A Situational analysis and exploratory study of disease prevalence based on data from tertiary care hospitals in Shillong

A Situational analysis and exploratory study was done on disease prevalence based on data from tertiary care hospitals in Shillong on 5th May 2015.This study is a joint collaboration of the Indian Institute of Public Health (IIPH) and the Meghalaya Institute of Governance to do an exploratory situational assessment in order to determine the type and quality of data available at the tertiary care hospitals and to collate data to make tentative estimates of disease prevalence using available hospital data. The data was collected from three major hospitals of the State. The three hospitals were representative of the three sectors namely Government, charitable and private. It was found that none of the hospitals maintained out-patient data in analysable format.

There is a high prevalence of disorders of the digestive tract such as gastritis/acute peptic disorders and alcoholic liver diseases. Infections like gastroenteritis and tuberculosis remain highly prevalent as also cancers particularly of the upper aero-digestive system and lungs. Shillong has a population of 1,43,007 (census 2011) and has the maximum tertiary care hospitals in the state. A total of 10 tertiary care hospitals and one tertiary referral hospital (NEIGRIHMS) which is supported by the Central Government are located in Shillong.

The data was collected from 11 tertiary care hospitals in Shillong

- Government hospitals like Civil hospital, Ganesh Das hospital, NEIGRIHMS and MIMNANS.
- Private hospitals like Bethany hospital, Supercare hospital, Woodland hospital and Children's hospital
- Charitablehospital like Nazareth hospital, Dr. H.G. Robert hospital and Sanker hospital.

Based on the study, it was found that the relative proportion of out-patients (90 per cent) in the Government sector is 9 times more than the in-patient figures for the year 2013 and 2014. The high out-patient figures as compared to in-patient figures are relevant from the perspective of the Government's Meghalaya Health Insurance Scheme launched in 2012 in order to provide financial aid to reduce out-of-pocket expenditure. Hospitals catered majorly to Schedule Tribes population from East Khasi Hills District residing in rural areas. It was observed that in private sector, majority (53 per cent) of the people had multiple diagnoses while in Civil Hospital it was 36 per cent. In the Charitable hospitals, multiple diagnoses were recorded as 7 per cent. The data sets provided by Charitable and Private sector hospitals had no records for alcoholism. It could be either due to lack of documentation or Civil hospital could be a preferred destination for alcoholism.

Similar to Civil hospital, diseases like acute gastroenteritis, acute peptic disorder and pneumonia were recorded in the charitable sector hospitals. Unlike civil, diseases like UTI, renal and ureteric

calculus, type 2 diabetes mellitus, vitamin D deficiency and dehydration were also reported.

According to the country statistics and global health estimates by WHO and UN partners, in 2012 the top 5 leading causes of deaths in India were:

- Ischaemic Heart Disease (12.4%).
- Chronic Obstructive Pulmonary Disorder (COPD)(10.8%)
- Stroke (9%)
- Diarrhoeal diseases (6%)
- Lower Respiratory infections (4.9%)

From 37837 in-patient records from the three representative hospitals, 73 cases of Ischaemic heart disease (0.1%) were reported. For COPD, a total of 546 cases i.e. (1.4%) were recorded across three representative hospitals. 72 cases (0.1%) of cerebral infraction, 286(1%) cases of diarrhoea and 933(2.4%) cases of lower respiratory tract infections were reported from the three major hospitals of Shillong. These figures provide an idea about potential variation in disease burden in Meghalaya when compared to national figures of India.

Challenges faced:

- Lack of uniformity in data maintenance and poor storage of records.
- Quality of data- the data entered in the medical records regarding patient diagnosis was incomplete or improperly specified in many instances.
- Limited time and human resources.
- Scope of the study and recommendations:
- The study is the first of its kind in Meghalaya; it provides baseline data on diseases prevalence for which tertiary care is sought. This can aid in planning for human resources for health, for training and planning for health interventions.