

## ABSTRACT

### **Background:**

The electronic Indoor Morbidity and Mortality Report (eIMMR) system in Sri Lanka is national system that replaced manual recording and reporting of indoor morbidity and mortality return (IMMR). A formal evaluation was done to assess the status of the system based on the clinical adoption framework.

### **Objectives:**

The objective of this study was to assess the factors associated with implementation of eIMMR in hospitals in Eastern Province, Sri Lanka.

### **Methodology:**

Descriptive cross-sectional study was carried out at hospitals in Eastern Province. Selected all 64 hospitals for this study were categorized by the level of implementation of eIMMR as follows.

Group 1 hospitals – eIMMR implemented completely

Group 2 hospitals – eIMMR implemented partially

Group 3 hospitals – eIMMR implemented not at all.

All Heads of institution and data entry personnel of eIMMR were included. Self-administered questionnaire 1 and 2 and observational check list 1 and 2 were used to collect data. Questionnaire 1 was used to assess the knowledge, attitude and self-reported skill of in-charge of data entry personnel of eIMMR, while the questionnaire 2 was used to assess the knowledge and attitude of Heads of institution. Observational check list 1 was used to gather the availability of human resource, while the observational check list 2 was used to get the information about the availability of infrastructure facilities for eIMMR.

**Result:** Majority of the data entry personnel (DEP) were Nursing officer in groups 1, 2 and 3 of hospitals respectively 37.5%, 35% and 61.1%. Overall, medical record

staff were available only 5.3% of DEP. Availability of medical record rooms were in group 1 and 2 hospitals respectively 81.6% and 71.4% compare to in group 3, it was only 41.7%. All the hospitals from group 1 and 2 have computers with internet facilities, while less than one third of hospitals from group 3 hospital does not have them.

Nearly half (52%) of data entry personnel of eIMMR had scored good knowledge in group 1 hospitals ( $p=0.01$ ), while around two third (63.6%) of Heads of institution had scored fair knowledge in group 2 hospitals ( $p=0.02$ ). Nearly half of the data entry personnel had scored good attitude on eIMMR in group 1 and 2 hospitals ( $p=0.33$ ), while overall, more than 40% of Heads of institution had perceived good attitude on eIMMR in all three groups of hospitals ( $p=0.91$ ). More than 75% of data entry personnel had good skill in group 1 and 2, while only nearly one third (38.9%) had good skill ( $p=0.01$ ).

### **Conclusion and Recommendation**

Medical record staff who is responsible for eIMMR were available very few. Majority of data entry personnel were Nursing Officers. Medical record rooms and internet facilities were not fully available, especially in group 3 hospitals. Knowledge score gap between the groups of hospitals were identified among data entry personnel as well as Heads of institutions. Attitudinal score gap among not only Heads of institutions, but also data entry personnel was not significant between groups of hospitals. Self-reported skill score gap of data entry personnel between the groups of hospitals was seen. This study recommends that appointing Medical record staff and providing computers and uninterrupted internet to all hospitals are essential for the successful implementation of eIMMR. In-service training program for capacity building on eIMMR should be scheduled to fill the knowledge and skill gap.

**Key words:** indoor morbidity and mortality return, human resources, infrastructure