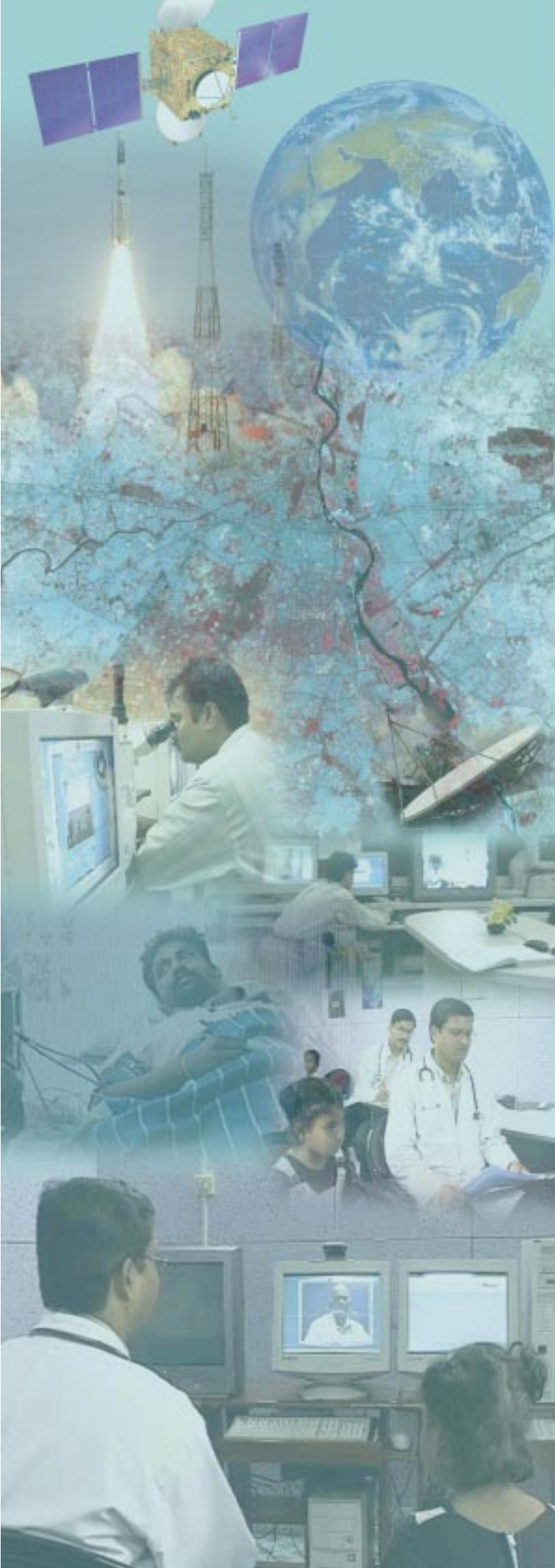


# Telemedicine

Healing Touch Through Space

Enabling Specialty Healthcare to the  
Rural and Remote Population of India





With an area of about 3.2 million square kilometres, India is the seventh largest country in the world. This vast South Asian country gifted with ancient historic background is endowed with varied landscapes like mountain regions, deserts, green plains, and the far-flung and hilly areas in the Jammu & Kashmir, Uttaranchal, North Eastern Region and the offshore islands of Andamans and Lakshadweep.

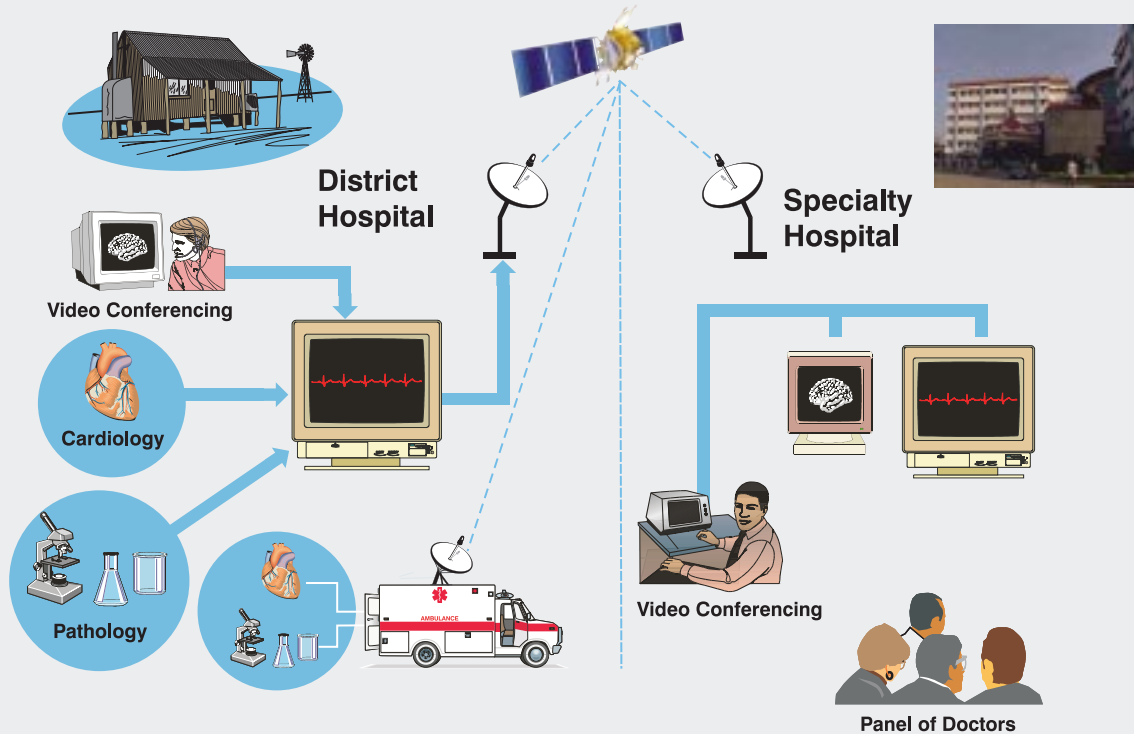
To provide the basic minimum healthcare for India's population which is predominantly rural and distributed across distant geographical locations has been one of the priorities of Health Administration all along. In today's world, despite several advances made in the Medical field, the benefits are still available to the privileged few residing mainly in the urban areas.

With the advent of Communication Technology, especially the Satellite Communications (SatCom) combined with Information Technology, we have means to extend the benefits from the advanced medical sciences even to the remote and inaccessible areas. It is known that 75% of the qualified doctors practice in urban centres, whereas the vast majority of India's population lives in the rural areas.

The Indian Space Programme is driven by the developmental needs of the country and has endeavoured to reach out to the grassroots. Today, the national space systems comprising of advanced communication and remote sensing satellites address a variety of national needs including communications and natural resources management.

Specifically in the noble context of benefiting the grassroots population, the Indian Space Research Organisation (ISRO) has successfully implemented a number of projects in the areas of Drinking Water Mission, Watershed Management, Wasteland Development, Tele-education and more importantly the Telemedicine/Tele-health, which is of great social relevance to the country for enabling Specialty Healthcare to the remote, rural and underserved population.

## TELEMEDICINE CONCEPT



Reaching the un-reached  
Extension of Education for Doctors in Rural/Remote areas...  
General Doctors to learn from specialists and perform effectively...

## The Beginning

Telemedicine facilitates the provision of medical aid from a distance. It is an effective solution for providing specialty healthcare in the form of improved access and reduced cost to the rural patients and the reduced professional isolation of the rural doctors. Telemedicine can enable ordinary doctors to perform extra-ordinary tasks.

Through its Telemedicine projects, ISRO has successfully linked hospitals and healthcare centers in remote rural areas with specialty hospitals in cities through INSAT satellites. Thus, connectivity between patients at remote end and the specialist doctors at urban centers has been effectively established.

With a large and skilled medical community receptive to new ideas, a modest beginning in Telemedicine was made by ISRO in the form of a Telemedicine Pilot Project in the year 2001, linking Apollo Hospital at Chennai with the Apollo Rural Hospital at Aragonda village in the Chittoor district of Andhra Pradesh. Later in March 2002,

the Karnataka Telemedicine project linked the Narayana Hrudayalaya, a super specialty hospital for cardiac care at Bangalore with the district hospital, Chamarajanagar and the Vivekananda Memorial Trust Hospital at Saragur in south interior Karnataka.

The valuable experience gained during these Pilot Projects encouraged ISRO to further endeavour for enabling specialty healthcare delivery to the rural population.

In India, the healthcare is a state subject, administered and managed by the state governments. There are also a few trust/NGO run hospitals apart from the large number of private hospitals/clinics. Thus, the thrust of ISRO has been to introduce SatCom based Telemedicine Technology in various parts of the country through Pilot Projects.

This is to ensure that the hospitals will have sufficient training and experience to run the facility so that the states can subsequently introduce telemedicine in a regular operational mode.