

## **Abstract**

### **Introduction**

Drowning is identified as a leading cause of death and injury in Sri Lanka. It is estimated that 855 people die by drowning in each year. Drowning is considered as a major water related hazard and Sri Lanka Disaster Management Centre involves in decision making and management. Establishment of The Disaster Management Centre (DMC) is under the control of National Council for Disaster Management. Functioning of the DMC is controlled by the Ministry of Disaster Management and Human Rights. It plays a major role when there are massive number of drowning deaths following disasters like Tsunami and floods. The main sources of collecting data are relevant police stations, royal lifesaving association and Registrar General Department. Due to the absence of drowning data surveillance system in Disaster Management Centre, there has been incidents of missing data. Limited information about deaths resulted in short comings in management of disaster preparedness planning and emergency operations during disasters.

### **Method**

A solution has been proposed as an online drowning information system by customizing a globally recognized platform called District Health Information System 2 (DHIS 2). The software package is well designed to handle aggregated data of drowning death records by using event capture tools, extraction methods and data representation methods.

### **Results**

A customized application was installed in DMC servers with hundred and thirty data samples reflecting number of drowning deaths across the country uploaded and tested on the system with feedback from users. Basic drowning details were further captured and analyzed by the system through a piloting project at a selected district of Sri Lanka. It was evident that the system can be used as a basic surveillance system for DMC. There are areas to improve on the information structure and the data flow, which however can be addressed as the application is rolled out across the country.

## Conclusion

District Health Information system (DHIS 2) is one of the open source web based software which is free of charge. It consists of features such as GIS, charts and pivot tables that gives amazing visualization. Effective operation management, process monitoring and improvement of communication are added advantages of DHIS2. So this thesis is an attempt towards customization of DHIS 2 in Disaster Management Unit to meet the requirements of drowning information.