Abstract

India has made appreciable progress and continues to demonstrate a strong commitment for establishing and operating a disease surveillance programme responsive to the requirements of the International Health Regulations (IHR[2005]). Within ve years of its launch, India has e ectively used modern information and communication technology for collection, storage, transmission and management of data related to disease surveillance and e ective response. Terrestrial and/or satellite based linkages are being established within all states, districts, state-run medical colleges, infectious disease hospitals, and public health laboratories. This network enables speedy data transfer, video conferencing, training and e-learning for outbreaks and programme monitoring. A 24x7 call centre is in operation to receive disease alerts. To complement these e orts, a media scanning and veri cation cell functions to receive reports of early warning signals. During the 2009 H1N1 outbreak, the usefulness of the information and communication

Background

With the adoption of the International Health Regulations [IHR(2005)] by the World Health Organization (WHO), it has become obligatory for the Member States to put in place requisite manpower, money and material to comply with the provisions of the regulation. Each signatory country is expected to achieve identified capabilities, including developing and maintaining core capacities to detect and respond to potential public health emergencies of international concern (PHEIC) which is most critical to contain or stamp out an outbreak, save lives, and prevent misery. It is challenging, however, to set up an e ective communication system, and even more so in a country as large, populous, and technologically and linguistically varied as India.

India, with an estimated population of 1.15 billion in 2010, supports almost one fifth of world's population on only about 2.5 percent of its surface area [1]. India adds on an average about 22 million newborns to its population every year [1]. Population density is also high, with a national average of 312 people per square kilometre [2]. India has a very diverse population, speaking 325 recognized languages, making communication extremely challenging [3]. is ever-growing population is spread out over 28 states and 7 Union Territories ruled by parties with varying ideologies and developmental agenda. e Constitution of India provides autonomy to each state (federal structure), and lists out their responsibilities. Health has been identified as a state subject. ere is thus a di erential growth pattern of setting up and utilization of disease surveillance infrastructure. Under the health system there are a large number of disease control programmes, each with its own system of data gathering. Historically, these have been vertical programmes. With the launch of the Integrated Disease Surveillance Project in 2004, an initiative has been undertaken to bring many of them under one roof [4].

Integrated Disease Surveillance Project

Surveillance Project; ISRO, Indian Space Research Organization; NCDC, National Centre for Disease Control; NIC, National Informatics Centre; PHEIC, Public Health Emergencies of International Concern; SIT, Satellite Interactive Terminals; WHO, World Health Organization; IHR, International Health Regulations.