

Big Data Use in Healthcare

Li J

College of Medical Science and Technology, Taipei Medical University, Taiwan

The advancement in health sciences and health information systems has driven an dramatic increase in patient health data accumulated by health providers. Health databases are constantly getting increased by four V's – velocity, volume, variety and veracity. Informaticians are eager to explore methodologies and techniques that can make “meaningful” use of huge database in order to achieve an efficient healthcare delivery.

Although many advances in medicine may be for treatments, major reduction in deaths, disability and cost of care will indeed derive from prevention. Therefore, one of the best strategies to utilise big healthcare data is to focus on prediction, prevention, personalisation and participation.

It is time to accumulate healthcare data directly from electronic health record system, as well as other sources such as government registries, genomic profiles and health assessments. Models shall be developed in order to handle big data analysis and to eventually provide clinical decision support to clinicians.