

Abstract

Sri Lanka has achieved high standards in health sector when compared to other developing countries. To cater future demands and to improve the quality of service, restructuring of the present health care delivery system is identified as an area of importance. Reliable and usable data and quality information is essential for strategic decision making and for the improvement of quality of care in public health sector. Poor quality data and overburdens of public health field staff with number of form, records and returns are the major drawbacks in the current paper base manual public health information system.

Electronic Health Information Management Systems (HIMS) are introducing to overcome these challenges but still there is no proper mechanism to integrate these HIMS to streamline the data flow. Implementation of non-integrated and non-interoperable HIMSs will worsen the situation causing further fragmentation. Integration related issues should be of top most concerns prior to developing public health information systems. Developing single central system for the whole country is not practical considering infrastructure facilities and existence of different sub systems. Bottom-Up Approach is found to enable different subsystems to integrate at the central level, provided proper use of data exchange standards. The Bottom Up approach is recommended as system development strategy with the requirement of adhere to common standard.

Lack of data exchange standard for statistical data exchange in Sri Lanka will inevitably be a major drawback in the process of integrating sub systems. Developing a new standard is not worth the effort, when such standards are available internationally.

SDMX-HD (Statistical Data and Metadata exchange for Health domain) is recommended as the best suitable statistical data exchange standard considering suitability, availability, adoptability, cost and acceptability by international organizations. In the process of modifying these standards to suit local needs, as the initial step data elements which exchange between information layers in the public health information system were identified.

All the studied data elements could be mapped with the SDMX codes which available in their web site w.w.w.sdmx-hd.org, but some codes needed further disaggregation to suit

the Sri Lankan requirement. Therefore the SDMX-HD codes which do not overlap with international level were disaggregated to suit the local data elements. Remaining codes were submitted to SDMX-HD international developers in view of disaggregation without conflicting with rest of the world.

This whole exercise will result in a meta data repository consisting all these modified SDMX-HD standards in the Sri Lankan context. By adhering to these data exchange standards will create an environment of high flexibility for future e-Health solution developers and at the end for the betterment of the whole health service provision.