



# The Gaps and Strategies in the Implementation of Digital Health (Keypoints from the Digital Health Malaysia Conference 2022)

Digital health, also known as health informatics, is the application of information and computer sciences to improve health. Despite the increasing use of digital health technologies, the reports on the gaps and strategies in its implementation are sparse and/or poorly referenced [1]. Another limitation is that there is a poor (or even absence of) descriptions of conceptual frameworks underpinning the implementation of digital health in real clinical practice [1-3]. As a result, these may hamper the replication and scale-up of digital health interventions, widen the gap between research and practice [4,5], and makes it difficult for implementation researchers and other stakeholders to fully utilise digital health technologies [6].

In this article, we summarised the gaps and strategies in the implementation of digital health technologies (presented in the Digital Health Malaysia Conference 2022), using the Australian Health Informatics Competencies framework [7]. This framework consists of six domains, namely the health sciences, information science, information technology, leadership and management, social and behavioural sciences, as well as core health informatics.





This domain describes the structures and delivery of **healthcare system**

### HEALTH SCIENCES

#### GAPS

- Digital divide (i.e., inequitable access to digital health support and services)
- Shortages of healthcare professionals
- Lack of patients' trust in digital health
- Lack of physical touch and contact in digital health

#### STRATEGIES

- Narrow digital divide via the provision of subsidy for the purchase and usage of digital devices
- Ensure sufficient healthcare workforce in healthcare system
- Build patients' trust via digital demonstration
- Alternate virtual consultations with face-to-face follow-ups

This domain describes the presence of **legislative, regulatory, and policy frameworks**, as well as **social acceptance**

### SOCIAL & BEHAVIOURAL SCIENCES

#### GAPS

- Regulations restriction (healthcare is a complex system with overlapping regulatory ecosystem)
- Lack of national and regional guidelines in digital health
- Lack of awareness and motivation in adopting digital health technologies among the end-users
- Reluctance for change among end-users

#### STRATEGIES

- Introduce legal and regulatory frameworks (form regulatory sandbox and establish a digital health policy)
- Gather experts from relevant disciplines to develop a national guidelines in digital health
- Assigns ambassadors or social influencers to drive digital adoption
- Provide incentives for usage of digital health technologies

## STRATEGIES

## GAPS

## CORE HEALTH INFORMATICS

This domain describes the **skills** and **knowledge** that are built upon the findings from scholarly research

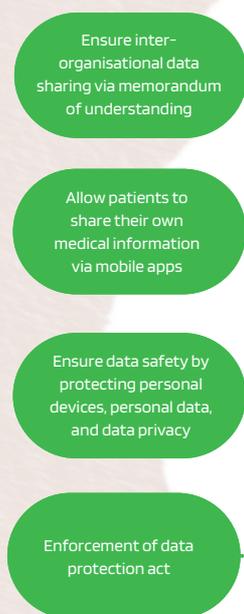


## INFORMATION SCIENCE

This domain describes the availability and security of **health data**

## STRATEGIES

## GAPS



### References:

1. Pinnock H, Barwick M, Carpenter CR, Eldridge S, Grandes G, Griffiths CJ, et al. Standards for Reporting Implementation Studies (StaRI) Statement. *BMJ*. 2017;356:i6795.
2. Pinnock H, Epiphaniou E, Pearce G, Parke H, Greenhalgh T, Sheikh A, et al. Implementing supported self-management for asthma: a systematic review and suggested hierarchy of evidence of implementation studies. *BMC Medicine*. 2015;13(1):127.
3. Rycroft-Malone J, Burton CR. Is it time for standards for reporting on research about implementation? *Worldviews Evid Based Nurs*. 2011;8(4):189-90.
4. Kågesten AE, Tunçalp Ö, Portela A, Ali M, Tran N, Gülmezoglu AM. Programme Reporting Standards (PRS) for improving the reporting of sexual, reproductive, maternal, newborn, child and adolescent health programmes. *BMC Medical Research Methodology*. 2017;17(1):117.
5. Pfadenhauer LM, Mozygemba K, Gerhardus A, Hofmann B, Booth A, Lysdahl KB, et al. Context and implementation: A concept analysis towards conceptual maturity. *Z Evid Fortbild Qual Gesundheitswes*. 2015;109(2):103-14.
6. Proctor EK, Powell BJ, McMillen JC. Implementation strategies: recommendations for specifying and reporting. *Implementation Science*. 2013;8(1):139.
7. Australasian Institute of Digital Health. Australian Health Informatics Competency Framework For Health Informaticians. Second edition ed. Melbourne, Australia 2022. p. 1-20.