

# EMPLOYING CONSUMER ENGAGEMENT STRATEGIES TO ENHANCE THE SAFETY AND EFFECTIVENESS OF HEALTH INFORMATION TECHNOLOGY IN TEST RESULT MANAGEMENT

Dahm MR<sup>1</sup>, Brown A<sup>2</sup>, Li J<sup>1</sup>, Westbrook JI<sup>1</sup>, Georgiou A<sup>1</sup>

<sup>1</sup> Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, Macquarie University, Sydney, Australia.

<sup>2</sup> Health Consumers NSW, Sydney, Australia.

## BACKGROUND

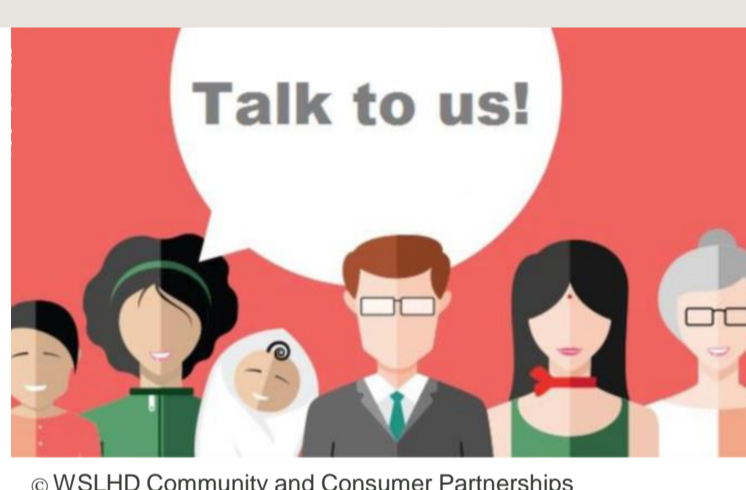
Diagnostic Error is “the failure to  
(a) establish an accurate and timely explanation of the patient’s health problem(s) or  
(b) communicate that explanation to the patient.”

National Academies of Sciences, Engineering, and Medicine. 2015. Improving diagnosis in health care. Washington, DC: The National Academies Press.

- Effective test result management is crucial to the diagnostic process. Failure to follow up can lead to critical safety issues including missed diagnoses.
- Health information technologies (HIT) for clinicians and patients could assist in the prevention of diagnostic errors by providing a platform to:
  - Integrate and interpret information to facilitate accurate and timely diagnosis; and
  - Support the communication of findings to patients.

## AIM

Identify consumer perspectives on the use of HIT to ensure effective test result management and provide timely information to patients.



## METHODS

Sequential qualitative data collection and analysis:

1. Stakeholder forum	2. Patients
<ul style="list-style-type: none"> <li>• Half-day forum with 30 representatives from 14 different stakeholders (clinicians, hospital managers, policymakers, researchers, IT specialists)</li> <li>• Exchange of ideas about test result management</li> <li>• <b>Consumer representatives (n=5)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Metropolitan Teaching Hospital</li> <li>• Emergency Department</li> <li>• Discharged after receiving pathology or medical imaging tests</li> <li>• <b>Patients (n=13)</b></li> </ul>
<ul style="list-style-type: none"> <li>• Ethnographic fieldnotes and artefacts</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-structured interviews</li> </ul>
<ul style="list-style-type: none"> <li>• Iterative analysis for emerging themes using memos and NVIVO software</li> </ul>	

Ethics approval was granted By the South Eastern Sydney Local Health District Human Research Ethics Committee (HREC/16/POHW/412).



## FINDINGS



Word clouds: visual representation of the 50 most frequent words used among consumer representatives (left) and other participants (right, Clinicians, Hospital management, Policymakers) at the Stakeholder Forum.

Findings from the Stakeholder Forum indicated that:

- Compared to other stakeholder groups consumers have different priorities regarding test results management.
- Consumers’ interests centered around becoming more actively involved in their care, establishing partnerships with clinicians, and gaining access to their results based on individual preferences.
- If desired, personalised access via Patient Portals could:
  - Offer opportunities for shared decision making between patients and clinicians; and
  - Function as potential safety nets to ensure the timely review of test results.

*‘[The] consumer, or their family, may be the most important person in the results acknowledgement process at discharge.’ Consumer (Forum)*

Findings from the interviews with patients in Emergency Departments indicated that:

- Patients would welcome the introduction of patient portals if development and implementation:
  - Catered to varying individual levels of health and digital literacy; and
  - Provided adequate explanatory information.

*‘It definitely would need some education around what tests [...] there’d have to be interpretation of the [tests].’ Patient (EDPA1)*

## CONCLUSION

- Engagement with consumers can offer important insights to guide the development of HIT solutions.
- Consumer driven strategies can assist in improving test result management.
- Involving consumers to ensure the timely review of test results could contribute to the prevention of diagnostic errors.

The authors declare no conflict of interest.

Correspondence: Dr Maria Dahm; twitter: @MariaDahm email: maria.dahm@mq.edu.au