

eHealth Record Sharing: enhancing participation for public health surveillance

The Food and Health Bureau has started a consultation for its implementation of eHealth Record (eHR) Sharing in December 2011.¹ Besides a platform for medical professionals to share useful diagnosis details of patients, the System is able to support efficient data retrieval and a wide range of research.^{2,3} In order to collect high-quality health data for research purposes, a comprehensive and well thought-out design for data collection that is tailored for health professionals is crucial. Some suggestions on the implementation of the eHR Sharing which can reinforce participation and improve our public health surveillance are outlined below.

Design with high efficacy and proficiency

Despite the long-term gain from an eHR Sharing System, the extra workload of inputting health data could be a barrier to its utilisation by frontline medical personnel. Medical professionals who are not working in hospitals might be less likely to utilise information technology (IT) in their usual practice, or they do follow the information standards used by the public health care sector. Thus, they may find it technically difficult to participate in the new system and/or be reluctant to participate in it if its value to them is not readily apparent.⁴

To achieve accurate and precise data and information input by the frontline medical personnel, the Bureau should design the data entry interface with a view to facilitate such objectives and in a way that is convenient and sustainable, whilst achieving high quality.⁵ The System's design needs to incorporate a high level of IT, be capable of renovation based on frontline experience and sufficient pilot tests to target at developing a user-friendly and effective interface for data input and access to health records. More consultation about the data utilisation from eHR Sharing by various categories of medical and health research staff is needed. Besides, more resources for staff training and additional IT personnel will be needed in the initial stages of implementation.

Additional support for the private health care sector

The public health care sector, with its network connections and well-developed information standards, has established an electronic Clinical Management System for all medical records of health care consultations in 41 public hospitals and 122 clinics.⁶ However, private clinics and institutions of

residential care services might lack computer literacy and resources to establish a unified system and maintain a systematic database of medical records.^{4,5} Some institutions on a smaller scale may have existing medical records that may be just handwritten case files, which cannot be easily accessed and read by other health and research professionals.

The government should allocate additional resources to support these institutions to join the eHR Sharing System. In addition to consent from their service clients, these institutions need financial and technical support from the Bureau to transform their existing records to a standard electronic format. Such changes could also facilitate the use of existing medical records and achieve the goals of eHR Sharing System at a faster pace. In addition, support to private clinics and institutions to transforming health records into an electronic format should increase their perceived usefulness for the system and encourage the use of these new technologies.^{7,8}

Enhancement of broad participation

The public is concerned with the security and privacy issues for the implementation of any eHR Sharing System. In the initial stage, patients may be worried about such credibility issues and thus be reluctant to give their consent for their health data to be shared. A low participation rate would reduce the size of the database size and jeopardise its quality for public health surveillance.

In the initial stages, the system must be carefully promoted with adequate education for the public about the eHR Sharing System's privacy and security. Such measures could increase public confidence in data sharing, especially if its benefits to the service users—including the health care system, general public health, and for individual patients—are explained.

Multidisciplinary collaboration

To facilitate health research of a high standard, the framework that allows the cross-linkage of the eHR data with other government departments should be considered. For instance, real-time cross-linkage of eHR data with mortality data from the Department of Health, and the unnatural mortality data from Coroner's Court could be available for study, as a means of evaluating disease burden and various causes of mortality. Such a practice can support high-

quality multidisciplinary studies. Anonymous data from such cross-linkage need not to be accessible to frontline medical personnel. Moreover, the data on individuals need only be identified by a number, so as to ensure and protect patient privacy and confidentiality.³

Conclusion

Participation by both the public and private medical sectors, as well as patients, is the key to the success in public health research through this form of health

care reform. The Bureau should work closely with the frontline and research professionals in the planning of the eHR Sharing System. The Bureau also needs to look into how resistance from various health care providers may hamper its implementation.⁵

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Answers to CME Programme

Hong Kong Medical Journal April 2012 issue

Hong Kong Med J 2012;18:92-8

I. Is stroke thrombolysis safe and efficacious in Hong Kong?

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|---|----------|----------|---------|---------|----------|
| A | 1. True | 2. False | 3. True | 4. True | 5. False |
| B | 1. False | 2. False | 3. True | 4. True | 5. False |

Hong Kong Med J 2012;18:139-45

II. Medication-induced acute angle closure attack

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|---|---------|----------|----------|----------|----------|
| A | 1. True | 2. True | 3. False | 4. False | 5. False |
| B | 1. True | 2. False | 3. True | 4. False | 5. True |