Identifying and developing the health information workforce: A Knowledge Café conversation

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Abstract

The capacity for digital health is influenced by the availability and deployment of health information professionals. These professionals have varied backgrounds ranging from computer to clinical and business sciences, may belong to one of several and diverse professional associations, and therefore are often invisible. We propose a framework for building workforce capacity to improve health services performance. This workshop will host a Knowledge Café, whereby faciliated conversations in small groups about workforce capacity building for future digital health will explore the tough questions in health informatics workforce development. These conversations will be thematically analysed by the workshop facilitators (authors) and reported in a peer reviewed journal.

Keywords:

Medical informatics, capacity building, employment

Introduction

The health information (HI) workforce is emerging in response to the need for new types of work that requires different competencies and workforce capacity. Research has defined what competencies are needed[[7](#_ENREF_7)] and tertiary education organizations provide learning programs to prepare this workforce.[[6](#_ENREF_6)] However it is not easy to identify health information professionals in the workforce because job titles and descriptions are not standardized or accurately descriptive. The roles of HI professionals leverage business, clinical, and computer science – each employee works to their strength depending on their education and experience background.[[4](#_ENREF_4)] Some roles are entirely related to health informatics or information management. Others are primarily clinical or business or computer science, and overlap with another field to contribute to digital health care. It is even more difficult to map career paths of HI workers. Some health information workers ‘top up’ their base profession (e.g. nurse, doctor, librarian, software developer) with HI skills to enable their base job performance (e.g. provide digital leadership). Some are fully health informatics professionals (e.g. Chief Clinical Information Officer (CCIO), Information manager, clinical coder, health librarian).

These HI roles and the diverse and somewhat invisible professions that fill them are integral to health services performance.[[5](#_ENREF_5)] The WHO proposes a framework for health service performance[[9](#_ENREF_9)] that identifies intrinsic goals for a health system (health, responsiveness and financial fairness and risk protection) and instrumental goals (access to care, innovation, sustainability, and community involvement). We propose a workforce framework that builds on performance frameworks such as that proposed by the WHO, based on the concepts of identity, innovation and impact.

Workshop objective

The objective is to explore and dissect the proposed framework and its effect on HI workforce capacity building and health services performance in a digital environment. We are looking for insights about what is needed in the workforce to propel health care into the digital age and sustain the change. Our questions are:

1. In the era of digital health, what is the most widely acceptable and recognisable way to identify a health professional who is a specialist in HI?
2. How does the existing HI workforce need to innovate what it knows and what it does, in the era of digital health?
3. How can we measure the impact that a HI professional (or the absence of one) has on the performance of a health service or system?

Methods

This workshop will use a Knowledge Café, which is a gathering of people with a common interest who want to have a conversation to explore a topic in order to gain a deeper understanding of its components and issues.[[8](#_ENREF_8)] A Knowledge Café invites conversation about a theoretical conjecture to gain deep insights and improve on a theory.[[10](#_ENREF_10)] We will present our proposed framework as the theoretical conjecture for the conversation. We aim to leverage the expertise and thoughful conversations of natural groups (rather than using a focus group or nominal group approach[[8](#_ENREF_8)]). Natural groups are peers or members of a community of interest who address a problem or question [[1](#_ENREF_1)] – the MedInfo conference is such a natural group as delegates are peers and members of a HI community of interest. A Knowledge Café involves knowledge exchange via conversation and so participants will contribute to a deeper understanding of HI workforce capability development as well as gaining new insights for their own HI research and practice.

Participants of this workshop will respond to existing research projects already exploring the HI workforce.

1. A census [[3](#_ENREF_3)] of the HI workforce has been completed in Australia and is in progress in New Zealand.
2. Job adverts from New Zealand job websites have been analysed.
3. Interviews with employing HI managers and employees have been analysed.
4. Focus groups with executives in health services in New Zealand are in progress.
5. A scoping review of HI workforce literature has been completed [9].

We will present our findings to the Café participants for discussion in order to deepen our understanding of (1) core HI competencies across all possible roles, (2) building on our findings, what is required to build a HI workforce that will safely, securely and surely advance the health system into the future, and (3) what the HI professional of the future looks like in terms of the proposed framework.

We will record the discussions for analysis and the results will be published in a peer reviewed journal. We will obtain ethical approval to conduct this research, with participation in the workshop providing informed consent. Further details to enable informed consent will be provided upon advance registration for the workshop.

Workshop agenda

The workshop room will be set up like a café, with tables around the room enabling 4 – 6 people to sit at each table. Small groups enable thoughtful conversation and opportunities for all participants to contribute to the discussion. After the workshop is opened, the authors/facilitators will report on our different research findings and invite participants to respond to our proposed framework. The agenda will include the following:

* Opening comments, orientation to the purpose of the workshop
* Ice breaker and introductions to warm up the conversation.
* Brief presentations from each author to set the scene.
* Groups at tables discuss an allocated question (see objective). After 20 minutes questions are rotated (and people can change tables if they want to, i.e. exercising the Law of Two Feet whereby they can move to another table if the conversation is not working for them). These discussions will leverage deliberative discussions and prioritisation of ideas.[[2](#_ENREF_2)]
* Report back to the whole room on small group discussion highlights after each 20 minute discussion.
* Final summary of main discussion points of the whole workshop. Participants invited to prioritise points made, discuss conflicting/contradictory ideas, and next steps.
* Workshop wrap up, and opportunities for further engagement.

What we need to run the workshop

A Knowledge Café works best in a room set up like a café, i.e. with small tables that hold 4 – 6 people each. We will need a room that can hold up to 30 people with these small tables. Since we are doing this Café over three hours, we request that coffee and tea be made available for people to serve themselves. We will also need

* Chart paper and an easel/stand for summary notes to be written during the workshop for easy reference.
* The usual audiovisual technology to do our presentation, and
* Roaming microphones for whole group question and answer discussions.

Biographies of authors

**Karen Day** is the Director of postgraduate studies in health informatics at the University of Auckland. Her research interests lie in HI workforce development, participatory health care, and the role of innovations in the development of the digital healthcare environment.

**Kathleen Gray** directs the Health and Biomedical Informatics Centre at the University of Melbourne. Her research focuses on how the Internet reshapes the roles and responsibilities of healthcare consumers and providers.

**Rebecca Grainger** is an Associate Professor at University of Otago Wellington and rheumatologist at Hutt Valley District Health Board. She is interested in exploring how digital tools can support clinical practice and health professions education.

**Kerryn Butler-Henderson** is the Course Coordinator of the Master of Health Information Management at the University of Tasmania. Her research specialisation is in workforce analysis, and the use of technologies in health.

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