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Panel on Health Services

Background brief prepared by the Legislative Council Secretariat for the meeting on 18 April 2016

Operation of the Public Private Interface - Electronic Patient Record Sharing Pilot Project and the Electronic Health Record Sharing System

Purpose

This paper provides background information and summarizes the concerns of members of the Bills Committee on Electronic Health Record Sharing System Bill ("the Bill Committee") on the operation of the Public Private Interface - Electronic Patient Record Sharing ("PPI-ePR") Pilot Project and the Electronic Health Record Sharing System ("eHRSS").

Background

The PPI-ePR Pilot Project

2. The Health and Medical Development Advisory Committee released a Discussion Paper entitled "Building a Health Tomorrow" on 19 July 2005 proposing the future service delivery model of the healthcare system, in which the development of a territory-wide patient record system was first proposed for public consultation. The Hospital Authority ("HA") rolled out the PPI-ePR Pilot Project in April 2006 to test the feasibility and acceptability of electronic health record ("eHR") sharing by enabling participating healthcare professionals working in the private sector to access, through a web-based system, a defined scope of their patients' data from the electronic patient records of HA subject to patients' consent. As at January 2016, more than 485 000 patients and 3 500 private healthcare professionals have enrolled in the PPI-ePR Pilot Project.

eHRSS

3. The Secretary for Food and Health established a Steering Committee on eHR Sharing in July 2007 to take forward eHR development. The development of a territory-wide eHRSS to enable two-way health data sharing between healthcare providers ("HCPs")[1] in both the public and private sectors subject to patients' consent was one of the healthcare service reform proposals put forward by the Government in the Healthcare Reform Consultation Document in March 2008. Based on the broad support received during the public consultation, the Government's road-map is to implement a 10-year, two-stage eHR Programme, with an estimated non-recurrent expenditure of $1,124 million, from 2009-2010 to 2018-2019 to develop eHRSS. The Finance Committee of the Legislative Council ("LegCo") approved a new capital commitment of $702 million in July 2009 for implementing the first-stage eHR Programme straddling five years from 2009-2010 to 2013-2014.

4. In December 2011, the Government conducted a public consultation exercise on the legal, privacy and security framework for eHRSS ("the public consultation exercise"). Based on the outcome of the consultation, the Government introduced the Electronic Health Record Sharing System Bill ("the Bill") into LegCo on 30 April 2014 to provide for, among other things, the establishment of eHRSS and the sharing, using and protection of data and information contained in eHRSS. A Bills Committee was formed by the House Committee on 2 May 2014 to study the Bill. The Bill was passed by LegCo on 13 July 2015. The Electronic Health Record Sharing System Ordinance (Cap. 625) ("the Ordinance") has come into operation on 2 December 2015.[2] The stage-one eHRSS has commenced operation since 13 March 2016.

Deliberations of the Bills Committee

5. The Bills Committee discussed various issues relating to the operation of PPI-ePR and eHRSS. The deliberations of which are summarized below.

Scope of health data for eHR sharing

6. Members noted that by making reference to, among others, the existing

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[1] eHRSS registration is on HCP (i.e. organizational) basis.

[2] Those provisions of the Ordinance relating to sharing restriction requests (i.e. sections 3(3)(e), 3(5)(g), 3(5)(h) and Division 4 of Part 2) as well as those provisions relating to use of data and information contained in eHRSS for carrying out research or preparing statistics (i.e. section 29, Divisions 2 and 3 of Part 3, sections 46 and 49(1)(g), Division 2 of Part 6 and section 58(c)) have yet been brought into operation.

sharable scope of health data used in the PPI-ePR Pilot Project, the index data and health data for sharing ("sharable data") in the stage-one eHRSS would include (a) personal identification and demographic data; (b) adverse reactions and allergies; (c) summary of episodes and encounters with HCPs (i.e. summary of appointments); (d) diagnosis, procedures and medication; (e) laboratory and radiological results; (f) other investigation results; (g) clinical note summary (i.e. discharge summary); (h) birth and immunization records; and (i) referral between providers. There were views that for the interest of healthcare recipients ("HCRs") who had registered for eHRSS, full reports of diagnostic tests (such as that for endoscopy and colonoscopy) for, as well as procedures performed on public hospital patients, which were available in the clinical management system of HA and readily sharable electronically, should be included in the scope of sharable data.

7. The Administration advised that the existing sharable scope of health data used in the PPI-ePR Pilot Project was considered satisfactory to both patients and healthcare professionals according to the PPI-ePR qualitative research study and survey conducted in 2008 and 2012-2013 respectively. No adverse comment on the proposed scope of sharable data had been received during the public consultation exercise. The Administration further advised that the design of the stage-one eHRSS had catered for potential expansion of the scope of sharable data in the future. The Administration would commence further development of eHRSS during the second-stage eHR Programme after the stage-one eHRSS came into operation and upon approval of funding application. Expansion or modification of the scope of sharable data could be pursued at different times during the stage two eHR Programme.

Control of registered HCRs over data sharing

8. Members noted that an HCR could give joining consent to join eHRSS. The joining consent allowed the Commissioner for the Electronic Health Record ("the eHR Commissioner") to obtain from, and to provide to, for healthcare and referral purpose, any prescribed HCP[3] (to whom the HCR had given a sharing consent) the sharable data of that person in eHRSS. When the joining consent was given, the HCR was taken to have given sharing consent to DH and HA. A majority of members were of the strong view that given the sensitive nature of

[3] Under the Ordinance, the Department of Health ("DH"), HA, an HCP that was registered as an HCP for eHRSS for a service location, and a Government bureau or department that was registered as an HCP for eHRSS were prescribed HCPs. For the purpose of registration for eHRSS, HCP meant a person that provides healthcare at one or more than one service locations. In practice, HCPs might include entities operating hospitals, medical clinics, dental business, and residential care homes or specified entities that engaged members of the 13 statutorily registered healthcare professionals to perform healthcare.

health data, registered HCRs should be provided with additional access control over the health data contained in their eHR, such that HCRs could exclude certain prescribed HCPs which/whom they had already given a sharing consent to, from access to certain parts of their health data. A majority of members considered that a "safe deposit box" like feature, which allowed enhanced access control for certain health data, should be provided under eHRSS as suggested by the Privacy Commissioner for Personal Data and a number of patient groups.

9. The Administration explained that the "safe deposit box" like feature had not been included in the project scope of the stage-one eHR Programme, but would be further studied in the second-stage eHR Programme. It further undertook that the study would be conducted along a positive direction in the first year of the second-stage eHR Programme, with a view to developing and implementing some form of new device or arrangement enabling additional choice for HCRs over the disclosure of their health data. Provisions enabling a registered HCR to, in relation to his or her health data, make a request to restrict the scope of data sharing had also been added into the Bill. The Bills Committee agreed that these provisions should take effect upon completion of the future study and after the feature was technically ready.

10. There was a question as to whether registered HCRs could request the prescribed HCPs, to whom they had given sharing consent, not to provide to eHRSS certain health data which fell within the pre-defined sharable scope. Some members expressed doubt about the need for DH and HA to obtain from the stage-one eHRSS the sharable data of those registered HCRs who only used private (but not public) healthcare services.

11. The Administration advised that sharable data that had been entered into an eHR enabled electronic medical record ("eMR") system of a prescribed HCP would automatically be extracted and be uploaded to eHRSS with no exclusion. Only if a piece of data within the sharable scope was not electronically readily available for sharing, it would then not be shared on eHRSS. In the meantime, those HCRs who used only private (but not public) healthcare services and did not wish DH or HA to obtain their health records could choose not to join eHRSS until the availability of the new feature to foster registered HCRs' choice over the scope of data sharing.

12. Members noted that upon the launch of stage-one eHRSS which was targeted for commissioning in the latter half of 2015, PPI-ePR would be decommissioned after a transitional period. In the light of the fact that the new feature enabling additional choice for HCRs over the disclosure of their health data would still be in its design stage when stage-one eHRSS was in operation, Dr LEUNG Ka-lau considered that the PPI-ePR system should be maintained

until the time the new feature would be implemented. In so doing, those HCRs who did not wish DH or HA to obtain their health data could continue to enjoy the benefits brought about by PPI-ePR which allowed the healthcare professionals concerned to access to their medical records kept in HA. The Administration assured members that there would be a considerable transitional period during which the PPI-ePR system would operate in parallel with the stage-one eHRSS in order to allow adequate time for participants of the PPI-ePR Pilot Project to consider whether to migrate to the stage-one eHRSS, and stakeholders' feedback would be kept in view.

Access to eHR data by HCPs

13. Members noted that under the PPI-ePR Pilot Project, the one-way access to an HCR's records in HA was granted to specific healthcare professionals. Given that the sharing consent given by a registered HCR under eHRSS was to an entity (such as a hospital and a medical clinic) but not to its individual healthcare professionals (such as registered medical practitioners and registered or enrolled nurses), they expressed concern about how the arrangement could ensure that the eventual access to the health data of the HCR concerned would be on a need to know basis. To address members' concern, provisions had subsequently been added into the Bill such that it was the duties of a prescribed HCP to take reasonable steps to ensure that access to any health data of a registered HCR was restricted to a healthcare professional of the HCP concerned who might perform healthcare for HCR, and the access was restricted to the health data that might be relevant for performing healthcare for the HCR.

14. Members noted that the PPI-ePR system was a web-based system. In order to log on to the PPI-ePR website, a healthcare professional had to provide his or her user ID, password and a security token generated password for authentication. A healthcare professional had to further provide the Hong Kong Identity Card number of the HCR, together with a PIN controlled by the HCR concerned. Given that access to eHRSS would be different from that of the web-based PPI-ePR system, question was raised about the security requirements for a prescribed HCP to, where necessary, access the workstation at his or her service location remotely from other computers or mobile devices (through the use of remote desktop software or applications) for accessing eHRSS.

15. According to the Administration, prescribed HCPs could connect their own eMR system or workstation (which could be notebook) with eHRSS through identifiable sources, i.e. Virtual Private Network, or a fixed Internet Protocol address, or with the eHR communication module (i.e. Encapsulated Linkage Security Application). Connection from certain mobile device (such as smart phone) with eHRSS direct was currently not supported. It was, however,

technically possible for prescribed HCPs to access to eHRSS using mobile devices through their eMR systems subject to compliance with security requirements defined by the eHR Commissioner.

Access to eHR data by registered HCRs

16. An enquiry was raised about the fees to be charged on registered HCRs making a data access request for a copy of their eHR. The Administration advised that given that the information stored in eHRSS is in electronic form, it was anticipated that the data access request fee for data kept in eHRSS would not be substantial.

17. Members requested the Administration to provide a patient portal in eHRSS to facilitate registered HCRs to more conveniently access or upload their data to eHRSS. The Administration undertook to conduct a study on the setting up of a patient portal in the first year of the second-stage eHR Programme, with a view to striking a proper balance between the convenience of HCRs' access and data security.

Code of practice

18. Members noted that the eHR Commissioner could issue a code of practice ("CoP") indicating the manner in which the eHR Commissioner proposed to perform a function or exercise a power, or providing guidance on the operation of a provision of the legislation. Members were concerned about whether there would be any legal implications if the provisions of a CoP were not complied with.

19. The Administration advised that the CoP so issued would be an administrative instrument largely concerned with operational best practices and system technical requirements. Unless an action of breach in itself constituted an offence under the Ordinance or other law in Hong Kong, breach of any provision in CoP in itself would not directly impose on a person any civil or criminal liability as alternative approaches or means that fulfilled the underlying requirements on the level of care and standard of practice were acceptable.

Recent developments

20. According to the Administration, applications for joining the PPI-ePR Pilot Project ceased to be accepted the day before the coming into operation of eHRSS (i.e. 12 March 2016). The Administration has started to invite, from December 2015 and January 2016 respectively, healthcare professionals and patients participated in the PPI-ePR Pilot Project to pre-register with eHRSS. As

of 10 March 2016, about 22 000 PPI-ePR patients have registered for migration to eHRSS. Out of the some 240 HCPs of PPI-ePR which have applied to join eHRSS, 60 HCPs have completed registration. These HCPs include group practices, solo practitioners and other healthcare organisations, such as the health services in educational institutions and elderly care service providers. In addition, all 11 private hospitals have registered to join eHRSS. Registration with eHRSS is opened to all HCPs and HCRs starting from 13 March 2016.

21. Dr LEUNG Ka-lau has expressed concern on the transitional arrangement from PPI-ePR to eHRSS vide his letter dated 10 March 2016 to the Chairman of the Panel on Health Services (LC Paper No. CB(2)1094/15-16(01)). The Administration will brief the Panel on 18 April 2016 on the operation of PPI-ePR and eHRSS, including the issues raised by Dr LEUNG Ka-lau in the above letter.

Relevant papers

22. A list of the relevant paper on the LegCo website is in the **Appendix**.

Council Business Division 2
Legislative Council Secretariat
15 April 2016

Appendix

Relevant paper on operation of the Public Private Interface - Electronic Patient Record Sharing Pilot Project and the Electronic Health Record Sharing System

Committee	Date of meeting	Paper
Bills Committee on Electronic Health Record Sharing System Bill	--	Report of the Bills Committee on Electronic Health Record Sharing System Bill tabled at the Legislative Council on 8 July 2015

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