

## Telemedicine in Tripura

### PROBLEM STATEMENT

Tripura is a geographically isolated State in the North Eastern Region with infrastructure and human resource bottlenecks. The scarcity especially in specialist manpower in the critical sectors still persists. Furthermore, the rural inhabitants have socio-economic problems mainly characterized by poverty, gender inequity and low participation in developmental initiatives which compromises access to quality health care.

### PROGRAMME DESCRIPTION

Deployment of Telemedicine facilities in different Government Hospitals (District Hospitals, Sub Divisional Hospitals and Community Health Centers / Primary Health Centers) in phases to improve accessibility and affordability to quality of specialist health care particularly to the poor and under-served population by use of Communication and Information Technology when distance separates the patients and the doctors.



Map of Tripura showing the locations of Health Institutions and Referral Centres having Tele Medicine facilities

- **Major Milestones of the Programme:**

- # Commissioning of Telemedicine Project in March 2004 in collaboration with Ministry of Information and Technology, Government of India with technical support from Webel ECS Ltd. (A Government of West Bengal Undertaking).

- # Commissioning the 1<sup>st</sup> Phase of the project during June 2005 where Referral Centres were identified at Indira Gandhi Memorial Hospital (IGMH), Govind Ballav Pant Hospital (GBPH) and Cancer Hospital at Agartala with Nodal Centres commissioned at the distantly located Sub Division Hospitals (Amarpur, Kanchanpur, Chailengta, Gandacherra and Kathalia PHC).

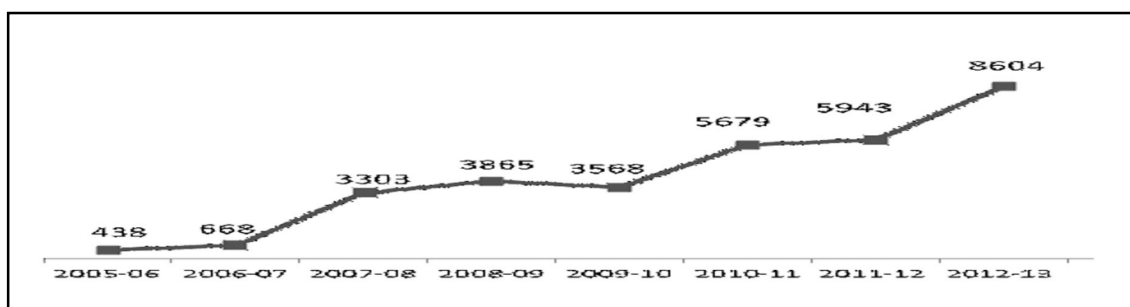
- # 2nd Phase implemented by April 2007 wherein six more Nodal Centres were commissioned at Sabroom SDH, Belonia SDH, Melaghar SDH, Kumarghat CHC, Kulai DH and Natunbazar PHC.

- # During 3rd phase, six more Nodal Centres were added in April 2010 at Khowai SDH, Takarjala CHC, Ompinagar CHC, Hrishyamukh PHC, Chawmanu PHC, and Damcherra PHC.

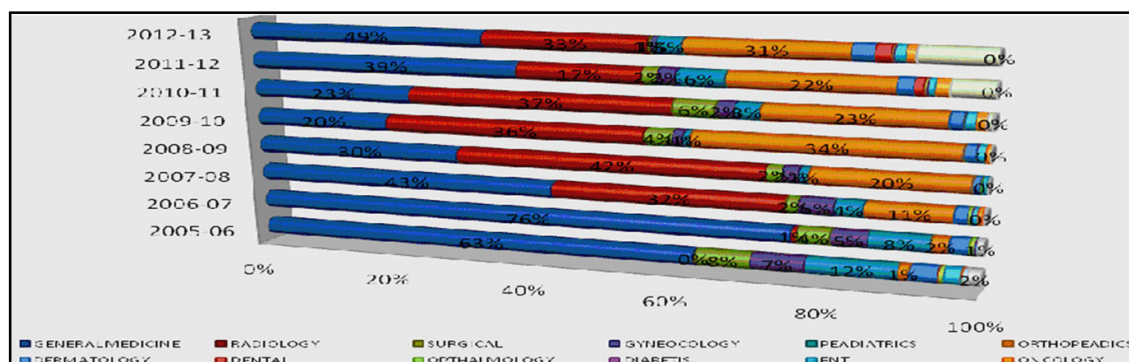
- All the 3 (Three) Referral Centres and 17 (Seventeen) Nodal Centres have been handed over to the Department of Health & Family Welfare, Government of Tripura.
- The communication links used in all these centers are 512 Kbps leased lines provided by BSNL.
- State Government ensures availability and accessibility of specialists at the Referral Centres, located in State HQ.
- Presently, NRHM supports for sustenance of the project.

#### IMPACT OF THE PROGRAMME

- Year wise consultations showing higher acceptances and utilization of services by the people.



- Patients' availed specialized services at a lower cost, saving expenditures towards journeys, avoid from staying at an unknown place, man day's loss, etc.
- % of discipline wise year wise utilization of tele-medicines services.



- The upward trend of utilization of Radiology and Imaging services through telemedicine facilities is clearly an indicative of poor specialist manpower availability at the district and sub-district level in the whole State.
- There are all total 6 (Six) Radiologists available in public sector in the whole State, in addition to a few available radiologists in private sector. All the radiologists, working both in public and in private sector, are located at the State Headquarters. So, only option available to the patients, majority of whom who are located distantly in remote poorly connected areas, who are interested or having the need of consulting a radiologist, is through the tele-medicine facilities.

- Over the years, it clearly shows that tele-medicine services are being utilized for consulting a radiologist, exclusively available at present only in the State Hq. The % of utilization of tele-medicine services for consulting a radiologist is 32% in 2007 – 08, 20% in 2008 – 09, 34% in 2009 – 10, 36% in 2010 – 11 and shows a deep to 17% in 2011 – 12, but service utilization is 33% in 2012-13.
- Out of total 8 (Eight) Orthopedic specialists, available in the public health sector, 6 (Six) are posted in the Medical Colleges and in State hospital and 2 (Two) are posted in the District hospitals. No Orthopedic specialist is available below district level in the State.
- During the last few years, the utilization of telemedicine services for orthopedic services is considerable; the range of service utilization varies from 11% in 2007 – 08 to 34% in 2009 – 10 and is in the range of 23% during 2010 – 11 to 2011 – 12 and 31% in 2012 – 13.

#### SCALABILITY

The Tele-medicine Project of Tripura is a State of the Art innovation, which may be replicated in other states, subject to local context.

#### CONCLUSION

All the above mentioned facts establish that telemedicine project in Tripura have ensured accessibility and affordability of quality specialists health care services particularly in the under-served, rural and remote areas.

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