Board
Agenda Item 6
My Health Record in Emergency Departments – second phase

Meeting: 14 June 2018

RECOMMENDATIONS
That the Board note:

1. an overview of the My Health Record in Emergency Departments project, including achievements in year one and progress to date; and
2. the second phase of the My Health Record in Emergency Departments project, including a breakdown of expenditure.

PURPOSE
The purpose of this paper is to provide an overview of the My Health Record (MHR) in Emergency Departments (ED) project, particularly achievements in year one and the planned project activities, expenditure, measures and outcomes of the project’s second phase.

BACKGROUND
Providing patient-centred clinical information to ED clinicians was one of the core use cases for the development of a national electronic health record.

Studies\(^1\),\(^2\) have shown that ED clinicians’ interactions with an Electronic Health Record (EHR) system are motivated by the availability of summary information, and by accessibility through integration with ‘in-house’ clinical information systems. Research has noted clinicians find this particularly useful for mostly complex patients with comorbidities.\(^3\) Previous encounters, dispensed medications, pathology, and imaging results are closely associated with an ED clinician’s decision to admit or discharge a patient.\(^4\)

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Hospitalisations and readmissions are less likely if an ED clinician uses an EHR during their examination and treatment.\(^5\)

ED clinicians often require information external to the hospital’s ‘in-house’ clinical information systems and medical records. The MHR can provide ED clinicians with supplementary information that may be applied to and improve patient care. Expected benefits include:

- improved decision-making and access to critical information in an emergency situation;
- improved treatment plans;
- improved communication;
- reduced duplication of diagnostic imaging and pathology;
- reduced adverse drug reactions; and
- reduced inappropriate admissions.

In July 2017, a two-year project (financial year 2017-18 and financial year 2018-19) commenced to establish routine use of the My Health Record system by clinicians in hospital emergency departments. The project is being undertaken by the Australian Digital Health Agency (the Agency) in partnership with the Australian Commission on Safety and Quality in Health Care (the Commission). This project forms part of the Agency’s work plan under the ‘Research & Development’ component. A project team, with a senior ED and retrieval physician as clinical lead, has been established. The outcome of the project is to develop a model that will increase the uptake and improve the clinical use of the MHR in EDs.

**SUMMARY OF ISSUES**

**Achievements in Year One**

Since the project commenced, robust project governance has been established with the formation of a national oversight committee, which includes membership from the Australasian College of Emergency Medicine, Royal Australian College of General Practitioners, the Consumers Health Forum of Australia, Primary Health Networks and jurisdictional representatives from New South Wales and Queensland.

Project milestones achieved in year one of the project include:

- a literature review and environmental scan ‘Factors and Effects of Electronic Health Records in Emergency Departments’\(^6\);
- workshops (46 ED clinical staff) at Townsville, Cairns and Nepean Hospitals;
- telephone interviews with 25 ED Directors and health IT experts across Australian states and territories, in addition to the United Kingdom, Israel and Denmark;
- a report on critical success factors identified for the pilot model; and
- survey distributed to ED staff in all five health services involved in the MHR opt-out trial study.

Findings from the literature review and stakeholder consultation activities have informed the development of the model. Piloting of the model will enable:

- rigorous testing of the model outside the opt-out sites;
- evaluation of one of the original MHR use cases, by facilitating access to relevant patient information such as medications, allergies and patient history, which can support clinical decision making and patient care in the ED;
- opportunity for co-production and clinical engagement, as local clinical information systems interface or connect with the MHR system;
- significant improvements in the sharing of clinical information between the acute and primary healthcare sectors, particularly at transitions of care; and


Second phase of the MHR in ED Project (Year Two: 2018-19)

The project team will test the MHR in ED framework in live hospital ED environments, to co-produce a national model that can be implemented in public and private hospital EDs. The pilot site study period will focus on critical success factors, including:

- training and awareness: deployment of an education program and ongoing local support, delivered by clinical ‘super-users’, to achieve a foundational understanding of MHR content and application;
- optimising integration with ED workflows: to enhance accessibility to the MHR via ‘in-house’ ED clinical information systems; and
- Heuristic observation of clinician behaviour: to explore functionality and interaction with ED clinical information systems and the MHR.

The diversity of jurisdictional interfaces between ED clinical information systems and the MHR provides an opportunity for comprehensive examination of clinician usability. The project team will showcase the most effective features of current interfaces and portals.

The pilot site study period is planned from October 2018 to March 2019. Second phase deliverables have been re-aligned with the MHR opt out period. Feedback from ED clinicians to date has highlighted one of the major barriers to routine MHR use was the low number of MHR-registered patients. This realignment with the expansion record-creation date (16 November 2018) will maximise the likelihood that patients presenting to an ED will have a MHR and can support clinician use during the pilot site study period.

Project measures have been constructed based on the literature review and feedback from ED clinical staff at the MHR opt out trial hospital sites. ‘Use-cases’ will form the basis for project measures, for example:

<table>
<thead>
<tr>
<th>Use-case</th>
<th>Measure</th>
<th>Expected Outcome / Benefit</th>
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<tr>
<td>Duplication of unnecessary pathology and diagnostic imaging when an ED clinic cannot access these tests if conducted by other healthcare providers.</td>
<td>Change in ED ordering practices regarding pathology and diagnostic imaging.</td>
<td>Improved patient safety by reducing investigations.</td>
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<tr>
<td>Dependence on resource-intensive methods (fax, phone) regarding patient history gathering from other healthcare providers.</td>
<td>Timestamps within the ED clinical information system regarding start of patient assessment to disposition / clinical decision (admission, discharge or transfer).</td>
<td>Efficiency gained in patient history gathering, due to relevant supplementary patient information made available by the MHR.</td>
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Project measures will be evaluated using data from pilot sites, jurisdictional eHealth organisations, the Agency, and the National Infrastructure Operator (NIO).

Each pilot site will receive project funds to recruit a dedicated local ED clinical champion(s) to support project activities, including data collection. Funding allocations are based on a senior medical and nursing hybrid model.

A breakdown of project activities and expenditure planned for the second phase is included in Attachment A.
At the conclusion of the pilot study period, qualitative and quantitative measures will be used to refine the MHR in ED model. Where appropriate, comparisons will be made between opt out trial sites and pilot sites. The MHR in ED model will be submitted to the Boards of both the Agency and the Commission. Once the model has been approved, a submission will be made to the Australian Health Ministers’ Advisory Council (AHMAC). Should AHMAC support the model, intergovernmental agreements can then be established to roll out the nationally recognised MHR in ED model to all public and private hospital EDs in Australia.

PRIORITY AREA OR STRATEGIC INITIATIVE

The MHR in ED project aligns with strategic initiative five of the National Digital Health Strategy (2018-2022): ‘digitally-enabled models of care that drive improved accessibility, quality, safety and efficiency’.

The National Digital Health Strategy outlines six ‘test beds’ that aim to improve patient outcomes using digital health technologies. The MHR in ED project is one of the test beds outlined in the strategy.

**ACTION OFFICER**

Name: Dr Monica Trujillo  
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Clinical and Consumer Engagement and Clinical Governance and Chief Clinical Information Officer

**CLEARED BY**

Name: Tim Kelsey  
Position: Chief Executive Officer

**ATTACHMENT**

Attachment A: Project activities and expenditure