Digital Health Investment Review Tool

Photo credit: Karen Kasmauski/MCSP

BACKGROUND

Too often, digital health investments are made without the time or resources to develop a deep technical knowledge of the information and communications technologies (ICTs) behind them, or the ecosystem in which these technologies are used.

We use the term digital health to refer to all concepts and activities at the intersection of health and ICTs, including mobile health (mHealth), health information technology, electronic health records (EHRs), and telehealth, and encompassing three main functions:

- the delivery of health information, for health professionals and health consumers, through the Internet and telecommunications media,

- using ICTs to improve public health services (e.g., through the education and training of health workers), and

- using health information systems (HIS) to capture, store, manage or transmit information on patient health or health facility activities.

Digital technologies may be applied in one or more ways to address Health Systems Challenges, as described in the WHO Classification of Digital Health Interventions.

GOAL & OBJECTIVES

The **goal** of the Digital Health Investment Review Tool is to **provide high-level guidance based on widely-accepted best practice** such as the Principles for Digital Development and the Donor Investment Principles that can be used to support strategic investments in the use of digital technologies to support public and global health.

Specific **objectives** include developing language and tools that can help:

- **structure** requests for proposals (or other donor procurement mechanisms),

- **inform** grants and contracts language, and

- **support** informed advice / decision-making by procurement officers considering digital health proposals.

The **intent** is for this work to be undertaken in an **agile and iterative manner**, with frequent focus groups and product testing with the intended users, described in the audience section below. The desired final products are intended to serve as global goods — tools that can be adapted and reused by a variety of audience segments for their own internal purposes.

AUDIENCE

The primary audience for this tool is individuals involved with **designing**, **creating** proposals for, **evaluating**, and making **purchasing** decisions regarding the development of digital health systems. This spans a number of actor groups including:

- **National governments**, including health and IT ministries, that are issuing calls for proposals for and/or reviewing potential digital health investments.

- **Regional bodies**, such as those at the sub-regional or region-wide levels, who are making recommendations on and providing guidance on digital health investments.

- **Donors**, who are funding or considering funding digital health activities.

- **Implementers**, who may use the criteria to ensure they are putting forward sound proposals.

INTRODUCTION

It is recognized that not all proposals may have space to detail each area in full. In recognition of this, we have provided references to deliverables or to a project's budget where a proposal may reference the work to be done in a particular area. Given page limitations in RFPs, there is not always space available to fully elaborate a project's digital health approach, and so it is envisaged that this tool can also be used in reviewing and approving workplans or sub-awards.

It is also possible that a proposal will describe more than one digital health intervention; in this case an average might be proposed where a proposal proposes 2 systems (e.g., an SMS appointment reminder system and a facility based Electronic Medical Record (EMR) system). They describe how they will handle security and privacy for the EMR quite well, earning a 5, but fail to describe the security and privacy concerns for the SMS system sending out the messages and how security and privacy would be handled on the recipient's phones, thereby earning a 1. 5+1 = 6 points total divided by the 2 solutions proposed = 3 points average for privacy and security.

Depending on the stage of the system being proposed, more emphasis may be placed on some questions than others. For example, an early stage digital health innovation may be less focused on Total Cost of Ownership for a small field trial as compared to a system being proposed for national scale implementation.

Best Practices to Avoid Common Mistakes

Be sure the solution accounts for:

- **poor connectivity**. System should function well offline with intermittent power or connectivity.

- **maintenance** and **support** costs.

- **training** of new users as health workers are frequently transferred.

- **replacement** of devices due to theft, loss or damage and expected device life-span.

- **interoperability** with other national and local systems.

- **languages**, **literacy**, phone **ownership** and phone **access** of target users.

- **alignment** with the national digital health framework or architecture.

- available physical **infrastructure** within the community the tool is being implemented in.

SCORING

1 **Level 1: None or Nascent**

No capability is evident or processes are not systematically followed.

2 **Level 2: Emerging**

Processes and structures are defined but not systematically documented.

3 **Level 3: Established**

Processes and systems are documented and functional.

4 **Level 4: Institutionalized**

Ongoing systems and standard practices are used to monitor activities and measure progress.
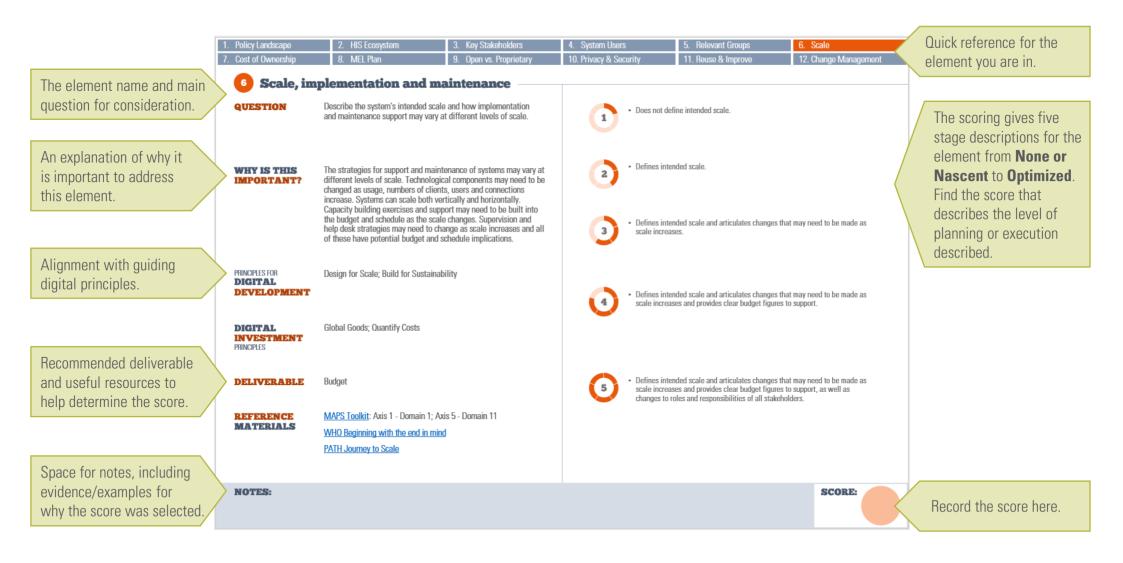
5 **Level 5: Optimized**

Routine monitoring, reviewing, and updating of processes to measure progress is in place.

HOW TO USE THIS TOOL

There are 12 elements of Digital Health Investment Review Tool included and for each there is a self-assessment worksheet:

The element name and main question for consideration.

An explanation of why it is important to address this element.

Alignment with guiding digital principles.

Recommended deliverable and useful resources to help determine the score.

Space for notes, including evidence/examples for why the score was selected.

Quick reference for the element you are in.

The scoring gives five stage descriptions for the element from **None or Nascent** to **Optimized**. Find the score that describes the level of planning or execution described.

Record the score here.

1. Policy Landscape	2. HIS Ecosystem	3. Key Stakeholders	4. System Users	5. Relevant Groups	6. Scale
7. Cost of Ownership	8. MEL Plan	9. Open vs. Proprietary	10. Privacy & Security	11. Reuse & Improve	12. Change Management

6 Scale, implementation and maintenance

QUESTION
Describe the system's intended scale and how implementation and maintenance support may vary at different levels of scale.

WHY IS THIS IMPORTANT?
The strategies for support and maintenance of systems may vary at different levels of scale. Technological components may need to be changed as usage, numbers of clients, users and connections increase. Systems can scale both vertically and horizontally. Capacity building exercises and support may need to be built into the budget and schedule as the scale changes. Supervision and help desk strategies may need to change as scale increases and all of these have potential budget and schedule implications.

PRINCIPLES FOR DIGITAL DEVELOPMENT
Design for Scale; Build for Sustainability

DIGITAL INVESTMENT PRINCIPLES
Global Goods; Quantify Costs

DELIVERABLE
Budget

REFERENCE MATERIALS
MAPS Toolkit: Axis 1 - Domain 1; Axis 5 - Domain 11
WHO Beginning with the end in mind
PATH Journey to Scale

1 • Does not define intended scale.

2 • Defines intended scale.

3 • Defines intended scale and articulates changes that may need to be made as scale increases.

4 • Defines intended scale and articulates changes that may need to be made as scale increases and provides clear budget figures to support.

5 • Defines intended scale and articulates changes that may need to be made as scale increases and provides clear budget figures to support, as well as changes to roles and responsibilities of all stakeholders.

NOTES:

SCORE:

ACKNOWLEDGEMENTS

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