

## Health Infrastructure the Key to Healthcare Improvement: Facts of Tripura

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### **Abstract**

*The objective of the study is to examine the status of health infrastructure of Tripura on the basis of data collected from different government reports like HDR Tripura-2007, RHS Bulletin UMHFW 2008, NRHM Common Review Mission Tripura 2007 etc. It has been found that the health infrastructural facilities available in Tripura are inadequate which should be addressed immediately for rejuvenation.*

**Key Words: Health, Infrastructure, Human Resource Manpower**

### **Introduction:**

The most famous modern definition of health is "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The definition is given in the Preamble to the Constitution of the World Health Organization which is adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, No. 2, p. 100) and entered into force on 7 April 1948.

Health Infrastructure is an important indicator to understand the healthcare delivery provisions and mechanisms in a country. It also signifies the investments and priority accorded to creating the infrastructure in public and private sectors.

The healthcare services are divided under State list and Concurrent list in India. While some items such as public health and hospitals fall in the State list, others such as population control and family welfare, medical education, and quality control of drugs are included in the Concurrent list. The Union Ministry of Health and Family Welfare (UMHFW) is the central authority responsible for implementation of various programmes and schemes in areas of family welfare, prevention, and control of major diseases. In the case of health the term infrastructure takes on a wider role than mere physical infrastructure. Healthcare centres, dispensaries, or hospitals need to be manned by well trained staff with a service perspective. In this paper we include current conditions of physical infrastructure, staff, access, and usage to identify critical gaps and requirements in infrastructure and services.

### **State Profile**

The State of Tripura has geographical area of 10,491.69 sq km with a stretch of 856 km of international border with Bangladesh, 109 km long border with Mizoram and 53 km border with Assam. Around two-thirds of the geographical area of the State of Tripura is hilly with six major hills running criss-cross in the North-South direction. The hilly terrain makes a large area of the State difficult to access and this has implications for the accessibility of the people to formal health care. As per 2001 Census, the size of population of the state is 3199 thousand approximately with density of population 305 per sq.km and sex ratio 948 females per thousand males.

### Health problems in Tripura

Major health problems in Tripura are Diarrhoeal diseases, parasitic infestation, infective hepatitis, enteric fever and other waterborne diseases originating from sources such as non-potable drinking water and poor sanitation, malnutrition among children, anaemia, malaria, and respiratory diseases. Diarrhoeal diseases and enteric fever (group of diseases) was the leading cause of mortality in the state. As per data available of recent time, 47.7 percent of rural population is not covered by potable water facilities, 24.6 percent is only partially covered. High endemic levels of diarrheal diseases together with epidemics cause much of the work load for the health services, leaving very little time for other activities such as MCH and Family Welfare.

The health parameters (vital rates) in the State of Tripura are presented below in Table-1 along with national estimates for ready reference.

**Table:I**  
**State Health Parameters**

Parameter	National	Tripura	Source/Year
1. Infant Mortality Rate (IMR)	57	36	SRS -2006
2. Maternal Mortality Rate (MMR)	301	NA	SRS-2001-03
3. Crude Birth Rate (CBR)	23.5	16.6	SRS-2006
4. Crude Death Rate (CDR)	7.5	6.3	SRS -2006
5. Total Fertility Rate (TFR)	2.9	2.2	NFHS-3, SRS-2005
6. Couple Protection Rate (CPR)	46.6	22.2	MoHFW: FW Statistics - 2006

It may be pointed out here that while the IMR at the All India Level declined from 58 (SRS – 2005) to 57 (SRS-2006), for the State of Tripura it increased from 31 to 36 during the same period. It is a matter of great concern which the State needs to keep in mind while realigning their health strategies. The TFR as measured through the NFHS also showed an increase from 1.9 to 2.2 in the State. The crude death rate in the state has also increased from 5.5 in 2004 (State Handbook, Assam, 2006) to 6.3 in 2006. The smaller values of the state estimates CBR, TFR in comparison to national estimates leave no room for complacency because of the rising trend of some vital statistics such as crude death rate and IMR in the state.

### State Health Infrastructure

Out of the six state hospitals, there is one State Hospital (IGM Hospital) situated in Agartala, which only caters service exclusively to mothers and children. There are two District hospitals, one each at South and North Tripura district and one is under construction at Kulai (Dhalai District). The number of Sub Divisional Hospitals in the state are only 11 out of which 3 are in ADC area. As a part of the primary health care delivery network, there are 539 sub-centres under 73 PHCs in the state and 9 Community Health Centres. There are two Blood storage centres and six Blood Banks in the State

**Table: 2**

**Health Infrastructure at a Glance**

Sl. No.	Health Institutions	West District	North District	South District	Dhalai District	Khowai	Gomati	Unokoti	Sipahijala	Tripura State
	Medical Colleges	2	0	0	0	0	0	0	0	2
1	State Hospital	6	0	0	0	0	0	0	0	6
2	District Hospital	0	1	1	1	1	1	1		6
3	Sub.Div.Hospital	0	2	2	3	1	2	2	2	14
4	C.H.C	2	3	4	2	2	3	1	4	21
5	P.H.C	11	14	17	15	7	10	9	12	95
8	Blood Banks and Blood Storage Centre	4	1		1	0	1	1		8
	Ayush (Homeo)	24	2	12	1	4	9	3	11	66

Source : Health and Family welfare Department, Govt of Tripura, 2022

### Rural Public Health Infrastructure of the State

#### Physical Infrastructure

The healthcare in rural areas has been developed as a three-tier structure based on predetermined population norms. The sub-centre is the most peripheral institution and the first contact point between the primary healthcare system and the community. Each sub-centre is manned by one Auxiliary Nurse Midwife (ANM) and one male Multi-purpose Worker [MPW(M)]. A Lady Health Worker (LHV) is in charge of six sub-centres each of which is provided with basic drugs for minor ailments. The LHV is expected to provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhoea control, and control of communicable diseases. Sub-centres are also expected to

use various mediums of interpersonal communication in order to bring about behavioural change in reproductive and hygiene practices. The sub-centres are needed for taking care of basic health, needs of men, women and children. As per the figures provided by the UMHFW there are 579 sub centres functioning in 2008 as against prescribed number of 659 as per government norms.

Primary Health Centres (PHCs) comprise the second tier in rural healthcare structure and these are envisaged to provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotional aspects. (Promotional activities include promotion of better health and hygiene practices, tetanus inoculation of pregnant women, intake of IFA tablets and institutional deliveries.) PHCs are established and maintained by State Government under the Minimum Needs Programme (MNP)/Basic Minimum Services Programme (BMS). A medical officer is in charge of the PHC and he /she is supported by fourteen paramedical and other staff. It acts as a referral unit for six sub-centres. It has four to six beds for inpatients. The activities of PHC involve curative, preventive, and Family Welfare Services. There were 76 PHCs functioning in 2008 as against the required 104 according to the Ministry of Health. Though the numbers appear to be increasing there is still a shortfall compared to the required norms for PHCs.

Community Health Centres (CHC) forming the uppermost tier are established and maintained by the State Government under the MNP/BMS programme. Four medical specialists including Surgeon, Physician, Gynaecologist, and Paediatrician supported by twenty-one paramedical and other staff are supposed to staff each CHC. Norms require a typical CHC to have thirty in-door beds with OT, X-ray, Labour Room, and Laboratory facilities. A CHC is a referral centre for four PHCs within its jurisdiction, providing facilities for obstetric care and specialist expertise. There are only 11 CHCs in the state, a shortfall of more than 50 percent than the required norms as shown in Table-3.

Data on facilities within these centres are not available. Most reports and evaluation studies point to the lack of equipment, poor or absence of repairs, improper functioning, or lack of complementary facilities such as 24-hour running water, electricity back-ups, and so on. But conditions being what they are, intermittent power supply and water supplies take heavy toll on the performance of these centres.

### **Human Resource Manpower**

Generally rural public health facilities across the country are having a difficult time in attracting, retaining, and ensuring regular presence of highly trained medical professionals. The higher the level of training required for the position, the greater is this need gap. For the time being it would suffice to make the point that as in the case of physical health infrastructure, there is also a shortfall (and perhaps a more serious one) in service providers in Tripura. There exists shortfall across all cadres in the posts of MPW(F)/ANM, MPW(M), and the Health Assistant (Female)/LHV. This is evident from Table-3. This shortage is despite government efforts to train health workers through various training programmes throughout the country for more effective and systematic service delivery. PHC is the first contact point between the village community and the Medical Officer. The

dearth of trained doctors such as Surgeons, Obstetricians & Gynaecologists, Paediatricians etc., lab technicians and

**Table -3**  
**Health Infrastructure of Tripura at a glance**

Item	Required	In Position	Shortfall
Sub centre	659	539	120
Primary Health Centre	104	73	28
Community Health Centre	26	10	16
Multipurpose Worker(Female)/ANM	655	638	17
Health Worker (Male)/MPW (M)	579	436	143
Health Assistants (Female)/ LHV	76	62	14
Health Assistants (Male)	76	93	-
Doctor at PHCs	76	255	-
Surgeons	11	-	-
Obstetricians & Gynecologists	11	-	-
Physicians	11	-	-
Pediatricians	11	-	--
Total specialists at CHCs	44	-	-
Radiographers	11	1	10
Pharmacist	87	76	11
Laboratory Technicians	87	67	20
Nurse Midwife	153	235	-

(Source: RHS Bulletin, March 2008, M/O Health & F.W., GOI)

Pharmacists are acutely felt in this area. What these data do not reveal is that even if the personnel are present, their level of participation in providing health services is lower than desired due to lack of supplies, inadequate functioning of equipments, poor monitoring of the staff, deliberate absenteeism and so on.

**Conclusion**

In conclusion it may be pointed out that systematic expansion of the availability of fixed infrastructure requires financial support and a strong political commitment from State government. Yet, such a commitment is unlikely to attain universal coverage. There is evidence that the ANM has huge responsibilities with few resources. Significant improvement in the functionality of the existing rural infrastructure may be possible by

rationalizing the role of the ANMs and providing them with adequate (financial and manpower) resources to realistically meet the goals. Another important point to remember here in this context is the role of people's awareness about health. People conscious about their health may contribute significantly in generating informed collective demand for better health care services. The NGOs may play important role in this area.

**References:**

1. Ashlesha Datar, Arnab Mukherji & Neeraj Sood, 2007, "*Health infrastructure & immunization coverage in rural India*", Indian Journal of Medical Research, 125, January.
2. National Rural Health Mission, *Common Review Mission Tripura 15-21st November, 2007*
3. **National Health Profile, 2008.**
4. RHS Bulletin, March 2008, M/O Health & F.W., GOI.
5. Tripura Human Development Report- 2007.
6. WHO Report, 2005.