NEHTA’s role in Australia’s e-health reform: an update of work to date

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The National E-Health Transition Authority (NEHTA) has just completed the second year of a comprehensive work program that largely focused on the long-term view of e-health for Australia: the development of the national approach to Shared Electronic Health Records (SEHR). A national system of sharing electronic health records will improve the delivery of health services and lead to better patient outcomes through:

- **reducing avoidable hospitalisations** and improving workforce participation by assisting the self-management of stable chronic diseases (e.g. high blood pressure, diabetes, asthma and high cholesterol)
- **enabling clinicians and patients to better communicate** using e-consultations and online services to support self-care management, using broadband services to share relevant health information
- **reducing hospital readmissions** by making accessible timely and accurate health information essential to the better coordination of discharge planning and post-hospital care
- **improving use of scarce resources** through better health information, faster clinician assessments, more accurate diagnoses and referrals, and more effective treatment and prescribing of medication – with less duplication, waste and cost
- **better decision making** by healthcare providers and consumers due to better quality health information being available to all involved in a patient’s care
- **improved protection of consumer privacy** by ensuring authorised-only access to health records and clear audit trails within a clear governance framework.
- **greater portability of health records** for an increasingly mobile population
- **better policy development** as a consequence of the high quality data available for use in research and planning, and the ability to harmonise national health registries.

The key to establishing the national SEHR is identifying priority ‘stepping-stones’ towards achieving it. To do this, NEHTA has employed a national SEHR investment approach that has defined the areas that will deliver the greatest benefits in the shortest time frame, for the lowest cost and the least risk. This approach has identified that short-term steps towards a national SEHR include improving the ability for healthcare providers to electronically send discharge summaries and referrals, prescriptions, pathology requests and reports.

Work in these areas now form the focus of NEHTA’s future work program, which will also see the presentation of the business case for the SEHR to the Council of Australian Governments in early 2008. The following is a summary of key outcomes towards establishing these priority ‘stepping-stones’ that have been achieved in the last 12 months.

### Clinical communications

Key elements of interoperable communications are clinical information specifications and a common language for health communications. Clinical information specifications are applied to the format of, and data contained in, clinical communications such as patient referrals and hospital discharge summaries. NEHTA has made available data groups in a form that can be browsed online for adverse reactions and alerts; clinical synopsis; clinical intervention; immunisation; observation; reason for encounter and problem and diagnosis. Content templates have been developed for e-medications chart, diagnostic imaging and referral. In line with the priority steps towards the SEHR, the next steps
are further development of the pathology results reporting template and the discharge summary message content standard for HL7 V3 CDA. There has been significant development of the Australian Medicines Terminology (AMT), including an early release of the AMT and the establishment of world-first processes for the documentation of editorial rules, and for ensuring safe and reliable terminology development and maintenance.

The creation of the International Health Terminology Standards Development Organisation (IHTSDO), with NEHTA’s Karen Gibson as Deputy Chair, enables affordable long-term access to SNOMED CT for use as the language to describe health information. To ensure Australia maintains strategic alignment with international terminology development, NEHTA has nominated key individuals to participate in the relevant committees of the IHTSDO. NEHTA has also established a national capability to further develop, manage and distribute the terminologies. Considerable progress has also been made with the development of local, Australian terminologies with key releases in the areas of pathology and medicines.

**Unique Healthcare Identifier (UHI) Services**

Accurately identifying healthcare providers and organisations, and individuals interacting with the healthcare system is fundamental to e-health. NEHTA has now established resources capable of implementing national unique healthcare identifiers. This not only includes the employment of appropriately skilled personnel but also the identification of supporting processes, methodologies and infrastructure required to implement and operate such a large scale national project. NEHTA has completed the design of the UHI Services and has procured Medicare Australia as the services operator. NEHTA expects to make substantial progress towards the development of the UHI Services in the forthcoming year with the aim of progressively launching services during 2008-09.

**E-health policy**

As the delivery of e-health implicitly involves the collection and handling of personal and health information, NEHTA is committed to developing privacy frameworks that effectively meet community expectations. To date NEHTA has laid the foundations for a strong privacy framework to guide the broader work program. This involved a wide range of activities building upon internal NEHTA work and feedback from external stakeholders.

In order to effectively gain the perspectives of stakeholders on key aspects of the UHI and the SEHR, NEHTA convened individual privacy roundtable discussions for each project. Additionally, NEHTA engaged in a public consultation process titled *NEHTA’s UHI Privacy Blueprint* and developed a preliminary *SEHR Privacy Blueprint*. Moving forward, NEHTA will continue to focus on key privacy issues and privacy management strategies. This involves building upon the privacy foundations that NEHTA has developed and will include (upon approval of the SEHR business case) finalisation of the *SEHR Privacy Blueprint*, conducting a full privacy impact assessment of the SEHR program and convening further privacy roundtables on key issues such as secondary uses.

**Identity management**

Exchanging health and identity information safely across different health IT systems requires a consistent approach to security and management of access to information. Over the past year NEHTA has created an identity management framework and assessment methodology for the management of digital identities in e-health. This work will be essential in the development of the UHI Services and other key areas of the NEHTA work program such as pathology, discharge summaries, referral, and prescribing. In future NEHTA will focus on the development of a national authentication business case; an access management framework and methodology and data security methodology and framework.

**Secure messaging**

Ensuring the security of all electronic transmissions is the key to the success of interoperable communications in the health sector. NEHTA’s secure messaging work is undertaking this task and so far has consolidated the strategic direction to enable this. Over the course of the coming
months NEHTA will concentrate on developing the specification and business case for the service instance directory, which is part of the national e-health infrastructure. Service interface specifications for the pathology and discharge summary domains will also be a major area of development.

Supply chain
In addition to the safety and quality gains that will be obtained by interoperable electronic communications in the health sector are the significant efficiencies and cost savings that will be realised by reform in the public health supply chain. Major inroads have been achieved with the release of the National Product Catalogue (NPC) developed by NEHTA. The NPC enables public health facilities in all States and Territories to obtain essential information about healthcare products, such as medicines and medical devices, from one accurate and up-to-date electronic source. From 30 June 2007 over 50 of Australia’s top medical and pharmaceutical product suppliers had populated the NPC, with many other companies in the advanced stages of adding their information.

NEHTA’s recommended E-Procurement Solution has been published and a report of Business Intelligence Tools has also been completed and distributed to jurisdictions. Trials of the e-procurement solution using the NPC data has commenced in Western Australia, supported by NEHTA. Most jurisdictions have indicated a willingness to begin using the NEHTA e-procurement solution in the next 12 months.

Engagement and adoption
Finally, once NEHTA has established the most suitable standards and specifications from Australia and around the world for the various aspects of interoperable e-health, NEHTA will then be responsible for ensuring the availability and accessibility of the standards it recommends. To achieve this, NEHTA has published the National E-Health Standards Catalogue, including standards and specifications recommendations, on the NEHTA website. Further, NEHTA developed and published the National E-Health Standards Plan including Supporting National E-Health Standards Implementation - Adoption, Uptake and Implementation and provided the Standards Implementation Plan template to aid implementation of e-health standards and specifications. NEHTA will provide ongoing development of the NEHTA website to deliver a national e-health data group library and other NEHTA specifications, publications and products.

Looking ahead, the next 12 months will see the development of NEHTA’s approach to certification, conformance and accreditation, important elements in ensuring NEHTA’s specifications and recommendations are adopted.

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