

Abstract

Healthcare systems around the world are being prompted to adopt changes to overcome the new challenges they are facing. Improving the healthcare information flow is one such need and to do so, healthcare domain has welcomed health information systems to manage health information efficiently and effectively. Due to domain specific and system specific factors individual systems should interchange information among them to facilitate integrated care pathway. Even though many of these systems manage information well within the system, they lack the ability to share information with other systems.

Even though it's relatively easier to connect systems physically, it's difficult to achieve seamless data exchange among individual systems due to the lack of system interoperability, clinical vocabulary and unique healthcare identifier system.

This has prompted many healthcare authorities and International Standardization Authorities to set data standards, in order to achieve interoperability. This study aims to propose standards for three main aspects of electronic data standards which are data exchange standards, clinical vocabulary standards, and healthcare identifier system.

The Health Level 7 version 3.0 standard is recommended as the standard for clinical data exchange between systems. Systemized Nomenclature of Medicine – Clinical Terms with cross mapping to International Classification of Disease revision 10 is recommended as the clinical vocabulary standard. These recommendations were made taking into consideration of the facts like availability, adoptability, acceptance by International Organization of standardization, vendor acceptance, platform independence and popularity.

A 14 digit healthcare identifier number is recommended where the first three digits will indicate the institution, the next four digits will indicate the year, the next three digits will indicate the day of the year and finally the last four digits are the serial number. This was proposed taking into account of patient privacy, scope of implementation and the possibility to use a common citizen identifier number.

Keywords – eHealth, Data Standards, Data Exchange Standards, Clinical Vocabulary Standards, Sri Lanka, Health, Healthcare Identifier.