

## Multi Disease Surveillance System for **Medical College-cum-Hospitals**

Information on disease and deaths are of vital importance for planning and evaluating community health promotion. People die from infectious diseases. Chronic diseases are the leading causes of death. Gradually, as living conditions are improved and advances are being made in sanitation, immunization, and medicine, deaths from infectious diseases is decreasing.



#3, CSM Complex, STPI,  
Priyadarshini Market,  
CRPF Square, Bhubaneswar,  
Pin :751013, Orissa.

## Business Challenge

Information on disease and deaths are of vital importance for planning and evaluating community health promotion. People die from infectious diseases. Chronic diseases are the leading causes of death. Gradually, as living conditions are improved and advances are being made in sanitation, immunization, and medicine, deaths from infectious diseases is decreasing.

The state's MDSS has been active since 1999 but has not been implemented in the three medical colleges. Presently, inputs from the peripheral health institutions are only available for monitoring disease surveillance. Medical colleges being the premier health care delivery institutions of the state feedback from them will further strengthen the existing MDSS initiatives.

By analyzing mortality, morbidity, and behavioral data, one can attempt to quantify health problems and the behavioral risk factors that contribute to them. In this direction, a patients registration system is conceptualized to be introduced. This system is envisaged to keep track of all disease being diagnosed and treated in the Medical college hospital. Special attention has to be given to capture data of referral cases to avoid duplication of cases already reported from the peripheral health institution as well as document the efficiency of the referral system.

## Solution

### Data Entry Solution

The state's Multi Disease Surveillance System (MDSS) primarily focuses on collecting data on the following list of diseases;

Acute Jaundice Syndrome
Acute Respiratory Tract Infection
Bloody Diarrhea
Heat Stroke
Measles
Neonatal Tetanus
Suspected Malaria
Suspected Meningitis
Simple Diarrhea
Severe Diarrhea
Skin Disease
Unusual Severe Syndrome

The surveillance analysis is done for below 5Yrs and 5Yrs &above registered cases to compile morbidity and mortality data.

One of the most important objectives of the disease surveillance is to map patterns across different regions within the state. Region specific disease data recording has become essential. In the present method the possibility of recording duplicate cases and not being able to isolate repetitive visits of the same patient is a matter to be addressed. A proper Patient Information System will facilitate correct recording of surveillance data.

## **Data Transfer Solution**

Data from the individual data entry points will have to be transferred to a central repository in the CRR / SPM at the end of each day through secondary memory storage devices (Floppy, Plug in storage devices etc). This data can be replicated to a central server at the Health Department through the online connectivity facility. The data can be made available to various departments of concern through a web interface. Procedures for confidentiality of data and access by authorized personnel will be inbuilt in such a system.

## **Manpower Solution**

The present manpower available at the department levels is not computer literate or savvy. But a few persons in one or two department are partially trained on word processing and other office software. To take forward the envisaged digital registration and medical records system training in-house manpower is the first step.

## **Training Solution**

An exclusive on the job-training programme need to be adopted for giving hands on exposure to the in-house manpower. This will be an awareness building strategy across the medical college hospital. The hospital team needs to own the new system in order to make its deployment a success. The training will focus to develop skills for;

- Basic computer proficiency
- Digital Medical Record keeping
- Data Entry & Reports generation
- Internet & Intranet Concepts

## **Software Solution**

- Interface - Data Entry and Transfer
- Applications - Patient Registration, Medical Records, Birth & Death Certification etc.
- Database - Region Master Data, Doctors Master Data, Diseases codes, etc.
- Web Interface - Increase wider access and monitoring.



At CSM, we understand the critical nature of keeping the customer's organization up and running from an IT perspective. We understand the technical issues within complex systems and work to put together the best solution to support end users' needs, both today and in the future.

Cybertech Software and Multimedia (P) Ltd.,  
#3, CSM Complex, Software Technology Parks of India(STPI),  
Priyadarshini Market, CRPF Square, Bhubaneswar,  
Dist: Khurda, Pin :751013, Orissa.  
Phone No. +91674-2561462  
Email. Sales@csmpl.com