|  |
| --- |
| **A Pilot Study: Developing Big Data Based on a Cross Departmental Data Warehouse for Active Aging in Taiwan** |
| **Background/Objectives**  With the rapid growth of aging population in Taiwan, promoting quality of life and maintaining dignity for elderly people has become an important public health issue. To improve quality of decisions, Health Promotion Administration(HPA), Ministry of Health and Welfare, a department of government of Taiwan, has decided to build a national and cross-level data warehouse and decision support system (DSS). Therefore, our government is actively pursuing sustainable development, and has established the National Sustainable Development Committee to achieve the UN Sustainable Development Goals (SDGs) in 2030.  **Methods**  We have introduced a visualization and graphical user interface base on big data architect, integrating different sources and types of data from government agencies and related research projects. We use the concept of polyglot persistence. Persistence stores structured data in a relational database, while unstructured data is stored in NoSQL HBASE database.  **Results**  31 decision themes and 213 indicators were established on the DSS, the data warehouse is consisting of variety of data marts, including Active Ageing Index (AAI), chronic disease control, adult preventive care service outcome data, and cancer screening, etc. The DSS can be used as reference for development policy related to active ageing, and healthy ageing of all, such as reduce the incidence and mortality of infectious and non-communicable diseases; improve the quality and accessibility of health care services; strengthen national health risk management capabilities. With the above-mentioned data being more perfect, and the government will be able to achieve accurate and efficient decision-making.  **Discussion**  In this study, the decision themes are formulated by experts from each department of the HPA and academic institutes. Through the continuous interfacing and storage of the survey data, it can achieve the establishment of predictions models, and can support different levels of data exploration and trend analysis. Users can focus on solving problems rather than data collection and analysis. We should emphasize cross-disciplinary, cross-organization and cross-border cooperation, and can achieve the SDGs, that are the responsibility of the global citizens should work together.  **Keywords**  Big data, visualization, unstructured data, Active ageing, SDGs |