check-up;
- Individuals can contact dentist( having IDA membership) for any oral health problems;
- A convenient Oral Health Credit Card". (Indian Dental Association nd)

**(ii) Family Oral Health Card**:

This card is given to the family from babies to adult. This card holder also gets above mentioned benefit except discount on all kind of dental treatment is 15 %.( Indian Dental Association nd)

**(iii) Corporate Oral Health Card**:

Early detection of system diseases and most cost effective oral health treatment for the corporate employee. This is a one-stop solution for dental health treatment for corporate personnel. He/she also get all the benefit except like family card holder they do not get convenient oral health credit card. (Indian Dental Association nd)

**(iv) Platinum Oral Health Card**:

This card is for elderly citizen and stressed "Teeth are for life". They also get all the benefit like others but discount for dental treatment is 20-25 %.( Indian Dental Association nd)

**(v) Special Privileged Card:**

This card is for disabled or mentally retarded people. As they have special health problem and they need special support for dental/oral health care and expert personnel to deal with them they have been given special privilege. They get 40% discount on any dental/oral treatment other than all benefit of IDA given to other card holders. (Indian Dental Association nd)

**(b) All India Dental Wellness Initiative**:

This initiative looks at the incidence and prevalence of oral/ dental diseases in the country. Take initiative to address those diseases and make proposal and forward and recommend that to Union Government to look after the problem by developing a healthy oral policy by integrating with National Health Policy. . (Indian Dental Association nd)

**MUSKAAN**:

"Muskaan"— is the Rural Oral Health Programme for rural area. It introduces preventive, interceptive, curative and educational oral health care. The rural people get a "Muskaan" oral health card. IDA also introduced free mobile dental clinic (van) for dental treatment in rural people. They educate *Anganwadi* worker and health worker about oral/dental diseases

through illustrations. The "Muskaan" card provides following benefits to the rural people for better dental/oral health:

- "Online oral health status;
- Complete oral health record book in local language.
- Every individual with or without dental problems is given dental check up for teeth and gums.
- The oral hygiene status is assessed as" poor - fair – good" and individuals are advised accordingly.
- 25 % discount on all kinds of dental treatment;
- 2 free-annual dental check-ups;
- A unique approach of guiding and advising on food intake and prevention methods are emphasized. Role of food in both causation and prevention of dental disease.
- Creating awareness on tobacco consumption (either as gutka or bidi) as a root cause of cancer.
- Distributing literature in local language on Common Dental diseases, their causes, symptoms, prevention, complications and treatment.
- Tooth brushes, tooth powder and other required medicines are distributed.
- Individuals can contact dentist( having IDA membership) for any oral health problems;
- A convenient Oral Health Credit Card.". (Indian Dental Association nd)

**(c) Oral Health Month:**.

It started in 2004 by IDA in collaboration with Colgate. Every year oral health month is celebrated in schools to increase awareness about dental/oral health.

**(d) Mumbai Smile:**

IDA collaborated along with Wrigley's orbit. They make aware common people about oral hygiene and importance of regular dental check-up. This program made Guinness World Record by conducting largest number of dental check up in 24 hours. . (Indian Dental Association nd)

**(e) Brush up Challenge:**

This was taken by IDA along with Colgate-Palmolive (India). This programme teaches people about brushing technique, material to use for brushing teeth, which mostly promote "tooth brush—tooth paste". "Most people brushes their teeth (Multiple Venues)"in 2007, October, 1, 77,003 people brushed teeth in 380 places in one day at one time and made Guinness World Record. . (Indian Dental Association nd)

**(f) Live Learn Laugh Programme:**.

"Live Learn, Laugh Programme" started in 2006, this program is for low income families supported by Freedom Dentaire International (FDI) and Unilever's Pepsodent brand and IDA. This teaches people the behavioural change i.e. brushing twice a day, for maintaining good oral hygiene. . (Indian Dental Association nd)

**(g) Smile Contest:**

It ensures perfect smile through brushing and flossing. This promote that perfect smile reflects personality and self - esteem.

**(h) School Oral Health Programme**:

Healthy Smile, Happy Smile. It is an informative program. It provides basic oral health information which is important for children. It Encourages children to take responsibility about their oral health and themselves. It also helps teachers to guide children and parents about good oral health and building good habit. It covers children from 9—14 yrs school going children. IDA in school dental health programme provide free dental check—up, sample tooth brush and tooth paste to students, leaflets for educational purpose. They also organize community based mega dental health camp.

It has:-

i. General Oral Health Guide
ii. Teacher's Oral Health Guide
iii. Teacher's Training Manual
iv. Parent's Oral Health Guide. (Indian Dental Association nd)

**(i) General Oral Health Guide:**

It encourages parents and teachers to be an oral health guardian. This encourages them to help children good oral health habit. So through school based program by interacting with children and parents their life can be influenced by teaching them about oral health. . (Indian Dental Association nd)

**(ii) Teacher's Oral Health Guide:**

The teacher is a leader in school and he / she can co-ordinate all the components of oral health program i.e., School Health Services, curriculum, environment complete oral health program includes

i. Classroom instruction

ii. Oral health check up

iii. Referral to dentist. (Indian Dental Association nd)

**(iii) Teacher's Training Manual:**

"The purpose of this manual is to help teachers to:

(i) Assess the oral health needs of the students and the school.

(ii) Provide an easy and up to date reference on oral health topics.

(iii) Know how to respond to various dental emergencies.

(iv) Assess overall oral health of the students and contact the IDA for oral health checkups and assessment." (Indian Dental Association nd)

**(iv) Parent's Oral Health Guide:**.

As parents are very close to the children providing oral health education to them especially mother is essential to teaching children about healthy habits and prevention of childhood tooth decay. Parent's awareness program includes lecture and demonstration, audio - visual presentation about oral health and made them aware about the relation between oral health and general health. (IDA, National Oral Health Programme).

## Conclusion:

The draft for implementation of "National Oral Health Policy" was written with the help of IDA. Implementation agency was AIIMS. Again IDA has collaborated with Colgate - Palmolive and all of them implementing the programme. So here question arises who are benefitted actually? Are the programmes really reaching to poor section of Society or in remote village? Though IDA has its own programme and initiative in its agenda for rural people does really those reaching to the rural people? Or only a programme on paper? There are only 2% dentists for 72% rural people. Who are those 2%? Are they all member of IDA? So what about their "Muskan" oral health card" benefit which IDA promise to provide rural people? Does really mobile dental clinic goes to villages and provide treatment to rural people? Who evaluates that? All the IDA programme shows that educating people about good oral health procedure that is brushing, flossing teeth etc. Do all the people have that affordability to do so? What about nutrition? People - especially children in India are suffering from malnutrition. Does not that have an effect on oral health? The Colgate

distributes “Colgate paste and brush” free to teachers and school children. They from the beginning of the professional career provide scholarship and prizes to would be dentist.

# CHAPTER IV

# TRIPURA--- THE STUDY AREA

## Introduction:

As my study area is Tripura, which is a small hilly state in the north-eastern region of India, often known as one sister among the "seven sisters" of N-E India. Here I looked on the historical and geographical background and demographic profile of Tripura, its health sector, achievement, and evolution of School Health Programme in Tripura from royal era to till date, role of Indian Dental Association in Tripura for development of Dental health programme.

## Historical and geographical background of Tripura:

Tripura – the fusion of two words—"*Tui"* means "water" and "*Pra"* means "near" in local "*Kokborok"* language, so Tripura means "near water". This meaning actually historically indicates the geographical boundary of Tripura in ancient time, which is the boundary, was than near Bay of Bengal. The geographical area during the reign of *Maharaja Dharma Manikya* was whole "Luchai" (Kuki) province, hilly area of west and south Manipur, middle and south Cachar, south of Srihatta ( Sylhet), south-east of Mymensing, east of Dhaka, whole Noakhali and Chittagong., (Singh 2013:113,114). Now Sylhet, Mymensing, Dhaka, Noakhali and Chittagong are in Bangladesh. During 1891 AD area of Tripura shrunk and became 2491sq mile (23*0'N latitudes to 28*16' and 90*36' to 91*39' E longitudes). Population of Tripura that time was 1782935. (Singh 2013:365). Tripura being one of the oldest princely states of India, is claimed by "*Rajmala"* (chronicles of Kings) to have ruled by*" Manikya Dynasty*" which is descended from *Yoyati* of Lunar Dynasty of *Mahabharata.* According to "*Rajmala"* Tripura was ruled by 184 kings starting from king "*Druhya"*. But historically evidence was got from the reign of *Maharaja Maha Manikya* who reigned as taking title "*Manikya"*. He ascended the crown 1400 AD. In between first ruler *Maharaja Maha Manikya* to last ruler *Maharaja Bir Bikram Kishore Manikya Bahadur* there were 35 rulers who ruled Tripura over a long period of 547 years.the Tripura which is now in Indian territory was known as "*Hill Tippearah"* and free from British invasion. Plain Tripura or *"Tippearah"* District (Chakla-Roshenabad, now in Comilla district of Bangladesh) was directly ruled by British Government. The last king *Maharaja Bir Bikram Kishore Manikya Bahadur* ruled from 1923 to 1947. He died on 17$^{th}$ May, 1947.

After his death according to the rule of kings the minor crown prince *Kirit Bikram Kishore Manikya Bahadur* becomes king. It was the wish of his father *Maharaja Bir Bikram Kishore Manikya Bahadur* to merge with Indian Union. But as he was only 13 years old *Maharani*

*Kanchan Prava Devi* on behalf of minor king becomes the Regent. She signed the Tripura Merger Agreement on 9th September, 1949. On 15 October, 1949 native princely state Tripura become a part of Indian Union. It got the status of "C" category state. That time chief commissioner was Sri Ranjit Ray, ICS. It got union territory status in November 1956 but did not have any legislative assembly. On May 1963 the Territorial Act was enacted in Tripura under the provision of the constitution of India (Art. No.239). The territorial council was abolished. In 1st July 1963 Tripura Territorial Council become Tripura Legislative Assembly. This status was continued till 1971 AD. On 21st January, 1972 Tripura got the statehood status.

Tripura also have an Autonomous District Council area known as TTAADC or Tripura Tribal Areas Autonomous District Council. This TTAADC Act was passed on 23rd March 1979 in the Tripura Legislative Assembly. After that TTAADC was formed in Indian Parliament in 1979 under the provision of 7th schedule. It came into being from 18th January 1982. But as it was found that 7th schedule could not address the demand of tribal people so on 23rd August, 1984, by the 49th amendment of Indian Constitution it was upgraded under the provision of 6th schedule and with effect from the 1st April 1985. The area covered under ADC is 68% of total state area. The total area of TTAADC is 7,132.56 Sq km.

Now geographically Tripura is located between 22*56' to 24*54' N latitudes and 90*09' to 92*20' E longitude. It is in the north-east of India. This hilly state is bounded in the three sides—North, South and West, by Bangladesh. It shares 53 km border with Assam and 109 km with Mizoram. NH—44 which is the lifeline of Tripura links Tripura with the rest of India through Assam in roadways other than meter gauge railroad which runs from Agartala to Lumding of Assam. The geographical area of Tripura is now 10,491.69 sq km. 60% of it is hilly and 2/3 of it is covered by forests.

**Administrative and demographic profile:**

Administratively it is divided into eight districts and 23 subdivisions and 58 blocks.

**Table 4.1 Demographic profile of Tripura**

| | |
|---|---|
| Geographical area | 10,491.69Sqkm |
| Population | Male –1,874,376 |
| | Female – 1,799,541 |
| | Total—3,673,917 |
| Density/sqkm | 350 |
| Sex Ratio | 960 |
| Literacy | Male—91.53% (1,501,369) |
| | Female –78.98% (1,303,414) |
| | Total –87.22% (2,804,783) |

**Source** -2011 census

Population of Tripura is 3.67 million, among them ST population of Tripura is 1,166,813 (31.75%) and sex ratio is 960 females/ thousands. Literacy rate of Tripura is 87.22%.

## Ethnicity and insurgency in Tripura:

There are 19 officially recognized tribes in Tripura. They are divided into major two groups

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**Table: 4.2 Tribes of Tripura:**

| Sl. No. | Aboriginal | Immigrants |
|---|---|---|
| 1. | Tripuri | Bhill |
| 2. | Reang | Munda |
| 3. | Jamatia | Oraon |
| 4. | Noatia | Santal |
| 5. | Lusai | Lepcha |
| 6. | Uchai | Khasia |
| 7. | Chaimal | Bhutia |
| 8. | Halam | |
| 9. | Kukis | |
| 10. | Garos | |
| 11. | Mog | |
| 12. | Chakma | |

**Source:** Compiled from *"Tripurar Upajati Nritya—Akti Samiksha, by Dr. Padmini Chakraborty"*

These aboriginal tribes migrates from Tibbet, uphill of Burma like Arakan hills tracts, Shan states and adjacent to China. The immigrants' tribes mostly came from Madhya Pradesh, Bihar, Orissa and West Bengal. The second category tribes migrated to Tripura mostly for economic reason. Many of them work in tea plantations, brick fields or produce *"Pan*". In Tripura tea garden were established under the supervision of *"Maharaja*" in the year 1916. There was no interference or involvement of British in this matter. Mainly Santal, Munda, Bhil, Oraon they work in tea garden.

Khasia's are the people who own betel leaf garden and their betel leaf is known as *"khasia pan"*. They are not related ethnically to any tribes of Tripura. They are Austro-Asiatic origin and they speak Mon-Khar group of language.

Linguistically these tribes can be divided into three groups. These are:

1. Bodo groups
2. Kuki-Chin groups
3. Arakan groups

In Tripura Tripuri tribes are majority in numbers. Their language is of Bodo group of language. The "*Kokborok" (meaning "dialect of people")* is the official language other than Bengali and English.

Tripura is inhabited by indigenous people as well as Bengali people. This state has mixed diverse ethnic groups. Plains are inhabited by Austro-Asian race and Mongoloid groups are in hills. Plains were also mix of Aryan, non Aryan and Dravidian. The Aborigine tribes were migrated from Yanftzekiang and Hoangho River of China. They migrated to Brahmaputra valley during 2000 BC. In Tripura they migrated during $7^{th}$ & $8^{th}$ centuries from Arakan Yoma hill tracts. They entered Tripura from North East, East and South East of that hill tract. They speak Tibeto-Burmese group of language which originated from three Indo-Chinese group of language. *(www.tripurainfo.com/login/Archives/sail.pdf)* Among the nineteen officially recognised tribes Tripuri are the majority tribe. A Salim Ali who was DGP (Director General of Police) of police in Tripura brought ethnic clash in Tripura by analyzing history and bringing different theoretical explanation of this conflict.

Historically Tripura was divided into two distinct parts. One is Hill *Tippearah* which mostly inhabited by different tribes and sub tribes who mainly resided in the hills and jungles. Another was Plain *Tippearah* (now in Bangladesh) which was plain land inhabited by mostly Bengali population. These two groups of people are different in ethnically, culturally. As I mentioned before that geographical boundary of Tripura extends to the Bay of Bengal and was ruled by kings. But gradually kings lost hold of those plain land area. During British rule plain land was ruled by British government but recognition of Tripura king was there. Hill Tripura was directly ruled by kings and was sovereign.

Policy adopted by monarchy of Tripura and in later period by democracy aggravated problem of ethnic clash in Tripura. In the year 1280 AD *Ratna Fa* or later known as *Maharaja Ratna Manikya* of "*Manikya Dynasty"* was defeated by Mughisuddin Tughril of Bengal and that time king invited many Bengalis of high caste to Tripura. Those Bengalis, majority were related to *"Baro Bhuiyans*" or "twelve war lords of Bengal". (Bhaumik 2012)

It is not only due to love of Bengali culture by kings of Tripura but also for administrative purpose thousands of Bengali people were given settlement in Tripura from $15^{th}$ century to 1515 AD. Brahmins from Bengal were invited by kings and land was given to them. Kings appointed many Bengali people in the royal court to run the administration and they were given land by kings to settle in Tripura. Indigenous people usually performed animism and Bengalis were mostly Hindus. King encouraged *Vaishnavism* in Tripura and they embraced this in the year 1470. Tripura kings lost their plain land to Mughals in between 1563 to 1783 AD. Due to this revenue collected from plain land was lost and kings imposed heavy revenue

on tribes of hill Tripura. Muslim cultivators were encouraged to come and settle in Tripura by kings and land was given to them as they were known to be experience in cultivation than tribes who mainly do *"Jhoom*" or *"Jhum*" (burn and slash) cultivation. At that time migration of Mog from Arakan and Chittagong also happened. Bengali was given the status of official court language by royals. *(*A Salim Ali 2011*)*

During 18th century Tripura king lost "Chakla-Roshnabad" (now in Bangladesh) to Nawab of Bengal. It was returned to them by an agreement that Tripura king has to pay tax for that"*Zamindari*". Due to Burmese invasion in Manipur refugees from there migrated to Tripura in 1755 and they were accepted by kings of Tripura and given land to them for settlement. (A Salim Ali 2011*)* not only that due to internal clash in the monarchy of Manipur, defeated prince of Manipur along with his huge number of followers fled to Dhaka of Bengal and later on they again migrated to Tripura where they were accepted by kings and given settlement nearby Agartala. (Respondent no.1, Public Relation Officer/ Health Education Officer, interview with researcher on 7/12/2014, Agartala)

East India Company invaded plain Tripura but *"Dewani"* of the plain land was given to king. East India Company brought new rules and regulation along with them which was "alien" to tribes. Even they increased tax.

Gradually land was decreased for tribes in Tripura. There was tribal unrest during the period of 1826 to 1836 and 1844 also. Because of this British started interfering in state matter. Rude policy by kings to collect taxes from tribes by appointing Maharajas "Guru" a Bengali Brahmin and a Bengali *dewan* lead to *Reang* revolt which was again supported by *Kukis* in the year 1860. *Jamatias* revolted against forced labour imposed on them during tax collection by tax collectors. These revolts were brutally subdued by kings.

British government by enacting Tenancy Act in 1885-86 gave Bengali people the tenancy right. This attracts Bengali people mainly cultivators as British government allotted land at a very low cost. On the other hand king banned *jhoom* cultivation in the year 1887. Even *jhoomia* rehabilitation scheme-1889 was gone to more non-tribals than tribals. Settlement policy of king to boost economy of the state resulted large number of influx of non-tribals. Large number of marshy land was given to them (1911-1921). Forest Act in 1903 by reserving forest access to forest to tribes was diminished. Tribes who mostly depend upon forest felt alienated. As tension arises among tribes king in the year 1913 allowed tribes to use forest and land were reserved for six tribes of Tripura. Due to communal riot in the year 1941 in Dhaka, 1946 in Noakhali riot large number of influx of non-tribals occurred and king of Tripura rehabilitate and settled them in Tripura. There were three major revolts, "*Reang*

revolt", "*Tripuri* and *Jamatia* revolt" in Golaghati and in 1949 revolt in Padmabil for education facility. These three revolts happened within 1943-1949 period.

Influx of refugees in a massive number started in 1950. Rehabilitation of those refugees was carried out. This influx was continued till 1971 Bangladesh war. The demography of Tripura changed. Tribes being majority in Hill Tripura gradually became minority. Following table shows decadal variation of population and percentage of tribes in Tripura:

**Table no. 4.3 Decadal variation of population in Tripura and percentage of tribe population**

| Year | Total population | % of variation | Total Tribal Population | % of Tribal Population |
|---|---|---|---|---|
| 1874- 75 | 74,523 | --- | 47, 523 | 63.77 |
| 1881 | 95,637 | 28.33 | 49,915 | 52.19 |
| 1891 | 137,575 | 43.85 | 70,292 | 51.09 |
| 1901 | 173,325 | 25.99 | 91,697 | 52.89 |
| 1911 | 229,613 | 32.48 | 111,303 | 48.47 |
| 1921 | 304,347 | 32.59 | 171,610 | 56.37 |
| 1931 | 328,450 | 25.63 | 203,321 | 52.00 |
| 1941 | 513,010 | 34.14 | 256,991 | 53.16 |
| 1951 | 639,028 | 24.56 | 237,953 | 37.23 |
| 1961 | 11,42005 | 28.71 | 360,070 | 31.50 |
| 1971 | 15,56,342 | 36.28 | 450,554 | 28.95 |
| 1981 | 20,53,058 | 31.92 | 583,920 | 28.44 |
| 1991* | 2335484 | 34.30 | 853,345 | 36.54 |
| 2001 | 3199,203 | 16.03 | 993,426 | 31.1 |
| 2011 | 3671032 | 14.75 | 1,166,813 | 31.8 |

**Source**: "Tripura: Ethnic conflict, Militancy and Counterinsurgency" by S Bhaumik, 2012(up to 1981),

* from 1991-2011 data is compiled by researcher from census reports,2015

Author S Bhaumik here argued that anyway tribes of Tripura would have been minority over the period of time due to normal course of migration. But partition of India made the process earlier.

Over the years political scenario of Tripura took a new turn. Tripura being merged with India, communist party had a great influence in the political front of Tripura, other being the congress. In the mean time educated young tribe youth started agitation for education of tribe people against monarchy and different organization came up to fight for "tribal cause". These organisations formed during 1930s to 1940s. Bengali professionals formed *"Jana Mangal Samiti(JMS)"*. It's aim was to get "full responsible government" but not in democracy, under monarchy. Another organization *"Jana Sikhsa Samiti" (JSS*) was formed by educated young tribal affluent sons of mainly Tripuri tribes. Their main aim was to campaign for literacy among tribes. Other than this they also fight for other problems like shifting cultivation, poverty and superstitions. Communist party of Tripura also supported their movement. As a result mass number of tribe people also supported them. (Ghosh 2003)

So when *"Tripura Praja Mandal" (TPM)* was formed in 1946 platform was formed for Communist and JSS leaders. They also had same aim that is to get "full responsible government". But this movement was opposed by royals and Bengali bureaucrats who worked under royals. Their movements were against Bengali bureaucrats not against common Bengali people or not against removal of Bengali from Tripura. But royal of Tripura in this point tried to divide leaders of TPM in communal line. But their demands were not fulfilled so communist leaders started armed struggle against monarchy. *"Tripura Rajya Ganamukti Parishad"* was formed in the year 1948. Tribal chiefs, large number of tribal youth, peasants supported their movement which was against police and military oppression. They demanded:

> "a) A government by popular vote, b) end of "*Dewani*" rule, c) abolition of *"taitung*" (system by which villagers were compelled to carry luggage, etc., of the officials), d) abolition of all kinds of taxes, e) land reform, including giving lands to tribal *"Jhumias",* f) end of police atrocities and end to detention without trial and g) release of political prisoners."(Ghosh 2003)

Leaders of this party were worried about the opinion which was there among tribals. These two major trends were

"Tremendous discontent with *"Dewani*" rule and police atrocities and second was surge of anti Bengali sentiments". (Ghosh 2003)

In the mean time royal person named Durjay Kishore Debbarman formed *"sengkrak*" which started *"Bangal khedao*" movement in 1949. They also opposed merger of Tripura with Indian Union. ". (Ghosh 2003)

In spite of efforts to divide communally tribal leaders of TRGMP could maintain harmony and solidarity among tribals and nontribals in the state. To them "tribal question" was social, political development of the natives, and economic development of tribes who were exploited by their rulers for centuries.

In 1967 when Tripura Upajati Juba Samiti was formed a new form of extremism and ethnicity developed. The leaders of this was educated young mostly Christians, new generation tribals. Due to the increase of literacy rate among tribes new middle class was formed who were exposed to different ideology of other states activities when they went to schools, colleges of Shillong, Guwahati Imphal. Insurgency and tribal movement of other states like Manipur, Nagaland, Assam, and Mizoram inspired them to form same movement in the state. TUJS got moral as well as technical support from insurgents other North Eastern states. Dinesh singh committee, which investigated Mandwi massacre and communal riot in 1980, June, also found out connection of Tripura insurgency to Mizo National Front or United Liberation Army of Mizoram. Their main issues were conversion of tribal from Hindus to Christianity, using Roman script for' *Kokborok*," which was using Bengali script, girls should be wearing only traditional Tripuri Dress, not using the service of Hindu priest as well as tribal priest together but only using tribal priest, worshiping only tribal god and goddesses instead of both.

In the political front Congress was supported by mainly Bengali population and they were known as "party for uprooted refugees", where as CPI (M) was known to inclined with tribals. As a result when election occurred CPI (M) lost election. But Congress took several policies which were against tribal benefit and which also lead to tribal militancy. Policies during 1960s to 1970s taken by Congress government were:

"Bengali refugees were allowed to settle down in tribal reserve land, not filling reserved job vacancies, not spending money meant for tribal development".(Ghosh 2003)

But TUJS could not gain its popularity among tribes. In the 1970s Tripur Sena party was formed by Bijoy Kumar Hrankhawl. During 1973 to 1975 this party performed several

militant activities mainly in mixed populated areas and reserved areas. “Aamra Bangalee” another party was formed by Bengali people to counter this party or their activities.

TUJS movement become strong when Congress government took some decision like tribal reserve forest was reduced by 300sq mile in 1968, declaration of Bengali as official language; here I like to mention that Bengali was declared court language during the kings in 18th century .Dambur Hydel Project which again displaced many tribal families.

Tripuri extremism again turn a new turn when in 1978 Tripura National Volunteers were formed. It was formed by Tripur Sena. They started “reign of terror” and ethnic violence during 1970-1980s.

Misuse in the name of ethnicity was happening as tribal leaders when given government facility and benefit they were giving up their “tribal cause” and started joining in the main stream. Congress which was basically known as a pro –Bengali party in Tripura leaders of these insurgent groups started helping the party and even aligned with them. During1977-1987 Left government took some initiative for tribals. Those are like, formation of autonomous district council, opening of schools and medical centres in the hills, recognition of *Kokborok*, restoration of alienated tribal land, filling of vacant reserved post, initiation of community development programmes and co-operatives in interior and rural areas for tribal and artisans, decentralization of power to locals through Panchayats etc. Everyone thought that TNV and TUJS will support that, but surprisingly opposed left government and aligned with Congress. All other terrorist outfits like, those who were formed breaking down of other outfits due to leadership issue were fighting among them. These outfits are like, Army of Tripura Peoples’ Liberation Organization, Tripura Resurrection Army and many other small groups. All Tripura Tiger Force (ATTF) also have three splinter units. They started fighting among themselves over the territory they control. Their common issue was not address rather terrorism become an industry in Tripura during 1980s to 2000. They usually abducted people and asked for huge ransom. So marking their territory for this cause has become a major point. They were fighting among themselves over economic and political issue. National Liberation Front of Tripura (NLFT) another outfit started forcefully converting tribes to Christianity which many of the tribes groups opposed. This lead to inter-tribal clashes. Not only Bengali or nontribal but also tribal people are also abducted and killed, their girls are being molested and raped by rebel group of outfits. All Tripura Tiger Force (ATTF) and NLFT started targeting their political enemies and they were getting benefit when their “friendly” party came into power. (Ghosh 2003)

Another factor also worked here as some authors and journalist has mentioned (Debnath,J) link with outsider agent or foreign involvement and role of Christian Missionaries. It has

been seen that terrorism was flourished in Christian dominated areas and not a single Church or other services which was operated by church in remote places hampered by terrorism whereas government run organization were literally collapsed in insurgent prone areas. Only Bengali Liberation Front, and Jamatia and Reang who revolted out of NLFT they attacked church. They also worked under foreign support. Their base camp was in Chittagong Hill Tracts, and they used to get help from Islamic fundamental groups or foreign governments. Whoever government come into power in Bangladesh has not changed the scenario. (Ghosh 2003)

From above it can be said that ethnicity and insurgency which has long history in Tripura is not only outcome of socio- economic, like poverty, land alienation and eviction, deprivation, unemployment and under employment, cultural or ideological or demographic issue but other factors also played role like"Emergence of elite leadership, political competition and manipulation, a strong sense of perceived discrimination, easy accessibility to foreign support, and geographical location". (Ghosh 2003)

**Effect of insurgency in Tripura:**

Due to insurgency there were several complications which had effect on lives of people. In interior areas government organization like schools, medical centers literally collapsed. Government and government aided schools were closed, midday meal facility was hampered, co-operative and banks which were opened to help poor villagers and tribal artisans and farmers were not functioning properly, medical facility was hampered as medical centers were not in proper functioning state, business and other work activities were hampered. State run programmes were not operative.

Common tribal people, mostly poor, small peasants, landless tribes were the most sufferers due to this unrest. These are the people who depend upon state welfare activities. For Bengalis they constantly live in tension and horror. Mutual trusts among common people of both were hampered. But in the capital city both are residing side by side peacefully.

From above discussion and from field study done by researcher problem of insurgency and disruption of work was also come out.

## West Tripura District

As my study area is West Tripura District of Tripura here is the administrative and demographic profile of this district.

**Table no. 4.4 Administrative profile of West Tripura District:**

| Name of Subdivision | Name of Rural Development Blocks | | Urban areas | |
|---|---|---|---|---|
| | ADC | Non ADC | MC Area | Nagar Panchayat |
| Sadar | | Dukli | Agartala | |
| Mohanpur | Hezamara | Mohanpur | Mohanpur | |
| | Lefunga | Bamutia | | |
| Jirania | Mandwi /Mandai | Jirania | | Jirania |
| | | Old Agartala | | Ranirbazar |
| | | Belbari | | |

**Source:** Pilot study (August: 2014)

As my study area is West Tripura District here some facts about this district. It comprises of 950sq km. This district has three subdivisions. These are Sadar, Jirania and Mohanpur. There are nine blocks. Agartala is the Headquarter.

**Table: 4.5 Demographic profile of West Tripura District:**

| | |
|---|---|
| Geographical area | 950Sqkm |
| Population | Male -4.66.152 |
| | Female—4,52,048 |
| | Total – 9,18,200 |
| Sex ratio | 970 females/thousand male |
| Density of Population | 974 |
| Rural Population | 5, 77,453(53%) |
| Urban Population | 4, 10,753 (42%) |
| BPL | Rural—62% |
| | Urban –30% |
| SC | 23% |
| ST | 22% |
| OBC | 25% |
| General | 26% |
| Religious Minority | 4% |
| Literacy rate | Male—94.04% (3,93,423)<br>Female – 88.01% (3,57,973)<br>Total – 91.07% (7,51,396) |

**Source:** 2011 census

Most of the rural Population is BPL category. This consists of 62% of the population.

In Human Development Index (HDI) Tripura ranks 6 among the eight North- Eastern states according to 2004—05 data. (Human Development Index of North –Eastern States).

In 2001, overall HDI of Tripura is 0.59. According to Tripura Human Development Report (THDR), 2007, West Tripura District ranks in HDI 0.61

## Achievement in health sector:

From statehood till 2012 achievement in health

**Figure: 4.1 Achievement in health sector in Tripura**

**ACHIEVEMENTS AT A GLANCE: 1972-2012**

| Subject | 1972 | 1978 | 1998 | 2012 | Remarks |
|---|---|---|---|---|---|
| No of Medical Colleges | Nil | Nil | Nil | 2 | Out of 2, one is Govt. Medical College and the other is managed by a Society constituted by the Govt. |
| State level Hospitals | 2 | 2 | 6 | 6 | These includes 1(one) Ayurvedic and 1(one) Homeopathic Hospital. |
| District Hospitals | 2 | 2 | 2 | 2 | 1(one) more is under construction. |
| Sub-Divisional Hospitals | 7 | 8 | 11 | 11 | 2(two) more are under construction. |
| Community/Rural Health Centers | 2 | 2 | 10 | 14 | Another 6(six) are under construction. |
| Primary Health Centers | 22 | 29 | 73 | 77 | Another 33(thirty three) are under construction. |
| Health Sub-Centers (Allopathic) | 103 | 228 | 539 | 719 | Another 206 are under construction & 96 more will be constructed. |
| Dispensaries (Homeopathic) | 7 | 7 | 65 | 77 | |
| Dispensary (Ayurvedic) | 2 | 2 | 32 | 36 | |
| Pharmacy College (RIPSAT) | Nil | Nil | 1 | 1 | |
| B. Sc. Nursing College | Nil | Nil | Nil | 1 | Located at Tripura Medical College & Dr.BRAM Teaching Hospital, managed by a Society constituted by the State Govt. |
| Paramedical Institute | Nil | Nil | Nil | 1 | Managed under PPP model |
| Nursing Training Institute (GNM) | 1 | 1 | 2 | 2 | |
| Auxilary Nursing Training Institute | Nil | Nil | 2 | 2 | |
| Blood Bank | 1 | - | 5 | 7 | 6 Govt. units and 1(one) at Tripura Medical College. |
| Blood Storage Centers | Nil | Nil | Nil | 7 | |

| Subject | 1972 | 1978 | 1998 | 2012 | Remarks |
|---|---|---|---|---|---|
| Extension of Tele-Medicine services to rural areas through GBP ,Cancer & IGM Hospitals | Nil | Nil | Nil | 17 | 7(seven) more unit are being set-up. |
| Tele-Ophthalmology services through IGM Hospital | Nil | Nil | Nil | 40 | Proposal are there to extend services in 5(five) more Blocks. |
| Number of Medical Officers | | | | | |
| i) Allopathic | - | - | - | 731 | |
| ii) Ayurvedic | - | - | - | 53 | |
| iii) Homeopathic | - | - | - | 51 | |
| Number of Dental Surgeons | - | - | - | 39 | |
| Number of Specialist Medical Officers | | | | | |
| i) Allopathic | 40 | 77 | 145 | 269 | |
| ii) Ayurvedic | - | - | - | 20 | |
| iii) Homeopathic | - | - | - | 13 | |
| iv) Dental Surgeons | - | - | 5 | 06 | |
| Number of Staff-Nurse | - | - | 737 | 1516 | |
| Para-Medical Staff | - | - | - | 2167 | |

**Source:** Health Care Services in Tripura, Government of Tripura, Health and Family Welfare

**Health Infrastructure of Tripura**

| Particulars | Required | In position | Sh |
|---|---|---|---|
| Sub-centre | 903 | 719 | 184 |
| Primary Health Centre | 135 | 79 | 56 |
| Community Health Centre | 33 | 12 | 21 |
| Health worker (Female)/ANM at Sub Centres & PHCs | 798 | 1169 | * |
| Health Worker (Male) at Sub Centres | 719 | 543 | 176 |
| Health Assistant (Female)/LHV at PHCs | 79 | 155 | * |
| Health Assistant (Male) at PHCs | 79 | 140 | * |
| Doctor at PHCs | 79 | 119 | * |
| Obstetricians & Gynaecologists at CHCs | 12 | 0 | 12 |
| Pediatricians at CHCs | 12 | 0 | 12 |
| Total specialists at CHCs | 48 | 0 | 48 |
| Radiographers at CHCs | 12 | 7 | 5 |
| Pharmacist at PHCs & CHCs | 91 | 92 | * |
| Laboratory Technicians at PHCs & CHCs | 91 | 72 | 19 |
| Nursing Staff at PHCs & CHCs | 163 | 1098 | * |

**(Source: RHS Bulletin, March 2012, M/O Health & F.W., GOI)**

## School Health Programme in Tripura:

Tripura was a princely state. Even "*Maharaja"* of the state thought about the health of his people.

History collected from different retired people in health services and school education services reveals that in Tripura first hospital was set up by '*Maharaja Radhakishore Manikya Bahadur'* ( reigned from 1896-1909 A.D) in 1903 A.D. That time royal physician was Sri Sarat Chandra Deb Chowdhuri. The name of the hospital was than 'Victoria Memorial Hospital', now renamed as 'Indira Gandhi Memorial Hospital' (IGM). That time at Dharmanagar and Kailashar( now subdivision) LMF( Licentiate of Medical Faculty) doctors were there. Some of them qualified as MBBS later on. During the reign of 'Maharaja' Dr. Phani Bhushan Das was posted in V.M hospital. He along with Dr. Khagen Das was posted there. Dr. Khagen Das was qualified as LMF doctor.

After Independence of India in 1947 Tripura merged with Indian Union. '*Maharani Kanchanprava Devi'* was Reagent than (1947-1949) on behalf of child king 'Kirit Bikram Kishore Manikya Bahadur' as his father '*Maharaja Bir Bikram Kishore Manikya Bahadur' (reigned from 19/08/1908- 17/05/1947)* died. Tripura joined with India on 15$^{th}$ October 1949 A.D.

During 1946-1948 A.D. (50's decade) vaccinators used to go to schools and used to administered small pox vaccination. Even during the reign of 'Maharaja' this programme was there. In Umakanta Academy', in Dhaleswar school (both are in Agartala) now 'Kamini Kumar Shingh Memorial School', vaccinator used to go and administered vaccine (in these two schools mainly children from royal family and children of court members of kings used to study).

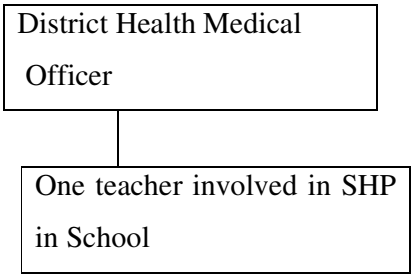
During 1953-1954, 1955, 1956 there were Basic Education Programmes. Health check up in schools used to be done from that time. Mainly teachers were involved that time. There were health record card. This card was known as CRC or Cumulative Record Card. In that card there were column for weight, height, general health, eye, teeth, ulcers in the mouth etc. Mainly primary school teachers used to record these in the card. (Respondent no. 2, Ex. Director of School Education, interview taken by researcher on 03/12/2014 at Agartala)

Occasionally medical officers used to visit the schools. They even visited hostels also. Mobile health units used to come and visit schools and check for diseases. Especially in Saturdays in the schools there used to be health check up for students. Teachers were responsible for that work. This work was voluntary. Even in primary curriculum there were health and physical education.

In the 60's decade there were selected schools where health examination used to be done. At least one teacher used to be involved in the School Health Programmes. During the last

period of 1960's and first period of 1970's School Health Medical Officer was Dr. U. N. Ray. As there were only one district not so many districts like now he was the only 'District Health Medical Officer'. If there were any problems students were referred to Dr. U.N.Ray. (Respondent no.1, Public Relation Officer/Health Education Officer, interview was taken by researcher on 7/12/2014, Agartala)

**Flow chart 4.1Structure of School Health Service in 1960-1970**

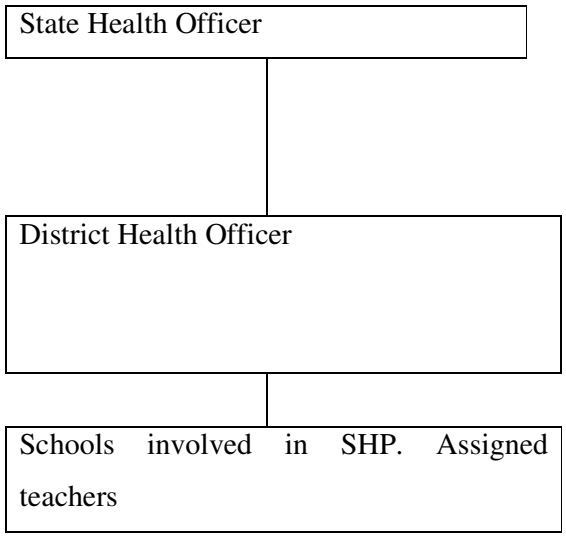



The structure was like this.

During the period of 1970-1980's there were State Health Education Bureau. In this set up there used to be a State Health Officer and then District Health Officer. District Health Officer was responsible to deal with all matters about health.

The structure was like-

**Flow chart 4.2 Structure of School Health Service in 1970-1980**




In the School Health Programme teachers and students used to be present. There used to be a survey and according to that what type of diseases are present in that area that was discussed and measures to control that, availability of services for that diseases were discussed in the programme.

In the 60's decade immunization programmes used to held in villages and schools were also covered. Vaccines were given mainly for six diseases. i.e. DTP( Diphtheria, Tetanus, Pertusis), small pox, BCG etc. (one name could not be remembered by respondent). Vaccinators were assigned for that work. Later on in 1960's vaccinators were trained for multipurpose work and they were designated as MPW (Multipurpose Worker). New form of post arrived. There was new training which was known as Multipurpose Workers training. So the name for new post was MPW. They used to cover schools that time i.e. during 1960's. This vaccination work was continued even in 80's decade also. They also teach in villages and schools about safe drinking water, like how to get pure drinking water and how to disinfect that water or purify water.

In the 1980's that is from 1st March, 1980 MDM (Mid Day Meal) programme was launched for children of class I to V in Government and Government Aided schools. That time dried

food (*chira, muri,* biscuits or locally available fruits) were provided in primary schools. From 15th August 1995 "National Programme of Nutritional Support to Primary Education" (NP-NSPE) was launched by central government. Whole country was covered in this scheme. From 2003 state Government started providing cooked food to the children of primary schools i.e. class I to V. Later on in the year it was extended up to class VIII students' i.e. Upper primary level. School Education Department provides Iron and Folic Acid tablets (IFA) to all children of schools in collaboration with Health Department. This is covered under Mid Day Meal Programme.

In the mean time in Tripura School Health Programme changed. From 1999 the service was given in the School Health Programme were

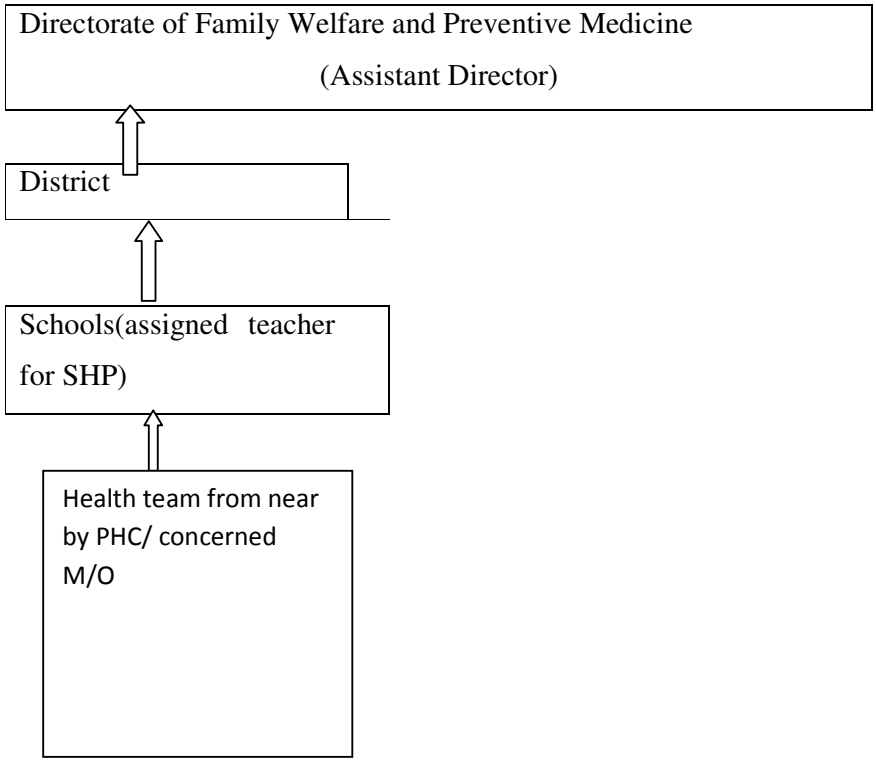
- Awareness
- Treatment of minor illness
- If major illness is present they were referred to the PHC in which jurisdiction schools were present
- Checking of Refractive Errors and supply of glasses to those students if there is any problem
- Dental health check up
- Maintenance of School Health Card

The School Health Team used to go from nearby PHC. Schools were covered by the PHC in which jurisdiction schools were present. For Dental check up the students were screened and send to nearby PHC or CHC where dental surgeon is present. That time usually dental surgeon was not present in PHC's due to unavailability of dental surgeon. Medical officer from nearby PHC used to go to the schools. Visit of dental surgeon was occasional in the schools. Every month schools used to send report to district and district to state. In state there were two Directorates. Directorate of Family Welfare and Preventive Medicine used to deal with School Health Programme. Usually Assistant Director was assigned for that. (Respondent no.3, Assistant Director of Directorate of Family Welfare and Preventive Medicine, interview taken by researcher on 01/11/2014 at Agartala)

After 2005 when NRHM was launched the School Health Programme was taken over by NRHM. This is discussed later.

Structure of School Health Services during 1999 AD

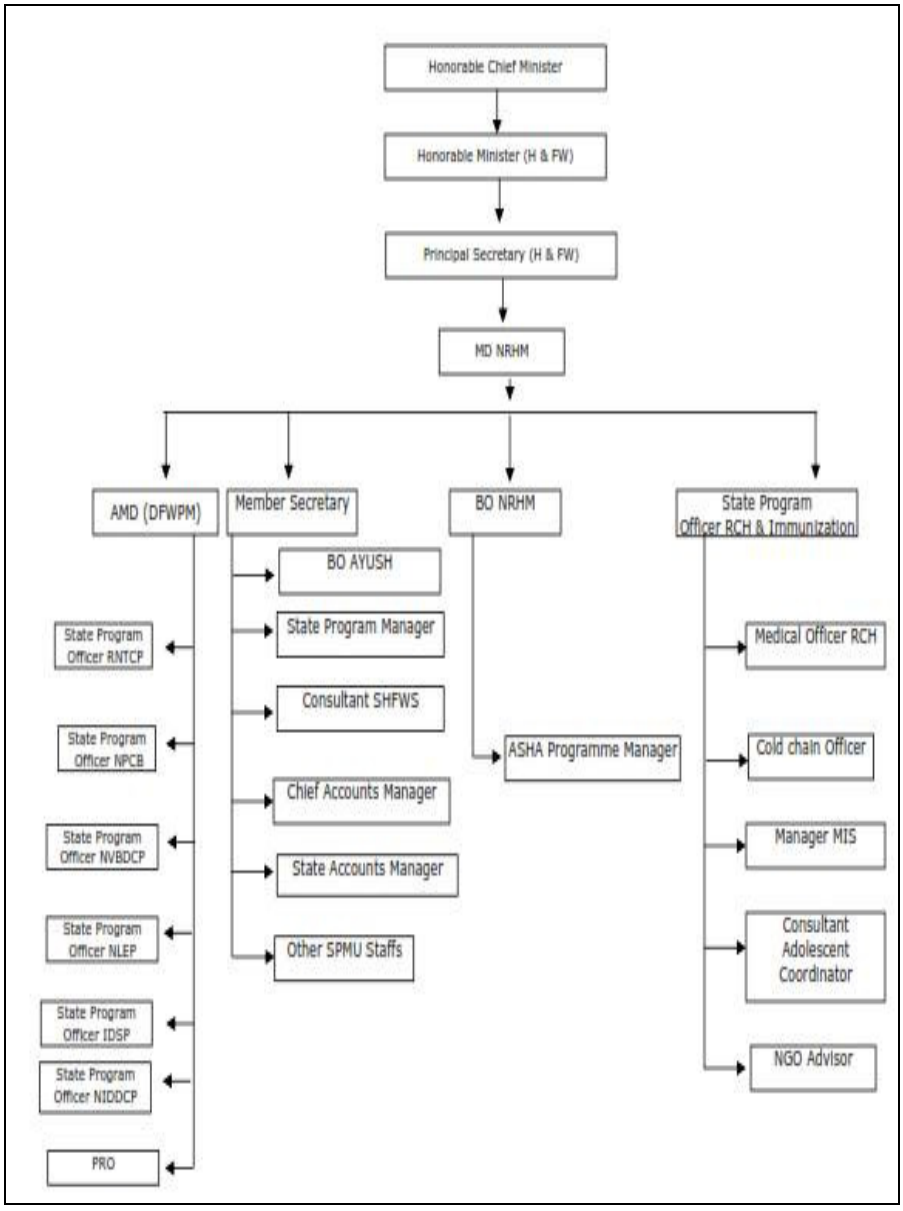
**Flow chart 4.3 Structure of School Health Service in 1999 AD**



## NRHM in Tripura:

NRHM---National Rural Health Mission along with other North –Eastern states started its journey from the 12/04/2005 in this state also. The structure of NRHM in Tripura is –

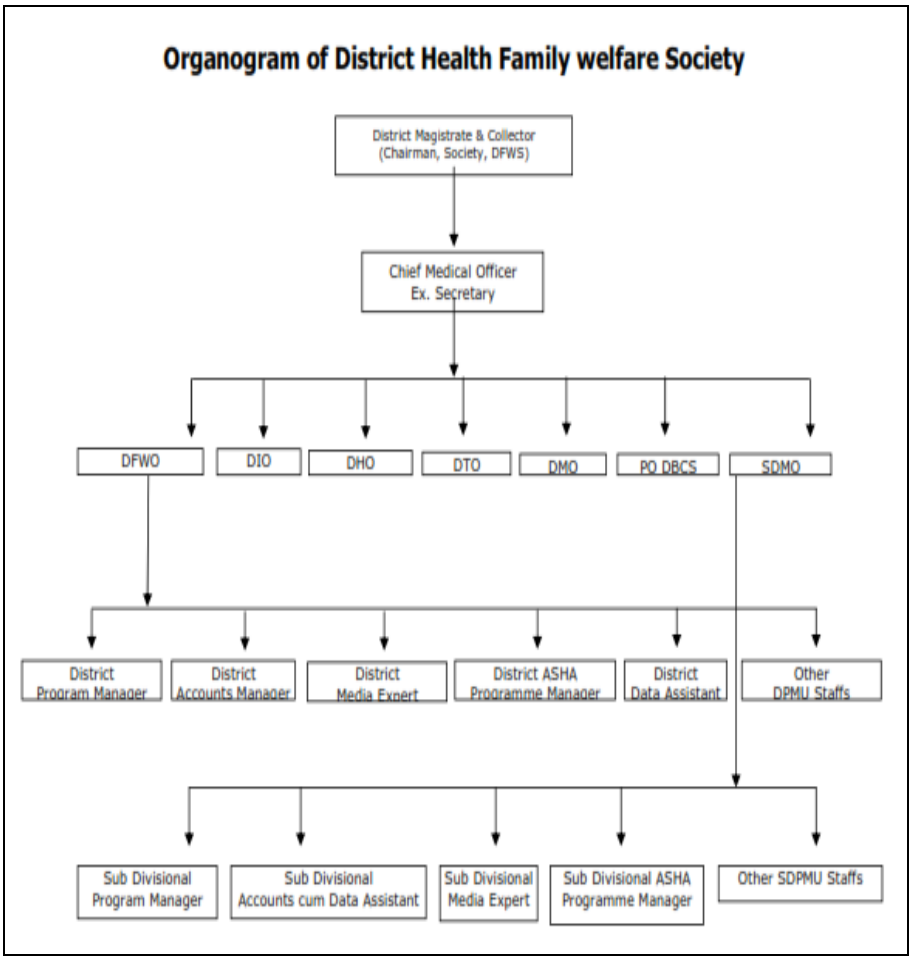
**Figure: 4.2 Administrative structure of NRHM in Tripura**




Organogram of State Directorate of NRH

**Source**: NHM, GOI

**Figure: 4.3 Organogram of District Health and Family Welfare Society**




**Source:** NHM, GOI

**NRHM and the School Health Programme:**

School Health Programme is running in Tripura under NRHM since its launch in 2005. This programme is implemented in all Government and Government aided schools for health check up of school children from 6—18 years old enrolled in schools. It was addressing three "D"s—Deficiencies, Diseases and Disabilities through screening, treatment and referral.

Pharmacist, laboratory technicians, dental surgeon, MPW/MPS's, in some cases M/O's, group-D staff, sometimes ASHA of that area, or ASHA facilitator, some schools Adolescent councilors attended School Health Programme. Later on Ayurvedic/AYUSH doctors were instructed to attend at least twice a year in School Health Programme. *(Order No.F.3 (5-275 FWPM/SHFWS/2013*)

In Sub Centre level Sub Centre Committee which includes local Panchayat members and Pradhan, along with MPW/MPS of that centre used to plan and evaluate the School Health Programme, Programmes for adolescent etc.

Screening, treatment and referral were done for different diseases. Referral was done to nearby PHC/CHC in which jurisdiction the school is situated. The health team used to go from PHC/CHC. The personnel from local Sub Centre used to take date for SHP from school authority by discussing with them and M/O I/C of PHC.

Recently from 2014 Government of India launched a new programme named RBSK—Rashtriya Bal Swasthya Karyakram. School Health Programme which was going on previously subsumed in this programme now. In Tripura this programme started from January 2014. This programme address health related problems not only school going children but they cover also newborn babies. Children from 0-18 years are screened for four "D"s --- Diseases, Deficiencies, and Defects at birth and Developmental delays including disabilities.

In Tripura 15 health subdivisions are there. In all subdivision level one Dedicated Mobile Health Team is approved in last year. Eight more team is approved in 2014—2015 by GOI. 15 teams are working in Tripura now. In West Tripura District one team is in position. As my study is on ongoing School Dental Health Programme in School Health Programme under NRHM, about RBSK in later chapter this will be discussed elaborately.

## Formation of IDA in Tripura and its role in Dental Health Programmes:

IDA- Indian Dental Association the association of dental surgeon founded much later in Tripura. The initiative was taken by Dr. Partha RoyChowhduri, a dental surgeon who was in State Government service. There was dental surgeons working in the Health Services but no association or no executive bodies were there to look after their demands. Dr. Dey (no one could remember his full name as researcher interviewed) was the first dentist who worked in Tripura Health Services before Tripura got statehood status. He worked in the '60, '70's decades. He was LDS- Licentiate in Dental Science. After him first B.D.S- Bachelor of Dental Surgery qualified dental surgeon, who worked in Tripura Health Service was Dr. Utpal Bhattacharya. Along with him and Dr. P. Roychowdhuri and some other like minded dental surgeon thought about establishing a dental association in Tripura. They met in a Restaurant in Akhaura road near Jackson gate. This was then famous restaurant in Agartala named "*Nirmala Restaurant*" (Now nonexistent). Those seven dental surgeons --- Dr. Partha Roychowdhuri, Dr. Utpal Bhattacharya, Dr. Samir Ranjan Dattachowdhuri, Dr. Pranab Kanti

Datta, Dr. Sanjib Kar, Dr. Amalendu Bikash Ray (late), Dr. Tapan Kumar Chowdhuri (late), met there and in that meeting birth of IDA-TSB (Indian Dental Association-Tripura State Branch) happened. That was the beginning of 1981. So now recognition is required from the central IDA office. To get recognition all initiative was taken by Dr. P. Raychowdhuri. He went to Vellore in a meeting of central council of IDA. Central council accepted this IDA-TSB branch in 29th November in the year 1981. That time G. R. Bhat was the General Secretary of IDA. (Respondent no.4, Dental surgeon, interview was taken by researcher on25/11/2014 at Agartala)

First President was Dr. (late) Amalendu Bikash Ray (Dr. A. B Ray) and first Honorary Secretary was Dr. P. Roychowdhuri in IDA-TSB. From 1981 to 1990 this branch got some remarkable achievements. Among those some are designation of Government dental surgeon from "dentist" to "dental surgeon", removal of anomaly of pay with the Medical Graduates.

The IDA-TSB also performs some philanthropic activities in the state of its own. Every year they organise Mega Dental Health Camp in the state in different places. They also perform School Health Programmes on special day like Oral Health Day i.e. on 20th March, National Dentist Day i.e. on 6th March etc. on their own. Dental surgeons also take part in health camps organised by NGO's or some other private organisations like "*Shyamsundar* Jewellery Houses". They performed such programmes in some villages. Those NGO's or private organisations invite them to participate. IDA-TSB also organise some oral health awareness camp to schools, Anganwadi centres or Orphanages.

From the part of Colgate they send some assessment card to some selected dental surgeons to evaluate oral health of children and patients. But Colgate does not support them in any financial matter to hold any oral health camp or such. (Respondent no.5, Dental Surgeon, Secretary, IDA-TSB, interview was taken by researcher on 01/09/2014)

Recently, from 2015, those who are members of IDA-TSB and posted in different PHC's of Tripura, organise Dental Health Programmes in schools as instructed by IDA--TSB. They take medicine collected from other doctors or physician samples. Those Dental Surgeons visit schools after completing their assigned duty in respective PHC's. They mainly screen and make aware about oral health to students and treat minor dental problems. If any surgical intervention is needed or further treatment is needed they refer children to respective PHC's or CHC.

## Conclusion:

Tripura is a land locked small hilly state in North-Eastern part of India. It was ruled by Kings before emergence with Indian Union. Policies of royal administration have great influence in its ethnicity, its related problems till today. Being a multi lingual multi ethnic state related to these matters also have effect on programmes.

From statehood in 1972 to till date health service of Tripura travelled a long road. Along with other parts of India related programmes on health also implemented in Tripura. Among those School Health Programme is one, which not only implemented by government but also during the era of royals some kind of arrangement was there for school children by royals. Setting up of biomedical institution also was done in royal era which shows kings of Tripura were well aware about health.

IDA-TSB which is set up to look after the benefit of dental professionals in Tripura also contributes its share for looking after the dental health needs of people by conducting some programmes not only different parts of state but also for school children also.

This chapter gives a glimpse idea of historical geographic background of Tripura and its problems, health sector, programmes related to health sector, role of IDA-TSB in dental health programme in the state. As Tripura is the study area of this study in later chapter, how it's all these factors influence the study that will be seen.

# CHAPTER V
# CONCEPTUALISATION
# AND
# METHODOLOGY

## Introduction:

This chapter is divided into two parts. First part deals with understanding the general health status of school going children in different parts of India especial focus giving on impact of nutrition on dental health of school going children, programmatic aspect and prevalence of dental caries in India. From these literature reviews conceptualization of the work is gained and research question is also formed.

Second part deals with the methodology section. From above mentioned conceptualization broader objective and specific objectives are taken out. Keeping in mind the objectives tools are made, samples are selected and research process is done.

## General Health status of school going children in different parts of India:

Usually children start to go school at the age of 4-5 yrs and finishes around 18 yrs. According to NFHS-2 data most children suffers from diarrheal diseases and respiratory diseases. India being a developing country still most of its children suffers from malnutrition and anemia. In NFHS-2 data less than three years age children 47% are under weight which indicates short and long term under nutrition. 46% are malnourished (stunted), 18% are underweight and 23% are severely stunted. This also shows that 16% children are thin (wasted).

In NFHS-3 data shows that in under the age of five children almost 48% are stunted and 43% are underweight. According to the height for age 24% and according to weight for age 16% are undernourished. 20% children under five of age suffers from wasting in India. Though there are no data for school going children in NFHS but several studies done across the country reveals the health status of children. Outcome of nutritional status are different diseases like anemia, Bitots's spot, skeletal changes, dental diseases like –late eruption of teeth, mottled enamel, dental caries etc.

Study from Karnataka, Jnukuruba Primitive tribe of Mysore district showed that school children suffers from various grades of anemia. Anemia is considered when hemoglobin concentration is less than 12g/dl in the children. 175 children aged 6-10 years are considered for the study. The result shows that 77.71% children suffer from various grades of anemia. Here anemia is graded as mild, moderate, severe. This study also reveals that 26.29% suffers from mild anemia, 36.57% suffers from moderate anemia and 14.86% suffers from severe form of anemia. (Pravakar 2009).

Another study in Kanchipuram district of Tamilnadu also showed prevalence of anemia in 8-16 years school going children. 900 students from four schools were selected. These four

schools were government schools. For detecting anemia in school children WHO standard was used. Prevalence of anemia is 52.88% among 8-16 years of school going children. Here BMI was used to measure overweight, underweight and obese. 44.9% are children having obesity is anemic, 55.9% children having underweight are anemic and overweight children anemic are 43.1%, even 51.3% children having normal BMI also having anemia. So prevalence of anaemia is more in underweight children. (Sudhagandhi, B et al 2011)

On the contrary Cross sectional study done in Punjab, in 6-15 years of school going 863 children to assess nutritional status by using Height weight and BMI showed that maximum children are healthy. This is followed by underweight and obese or overweight. (Singh A. P 2014)

In an observational cross-sectional study in one public school of Mandya district of Karnataka shows various symptoms of malnutrition. Study is done on 484 children of 6-12 years school going children from rural area. Nutritional status was measured by clinical examination and measuring weight and height. These were compared with the standard of National Centre for Health Statistics (NCHS) and Indian Council of Medical Research (ICMR) standard. Overall prevalence of underweight is 30.3%, stunting is 27.9%, the symptoms of malnutrition includes pallor 25.4%, koilonychias seen in 11.8%. These are the symptoms of anaemia.

Hair changes i.e. sparse hair or lusterless hair or de-pigmented hairs were seen in 3.9%.

Eye changes are seen in the form of bitot's spot (2.1%), conjunctival xerosis in 20.7% children. This is due to Vitamin A deficiency.

In this study even teeth changes were also noted i.e. prevalence of dental caries is seen 28.3%, and enamel mottling is seen 3.9% children.

Even skeletal changes were seen in 1.4% children. (Shivaprakash and Joseph 2014)

The health and nutritional status school going children studied in Patna (Kumari.K 2005) showed that low income group of families daily supply of nutrients are less than middle and upper income group. This study included 700 school going children of Patna municipal area. Age groups of children are 6-11 years. Height, weight and arm circumference was taken to study the growth pattern of children under study. This was again compared with the standards of National Centre for Health Statistics (NCHS). Vitamin A intake of this income group is less. 61.80% male and 59.78% of females received vitamin A less than 55% of RDA (Recommended Daily Allowance). This also shows average height of children is also lees than the recommended standard by NCHS. Even some amount of nutritional deficiency also seen in the higher income group of students.

Food consumption and nutritional assessment done on Hisar District of Haryana on 7-9years school going 200 rural children shows that food consumption of cereals, fats, oils, sugar, jiggery, green leafy vegetables, milk and other milk products, roots and tubers, other vegetables and fruits are lower than recommended. Here nutritional status is measured by height in cm and weight is measured in kg. This is compared NCHS and ICMR standard.

Calculation of malnutrition is done by Gomez classification of weight for age; height for age is done by Waterloo classification. Malnutrition is graded as normal, moderate, severe.

This study shows that 54.11% school children of that area is stunted, 55.5% are underweight and 11% are undernourished as BMI for age classification. (Vandana and Dahiya 2012)

Another study done in Varanasi shows that socio-demographic character plays a role on children's nutritional status. Here 816 students from rural Varanasi area are taken for the cross-sectional study. Age group of students was 5-12 years.

Study shows that those children who are residing in joint family 52.6% of them are underweight, and those who are under weight are also stunted. Literacy also has effect on the nutritional status of children. 62.6% children are underweight in this study whose father was illiterate and mothers having graduation and more degree has less prevalence of underweight children. Socio-economic status also plays a role in the nutritional status of children. Here category class5 parents have 60% underweight children and in class2 category 35.7% children are underweight. Underweight children in the category of SC (Schedule Caste) are 67.3%, OBC are 45.2% and others are 27%. (Kaushik, Mishra and Singh 2012)

In a comparative study done on urban area of Janshi, in primary school going children in the age group of 5-11 years old shows that nutrition status of municipal school going children is poor than the convent going children. So author shows that socio-economic status plays a role in the nutrition of children. (Ranjana Singh et al.2010)

Another study done in North Bengal, using Gomez classification and Waterloo classification for stunting and underweight, shows that normal nutritional status gradually decreases with age. In the study according to Gomez classification 100% malnutrition found in 12+ age and lowest in 6+ age( 48.9%) and according to Waterloo classification malnutrition is 94.86% in 12+ age and 30.58% is 5+ age. (Manna et al. 2011)

In Paschim Medinipur district of West Bengal nutritional status of preschool children is more than the school going children. The study using WHO classification, 165 children were taken from 1-14 years age group. It is seen that 33.9% children suffer from severe and moderate underweight, stunting was 26.1% and 19.4% was wasting. In this case boys suffer more than the girls. (Bisai, Bose and Ghosh 2008)

Malnutrition not only effects student's general health but also has effect on psychological health and in turn has an effect on social, economical and in learning process also. School health programme which address health and nutritional aspect of children in a different manner. Nutrition aspect is given to the Education department where as health related programme are dealt with health department. But health and nutrition go hand in hand. Health is not only the physical well being but also social, psychological well being also.

As my study is related to dental health programme of school children in School Health Programme, how general health status affect on dental health status in children it can be evaluated.

## Dental health status of children:

From above studies the general health status of school going children can be seen. Even different studies also showed nutritional effect not only in general health status of children but also dental health status of children.

Studies from different region of world showed that there are relation between malnutrition and dental diseases. Study from Bangladesh *(*Masuma P et al 2012) Howrah district of WB, India (Chatterjee and Bandyopadhyaya 2012) showed that malnourished children have more dental caries. Even eruption and exfoliation of tooth depends upon nutritional status of children (Dahiya et al 2013) in India (Gurgaon, Haryana), (Psoter 2008) in Haitian children. Those studies showed that malnourished children have late exfoliation of deciduous teeth and late eruption of permanent teeth. Study done in Guatemala (Sweeney, Saffir and Leon 1971) showed that 3$^{rd}$ degree malnourished children have more prevalence (73.1%) of linear enamel hyperplasia than 2$^{nd}$ degree malnourished (42.9%) children.

All the above studies showed that there are relation between dental diseases and nutrition. Even Vitamin D has an effect on gingival bleeding and anti-inflammatory effect on it (V P Hiremath et al 2013).

## Studies about the dental health programme in school:

Programmes related to oral or dental diseases are mainly for the purpose of screening and referral and making aware of children about oral health and hygiene. Even studies also support this. To know the impact of Oral Health Education Programme directed only to maintain oral hygiene and oral health practice of children. Studies like (Shenoy and Sequeira 2010) in Mangalore city, (Arjun Gauba et al 2013) in Chandigarh Private School, (D'Cruz

and Aradhya 2013) in Bangalore City, (Chandrashekar et al 2012) in Hyderabad City, (Chachra et al 2011) in Chandigarh and Punchkula, (Goel, Shehgal and Mittal 2005), all showed that after a period of intervention the oral hygiene practice of children changed. They have better oral hygiene practice according to the authors, some of them are taught by professional, some teachers or NGO. It comes into focus that short interval and frequent awareness by teachers is more fruitful than infrequent professional education about oral health (Chandrashekar et al 2012.). Almost all literature has one common conclusion that intervention about the DHE (Dental Health Education) has important impact on Knowledge and Practice (KAP) of oral hygiene procedures, which is mostly standardized as fluoridation of tooth, at least twice brush with tooth brush and paste/powder, duration of brushing, dental check up visit twice a year.

Mostly these studies are done in urban settings. Only two studies of mentioned type of schools. Socio-economic conditions of children are also not known.

## Prevalence of dental caries in school going children:

Whereas studies from Chidambaram (Moses , Rangeeth and Gurunathan 2011), shows that in school going 5—15 years children prevalence of dental caries is more in lower socio-economic strata. Overall prevalence of caries is 63.83% in lower socio-economic strata shows 80.4% dental caries. In Nainital, Uttaranchal in rural areas caries prevalence among 7—12 years is 77.7 % (Grewal, Verma and Kumar 2009).Prevalence of dental caries 6—10 years urban school going children is 67.9% in urban and suburban area of Varanasi District of UP, India showed in the study (Chaturvedi et al 2012). Another study in Sundarban area of West Bengal also showed that Dental Caries prevalence is more in lower income group children and having more siblings' i.e. 72% than higher income group (Datta and Datta). Even study done on poor locality of Lahore city and Cantonment area shows almost similar prevalence (71%) of dental caries in 5—14 years school going children (Ali et al 2012).

These finding are similar to the findings of National health survey done on 2004 in India, caries prevalence in that survey was that 51.9% in 5 yrs old children, 53.8% in 12 yrs old children and 63.1% in 15 yrs old children

.

## Conceptualization and research question:

Studies done on effect of Oral Health Education Programme or Dental Health Education to children taking consideration that they have less idea what is oral hygiene means. They have standardized modern biomedical way of cleaning and using material as knowledge of having good oral health hygiene. Other means of taking care of oral hygiene is not taken into consideration. Whereas study done by department of Botany, Lakhimpur College, Cotton College and Guwahati University in Majuli, Assam find out different herbal plants and their parts are used by the people of Majuli for dental diseases and oral hygiene practice. Authors Anil Bora et al (2012) interviewed local people, like family heads, healers, and old experienced and knowledgeable people and found out that 23 plants and their different parts are used in different dental/oral diseases conditions. They are also used for oral hygiene practice. The question arises what than knowledge means? Don't the children have knowledge of good oral hygiene? Whereas studies clearly show that they clean and wash their teeth. All the studies above are done in urban setting and only two studies mentioned type of school. So socio - economic condition of the students are less known, whereas the School Health Program is targeted in rural and urban children from all socio - economic background. Another interesting thing is that no studies have been done on North Eastern states of India whereas NRHM started in that region initially.

We have seen that prevalence of dental caries is more than 60% in school going children. What are the causes other than maintaining good oral hygiene procedure?

But studies showed that maintaining oral hygiene is the measure for keeping dental disease away. Programmatic aspect too gives importance on education about dental/oral health, awareness and curative aspect. If this is one of the causes of having dental disease should not it be addressed? Otherwise mere implementing program without addressing underlying cause will lead to any success?

National Oral Health Program which gives more important in prevention and curative aspect of the dental diseases and in collaboration with IDA does really care about other aspect of dental disease?

Some of these programs again collaborated with Colgate - Palmolive. So who are benefitted from those programs?

Dental health program under school health program of NRHM is a small component. What importance actually is given to this program?

Oral Health has not been discussed in National Health Policy 2002 and NRHM also did not mention about oral health services but oral diseases have great impact on systemic health like periodontal diseases have effect on low birth weight babies, Diabetes, Heart Diseases, Respiratory diseases, stroke, Atherosclerosis etc.(other important National Health Program :550)

Now RBSK (Rashtriya Bal Swastha Karyakram) is being implemented in place of SHP. SHP is subsumed in RBSK. Among the thirty diseases condition dental caries is also is there. This program covers 0-18 year's children which includes from birth to *Anganwadi*, primary secondary and higher secondary school children.

Among the thirty diseases conditions dental caries is also one component in the list of RBSK. School Health Services is a small section in the general health service. What is its position in making decision about SHP? What are the roles played by different actors who work in school health Services? To conceptualise about the school health services USRN's working paper series number 03 (Deshpande M, Baru R V, Nandy M) is consulted. As children of schools are the people whose health needs are address by SHS does they address what is their "real need" and what is their "felt need"? What is the morbidity pattern children have? The personnel who are involved in delivering the service what they face while delivering the dental health services to children in the School Health Service? In the paper "*School Health Services in India: An Overview*" by Baru R V analyzed the constraints faced by school health services in delivering services to school health programme. Author here talked about the general problem faced but not particularly mentioning the constraints faced to deliver dental health service to school children. Most of the cases dental diseases are referred. What happens to those referral cases? Is there any follow up? Now SHS has given a structure in the general health service system, recruiting separate personnel to see the matter. How far it is working?

## Methodology:

Overall objective is:

To study the structure and functioning of dental health services in the school health programme in Tripura.

Specific objectives are:

1. To study the Structure and Organization of the School Health Services under NRHM in West Tripura District
2. To study the functioning and constraints faced by personnel in the delivery of School Dental Health Services in the School Health Programme under NRHM in West Tripura District

Keeping in mind the objectives of the study a pilot study was done in the above said district from 28th August to first part of September, 2014. The study was in qualitative nature.

**Pilot study:**

On pilot study I choose West Tripura District. There I visited one PHC and district and state nodal officer of School Health Programme. In the PHC I met with dental surgeon posted there and had an idea about School Health Programme there. From there I came to know that the School Health Programme which was performed before under NRHM is going to replace by another programme. Though they could not exactly inform me about the programme but it was for sure that fund is not coming for SHP. So due to unavailability of fund they stopped SHP. After doing couple of schools they are waiting for further order.

Next I met with MPW who used to be part of School Health Programme. One MPW was not that willing to say anything. He seemed to be scared to say anything about programme. Another female MPW told about the programme and her perception about the programme. She said, "You know madam this programme is a"*Prahasan"*, nothing else." When I intervened further she revealed "yes programme is done for benefit of the children. But can you tell me how much benefit they get? Inadequate medicine, no proper follow up, in a year only once or twice we can go to one schools and visit them after that what happened to them who cares for that. We have to cover other schools also. Do not you think due to inadequate medicine especially antibiotic dose given to them they become resistant of that medicine? Yes doctors do tell them to buy rest of the dose but how many have money to buy that or how many parents are aware of those side effects?"

Next I met with an adolescent councilor. She said that they usually advice or make aware about the adolescent problem of school going adolescent boys and girls.

Regarding new programme on school going children I met with State nodal officer. He highlighted me about the new programme which is named as –RBSK. School health programme is subsumed in this programme. From pilot study I came to know that there are 15th health subdivision and for each subdivision one Dedicated Mobile Health Team (DMHT) that is School health team are approved, but 12 team are in position then. These are the teams which go to the schools to perform SHP.

Regarding Dental School Health Programme before Dental surgeon used to go from PHC to schools which are in that PHC's jurisdiction. Now AYUSH doctors who are in DMHT and pharmacist used to screen children having dental health problem. Provision is there to take dental surgeon and eye technician along with team from nearby PHC or CHC.

From pilot study I got a rough idea about the ongoing programme.

After getting an idea about the programme the next step is to prepare a tool for study of the population I want to study.

**Preparation of tools:**

Due to the qualitative nature of the study and as my study includes in depth interviewing officials in different hierarchy of School Health Services and teachers and personnel who are assigned to look after School Health Programme from School Education Department also for everyone set of interview schedule are different. Interview schedule is prepared in English. As my study area is in Tripura where Bengali language is spoken most. I translate these interview schedules in Bengali. These Bengali translations are given to a translator to back translate to check with the original version of interview schedule. After checking every question of interview schedule with the help of translator final interview schedule is prepared.

**Selection of samples:**

The sample selection is done purposively. So selection of sample is done keeping in mind different criteria which are listed below.

**a. Selection of Blocks:**

Selection of Blocks are done

- Where PHC or CHC is present and have a Dental Surgeon posted in it.
- In which Blocks School Health Programme is performed by newly recruited Dedicated Mobile Health Team
- Dental Surgeons are part of School Health Programme as a referral unit
- Dental Surgeons previously worked in School Health Team in School Health Programme (the programme which was going on before RBSK)

- Urban area and blocks are excluded as this fall under NUHM—National Urban Health Mission

Among the nine blocks in West Tripura District two blocks are selected.

1. Jirania
2. Mandwi/Manda

Demographic profile of these two blocks is given below:

**Jirania Block:**

**Table: 5.1: Demographic profile of Jirania Block**

| | | | | | |
|---|---|---|---|---|---|
| 1. | Geographical area | 92.5Sqkm | | | |
| 2 | Population | | Male | Female | Total (M+F) |
| | | ST | 6914 | 7054 | 13968 |
| | | SC | 6085 | 6207 | 12292 |
| | | OBC | 9127 | 9311 | 18438 |
| | | Minorities | 1383 | 1410 | 2793 |
| | | General | 4168 | 4214 | 8382 |
| | | Total | 27677 | 28196 | 55873 |
| 3. | Literacy | Male rate(%) 92.10% | | | |
| | | Female rate(%) 83.05% | | | |
| | | Over all rate (%) 98% | | | |

**Source:** collected from Jirania Block Office (data compiled in 2014)

**Mandwi/Mandai Block:**

**Table: 5.2: Demographic profile of Mandwi/Mandai Block**

| | | | | | |
|---|---|---|---|---|---|
| 1 | Geographical area | | 216.44Sqkm | | |
| 2. | Population | | Male | Female | Total (M+F) |
| | | ST | 25860 | 26484 | 52344 |
| | | SC | 256 | 260 | 516 |
| | | OBC | 304 | 348 | 652 |
| | | Minorities | 450 | 494 | 944 |
| | | General | 286 | 308 | 594 |
| | | Total | 27156 | 27894 | 55050 |
| 3. | Literacy | | Male Rate(%) | | 99.40% |
| | | | Female Rate(%) | | 98.98% |
| | | | Over all Rate(%) | | 99.24% |

**Source:** Collected from Mandwi/Mandai Block (compiled on September, 2014)

**b. Selection of schools:**

Selection of schools are done

- Schools situated in poor socio-economic area of these two blocks
- Difficult to access area
- School Health Programme is implemented by Dedicated Mobile Health Team
- Co-ed schools

**Table: 5.3: Profile of Schools**

| Location of Schools | Socio-economic context | Type of schools | No. of Children | Classes | No. of Staffs in school |
|---|---|---|---|---|---|
| Jirania More than 4km walking distance from NH44,no public transport system | Poor socio-economic area, mixed population, students are tribal, parents are mainly labours of nearby brick Kline, or farmers | Co-ed, SB | 46 | I –VIII | H/M, 1 Group-D staff, 8 teachers Total -10 Interview was taken from-9 |
| Jirania, near NIT, poor public transport system | Poor socio-economic area, mainly Bengali dominated area, SC, parents are daily wage labourers, | Co-ed, JB | 24 | I—V | H/M, four teachers Total—5 |
| Mandwi/Mandai, Shibnagar, difficult area, ADC village, poor public | Poor socio-economic area, mainly farmers, some have | Co-ed, High School | 171 | VI—X | H/M, Nine teaching staffs, one physical |

| | | | | | |
|---|---|---|---|---|---|
| transport system | rubber garden, students are tribal, many of them resides in privately run hostels | | | | instructor, three Group-D Total-14 |
| Mandwi/Mandai, Patni, difficult area, ADC village, no proper public transport system | Tribal, poor socio-economic area, parents are farmers mainly or daily wage labourers, students are all tribal | Co-ed, High School | 74 | VI—X | H/M, nine teachers, one physical instructor, two Group-D staff. Total-13 Interview was Taken from-11 |

**Name of the schools are not mentioned to maintain anonymity of schools.

**c. Sample size:**

**Table: 5.4 sample size**

| | **State level** | | **District level** | | **Block level** | | **Total sample** |
|---|---|---|---|---|---|---|---|
| **Health department** | | Designation | | Designation | | Designation | 9 |
| | 1. 2. | M/S, NRHM SNO,NRHM | 1 2 3 4. | CMO, DNO,RBSK, NRHM M/O,(Homeo) RBSK,NRHM Pharmacist,(allo) RBSK,NRHM | 1. 2 3 | Dental surgeon,CHC Dental surgeon,PHC Dental surgeon, PHC | |
| **Education department** | | | 1. | H/M, assigned as DNO for SHP | 1. | I/S | 42 |
| | | | | | 2. | Teaching staff, assigned for SHP | |
| | | | | | 3. | H/M, 4NOS. | |
| | | | | | 4. | Teachers, 29NOS. | |
| | | | | | 5. | Group-D, 6NOS. | |

**Insurgency, ethnicity and researcher: conflict:**

Tripura—the North-Eastern state is known for its insurgency problems. Here researcher also faced some difficulty while collecting data in the field. It seems to her that people of tribe community are not free to reveal many things to researcher. Though insurgency problem is not that intense in Tripura now but fear still is there. Researcher had to collect block profile from the blocks because re-organization of blocks was done during the study time that is November 2014 to March 2015. So, researcher has to go each block to collect the said data. One of the study areas was Mandwi/Mandai block which is an ADC area and inhabited by tribes mostly and also known for its notorious insurgency activity. One day it became late and was dark and researcher could not catch the last available public transport to come to the city. She had to wait for long and she felt the tension in that area as some people were asking why she was there. Even she came to know that non-tribe that is Bengali people who works in government offices usually left that area before dark and if they had to stay they stay in presence of security. After coming to know that incidence who used to go there for work almost every one known to researcher warned her that it is risky to stay there after dark and also warned that she should have inform nearby Police Station as she will be working there for a considerate time period. But researcher took the risk though she made it clear not to stay after sun set and come back to safe area before that. This compromise actually leads to longer `time for field work.

Another issue came to light while researcher was taking interview that tribal respondent are not free to talk with the interviewer. She sensed that some underlying fear restricted them to open up to researcher. Though they answered the entire question but still there was some hesitation while answering. In one incidence one tribal teacher was very reluctant to face interview rather he started to question about researcher's intention and residence. When he came to know that researcher is from the same state and same district not from outside state that he presumes that researcher is "Bengali from West Bengal" than only he was ready to sit for interview. He works in Jirania block but from Mandwi/Mandai block. Researcher's ethnicity as she herself is Bengali may be post some hindrance in collecting data she feels.

**Ethical consideration:**

Verbal consent was taken before interview. Interview was recorded with the consent of respondents. Those who did not want to record their interview their interview was not recorded. Whatever they told was written by researcher in the interview schedule.

**Analysis of Data:**

In depth interview were taken from participant in local language i.e. Bengali, in the interview schedule and those who gave consent to record their interview. Later on this Bengali version of the interview from recorder was written in native language i.e. in Bengali. These written versions are than given to translator to translate in English. After translation to check the validity and reliability these English versions are again back translated in original version. Data is analysed from the English version.

## Conclusion:

Conceptualizations of the study was get from different literature studied about children general health status, dental health status, prevalence of dental diseases and dental health programme taken in schools. Conceptualizations of the study lead to framing of research questions and framing of methodology of the study.

# CHAPTER VI

# POWER AND AUTHORITY OF THE DENTAL HEALTH COMPONENT OF SCHOOL HEALTH PROGRAMME UNDER NRHM IN TRIPURA

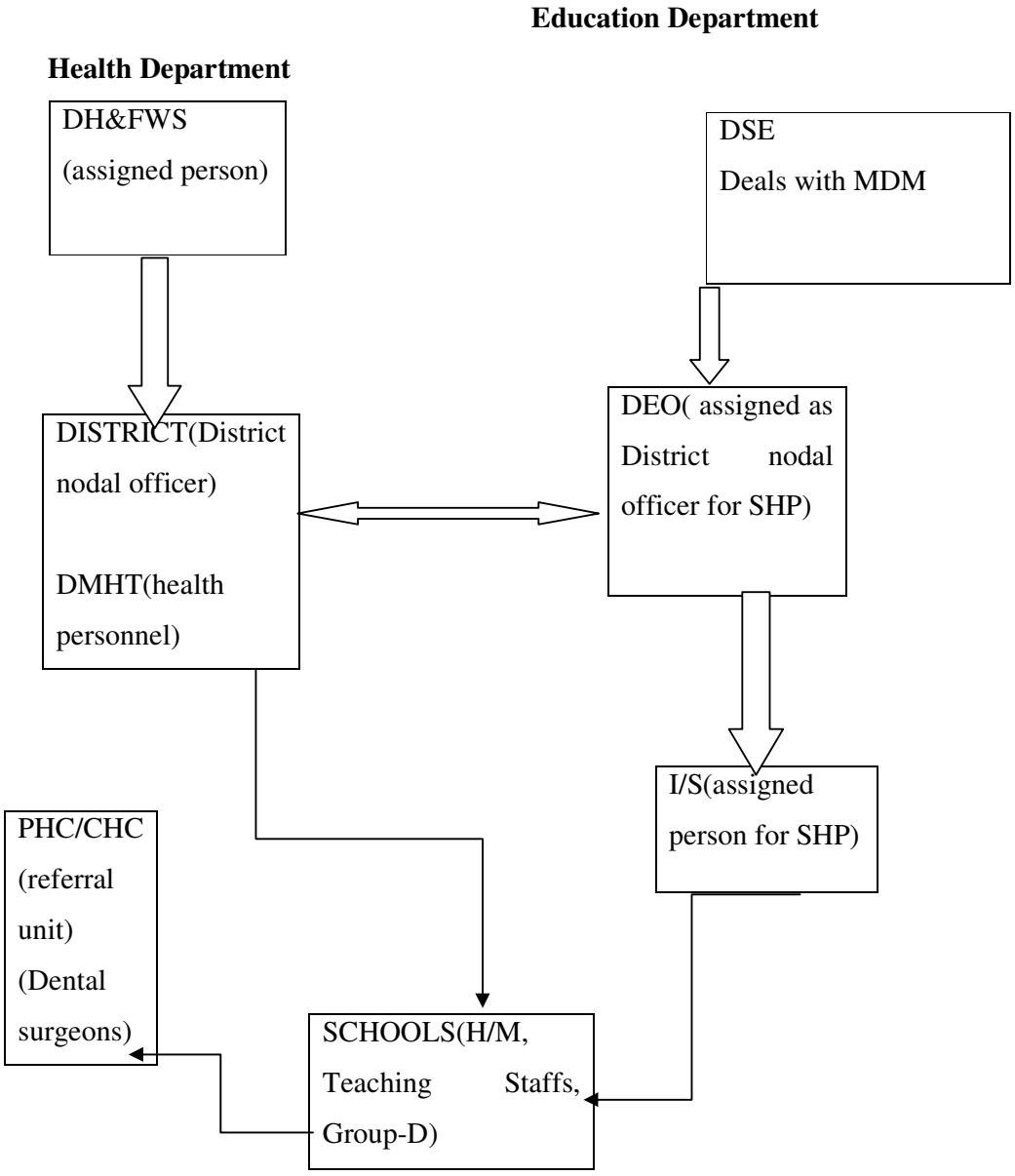
## Introduction:

Power and authority in the structure of a programme and allocation of resources determines the status within the overall structure. Though dental caries is a component in the School Health Programme implemented by NRHM but what importance it has in the structure? Structure itself poses constraints in the system. How that can be changed to overcome the constraints? This chapter elaborates the findings and discussed the findings bringing out the status of School Dental Health component and constraints faced in delivering School Dental Health Service in the School Health Programme under NRHM in West Tripura District.

## Interaction between two departments:

Two departments are involved with the implementation of School Health Programme. Health and education department both are responsible for this. But it is seen that their interaction somehow is not adequate with each other. There is a gap in what they say and what they perform.

After implementing RBSK there is a section in the health department and also assigned officers who deal with the School Health Service and School Health Programme. The interactions between these two departments in Tripura are shown below:




**Interaction between health and education department

**State level interaction:**

At the state level health department and education department do not interact with one another. The education department deals with only the Mid Day Meal Programme, weekly Iron Folic Acid supplementation (WIFS), and de-worming programme twice a year whereas the health department looks after only school health programme. Recently the health department and education department implemented National de-worming programme in the state on 10th February, 2015 along with other 11 states of India. This de-worming was done

with the administration of Albendazole tablets by teachers in schools. There was an assigned teacher for this programme. When I was in the field in another district one incidence happened that after administering Albendazole some students fell sick though it was not related with drug administered which later on proved but this incidence left fear among students as well as teachers who were assigned to administer the drug to students. As one of the teacher said

*"We are scared to give drugs to students, who will take responsibility if anything happens? I ask students whether they have any problem or not and they want to take medicine or not. If they wish they take." (Teacher, school from Borakha, February 2015)*

So it raises a question about the benefit of the programme. If students are not consuming the tablets, than is the programme successful? Same thing happens for the administering of Iron tablet, which is given to combat anaemia. According to the teachers many students do not want to take Iron tablets as this causes stomach upset. Teachers do not know what to tell students. Here lack of communication between health department and education department is seen. If this would have been administered by a competent person this would have better response as they could take measure if serious adverse effect due to medicine occurred or they could have assure and make aware about the side effect of medicine. Another concern when given by teachers they are not aware what effect it might have if children are already taking some other medicine or have some systemic diseases where it is contra indicated to take these medicine. Health department supply medicine, education department administer, but who is affected? Whether purpose of the programme is served? It seems as if obeying order but what happens at peripheral level no one does actually care. Dual authority in the structure, vertical nature of SHP, lack of communication and interaction with these two departments put questions benefit of the programme.

**District level co-ordination and interaction:**

These two departments interact with one another at the district level. There are district nodal officers for SHP in the health department as well as in education department. From this chart we can see that health and education departments interact only at the district level through nodal officer from both departments. In the education department there is an assigned person who looks after school health programmes and who acts as a liaison officer. From health department also the district nodal officer of RBSK acts as liaison officer. They take part in

monthly meeting where education department provide lists of schools (at least eight schools), to the health department. According to the list health department make time and venue of school health programme for implementing. Health department again gives time and date and name of the school where school health programme will hold. In the district level there is only one team, there is no team in block level so DMHT serves from district level. A detailed monthly venue is prepared in the last week of previous month. According to that list team serves their duty. District Education Office informs Inspectorate of Schools about SHP and time and date. District Education Office also communicates with I/S for implementation of WIFS programme.

**In block level interaction:**

**A) In Inspectorate of Schools:**

At the block level in the education department there is an Inspectorate of Schools. As I chose two blocks Mandwi/Mandai and Jirania both blocks are supervised by one Inspectorate. In Inspectorate level Inspector of Schools and an assigned person who looks after the school health programme is there. As Iron, Folic Acid is provided in the school under the name of WIFS programme. I/S get these medicines from health department (mainly district store) and distribute to schools. These tablets are given according to the student strength of schools. Weekly Iron Folic Acid tablets are given mainly on every Monday after MDM to students. One teacher usually monitors this. From schools teacher or H/M comes to I/S and take medicine to schools.

I/S also get information about time, date and venue of school health programme from District Education Office. They inform concerned schools about that. But here I would like to mention that schools I visited said that they hardly get any information about programme from I/S rather member of school health team, or other person inform them just two or three days prior to programme. From block level to school level co-ordination is very poor. I mentioned this in later section where problems faced during implementing school health programme is discussed.

Here again there is no direct interaction between these two departments. The school health programme is monitored by dual authority, whereas interactions between these two departments are very poor. As we can see direct interaction with these two departments are only in district level. This finding also can be seen in writings of M Despande, Baru R V, et al. These two departments work separately looking after two aspects, health and nutrition through SHP and MDM. As if these two does not have any relation with each other. Whereas

study shows that nutrition and health are related with each other. Poor nutritional status leads to many diseases condition and poor physical and psychological health status of children.

**B) In school level:**

**Location of schools and students profile:**

**Table: 6.1 Location of schools and students profile**

| Sl. No | code of schools | Location of schools | Demographic context of area | Major Caste of students | Socio-economic context of parents/ guardians |
|---|---|---|---|---|---|
| 1. | Sb | Jirania, more than 4km walking distance from NH-44, public transport is not available | Mixed populated area, Bengali, Manipuri, and tribal people. | Students are all tribal | Parent are daily wage labourers, most of them works in nearby brick klin, and farmers |
| 2. | Jb | Jirania, near National Institute of Technology, poor public transport | Bengali Dominated area, mostly SC | Students are mostly SC | Parents are daily wage labourers, they work in nearby NIT |

| | | | | | |
|---|---|---|---|---|---|
| 3. | B | Mandwi/ Mandai, Shibnagar, ADC village, poor public transport system, difficult area | Tribal dominated area | Students are all tribal | Mainly farmers, some have rubber gardens |
| 4. | Ch | Mandwi/ Mandai, Patni, ADC village, difficult area ,no proper public transport | Tribal dominated area | Students are all tribal | Parents are mainly farmers or daily wage labourers |

**Source:** Compiled by researcher, 2015

At this level school health team from health department and school from education department interact with one another. School is the place where the programme is implemented. Children are the people who are subject of SHP. Sometimes school personnel are informed about the implementation of programme very late as a result they cannot inform or gather all the students or guardians of students. During the field visit, the researcher could not meet any guardian of students as they were not present. Teachers also echoed concern that as the guardian does not come it is difficult to convey to them about the health status of students. If students are referred to PHC/CHC and school does have facility or health team also does not provide any means for referral, it becomes important for the guardian to know why their children are being referred.

**C) PHC/CHC level:**

Students are referred from the school to PHC/CHC level, however the School health team and PHC/CHC does not interact with one another. Even the school is not aware whether students attend the referral centre or not.

Interaction between two organizations in the structure of SHS and role played by the actors in the structure reveals lack of communication and co-ordination in the programme itself. These reflect in the implementation level as a constraint. Structure is itself posing constraints.

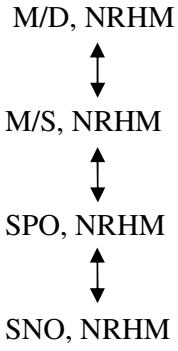
## Deployment of human resources in different level of hierarchy in two departments:

Human deployment of these two departments at different level of hierarchy is shown below:

**In state level:**

Health department:

**Flow chart: 6.1 Deployment of human resources in state health department**

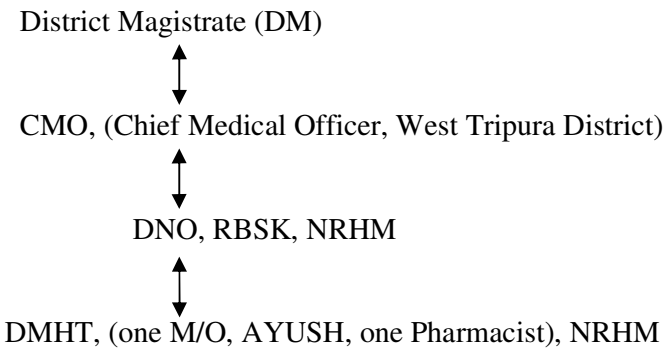



In School Education Department, in the state level, i.e. Directorate of School Education there is one assigned person who looks after only Mid Day Meal (MDM) Programme.

**In District level**:

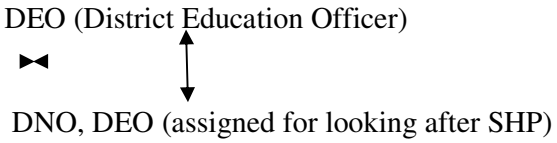
Health Department:

**Flow chart: 6.2 Deployment of human resources at district health department**




In School Education Department, in District level

**Flow chart: 6.3 Deployment of human resources at district education department**



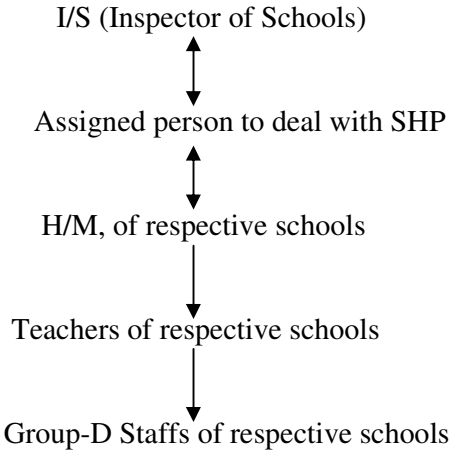

**In block level:**

Health department:

Dental Surgeon posted in PHC/CHC.

In School Education level:

**Flow chart: 6.4 Deployment of human resources at education department at block level**



## Role of officials in different level of hierarchy:

Role of each officials are shown below:

**State level:**

Health department:

**Table: 6.2 Role of state level officials from health department**

| Sl. No | Service & social profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | | | M/D, NRHM | Non Respondent |
| 2. | 59 yr SC, male, working in govt. Service for 31 yrs as permanent employee, working in SHS for 1.5 yrs | MBBS DM&CW | M/ S,NRHM | Supervision and monitoring the programme |
| 3. | | | SPO, NRHM | Non Respondent |
| 4. | 64yrs general, male, working in NRHM as a | MBBS | SNO,RBSK ,NRHM | Look after the implementation of SHP in state level."*I* |

| | | | | |
|---|---|---|---|---|
| | contractual employee for five yrs, he was working as a permanent employee in State Govt. For33yrs, after retirement again he was employed in NRHM to look after SHP | | | *Compiled all the reports which are sent from district level and send to GOI. If there is any problem arises try to solve that and visit field also if necessary"* |

At the state level education department from Directorate of School Education is not directly involved in SHP. They only look after the MDM (Mid Day Meal) programme.

**At District level:**

Health Department:

**Table: 6.3 Role of officials at district level in the health department**

| Sl. No. | Social & Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 59yrs,general,male ,permanent state Govt. .employee, working since1982, involved in school health programme for 1yr. | MBBS, DM&CW | CMO(West) | No direct role. Overall supervision. If any problem arises or any gap is there he tries to fill up that. |
| 2. | 51yrs, OBC, male, State Govt. Permanent employee, working for 25yrs. In RBSK from January 2014 | BHMS,MD ,DNHE | DNO (District Nodal Officer), RBSK,NRHM | Act as a liaison officer between health and education department, he along with DNO for SHP of education department fix date and time for |

| | | | | |
|---|---|---|---|---|
| | | | | SHP, attend meetings, send the compiled monthly report of RBSK to state level. |

Dedicated Mobile Health Team at District level:

**Table: 6.4 Role of health personnel in the DMHT**

| SL. No. | Social & Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 28yrs, General,male, working as a contractual employee in RBSK team for 1yr. | BHMS | M/O, AYUSH, RBSK, NRHM | He does screening and treatment of minor illness, major illness or diseases which cannot be handled by him is referred to PHC/CHC/ State hospital or other better medical facility. He also works according to the order of DNO. Keeps record of service provided to school children |
| 2. | 26 yrs ST, male, working in RBSK team as contractual employee for 11 month | B-Pharma | Pharmacist, (Allo), RBSK, NRHM | Mainly health screening and treatment of minor illness of school children |

| | | | | |
|---|---|---|---|---|
| | | | | . If major illness found or diseases which cannot be handled than refer to PHC/CHC or State hospital for better facility. Keeps record of the services provided by team to children, compiled those report and keep those in computer, maintain stock register for medicine. |

Both of the personnel of DMHT carry the medicine and weight machine to the school as no other employee is there to do such work.

In Education Department from District level (District Education Office)

**Table: 6.5 Role of official at district level at Education Department**

| Sl. No. | Social & Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 57yrs,general, male, permanent employee in | B,Sc | H/M, but working | Act as a liaison officer between |

| | | | | |
|---|---|---|---|---|
| | Education Department for 35yrs, working in SHS since 2008 | | as District Nodal Officer for SHP in DEO | health and education department in District level. Looks after all health related matter from School Education Department. Attend meetings, provide name of the schools to health department, fix time and date and venue for SHP, informs I/S through issued letter or telephone. |

**Block level**: PHC/CHC, as a referral unit

Health department:

**Table: 6.6 Role of Dental Surgeon**

| Sl. No | Social & Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 44yrs,SC,female, working as a permanent employee in State Govt.for 19yrs, working in SHP for 7month | BDS | Dental Surgeon | Work in SHT, and work as a referral unit for RBSK, screens children in schools as still previous SHP under NRHM is going on that CHC because they did not get any order to stop the programme. Provide available treatment to the referred children, who are referred by DMHT, as well as by her. Keeps record of patients. |
| 2. | 34yrs,ST, | BDS | Dental | Worked in SHT. |

| | | | | |
|---|---|---|---|---|
| | male, working as a permanent employee in State Govt.for 7.5 yrs, working in SHP for 7.5 yrs | | Surgeon | Now work as a referral unit for RBSK in PHC level. But as there is no infrastructure in the PHC where he works, he refers them to another PHC. |
| 3. | 40yrs General, male working as a permanent employee in State Govt. Since2008, working in SHP since 2008 | BDS | Dental Surgeon | Worked in SHT. Now work as a referral unit for RBSK. Provide available treatment for children who are referred and attend PHC, from school by RBSK team. Keeps patients record. |

Education Department:

At Inspectorate of Schools:

**Table: 6.7 Role of officials at I/S level at Education Department**

| Sl. no. | Social & Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 57 yrs, SC, male working as a permanent employee in SED since 1985, in SHP since 2011 | B.A, B.Ed | Inspector of Schools | Overall look after the programme. Issue letter to inform About venue, date and time to schools |
| 2. | 42 yrs, ST, male working as a permanent employee for 16yrs, assigned at I/S to look after the SHP since 2011 | Madhyamik pass | Teaching staff, assigned at I/S to look after SHP | Act as a communicator between health and education department in I/S level. Distribute medicine (Iron, FA, De-worming tablets) to schools under that I/S's jurisdiction. Convey messages about date, time and venue of SHP to schools. |

In Schools:

**Table: 6.8 Role of H/M in SHP**

| SL. No. | Social &Service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 46 yrs ST, male working as a permanent employee in School Education Department since 1992, working in SHP for 2 yrs. | M.A, B.Ed | H/M | Manage children during School Health Programme; discuss health related matter with the children. Give instruction to teachers and Group-D staffs to help in SHP and also instruct teacher to convey message about SHP to guardians of students through students. |
| 2. | 53yrs, ST, male, working as a permanent employee in School Education | B.A.,B.Ed | H/M | Manage children during SHP, helps in translation (from Bengali to *Kokborok*); give instruction to |

| | | | | |
|---|---|---|---|---|
| | Department for 25yrs, taking part in SHP for 3 yrs. | | | teachers and Group-D to help in SHP, "*in class instruct children to remain present that day along with their guardian".* |
| 3. | 58yrs, SC, male, working as a permanent employee in School Education Department since 1981, taking part in SHP for 4-5 yrs. | H.S,UGBT (Under Graduate Basic Training) | H/M | Helps in arrangement and management of SHP in schools, looks after MDM. *"Instruct student to listen carefully what health team tell or advice them"* instruct teachers to convey message to guardian about SHP in schools through students. |
| 4. | 59yrs,general male, working as a permanent employee in SED for | B.Sc. | H/M | "*How the programme will be done properly look after that,* |

| | | | | |
|---|---|---|---|---|
| | 35 yrs, worked in SHP since 1979, he worked in H/S school than and was part of NCC in school and physical education. During 1980-1981 he helped in vaccination programme held in schools, from 1990-2004 he was not involved in SHP, after that again involved in SHP. | | | *manage children, convey message to guardian about SHP through student or SMC (School Management Committee).”* |

**Role of teachers in School Health Programme**:

Teachers who are directly involved in the SHP when it is implemented in schools do play an important role. Their main work starts when information is received that the Health Team will visit and will provide their service to the school children. They get instruction from

Headmaster to convey the message to children so that their guardian can remain present during the programme.

Patni ADC village school has only tribal students. When the health team visits the school the teachers help them to remain disciplined. If students feel scared they motivate and convince them to take treatment from health personnel. Girl students feel shy to discuss their problem with health personnel than the female teacher helps them in this matter. One female teacher from Patni ADC village told that,

"*Students do not want to reveal anything to health personnel because of shyness, especially girls do not want to share their problem related to menstruation, and they tell to us, we have to convey the problem to M/O's"( female teacher, Patni, February 2015)*

So in this matter especially in the village role of female teacher is very important. Other than this they help in interpretation by translating Bengali language to "*Kokborok"* language if in health team nobody is present who can speak *"kokborok",* as all students are tribal. They supervise the whole programme, like arrange room, and make sitting arrangement for health team, arrangement for chalk, duster.

*"We instruct group-D staffs to clean the room where health team will sit and examine students, keep students discipline. Make students aware about health check up*" (*teacher from Borakha ADC village school, November 2014)*

Teachers also take instruction from doctors and tell them to students. They help in distribute medicine to students.

*"We teachers take instruction from doctors and tell those to students, if students are small we ask parents of children to come, if they come we tell them about the dose and how to take medicine" (teacher from Jirania SB School, December, 2014)*

Teachers also stay with the health personnel and co-operate in every aspect. In school without their co-operation it would have been difficult for health team to provide their service. So their main role in SHP is:

- To look after the whole SHP in school
- Arrange room for SHP
- Make sitting arrangement

- Instruct group-D staff to help in SHP
- Discipline students
- Convince and motivate students for health check up
- Helps to communicate children with health team
- Helps in interpretation
- Take instruction from doctor/health personnel of SHT about medicine which are provided in health team and convey to children or parents of children if they remain present
- Helps in distribution of medicine to children provided by health team

Role of Group-D staffs in SHP in schools:

**Table: 6.9 Role of Group-D in SHP**

| Sl. No. | Social & service profile | Qualification | Designation | Role |
|---|---|---|---|---|
| 1. | 55yrs ST male permanent employee in SED, for 20 yrs, helping in SHP for 2yrs | Class-V pass | Group-D | *'In spite of my health problem I try to help health team by bringing water, making sitting arrangement for them"*. Does whatever is ordered by health team |
| 2. | 48yrs ST, male permanent employee of SED for 18yrs, helps in SHP for 2yrs | Class-VIII Pass | Group-D | "*Clean room, bring water, give snacks to health team."* |
| 3. | 42yrs, ST, male, permanent employee in SED since | Class-IX pass | Group-D | "*Take instruction from H/M"* Help in putting on flex which is brought |

| | | | | |
|---|---|---|---|---|
| | 1992, help in SHP for 10-12 yrs | | | by health team. |
| 4. | 45yrs, ST, male, permanent employee working in SED, for 19 yrs, helping in SHP for 3-4 yrs | Class-V pass | Group-D | Bring chair and water |
| 5. | 50yrs ST, male permanent employee in SED for 36yrs. Cannot remember since when he is helping in SHP. | Class-V pass | Group-D | "*I help in translation"*. |
| 6. | 26yrs ST, male, contractual employee in SED since 2012, help in SHP since 2012 | Class- IX Pass | Group-D | "*I work according to the instruction of assistant teachers"* clean the room where school health team will sit, bring water, bring table, chair to the room where school health team will examine children. |

From varied roles played at different levels of the hierarchy, power dynamics can be seen. If we ask who plays greater role in this service? Those who are directly engaged in providing the service have a greater work load are more on them. This was reflected by the M/O and Pharmacist of the DMHT:

"*we have to do all work, screening to referral, human resources are not adequate, there should be dental surgeon in the team to treat children having dental diseases, female M/O and ANM should be there, only me and pharmacist do all the work. Keeping records, compile records, every day we are travelling to different places, but our salary is less compared to many states. We have heavy work load but compare to that our income is zero" (M/O, AYUSH, RBSK, NRHM, November, 2014)*

From this their underlying rage also comes out. Here I like to mention that when I finished my field work I happen to meet with the pharmacist of DMHT, he left the job as he joined in state health service as a permanent employee. Even M/O also reflect that if he would not have personal problem for which he has to stay in state he also would have left for better opportunity.

Job in NRHM is always a contractual job, does this allow employee to provide their best service to the receiver who receive their service? In this case it is the students of schools. Do they really get best service from them? According to them they try to do provide their best service.

At each level work load is more on those in the lower levels of the hierarchy. Even at the state level State Nodal Officer of RBSK, NRHM, his work load regarding School Health Programme is more than any other officials in state level. He is also a contractual employee in the Directorate of Health and Family Welfare Society. He looks after the whole mater regarding SHP. He even visits the field, take part in different training session at national level where as his salary is fixed.

District Nodal Officer of RBSK, who works under NRHM banner, is a state employee Homeopathic M/O. He is brought in to NRHM to look after the RBSK programme.

At all level higher officials most of them supervise the programme and they have the most power and authority in their hand whereas at lower level personnel do the whole work to run the program

**Place of dental health service in the school health programme**:

Budget allocation in different programme from Government of India and state share

**Table: 6.10 Budget allocations in different programme from Government of India and state share**

| Sl.no. | Programme | GOI allocation under NRHM Rs in crore |
|---|---|---|
| 1. | RCH Flexible pool | 49.19 |
| 2. | NRHM Flexible pool | 55.75 |
| 3. | Immunisation(from RCH Flexible pool) | 2.01 |
| 4. | NIDDCP | 0.66 |
| 5. | IDSP | 0.17 |
| 6. | NVBDCP | 17.80 |
| 7. | NLEP | 0.21 |
| 8. | RNTCP | 5.84 |
| 9. | Infrastructure maintenance including direction and administration | 22.72 |
| 10. | PPI operational cost | 1.46 |
| | Total GOI Allocation | 155.83 |
| | 10% state share | 17.31 |
| | Uncommitted Unspent Balance | 18.98 |
| | Grand Total | 192.12 |
| | Committed Unspent Balance: Rs. 33.75 Crore | |

**Source:** GOI: 2013-2014

Budget allocation in school health programme: PPI 2013-14

**Table: 6.11 Budget allocations in school health programme: PPI 2013-14**

| Sl. no. | Budget Head | Unit of measures | Quantity/ target | Unit cost(Rs.) | Budget proposed (Rs. Lakhs) | Amount approved (Rs.in lakhs) |
|---|---|---|---|---|---|---|
| 1. | Child Health | | 5703 | 53000.00 | 97.68 | 37.82 |
| 2 | School health Program Me | | | | | |
| 2.a | Prepare& disseminate guidelines for SHP | | 8 | 40.000 | 3.20 | 1.40 |
| 2.b | Prepare detailed operational plan for SHP across district (cost of plan meeting should be kept) | | | | 0.00 | 1.80 |
| 2.c | Mobility support | No of unit | 15 | 20.000 | 57.94 | 22.80 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2.d | Referral support | No of DEIC | 4 | 100000 | 4.00 | 00 |
| 2.e | Other strategies for SHP | | 67 | 222000 | 178.79 | 67.22 |
| 2.f | Tertiary Level treatment of students | No. of case | 48 | 200000 | 96.00 | 49.00 |
| 2.g | Specialist school health camp | No. of DH/SH | 4 | 2000 | .96 | 0.00 |
| 2.h | Printing of health card and students health register | No. of card and register | 1187703 card+450 register | | 36.53 | 18.72 |
| 2.i | Drugs & supplies for SHP | | | | 256.51 | 148.72 |
| | Child health and RBSK | | | | 915.08 | 353.43 |

**Source :**( GOI: 2013-2014)

From above tables it is seen that budget allocation done for school health programme but not separately for dental health. Without financial help how is it possible for personnel to deal with dental health? There is no dental instrument in the team, even no provision is also there. Money which is the infrastructure for the supra-structure to function properly and keep solidarity in the system is absent here. So what importance is it getting dental health?

School Health service itself is a marginalized service in the health service system. Recently started RBSK programme is a comprehensive which not only look after school health service

but also maternal and child health along with adolescent health. This programme gives emphasis on maternal and child health than school health service. From the perception of higher officials also it came out

*"We give more importance on early detection of diseases and disabilities and deficiencies in children so we try to cover more Anganwadi centres, so that these conditions can be detect earlier and measures can be taken from early stage." (DNO, RBSK, December 2014)*

Before RBSK came into force School Health Service was under the NRHM and did not have any specific hierarchical structure. There were instructions from the health department to the CHC/PHC level to attend to the schools to provide services there. No specific official were sanctioned at the district level nor were there any specific team for school health. Now specific officers are there, team is there but which programme is or who are the beneficiaries are getting importance? RBSK programme is a comprehensive programme to look after child health starting from prenatal to teenage children. But from DNO's vision it can be said that they give more importance to *Anganwadi* children rather than school children. Than how can it become comprehensive in nature?

If status of school health service is like this, what is the condition of dental health services in the school health programme? If we look into the human deployment of school health services, dental surgeons are posted at PHC/CHC level.

Position of dental surgeon and dental assistant in the study area:

**Table: 6.12 Dental health personnel in PHC/CHC in Tripura**

| Sl. No | | IPHS standard | | Tripura(West Tripura District) | |
|---|---|---|---|---|---|
| | | PHC | CHC | PHC | CHC |
| 1. | Dental surgeon | 0 | 1 | 1 | 1 |
| 2. | Dental technician/hygienist/Assistant | 0 | 1 | 0 | 0 |

**Source:** Compiled by researcher from IPHS guideline and field visit in study area of Tripura

According to the IPHS standards dental surgeon is posted only at the CHC level and dental hygienist also are at CHC level only. There is no post for dental surgeon or dental hygienist or dental technician at the PHC level. In this regard Tripura is ahead. In Tripura dental surgeon are provided in PHC from state as well as NRHM level. In West Tripura district there are two CHCs and nine PHCs. Among those PHC five PHCs have dental surgeon from state level and four PHCs have dental surgeon from NRHM. In PHCs one is having dental surgeon from state and another is from NRHM. There are no dental hygienists or technician present in the PHCs or CHCs though there is post of dental surgeon and dental technician in DEIC (District Early Intervention Centre) level but there is no DEIC in Tripura till date due to unavailability of land. Proposal is there to set up DEIC. Even there is provision of taking Dental Surgeon in the health team from nearby PHC/CHC but till date no dental surgeon were taken in the team in West Tripura District. So where is the place of dental health service? Resource i. e fund and human resources which is necessary for actors to play power and authority in the structure is absent in this structure of school health service for dental health service. Though there is a disease condition in the list of Disease section of RBSK but importance was not given to dental diseases. Only dental caries is mentioned other dental/oral diseases are not even mentioned in the diseases list of RBSK. In the health service also there

is no separate directorate for dental health service. PHC/CHC acts only as a referral unit in the school health service for dental health service.

## Functioning of school dental health services in Tripura:

**In the Dedicated Mobile Health Team:**

Dedicated mobile health team or school health team consists of two persons, one AYUSH (Homeopathic), a pharmacist (allopathic). Both are male. There is no dental surgeon in the team. When there is any dental problem they examine/ screen them in the school level. If they find the problem can be treating by them than they do necessary action. Mainly they treat toothache by prescribing analgesics (painkiller) which are available in the team. Other dental problems are referred to nearby PHC/CHC. They also give awareness about oral hygiene to children.

When researcher went with the team, she found that pharmacist and M/O of the team find it difficult to diagnose particular dental problems students are suffering from. Malocclusion is often the problem which is overlooked.

There are provisions of taking dental surgeon from nearby PHC/CHC where school health programme will be implemented. But till date no dental surgeon was included in the team. When this was inquired in PHC level the dental surgeon said that they do not get any information. If so they should have been informed and provided necessary arrangement to go to the venue. But as the team or higher authority does nothing about that they do not go.

Dental surgeon even recalled one incidence happened in another block that the team informed dental surgeon just before the date scheduled for school health programme. As he has other engagement and OPD duty also where many patients were given appointment that day he could not go with the team.

**In the PHC/CHC:**

As I did field study in two blocks, in one block there are two PHCs and in another block there is one CHC. One PHC in the Mandwi/Mandai block has separate room for dental health service. One dental surgeon from state level is posted there. There are dental chair and provision of doing extraction and minor surgeries, filling. If referred students come to the PHC they provide the necessary treatment to them.

The dental surgeon said that usually they get less referral from school. Only 5-10% of the referral cases come to PHC.

Other than this as they did not get any instruction from higher authority to stop school health programme which was ongoing before RBSK came into force they still do that. In this case they refer the students to PHC after five day of school health visit. Dental surgeon screen and prescribe medicine to them who need for five days.

Another PHC in Mandwi/Mandai block do have dental surgeon posted in it from state level but the PHC where he is posted does not have any infrastructure. He shares his room along with homeopathic Medical Officer. There are no dental chairs or units or any other instruments also.

In the CHC of Jirania block there are full set of infrastructure is there. Even one MPW helps dental surgeon during the treatment.

From the CHC level in every week one fixed date is there which is provided for school health programme. Dental surgeon and eye technician attend school health programme every week. This is independent of the existing RBSK programme which is ongoing now. She provides only screening to school children for dental diseases and refers them to CHC.

**In District Early Intervention Centre**:

RBSK in district level there should have a district level intervention centre known as District Early Intervention Centre. In that centre there is provision of posting one dental surgeon and dental hygienist. But due to unavailability of land DEIC has not been set up in Tripura till date.

## Constraints faced to deliver dental health services in schools:

**Health Service System Constraints:**

**1. Lack of Human Resources:**

**a. Shortage of specialist human resources:**

As there is no dental surgeon in the team in the Dedicated Mobile Health Team of RBSK personnel who works in the team feels that there should be one dental surgeon posted in the team. In schools they get more students who are having dental problems. Even in the record book which they keep also shows same thing. According to pharmacist and M/O of the team more than 40% students suffers only from dental problems and are mostly dental caries.

Epidemiological data (table no.6.15) from the four schools the researcher visited also shows the similar trend.

As there is so much prevalence of dental diseases among students they find it difficult to provide proper service to school children without dental surgeon. They said as most of the children suffer from dental problems it is very difficult for them to tackle the situation. They can only do the screening but regarding any type of further intervention they refer them to nearby PHC/CHC. Sometimes if medicine is available along with the team they prescribe analgesic for toothache.

Researcher as she is a dental surgeon was requested by the team to help them regarding this matter. She observed that health team personnel find it difficult to diagnose which type of dental diseases students are suffering from. Like whether it is developmental anomaly of teeth or certain type of gum diseases, stains or dental caries. Most of the time malocclusion is unnoticed by them.

**b. Lack of other human resources**:

In the DMHT there are only two health personnel. In the guideline it is there that there should be one female medical officer and ANM. But there is no female M/O or ANM in the team. According to M/O of the team

*"Without female M/O to run the programme successfully is practically impossible". (M/O, RBSK, November 2014)*

Even this problem was echoed by teachers in the school. Girls' students from rural areas feel shy to interact with male medical personnel. In view of pharmacist of the team that only two persons cannot provide better service to 100-110 students per day. There should be more personnel in the team.

**2. Lack of Follow up Services:**

There is almost no follow up system. The RBSK programme is a comprehensive programme which not only covers school children but also looks after child from birth and maternal health along with adolescent health so their work load is more. The RBSK team of West Tripura district has to cover the whole district. There is no other team in the district. Where as in the guideline of RBSK it is there that every block have to have one team. The DMHT not only visit schools but *"Anganwadi*" centres also.

There is only one team which covers 1773 *Anganwadi* centres, 290 JB, 141 SB, 87High, 93 H/S schools scattered in 96 revenue villages, 77 TTAADC VCs, 1 Municipal Corporation, 1Municipality council and 2 Nagar *Panchayats.*

From the above list it can be seen that it is very difficult for them to cover all the schools in one year. According to M/O of the team

*"It is very rare that we go back to the same school twice. Almost nil. If we can revisit the same school there will be follow up. Otherwise no follow up" (M/O RBSK, November 2014)*

**Table: 6.13 List of schools of West Tripura District**

| Sl no. | Name of sub division | Name of block/NP/ AMC/CT | Primary school | Upper primary school | Secondary school | Higher secondary school | Total |
|---|---|---|---|---|---|---|---|
| 1. | Sadar | AMC(urban) | 44 | 18 | 21 | 46 | 129 |
| | | Dukli | 30 | 14 | 13 | 13 | 70 |
| 2. | Mohan pur | Mohanpur M.C (urban) | 04 | 01 | 04 | 01 | 10 |
| | | Mohanpur | 24 | 09 | 09 | 03 | 45 |
| | | Bamutia | 10 | 10 | 06 | 07 | 33 |
| | | Hezamara | 47 | 29 | 06 | 03 | 85 |
| | | Lefunga | 18 | 06 | 02 | 02 | 28 |
| 3. | Jirania | Jirania NP (Urban) | 03 | 01 | 00 | 03 | 07 |
| | | Ranirbazar NP(urban) | 02 | 00 | 01 | 02 | 05 |
| | | Jirania | 13 | 11 | 09 | 05 | 38 |
| | | Mandai /Mandwi | 52 | 23 | 08 | 02 | 85 |
| | | Old Agartala | 18 | 09 | 05 | 02 | 34 |
| | | Belbari | 25 | 10 | 03 | 04 | 42 |
| 4. | West Tripura district | Urban (total) | 53 | 20 | 26 | 52 | 151 |
| | | Rural (total) | 237 | 121 | 55 | 41 | 454 |
| | | Grand total | 290 | 141 | 81 | 73 | 605 |

**Source:** unpublished data collected from statistic department (education, Tripura) on November 2014 and compiled by researcher

**Table: 6.14 Coverage of schools by DMHT in Jirania and Mandwi block (%)**

| Name of blocks | Total no. of schools | No. of schools covered | % |
|---|---|---|---|
| Jirania | 38 | 8(4+2+2) | 21.05% |
| Mandwi/ Mandai | 85 | 6(5+1) | 7.05% |

**Source:** compiled by researcher, 2015

This data is from January 2014 to December 2014.

In Jirania block four high schools, two SB and two JB schools were covered. From Mandwi/Mandai block six high schools and one SB school were covered. These two blocks are the most covered blocks among nine blocks of West Tripura district. Most of the primary schools which are scheduled in morning are not covered. Primary school which is the morning section of high school is not covered.

Letter from School Education Department to The Mission Director, NRHM also reveals that fact. (No.F.8 (10-10)-SE/MDM/2013 dated 06/03/2014) In that letter it was said that out of 6545 schools 1845 schools were covered and 152192 students were checked up by medical health team out of 5,57,613 students in all Tripura during the last three quarter of 2013-14 year.

**3. Poor Referral Service:**

Children from school are referred to referral centre i. e. PHC/CHC for further intervention. Referral is written in the slip provided by team.

**a. Follow up for referral:**

Whether children go to the referral centre or not that is not recorded or no follow up for that is done. Dental surgeons from respective PHC/CHC said they get very less percentage of referral cases from school.

**b. Poor accessibility to referral centre:**

Children are referred to the referral centre but how they will attend the referral centre is no concern of anybody. Vehicle is not provided to them. Students or guardians have to manage to go to referral centre by themselves. As the area I studied most all of those schools have

communication problems. Though road was proper but public communication was literally nil or very few. Teachers come to schools by their own vehicle or share vehicle with other teachers. Even hospitals are far away from the schools. School (ch) in the Mandwi/Mandai region is far away from PHC which are in that block. One PHC is which is six km from school does not have any infrastructure for dental treatment. Another PHC which is more than ten km away having infrastructure for dental treatment. But there is no transport system to reach to the PHC other than personal vehicle or hired vehicle. The roads also are running through dense forest.

Another school is near that PHC which does not have proper infrastructure for dental treatment. Other PHC which have proper functioning infrastructure for dental treatment is also far away from the school.

In Jirania block also two schools from that area have poor transport system and CHC is also far away from the schools.

**c. Poor socio-economic condition of the guardians of children/ inadequate affordability of dental health service**

The schools which are studied are in the villages and guardians of those students are poor. Three schools studied having 100% tribal students. Economic profile collected from teachers of those schools shows that most of the guardians are economically poor. Mostly they are daily wage labourer or farmers having less amount of land. Some tribes practice "*jhoom*" (slash and burn) cultivation in the hill and forest. Jirania area one school situated near brick klin, some guardians work in that klin.

Another school is mostly dominated by SC population. According to teacher of that school those people are living only because of the NIT (National Institute of Technology) college is nearby. People of that area, get works in that institute and are most of them daily wage labourers.

As guardians are not well off it is very difficult for them to avail treatment for their wards by hiring vehicle and taking them to referral centre. Their one day wage and then transport cost to referral centre is nothing but a luxury which simply they cannot afford.

Here I like to mention that there is no DEIC in the state so students having dental diseases are refer to nearby PHC/CHC, but when DEIC will come up how many will be able to go to referral centre as DEIC will be in district or subdivision head quarter in city or town?

**4. Paucity of Medicine Supply:**

Medicines especially antibiotic are not given adequately to the students by school health team. Some tablets or capsules are given to students not the full course of antibiotic. Rest is told to buy from the market. Whether they can buy or take full course of medicine are not supervised. Teachers from schools also echoed same thing.

**5. Infrastructural Constraints:**

**a. In the school health team:**

In the school health team there are no instruments to measure the nutritional status of children other than weight machine. Where as in the guideline of RBSK there should be instruments for anthropometric measurement. Other than that vision chart, appropriate calf according to age of children to measure B.P. is also not available. There are no dental instruments also for check up.

So measuring nutritional status of children is difficult. Whereas studies from different parts of the world shows that *(*Masuma P et al 2012; M Chatterjee et al 2012; BR Dahiya et al 2013; Psoter W et al 2008; E. A. Sweeney et al 1971*)* nutritional status have effect on dental developmental anomaly, prevalence of dental caries, gum diseases etc. So mere screening and advice how will help the real underlying cause of diseases?

Epidemiological data collected from DMHT of RBSK shows that prevalence of dental caries is comparatively more than other combined diseases (other 29 diseases condition listed in RBSK list) in Tripura.

**Table: 6.15 Percentage of dental diseases in selected schools**

| Code of schools | No. Of students present | Students having dental diseases | Students having other diseases | Students not screened/not having any diseases | % of dental diseases | % of other diseases |
|---|---|---|---|---|---|---|
| Sb | 41 | 19 | 9 | 13 | 46.34% | 21.95% |
| Jb | 19 | 11 | 3 | 5 | 57.89% | 15.78% |
| B | 61 | 4 | 8 | 49 | 6.55% | 13.11% |
| Ch | 44 | 2 | 12 | 30 | 4.54% | 27.27% |

**Source:** Epidemiological data collected from the record book of DMHT and calculated and compiled by researcher, 2015

Code "b" and "ch" schools were having annual examination that time when health team visited schools, so those are only reported cases of diseases as they could not screen all the students who were present in the school.

From the above table it can be seen that reported cases and epidemiological data differs a lot. When teachers are interviewed and asked which are the most common diseases children suffers more most of them said seasonal diseases, stomach problems, headache or body ache. Very few said that students suffer from dental diseases. Whereas, epidemiological picture different from the "felt need" of the students.

Again this epidemiological data is almost similar to the findings of National health survey done on 2004 in India, caries prevalence in that survey was that 51.9% in 5 yrs old children, 53.8% in 12 yrs old children and 63.1% in 15 yrs old children. But this data did not show whether dental diseases are more than any other diseases or not.

Even studies (Joysen Moses et al 2011; Grewal et al 2009; T P Chaturvedi et al 2012; P Datta et al*)* from different region (Uttaranchal, UP, West Bengal, Chidambaram) of the country and other south Asian country (Pakistan, Bangladesh) shows similar prevalence of dental caries. WHO measured 60% -90% school going children suffer from dental caries. They also showed that poor socio-economic condition plays role in prevalence of dental caries.

Studies about dental caries mostly overlook the nutritional status of children. Though there are studies (M Chatterjee et al 2012; Dahiya et al 2013; Masuma P et al 2013; Psoter W et al 2008; E A Sweeney et al 1971*)* shows that nutrition does have effect on dental health of people.

In my study area students of SC (Scheduled Caste) are having more prevalence of dental diseases than ST (Scheduled Tribe) students. Nutritional statuses of SC students are very poor. By looking at them one can see that they are malnourished. Even H/M also reflects their concern students being weak and having retarded growth. This school (code:jb) shows more prevalent of dental diseases than ST dominated students who were not malnourished. Though my limitation was that last two schools as examination was going on the case we got is the reported cases only. Another school (Code:Sb) which is ST dominated school also have less prevalence of dental diseases than SC dominated school.

As researcher is dental surgeon and was requested to serve students she has chance to serve another two schools which she did not include in the study but prevalence of dental diseases can be seen.

**Table: 6.15a Percentage of Dental diseases in schools seen by researcher**

| Code of schools | No. Of students present | Students having dental diseases | Students having other diseases | Students not screened/not having any diseases | % of dental diseases | % of other diseases |
|---|---|---|---|---|---|---|
| Raj | 42 | 14 | 12 | 16 | 33.33% | 28.57% |
| Ba.tp | 50 | 5 | 8 | 37 | 10.00% | 16.00% |

**Source:** Epidemiological data collected from the record book of DMHT and calculated and compiled by researcher, 2015

Here also (code:raj) school is SC dominated and (code:Ba.tp) is having all ST students.

Another concern is that those students who are not screened one cannot tell for sure that they do not have any dental diseases as dental diseases are tend to go unnoticed until and unless there is pain. In the (Ba.tp) school also all the girls' students were not screened due to time constraints. Boys who are all screened among twenty two (22) of them only two are having dental diseases and eight are having other diseases.

From this we can see that SC students having more prevalence of dental diseases than ST students.

But here again question comes from the epidemiological data of the school visited is that other diseases percentage are less than dental diseases. Why dental diseases are more prevalent in Tripura and why SC Bengali students suffer more in dental diseases? Does nutrition play any role? Study *(*Ray I 2013) about nutritional status of school going children in Tripura reveals that `ST children have better nutritional status than general and SC children. Here another study said (R Choudhury 2010) that as ST people have free access to the forest products like plant products--vegetables, fruits, tubers, bamboo shoot etc. of Tripura and those have better nutritional and medicinal value so their nutritional status is better than General and SC Bengali people.

Bamboo shoot which is taken by Tripuri tribes as fresh not as fermented or in preserved form has very much nutritional value. (USDA National Nutritional data base). Tribes of Tripura has given access to forest product like house post, timber, fuel wood, bamboo, cane,

thatching grass, other non wood products, and grazing rights without hampering protected products.(tspcb.tripura.gov.in).

**b. In the referral unit:**

In one PHC and in one CHC there is proper infrastructure for dental treatment. Treatments given are other than screening, extraction of teeth, minor surgery, filling of tooth.

One PHC in Mandwi/Mandai block does not have any infrastructure. Dental surgeon shares OPD room along with Homeopathic M/O. There is no chair, or other instruments, not even basic instrument like mouth mirror and probe which are used for examining patients.

In one PHC Dental Surgeon revealed that due to no electricity most of the rural schools it is difficult to perform proper screening of students.

Another problem was echoed by dental surgeon and teachers as scarcity of water or difficult to access water. In Tripura water content is high of Iron and because of that it gives reddish stains to everything. Water problem is also seen by Joint Review Commission of Sarva Siksha Abhiyan. They observed that scarcity of water hampered the sanitation and MDM programme and comprehensive function of schools. (ssa.nic.in). In every school researcher visited also face similar problem more or less.

Due to high content of Iron in water teeth also get stained which eventually discoloured teeth. This actually has psychological effect on people due to reddish discoloration of teeth.

**c. In the district level:**

In the district office there is no almirah for the RBSK team. They keep their records and documents in other almirah allotted to state. There is no computer also. They have to use state's computer for sending mail and compiling monthly reports and other related works.

**6. Lack of Communication among Schools and I/S and Health Team:**

There is communication gap between these sectors. In the interaction between school and I/S, school get information from I/S which is in block level. When interviewed personnel from block they said they inform schools about school health programme at least 3-4 days prior to the programme. But when H/M's of schools were interviewed they said they do not get any information from I/S. One school said they got information from I/S. In another case pharmacist of the DMHT informed one teacher about the programme as they are known to each other. H/M of the schools said if I/S inform at least seven days prior to the programme attendance of students and guardians would have been better. Here one thing I like to mention that presence of guardians is very less.

As health team goes from district CMO office they do have less idea about the location of school or where the school is situated. They get only name and which block the school is situated, Sometimes a vogue idea of locality. They are even not aware about the timings of the school sometimes.

In one incident when researcher went with the team they wanted to visit, as team was not sure about the timings of the school they could not perform there. When team reached school by asking people about the location of school by that time children started going home after waiting for the team for a long time. H/M of that school said that as it was quite late guardians started coming to school to inquire about their wards. Children also became tired and teachers too as they have to come from far place early in the morning.

Teachers suggested another nearby school for team so that their day does not become vain. H/M of the scheduled school arrange by asking H/M of that school. So team went there. This school was not informed before as it was scheduled suddenly with the consent of H/M of school.

Due to poor communication with school heath team and I/S in this regard this type of hazard happened. What if H/M would not have agreed to give permission?

Communication gap also was there in the district level. While providing school name from I/S to district education office they could have provide full information about the location, timings of schools. Though phone number of H/M is provided but many times this does not work due to network problem. This miscommunication also can be prevented if MPW or ASHA from nearby health institution or *Panchayat* can be involved in the programme.

In almost every occasion the team was searching for the location of schools. It is also come in to notice that morning section schools which begin at 7.00am to 10.30am are not covered by the team.

Even schedule is done without consulting respective schools. Two schools researcher visited along with team was having annual examination. Because of that only those who had examination came to school other students did not come as they were preparing for their next day examination. Those who were present, all of them also were not checked. Only those who reported their diseases to health team were screened and treated. This is also echoed by M/O of RBSK team and other officials involved in school health programme.

*"Co-operation is must from all level, education department, and social education department."(DNO,RBSK, December 2014)*

**7. Lack of Co-ordination Between DMHT and Dental Surgeon Posted in the PHC/CHC:**

RBSK team has provision of taking dental surgeon and ophthalmic assistant from nearby PHC/CHC where school health programme is implemented and under which jurisdiction school is situated. But till (March-2015) no dental surgeons were taken. One dental surgeon recalled an incident from other area that dental surgeon were informed just before the date of scheduled school health programme. He could not attend the programme as he had other appointment in the hospital. Even patient were given appointment for treatment in the OPD. So it was difficult for the dental surgeon to attend the school health programme. Dental surgeon who narrated the incidence has opinion that due to poor co-ordination of the DMHT with dental surgeon in the hospital such incidence happened.

**8. Vehicle Problem for the Dental Surgeon who are/were Involved in SHP:**

RBSK DMHT has their own rented vehicle which they use for school health programme. But when dental surgeons from PHC/CHC are asked to attend school health programme they do not provide any vehicle. One of the dental surgeons said

*"If they order us to go to SHP we surely will go but who is going to provide vehicle to take us to the venue? We are not supposed to go without transport."(Dental surgeon, January 2015).*

Again who were involved in school health programme before RBSK come into force, Ambulance of that health institution or other hired vehicle were taken for SHP.

Those dental surgeon who till now attend SHP which was existing before RBSK was implemented also take ambulance or hired vehicle for SHP.

**9. Financial Constraints:**

Due to financial constraints and unavailability of land DEIC is not established. Human resources are also not provided for that like teams were not provided according to the guideline of RBSK. So guide line says there should be at least one team in every block but only one team is provided in the West Tripura district whereas there are nine blocks in the district. Even in district level due to unavailability of contingency fund Almirah and computer are not provided.

## Ethnicity related problems:

This section is dealing with Tripura's problem of ethnic clash resulting insurgency problem, effect on programme implementation.

I mentioned in the chapter -4 about insurgency in Tripura and how it effect the life of common people and state run welfare programmes in villages and remote areas. Same is also echoed when interview was taken from health personnel who used to go to remote places and implement school health programme in schools.

**Problem of Insurgency and Disruption of Programme:**

As we have seen how insurgency problem grows in Tripura and how this hampered government programmes and life of people of Tripura irrespective of ethnicity. This same view was echoed by dental surgeons who are posted in PHC/CHC. In difficult to reach areas they have to inform P.S (police station) before going to the venue for school health programme. If they get permission from P.S, than only they can perform the programme otherwise not. School health team hardly covers all the schools in one year. If one school is left or could not be covered due to some reason it is unlikely that school will be covered soon. So if due to this problem school are not covered the people get affected are students. From above discussion also it can be seen how insurgency hampered state run welfare activities.

**Language Problem:**

Other than insurgency problem other ethnic problem which is faced by health personnel in delivering school dental health programme is language problem. *"Kokborok*" is the local tribal language which is spoken by most of the tribes of Tripura. This has no own script. During the reign of kings around 18$^{th}$ century Bengali was made the court language of Tripura. Kings were also encouraged flourishing of Bengali language. As most of the administrators were Bengali they encouraged in spreading Bengali language and culture. In school, colleges' medium of instruction was Bengali. Even those tribals who were residing in Agartala gradually picked up Bengali and many of them hardly know *"Kokborok"*.

It was only in 1979 January left government officially recognised *"Kokborok*" as a second state language. In 1981 in 1200 primary schools *"Kokborok* was introduced as instruction medium." In 2005 Education Department decided in primary level instruction of medium will be *"Kokborok"* other than Bengali. Teachers were recruited and enrolment of tribal students increased. But controversy over script was still there as government uses Bengali

script and another lobby of tribes want to Roman should be the script. Most of the Bengali does not know how to speak *"Kokborok"*. `At higher secondary level it was also introduced as an alternative subject. But teachers obtained degree in other language. At university level diploma course is there in this language. (Ratna Bharali Talukdar, 2007)

Problem of language persists while performing different programmes in tribal majority areas. Here in school health programme also as M/O of the DMHT is Bengali speaking person and does not know *"Kokborok"* it was difficult for him to interact with children who are tribal and *"Kokborok*" speaking. Teachers help them in translating what M/O instructs to students. Pharmacist who also is Tripuri tribe and *"Kokborok*" speaking helps in this matter.

Joint review commission of *Sarva Shiska Aviyan* also shows their concern regarding the medium of instruction and language spoken by tribal people in schools. As they observes that many schools having tribal students over 50%, communication with them in *"Kokborok*" is better than other language where as teaching content is in "Bengali". So in their opinion there remain communication gap between these two which may not be beneficial to children. *(ssa.nic.in).*

Same concern can be taken into consideration in case of implementing health programmes in schools. Language which is the medium of communication between two actors in a society if not understood by another actor than system of interaction does not work. This leads to gap in the structure in which these two actors are involved.

## Other Problem:

**Fear for Dental Treatment among Students**:

Dental surgeon showed concern that students fear about dental treatment. Students assume that treatment for dental diseases means "tooth extraction" by "injection". So when dental surgeons want to intervene most of the students show their reluctant for screening for oral/ dental region. They have to motivate to show their problem to dental surgeon. This also hampers delivery of treatment to students having dental diseases.

## Conclusion:

Role of actors in different level of structure, allocation of resources determines the functioning of School Dental Health service at different level of structure and its status in the structure. This also brings out the constraints in delivering School Dental Health to school children. In Tripura prevalence of dental diseases among children is also comparatively more than other diseases.

# CHAPTER VII
# CONCLUSION

Human action is engaged by rules and resources. Rules restrict action and resources facilitate it. Every human plays a role in the structure in which he belongs. Role is assigned by the structure and it is acted upon by the knowledge for the action. Resources in the structure give the authority and power to the person who is located across different administrative levels.

In the School Health Services two organization acts in a vertical manner having "dual authority". One deal with the WIFS (Weekly Iron & Folic acid Supplementation), MDM (Mid Day Meal) and De-worming programme which is administered by the Ministry of School Education and another which is Ministry of Health and Family Welfare sends resourceful personnel and team once or twice in a year to look after and deal the diseases condition of the children. These two department i. e. Education and health have very weak interaction between them at the state, district and block levels. At the district level, officials meet only once in month in the monthly meeting, and next in the school level when team visits to the school. Funds allocated for School Health Programme is dealt with by the Health department except MDM which is dealt by Education department. With In the structure itself there is a lack of communication and co-ordination between the two departments at different levels.

School Dental Health Services under the School Health Service is a small component. The amount of resources allocated for a programme also determines the power and authority that it enjoys. Fund is allocated from the Reproductive and Child Health (RCH) of NRHM for School Health Programme which again subsumed in the RBSK—Rashtriya Bal Swasthya Karyakram, which also deals with child health and maternal health. Breaking up of funds shows that there is no allocation for school dental health services. Even specialized human resources for dental health are also not available in the team except in referral level that is in PHC/CHC. In the RBSK set up of specialized service is in DEIC – District Early Intervention Centre, which is in district level. But in Tripura no DEIC is set up till now. So for delivering school dental health service, other health personnel are forced to also attend to dental problems and find difficulty to deliver the services because of not having the prerequisite training. So it is clear that dental services does not enjoy much status or power in the overall structure of School Health Services, considering that the epidemiological data shows a fairly prevalence of dental diseases more than other diseases in children in Tripura.

RBSK—which is now ongoing programme under which is SHP is subsumed was launched in Tamilnadu as a pilot project. In the case of Tamilnadu it is well known that the public health services are functional and better accessible than other states in India. They have at least 29 government and private dental colleges, numerous medical colleges whereas in whole North-

East India there is only one dental college situated in Guwahati, Assam. Based on the pilot project a uniform guideline was formed and implemented in other state of India. Now question arises does this programme considers the local situation which varies region to region, state to state as India is a vast country having multilingual, multicultural, multiethnic identity? It did not give any flexibility of the structure also, whereas School Health Services which was in force under NRHM before RBSK has flexibility in state wise in its implication.

In Tripura, this study shows that dental health problem in children is high. So there is a need for some consideration and flexibility in the deployment of human resources and in the structure of School Health Services.

Dual authority of the structure, inadequate system of interaction between two organization of the structure, vertical nature of the programme resulted many constraints and problem in the proper fruitful implementation of programme.

Though oral health /dental health has effects on general health but it is not given importance in our country. In the IPHS there is provision of having dental surgeon and dental hygienist or technician in CHC level only not in PHC level. In this regard West Tripura District is in better position as dental surgeons are deployed in PHC level too. But this situation was not like this before. After NRHM came into being dental surgeon were given appointment under NRHM as a contractual employee. But some of the hospital does not have basic equipments, machinery and material also. Even there is irregular supply of electricity, inadequate water supply which leads to the poor performance.

At government level also there is no proper oral/ dental health policy. Even NRHM also does not give importance to oral/dental health.

Oral/dental diseases are one of the most expensive diseases to treat; it is not possible for any government to bear the cost of treatment of oral/dental diseases entirely alone. But if they can provide necessary infrastructure and co-ordinate different organization who are directly or indirectly involved in delivering dental health services it can be possible to deliver a quality dental/oral health services to the population who need it. This also will benefit children at early stage to prevent further complication at later life and reduce burden of oral/dental diseases at later life.

For proper implementation of the programme not only directly related department but other related departments need to be involved. In the schools in the study area there is a scarcity of water supply which hampers not only regular activities but also MDM and other programmes in the schools. Inadequate electric supply hampers school health team to perform their duties properly. Lack of or inadequate transport system hampers access to health care system. Political and social reasons lead to disruption of programme.

To implement the school dental health programme properly all these sector should work comprehensively. Disruption at one level leads to disruption of work at another level and ultimately sufferers are the people i.e. school children for whom programme is taken.

For successful implementation of the programme government should co-ordinate, all the sectors which are directly or indirectly involved in the programme than it will become a comprehensive programme in true sense.

**Endnotes**:

1**. Umakanta Academy:** This school was founded by Maharaja Birchandra Manikya during the later part of 1862 or first part of 1863 AD. Present form of this school that is Entrance school was formed in 15th December 1890 AD. Initiative was taken by the Assistant Political Agent of British and minister of Maharaja Birchandra Manikya, Umakanta Das. Former name of the school was "Agartala High School". In the year 1905 school was renamed as Umakanta Academy. Mainly children from royal family, children of court member of royals, children from affluent tribe family from different parts of Tripura studied here. There were hostels for students coming from outside of Agartala. From writings of British political agent A.B.W. Power during 1871 during his visit to school kind of students studying is known ---

*"It musters between thirty and forty scholars, many of whom belong to the Rajah's family (his sons do not attend the school, they are being taught privately, and are all learning English); others are the sons of men holding office in the state, of talukdars living in the vicinity, and others. One or two Mahomedans also attend. Nearly all belong to the better classes."(Debroy Mrinalkanti 2010)*

This school had two sections, one is Bengali medium and another is English medium. It still remains as a boy's school and having two sections in the heart of Agartala city.

2. **Kaminikumar Singha Memorial School**"-- This school was set up joining two schools in 1321 Tring (1911-1921 AD) in *Kashipur* farm near Agartala. (Tring—Tripuri system of solar year). Later on the name of the school was given in the name of that area where school is situated i .e *Dhaleswar,* and name of school was "Dhaleswar School". This school was shifted to *Ashram Chowmuhani* near Agartala than again shifted to *Dhaleswar* area*. Maharaja Radhakisore Manikya* gifted this village to Nabakumar Singha who was brother-in –law of Kumar Nabadwip Chandra Debbarman( brother of Maharaja, who married Nabakumar's sister). Kaminikumar Singha was son of Nabakumar Singha and he worked under Maharaja (9110-46). He gifted land for the school near his house and school was shifted from *Ashram Chowmuhani* to that place. Later on after many years it was renamed by his name.

## Glossary:

1) *"Chira"*—Flattened rice (Uncooked)
2) *"Dewani*"—Similar to Zamindari involving direct administration by the Dewan in lieu of feudal allegiance and levy
3) *Dewan*—person assigned by kings to collect tax
4) "*Jhoom" or "Jhum*"--- Burn and slash cultivation/shifting cultivation
5) *"Jhoomia" or Jhumia*"—tribal peasant whose procedure of cultivation is "Jhoom" or "Jhum"
6) *"Kokborok*"—local Tripuri Tribe Language in Tripura, meaning "Dialect of People"
7) *"Maharaja*"—His Highness, King
8) *"Maharani*"—Her Highness, Queen
9) *"Muri"*—Puffed rice
10) "*Sangkrak*"—clenched fist
11) *"taitung"or " Titun"*-- A system by which villagers were compelled to carry luggage, etc., of the officials
12) *"Zamindari"*—a system where land lords collects tax from his territory and pay tax to British. Peasant need to pay fixed sum of cash or kind to the Zamindars
13) *"Prahasan"*—Critically telling "nothing but a joke"

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# ANNEXURE

## ANNEXURE I

**Interview Schedule for MD, NRHM/MS, NRHM/SPO/State and District Nodal Officer of RBSK and Chief Medical Officer:**

Social Background and Professional profile:

A. Name of the Respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration in Government Service:

H. Duration in School Health Service under NRHM:

I. Nature of Service

a) Permanent:

b) Temporary/Contract:

If contract,

- Duration of contract:
- Who renews the contractual service?

J. Salary Structure:

a) Fixed:

If fixed.....amount.....

b) Grade pay.....Scale.....

2. What is the Administrative structure of School Health Services in state, district and block level?

3. What is the deployment of human resources for this programme across different levels of the programme?

4. What are your role/functions in the School Health Programme?

5. Do you get any special training to deal with the School Health Programme?

If yes.....

- Type of training.....
- Duration of training.....
- Who provide training.....

If no.....

6. What are the main services of School Health Programme?

7. Are there any dental health service in School Health Service in School Health Service under NRHM?

If yes.....

- Who provide dental health service?
- What type of dental health service is provided?

If no.....

- Why?

8. Is there any provision for prescribing medicines in the School Health Programme?

If yes.....

- From where do the school health team get medicine?

Type of medicine.....

- Allopathic/ayurvedic/homeopathic/others.....specify.....

9. Is there any system of referral for the students in the School Health Programme?

If yes.....

- Please elaborate.....

If no.....

10. Where does the School Health Programme receive its funding?

11. Do you get fund in time?

If yes.....

If no.....

- How do you manage/conduct the programme than?

12. What are the constraints you face while implementing this programme?

a) Administrative:

b) Infrastructural:

c) Financial:

d) Human resources:

e) Political:

f) Others.....Specify.....

13. In our view what measures can be taken to improve this programme?

Or, what are the measures taken to overcome these constraints?

14. What are your views about the functioning

## ANNEXURE II

**Interview schedule for the School staffs who are involved in the school health program**

1. Social background and service profile

A. Name of the respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration of Government service:

H. Duration of job in the school health service:

I. Nature of service:

a) Permanent

b) Temporary/contract

If contract……..

- Duration of the contract……..
- Who renews the contract…….

J. Salary structure…….

a) Fixed……..Amount……

b) Grade pay…….scale…….

2. Among the teaching and nonteaching staffs who are involve in the school health program?

3. Do you get any instruction about your role in school health program?
   - If yes…….
     - From whom……
   - If no……..

4. What is your role in school health program?

5. What are the services provided by school health team?

6. Do they measure weight and height of the students?

7. Does the team provide dental health service to students?

8. Does the school health team provide medicine to students?

   - If yes…….
     - Who take the instruction from school health personnel of taking medicine if student is unable to understand the instruction?

   - If no……..

9. What is the procedure of keeping health record of students?

10. If any student need special health service what is the procedure the school health team follow?

11. How the M/Os in school health team interact with
    a) Students……..

    b) School staffs…….

    c) Parents…….

12. How the other staffs of school health team interact with
    a) Students…….

    b) School staffs……

c) Parents……..

13. Do you face difficulty while performing school health service?
    - If yes……
        - What are those constraints?

    - If no……

14. In your view/opinion how these constraints can be overcome?

15. What is your view/perception about the school health program?

16. What are the common diseases seen in children?

## ANNEXURE III

**Interview schedule for the Head Master/Head Mistress of the school where school health program is implemented**

1. Social background and service profile:

A. Name of the respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration of Government service:

H. Duration of job in the school health service:

I. Nature of service:

a) Permanent

b) Temporary/contract

If contract……..

- Duration of contract……..
- Who renews contract…….

J. Salary structure…….

a) Fixed……amount…….

b) Grade pay……scale……..

2. From whom do you come to know that school health program will be held in your school?

3. How many days ago you received the information about the school health program?

4. Do you get any instruction how to be prepared for school health program?

5. Among the teaching and nonteaching staffs who are involve in the school health programme?

6. How do they help in the school health program?

7. What is your role in the school health program?

8. How do you inform students and their guardians about the school health program?

9. How long does the school health team provide their service in school?

10. Do they check nutritional status of children?

11. Do they check dental health?

12. Is there any system of keeping students health record?

- If yes……..
  - elaborate

- If no……
  - why?

13. What do they do if any students need special service?

14. What is the referral service from school to referral centre?

15. What is the behavior of M/O towards

a) Students……..

b) School staffs……..

c) Parents……..

16. How the other staffs of school health team interact with

a) Students…….

b) School staffs…….

c) Parents……..

17. What are the constraints you face while performing school health program?

a) Administrative:

b) Infrastructural:

c) Financial:

d) Human resources:

e) Political:

f) Others…….. specify……:

18. In your view how these constraints can be overcome?

19. How do you view this school health program?

20. What are the common diseases seen in children?

## ANNEXURE IV

**Interview schedule for the personnel of School Education Department who are involved in School Health Programme**

1. Social background and service profile:

A. Name of the Respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration in Government service:

H. Duration of job in School Health Service:.

I. Nature of Service:

a) Permanent…….
b) Temporary/ contract……..

If contractual……

- Duration of contract:
- Who renews contract?.....

J. Salary Structure:
   a) Fixed……amount…….
   b) Grade pay……..scale……..

2. What is the administrative structure of School Health Service under School Education Department in the state/district/block level?

3. What is the deployment of human resources for this programme across different levels of the programme?

4. What are your role/functions in the School Health Programme?

5. Do you get any special training to deal with the School Health Programme?

If yes……

- Type of training…….
- Duration of training……
- Who provide training……..

If no……

6. What are the roles of School Education Department in School Health Programme?

7. How and how many days ago you get the information in which school, School Health Programme will be implemented?

8. How do you inform those schools where School Health Programme will be implemented?

9. Is there any provision of providing medicine from School Education Department to School Health Programme?

If yes……

- From where do you avail medicine?

- Types of medicine…….

Allopathic/
Homeopathic/Ayurvedic/others……..specify……..

- How many times do you get medicine in a year?

If no…….

10. How do you send medicine to schools?

11. Do you get any instructions how to distribute medicine to students?
If yes……..

- Who gives instructions?.....
- What type of instruction is given?

12. Is there any system of keeping students health record?
If yes…….

- Please elaborate……..

If no……

- Why?

13. What type of co-operation do you get from Health Department?

14. What are the constraints you face while performing School Health Programme?

a) Administrative:

b) Infrastructural:

c) Human resources:
d) Financial:

e) Political:

f) Others……specify……

15. In your view/opinion how these constraints can be overcome?
Or, what measures can be taken to improve School Health Programme?

16. What is your view about School Health Programme?

## ANNEXURE V

**Interview schedule for the personnel who works in school health team**

1. Social background and professional profile:

A. Name of the respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration of government service:

H. Duration of job in the school health service:

I. Nature of service

a) Permanent

b) Temporary/contract

If contract…….

- Duration of contract……..
- Who renews contract……

J. Salary structure……..

a) Fixed…….amount……

b) Grade pay…… scale……..

K. Name of district/block under which his/her team works?

2. What is the administrative structure of School Health Services in state/district/block level?

3. What are the deployments of human resources for this program across different level of the programme?

4. What are the services provided in the School Health Program?

5. Do you get any special training to deal with the school health program?

- If yes……
- Type of training…….

- Duration of training……..

- Who provide training……

- If no…….

6. What are the common diseases you see among school children?

7. Who provides dental health services to school children?

8. What is the dental health services provided in School health program?

9. Do you provide medicines in the school health program?

10. From where do you avail the medicines?

11. Which type of medicine do you provide in the school health program?

Allopathic/ayurvedic/homeopathic/others…..

12. How many children you can give service in a day/school

Or can you cover all the students present in school in one day?

- If yes……..
- If no……..
- How do you cover rest of the students?

- How do you maintain the health record of the student?

13. Is there any separate procedure to keep record for dental health?

- If yes…….

- Elaborate…….

- If no……

- How do you maintain records for dental health?

14. Is there any regular follow up?

a) Please specify number of follow up…….

b) Interval of follow up……

15. Do students need referral?

- If yes……

- What is the procedure of referral?

16. To What extent do you receive co-operation from the

- School staffs……..

- Students…….

- Parents……..

17. What are the constraints you face while performing School Health Program?

a) Administrative:
b) Infrastructural:

c) Human resources:

d) Financial:

e) Political:

f) Other…….specify…….

18. How these constraints can be overcome?

19. Do you face any problems during delivering school dental health service?

- If yes……..
  - What are they?
- If no……

20. In your view how these problems can be overcome?

21. What are your views about the school health program?

## ANNEXURE VI

**Interview schedule for the Dental surgeon who are part of the School Health Program**

1. Social background and service profile:

A. Name of the Respondent:

B. Age:

C. Sex:

D. Caste:

E. Designation:

F. Qualification:

G. Duration of Government service:

H. Duration of job in school health service:

I. Nature of service:

a) Permanent

b) Temporary/contract:

If contract……

- Duration of contract…….
- Who renews contract……..

J. Salary structure:

a) Fixed …….. amount……

b) Grade pay…….scale……

K. Name of the PHC/CHC in which he/she works under which jurisdiction school is situated where School Health Program implemented:

2. Please list all the medical and non medical personnel on school health team?

3. What is your position in the School Health Program?

4. How often are you involved of the activities in School Health Program?

5. On whose order do you conduct your activities?

6. At what level do you conduct your services?
a)Sub centre
b)PHC
c) CHC
d)School health team
7. How do you reach the school where the school health program is conducted?

8. What is the dental health services provided in the school health program?
Screening……..

Treatment…….

9. Do you provide medicine in the school health program?

10. From where you avail medicine?

11. Which type of medicine do you provide in school health program?

Allopathic/ayurvedic/homeopathic/others…..

12. How many children you can give service in a day/school having dental disease?

Or can you cover all the present students having dental diseases in school in one day?

If yes…….

If no…….

How do you cover the rest of the students?

13. Is there any separate procedure to keep records for dental health?

If yes…….

Elaborate…….

If no……

How do you keep record than……

14. Is there any regular follow up?

c) Please specify number of follow up……

d) Interval of follow up……

15. Do students need referral?

- If yes……

What is the procedure of referral?

16. To What extent do you receive co-operation from the

- School staffs……..
- Students…….
- Parents……..

17 .What are the constraints you face while implementing the School Health Program?

g) Administrative:

h) Infrastructural:

i) Human resources:

j) Financial:

k) Political:

l) Other…….specify…….:

18. In your view how these constraints can be overcome?

19. What are the problems you face while performing dental health service in school health program?

20. What are the measures that can be taken to improve the program?

21. What is your views/opinion working in the dental health services in school health program?

## ANNEXURE VII

**Verbal consent form:**

Title of the course: M.Phil

Supervisor's name: Prof. Rama V. Baru

Name of the Institution: Jawaharlal Nehru University (JNU), New Delhi

I, Barnali Das, registered student of Centre for Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi, conducting a study, titled- "Structure and Organisation of School Dental Health Service in the School Health Programme of NRHM in West Tripura District".

As your work is related to my study I would like to know something related to my study from you through some question. This conversation will be recorded by a voice recorder. This will take approximately half an hour to 45 minutes. Your participation is voluntary and if you do not want to participate or continue you can stop at any point. If you agree to participate your provided information will be used only for academic purpose. Your given information will be used only in anonymous form. In writing a pseudonym will be given. If you want to know anything about this research you can contact with my supervisor in CSMCH, JNU, New Delhi.

Name of student: ……..

Date of interview……

Title of the topic: "Structure and Organisation of School Dental Health Service in the School Health Program of NRHM in West Tripura District"