

E-HEALTH ARCHITECTURE – ODISHA

Problem Statement

During the inception of NRHM, Odisha was considered one of the poor performing States in India in terms of health outcomes and program performance. The State was struggling with poor infrastructure, unavailability of human resources in addition to the structural and organisational issues. One of the major gap was timely unavailability of information to guide program and policy decision.

Program Description

Since NRHM the State has taken various initiatives to overcome these issues. One of the major innovations in this area was development of e-health architecture to cater various program needs. Various information systems have been created to cater different program needs. Some of these systems were developed to support program specific reporting needs (i.e. e-Swasthya Nirman, HRMIS), some of the other hand were developed as an interface between public health system and common people. (i.e. e-Blood Bank, JSSK Grievance Redressal System). Various IT initiatives have taken place in the State and the major objectives of putting these systems were following.

- Improve program planning, progress monitoring & management.
- Reduce process errors present in the paper-based reporting systems.
- Improve efficiency and reduce wastage of time and efforts to collect data.
- For better documentation and timely data retrieval.
- For improved transparency and grievance redressal.
- Monitoring of various schemes and programs under NRHM.

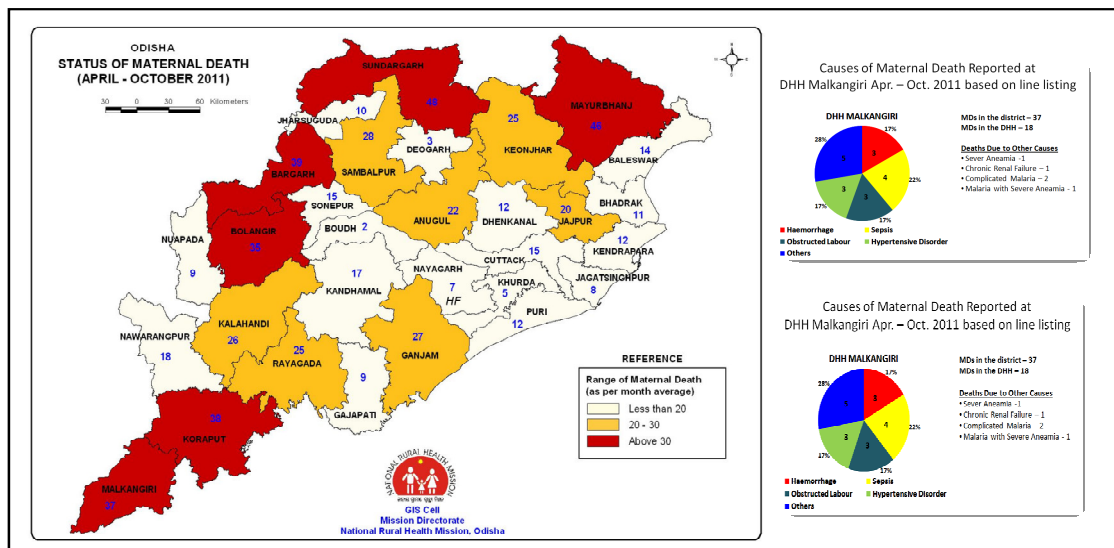
List of IT System available in Public Health Department, Odisha

Program Monitoring Applications	
e-Swasthya Nirman for monitoring construction activities	Drug Testing and Data Management System
e – Sanjog : GPS based MHU Tracking	FRU (First Referral Unit) Monitoring System
E-Dispatch	Contraceptive Logistics Management Information System (C-LMIS)
District Health Information System (DHIS 2.0)	OVLMS (Odisha Vaccine Logistics Management System)
Odisha Drug Management Information System	HMIS Web Portal
MCTS	OSMIS (Orissa State Malaria Information System)
Human Resource Monitoring & Management	
e-Attendance	ITEMS (Integrated Training & Evaluation Management System)
Mission Connect (CUG)	HRMIS (Human Resource Management Information System)
Citizen Centric Applications	
Grievance Redressal System for JSSK Scheme	JSS Call Centre- Sanjog Helpline
e-Blood Bank	Telemedicine
Application for Planning and Management	
Geo-informatics initiatives	

Among these one of the major initiatives was linking some of these systems with the Geographic Information System for map-based data analysis and display of information in user-friendly format. The State is currently using GIS system for the identification of underserved areas and for MCH Centres planning. Digital terrain modelling is also done to identify inaccessible and hard to reach areas and to plan for additional facilities. GIS is also used for planning of Janani Express Ambulances & tracking of Mobile Medical Units in the state. The State has also started utilising GIS for analysis of malaria case reporting, maternal & child death reporting, which gives more clarity in terms of geographical spread and concentration.

Program Impact

Using these many initiatives the health department has made huge progress in data analysis, use



and information sharing and dissemination. In the State people now use mobile technology to know the status of blood availability in nearest facility through e-blood bank system. ASHAs use SMS system to update and request contraceptive and medicine for their drug kit. Program managers while planning for training can get data on a click of button from HR-MIS & Integrated Training System. For most of the programs updated data is timely available now which helps in monitoring, supervision, planning and program management. These initiatives have helped State in evidence-based planning and effective resource allocations.

Scalability

Most of these innovations can be replicated in the other states to maximise the use of technology. Timely information availability, more information sharing and giving information access to the people will have a large impact of the health services in future.

For further details contact

Sr. Consultant, M&E NRHM, Odisha

Email : sdo1nrhm@gmail.com