E-GOVERNANCE & TELEMEDICINE

20.1 e-GOVERNANCE INITIATIVES

Ministry of Health & Family Welfare (MoHFW) has undertaken various e-Governance/e-Health (i.e. use of ICT) initiatives for improving the efficiency & effectiveness of healthcare system. The Ministry is progressively planning several new initiatives to be implemented in the coming years. The various initiatives covered under different areas including citizen centric services, information management systems, standardization (adoption & promotion), regulation etc.

20.1.1 Progress & Achievements

MoHFW undertook various activities/tasks during 2015 towards its aim of implementing e-Health in an integrated manner across central and state levels. These activities/tasks are highlighted as below:

A.   National Health Portal (NHP)

The National Health Portal, launched in 14th November, 2014, serves as a single point access for authenticated health information for citizens, students, healthcare professionals and researchers (http://www.nhp.gov.in).

A number of new & value-added features were incorporated in National Health Portal. Such key

features include:-

i. **NHP Voice Portal:** Launched for providing information related to various issues of health, diseases, lifestyle, first aid, directory services, health programmes etc. through a toll free national number 1800-180-1104. Presently the NHP Voice Portal is disseminating information in Hindi, Gujarati, Bangla, Tamil and English as Helpline for Health Information.

ii. **Mobile Apps for NHP:** Applications have been developed to access the National Health Portal through mobile phones i.e. National Health Portal Directory Services for finding National AIDS Control Organisation (NACO) supported Blood Banks, Hospital Locator etc.

iii. **International Day of Yoga (IDY) Portal:** NHP was the Official Portal of Ministry of AYUSH for the celebration of International Day of Yoga (21/06/2015). More than 10,000 videos and images were uploaded during IDY.

B. On line Registration System (ORS)

● ORS was launched under Digital India programme. The ORS system provides a framework for linking various hospitals for online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.

● As on date, 14 hospitals including large hospitals like AIIMS, New Delhi; RML Hospital; Sports Injury Centre, Safdarjung Hospital; NIMHANS; Agartala Government Medical College; JIPMER etc. The ORS with total over 140 departments linked and so far more than 100,000 appointments have been transacted.

● Ministry is taking a number of efforts to link more number of hospitals with ORS.
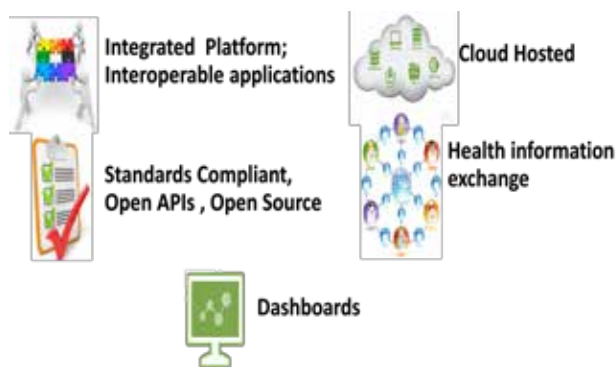
C. National Identification Number (NIN) to Health Facilities

In view of the challenges faced, that health information & patient records with different health IT systems remain trapped in silos (having virtually no inter-operability) in absence of a common identifier in the different databases, after detailed discussions & consultations, Ministry has decided to generate and assign unique National Identification Number (NIN) to each of the health facilities (both public & private) in order to facilitate inter-operability and information exchange between different

health IT systems. It is also critical for creation of electronic health records of citizens. NIN would be in compliance with the Metadata and Data Standards (MDDS) of DeitY. Pilot phase for NIN in State of Goa for generation and verification of NIN has been completed. Web application for NIN has been developed.

D. Integrated Health Information Platform (IHIP)

- In order to facilitate inter-operability, creation and exchange of electronic medical/ health records, citizen services etc., Ministry proposes to set-up an 'Integrated Health Information Platform (IHIP)'.

- IHIP would be established in collaboration with different stakeholders including public and private to achieve a set of outcomes. It would deploy the latest information & communication technologies including Cloud.
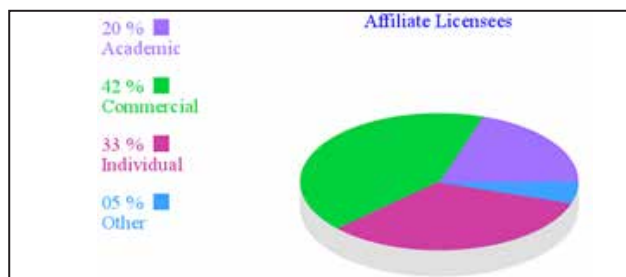

- A concept note in this regard is under preparation in consultation with the stakeholders, DeitY and States/UTs.

E. Electronic Health Record (EHR)

- The EHR Standards were notified by the Ministry in September, 2013. Thereafter, India became a country member of International Health Terminology Standards Development Organization (IHTSDO), Denmark effective from 1st April, 2014, which owns and administers the rights of use for SNOMED-CT i.e. Systematized Nomenclature of Medicine - Clinical Terms, one of the standards notified for EHR.

- All the vendors and healthcare professionals of India can use SNOMED-CT for EHR application, to be used in India, without paying any license fee to IHTSDO. Ministry obtained country membership from IHTSDO in April, 2014 and has renewed the same.

- For promoting usage of SNOMED-CT in the country and work as the central point of contact for distribution of related activities, Ministry has nominated Centre for Development of Advanced Computing (CDAC), Pune as National Release Center (NRC). Till date, more than 80 affiliate licenses have been approved for use of SNOMED-CT in India.
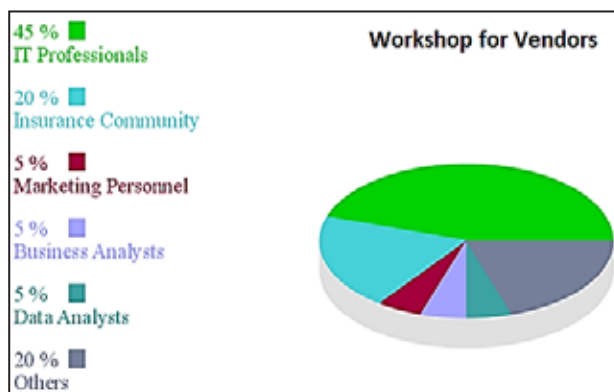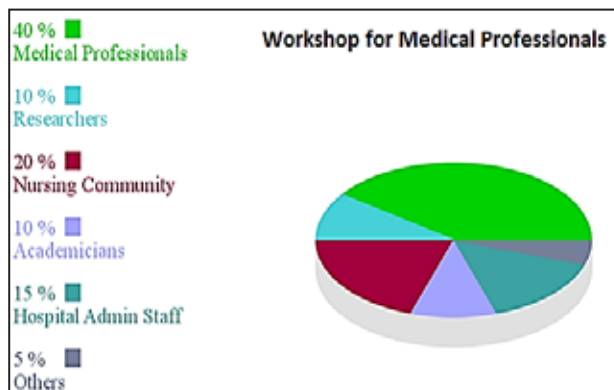
- Website for National Release Centre (NRC), India http://snomedctnrc.in has been launched, which is a one stop window for SNOMED-CT support and usage. It provides links to websites and their relevant sections at MoHFW, C-DAC, IHTSDO and National Health Portal. FAQs based on user queries and usability of SNOMED-CT in implementation, News and Events related to SNOMED-CT within India etc. It also provides archived material of past workshops/trainings, SNOMED-CT implementation guides etc.

- The work for development of Ref-Sets for select disease categories has been created, which will be followed up with communication with IHTSDO for securing member namespace for publication of Refsets. Refsets for public comments will be released thereafter.

- Ministry and NRC officials attended business meetings of Member Forum, Advisory Groups held in Uruguay in October, 2015. Multiple workshops and trainings have been conducted across the country included Noida, Chennai, Hyderabad, Kolkata and Bengaluru to promote SNOCMED-CT usage among clinicians and software/hardware vendors. Around 772 people including dignitaries from Government, public and private sectors registered in workshops and certificates were issued to 438 participants in workshops. Recently, NRC in collaboration with FICCI conducted a Master Class on introduction and use of SNOMED-CT specifically for insurance community at New Delhi.

- e-Learning courses are being promoted. Toolkit for SNOMED-CT has been developed and is freely available. The toolkit contains APIs and software tools for simple and rapid integration of SNOMED-CT in healthcare applications. Training and support on the toolkit has been provided to various organizations/vendors as a part of effective implementation of SNOMED-CT. Work has been started on creating SNOMED-CT to ICD 10 mapping tool.

- Keeping in view the need for updating the EHR Standards in line with the

contemporary developments Nationally & globally, a committee has been constituted and is working with a mandate to revise the standards as required.

F. National e-Health Authority (NeHA)

● National e-Health Authority has been envisaged to be set-up as a statutory body for promotion, adoption & regulation of e-Health standards, and also to function as nodal national body for strategic initiatives in e-Health. It is proposed to be set up through legislation (Act of Parliament) having the following vision/goals:-

a) To guide the adoption and regulation of e-Health standards and e-Health solutions at various levels and areas in the country in a manner so that meaningful aggregation of health and governance data and storage/ exchange of electronic health records happens at various levels in a cost-effective manner.

b) To facilitate integration of multiple health IT systems through health information exchanges.

c) To oversee orderly evolution of state-wide and nation-wide Electronic Health Record Store/Exchange System that ensures security, confidentiality and privacy of patient data maintained and continuity of care is ensured.

● A Concept Note on setting up of NeHA having been approved by the Union Minister of Health & Family Welfare was put in public domain, including MyGov platform, inviting comments & suggestions till 10th May, 2015. The Concept Note had also been circulated to other relevant Ministries/ Departments and to States/UTs requesting for their suggestions/inputs. In line with the comments/suggestions received, the Concept Note is under revision.

G. Electronic Health Data Privacy & Security

● Privacy & Security of information/data is a key issue that has to be addressed in e-Health. To enable healthcare systems to gain the full benefit of a shareable, accessible & protected EHR, the need for development of appropriate legal frameworks for sharing information is very critical.

● Ministry has decided to go ahead with legislation for electronic health data privacy & security. Accordingly, the work for drafting the legislation is underway.

H. Others

● **Guidelines for Indian Government Websites (GIGW):** The work is being undertaken to make Ministry's websites compliant to GIGW.

● **Office Automation-** The e-Office product (by NIC), which aims to support Governance by ushering in more efficient and transparent inter and intra-government processes, is being implemented. The vision of e-Office is

to achieve a simplified, responsive, efficient and transparent working of all Government offices. Currently, modules such as Knowledge Management System, Employee Master Details, Payslip, Leave Management System, Messages, Shared Documents and Upload Important Forms are in use. The work for implementation of e-Tour, Legal Cases and Establishment files is underway.

● **Participation in India International Trade Fair (IITF), 2015:** e-Governance Division of Ministry participated in the Health Pavilion at IITF - 2015 (http://www.nhp. gov.in/media/health-pavallion-iitf-2015).

Hon'ble Minister of Health & Family Welfare, Shri J. P. Nadda at Health Pavilion, IITF - 2015

● **Participation in India International Science Festival (IISF), 2015:** Ministry of Health & Family Welfare (MoHFW) participated in the IISF-2015 during December 04-08, 2015 at Indian Institute of Technology, New Delhi and various e-Governance initiatives of MoHFW were demonstrated.

20.2   e-HEALTH (TELEMEDICINE)

20.2.1 Evolution of Telemedicine in India: Brief summary

● A Task force for Telemedicine was constituted

in 2005 and Planning Commission approved budget for e-Health including Telemedicine in the 11th Five Year Plan.

● In 2007, School of Telemedicine and Bio-Informatics at Sanjay Gandhi Post-graduate Institute of Medical Science (SGPGIMS), Lucknow was made National Resource Centre for Telemedicine & Biomedical Informatics by DeitY, Government of India.

● Ministry of Health & Family Welfare, Govt. of India supported Tele-ophthalmology Onco-NET Project in many parts of the country.

● Several States have undertaken various ICT initiatives in Telemedicine and have been supported under the National Health Mission (NHM) framework. States like Odisha, Tripura, Punjab, Rajasthan and Karnataka have introduced pilot projects in the area of Telemedicine.

20.2.2 Telemedicine Initiatives being undertaken by Ministry of Health & Family Welfare

A.   Establishment of NMCN Project

● Ministry of Health & Family Welfare is in the process of establishing National Medical College Network wherein 41 Govt. Medical Colleges are being networked in the first phase riding over NKN (National Knowledge Network–high speed bandwidth connectivity) with the purpose of e-Education and e-Healthcare delivery;

● The Scheme amounting of Rs. 103.99 crore was approved in February, 2014 and under phase-I of the scheme a National-cum-Regional Resource Centre (SGPGI, Lucknow), Five Regional Resource Centres (AIIMS, New Delhi; PGIMER, Chandigarh;

JIPMER, Puducherry; NEIGRIHMS, Shillong and KEM, Mumbai) and 35 other medical colleges having connectivity provided by National Knowledge Network (NKN) shall be networked for Tele-education, Tele-CME, Tele-specialist consultations, Tele-follow-up and Access to Digital Library etc.;

● Remaining Medical Colleges shall be taken up in next phase as per further financial sanctions;

● Guidelines and Standard Operating Procedures (SoP) for operation of NMCN has been formulated;

● MoUs are being signed with State Governments;

● For implementation of the NMCN, a Technical Evaluation Committees (TEC) and a Financial Evaluation Committee (FEC) have been constituted and

● Process of shortlisting the System Integrator (SI) is underway.

20.2.3 New Initiatives

A. Utilization of Space Technology in Health Sector

As a follow up action of the National Meet on "Promoting Space Technology based Tools Applications in Governance & Development" was held on September 07, 2015 at Vigyan Bhawan, New Delhi under the Chairmanship of Hon'ble Prime Minister. Ministry of Health & Family Welfare has envisaged Telemedicine pilot projects for providing citizen-centric Tele-healthcare Services in collaboration with Department of Space by setting up Telemedicine node in Ayappa Temple (Pampa) and CHC, Pooh (Himachal Pradesh).

Current Status

● Telemedicine Node at Pampa, Ayappa temple has been made operational with Satcom connectivity from Department of Space.

● CHC, Pooh has been identified to set up Telemedicine Node for linking with PGI, Chandigarh to provide Tele-health Service.

B. m-Health for Tobacco Cessation

Ministry of Health & Family Welfare, in partnership with World Health Organization has envisaged using mobile technology for tobacco cessation in India. As part of the WHO *'Be Healthy Be Mobile'* initiative, it is proposed to reach out to tobacco users of all categories who want to quit tobacco use and supporting them towards successful quitting through constant messaging.

Current Status

● MoU has been signed with WHO-ITU for providing SMS based services for tobacco cessation;

● Content has been customized as per India specific requirements and approved by competent authority and

● m-Health initiative for Tobacco Cessation programme in English and Hindi languages has been launched on January 15, 2016.

20.2.4 Activities Planned in next FY (2016-17)

● Implementation of first phase of NMCN in selected 41 Medical colleges;

● Establishment of Telemedicine Nodes in Chardhams, Kailash Mansarover and Amarnath pilgrimage in collaboration with Department of Space;

● Design and development of Geo-Web portal with technical expertise from Department of Space and

● Roll out of m-Health initiatives in regional languages.

20.2.5 Financial support provided to States for Telemedicine under NHM Fiexi-pool to all States/UTs for current Financial Year (2015-16)

In FY 2015-16, Rs. 498.62 lakhs were allocated to three States (as per RoPs)

● Himachal Pradesh : Rs. 37.50 lakh

● Maharashtra : Rs. 216.40 lakh

● Tripura : Rs. 244.72 lakh