The WHO-ITU National eHealth Strategy Toolkit as an Effective Approach to National Strategy Development and Implementation

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Abstract

With few exceptions, national eHealth strategies are the pivotal tools upon which the launch or refocusing of national eHealth programmes is hinged. The process of their development obviates cross-sector ministerial commitment led by the Ministry of Health. Yet countries often grapple with the task of strategy development and best efforts frequently fail to address strategic components of eHealth key to ensure successful implementation and stakeholder engagement. This can result in strategies that are narrowly focused, with an over-emphasis placed on achieving technical outcomes. Without a clear link to a broader vision of health system development and a firm commitment from partners, the ability of a strategy to shape development of a national eHealth framework will be undermined and crucial momentum for implementation will be lost. WHO and ITU have sought to address this issue through the development of the National eHealth Strategy Toolkit that provides a basis for the components and processes to be considered in a strategy development or refocusing exercise. We look at this toolkit and highlight those areas which the countries should consider in formulating their national eHealth strategy.

Keywords:

Strategy; Telemedicine; Telemedicine/organization & administration; Delivery of Health Care/organization & administration; Health Policy; Medical Informatics; Models, Organizational; World Health.

Introduction

While perhaps not widely recognized, establishing a national eHealth strategy has increasingly become a significant milestone in the roadmap of national health systems development. To this end, efforts are made to map out a path to realizing tangible health system advancements through the adoption of technologies for integrating data and systems, sharing information, and extending and automating the delivery and access to services.

In addition to setting directions, the strategic process itself acts as an opportunity to highlight "points of departure" in the existing health systems environment so that efforts and resources can be appropriately distributed to reap the greatest benefit. The process of deriving an eHealth strategy should therefore be viewed as an opportunity to engage and unite those key stakeholders who have the capacity to ensure that strategic objectives are adequately defined, and that the necessary operational resources are mobilized for delivery.

Perhaps surprisingly then, many countries set about to launch initiatives, allocate budgets, and develop tools under the umbrella of eHealth and/or Health Information Systems in the absence of a sufficient, well-defined strategy to guide the progress and to measure health outcomes. The consequences are often predictable: First, misalignment of ministerial agendas and timings means that core infrastructure components are not in place when required. Second, "siloed" technology investments are made that introduce incompatibilities which need to be addressed under separate initiatives. Third, efforts are stalled entirely, thereby missing their potential for return on investment to the health systems.

In responding to this pattern in a number of different national settings, WHO and ITU have jointly attempted to create the National eHealth Strategy Toolkit. This toolkit provides a comprehensive, yet practical oriented approach to eHealth strategy development and offers insight for national stakeholders who are embarking on eHealth strategy development for the first time, or for those who are attempting to refresh an existing national strategy. Here we explore the structure of the toolkit and the key messages it puts forth, and then explain why and what it can offer to those policy makers who directly and indirectly influence the development of national health systems.

Discussion

Establishing the national context for eHealth development

Before presenting its approach to the strategic development process, the national eHealth strategy toolkit provides a key premise that "a country's eHealth strategy should be based upon national health priorities, available and potential resources and the current eHealth environment." Due to this effect, and to ensure relevance to the broader goals of health systems development, the first step offered is to establish a country's "national context for eHealth." This is done through a simple self-assessment process where a country determines its own national context based on a perception of the "established ICT environment" and the "enabling environment for eHealth." This establishes the level of contextual maturity and positions a national environment in one of the three quadrants as illustrated in Figure 1 below. The categories for self-assessment task are presented as:

- Experimentation and early adoption

- Developing and building up

- Scaling-up and mainstreaming

This approach serves to "guide" the strategy development process at an early stage and to align potential actions to the most appropriate contextual environment. High-level examples are provided to illustrate how differences in a national plan for eHealth can provide focus, based on the contextual assessment reached.

Figure 1 – Mapping the national context for eHealth development

Developing the vision

If understanding the potential technology choices at the national level alone seems a daunting task, adopting them to the health sector environment to attain concrete systemic outcomes is even more so. A firm and visible direction needs to be set by national decision-makers that canaddress all factors having potential influence on the success of the system. The national eHealth strategy toolkit provides a pragmatic framework by addressing the strategy development process in 3 over-arching phases.

1. Establishing a national eHealth vision that responds to health and development goals

2. Developing a national eHealth action plan that reflects country's priorities

3. Establishing a framework to monitor the action plan and evaluate the outcomes achieved

To ensure an adequate balance of scope, content, and contributors in the formulation of an "eHealth vision", the toolkit develops a clear "process framework" (Figure 2) that proposes development of a clear and continuous management process, timely stakeholder engagement, creation of an initial draft

vision, and a subsequent iteration to extend consultation and refine strategic recommendations. The process illustration shows the need for some of these activities to operate in parallel and across the boundaries of others.

Figure 2 - Process framework for developing a national eHealth vision

This process framework is supported by a collection of "eHealth components" that are proposed as areas to be encompassed within the content of the vision (Figure 3). While these components represent the broad subject areas upon which an eHealth strategy should ideally focus, certain countries can direct their strategy development towards different areas of greater immediate relevance to the local environment. It is recognized that as the level of eHealth maturity progresses, the other components will take on new relevance.
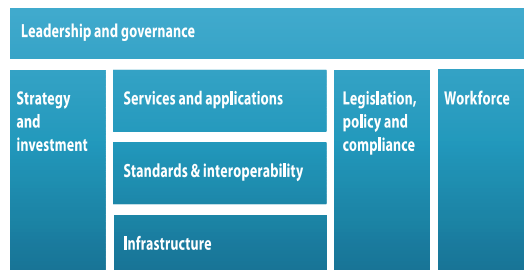

Figure 3 – eHealth components

The process framework for the development of vision also highlights the benefits gained in the strategic process by looking "externally" at both trends and experience as well as examining the "internal" national environment. It is important

not only to gain inspiration and knowledge from a broad range of resources, but also critical for capitalizing previous national efforts and for ensuring the continuity of existing eHealth services. A national eHealth strategy rarely starts from scratch, and understanding the rationale and objectives of previous strategic efforts will assist in ensuring that mistakes are not repeated, and that capacity developed from previous initiatives is appropriately leveraged. The positioning of a national eHealth strategy in relation to other existing national strategies within the health and ICT sectors is also an important factor. Good examples of national eHealth strategies clearly demonstrate linkages and dependencies to other national initiatives and partners so as not to create overlaps or be seen as working in opposition to existing and ongoing efforts.

Planning for success

Following the development of a national vision for eHealth, the next phase proposes an action plan that adequately captures the essence of the strategic recommendations put forth by the vision. Here the challenge lies in translating the objectives into concrete action items within a well-structured plan, mapping out high-level resource requirements and applying funding constraints. To this end,, a plan is broken down into several implementation phases . As with the vision development process, an iterative approach is proposed for the development of the action plan. It takes into account the national context for eHealth as part of the refinement of an initial draft. An overview of the methodology presented by the toolkit for development of an eHealth action plan is illustrated in Figure 4 below.

Figure 4 – Methodology for developing an eHealth action plan

Critical success factors for the planning process include securing health-sector leadership and support, establishing a formal governance mechanism, ensuring stakeholder engagement, and the establishment of a "core team" with a mix of technical knowledge and communication skills. The development of discrete "action lines", each with their own list of activities, outputs and targets, are integrated to form a "master" action plan that is validated and aligned with strategic priorities outlined in the eHealth vision. Change and adoption management issues are addressed as part of the planning process to "encourage and enable healthcare participants […] to prepare for, adopt and use the national eHealth environment as a core part of health-services delivery"[1]. It is suggested to include elements of risk management in the planning process during "action line" and "integrated plan" development phases to ensure some consideration is given to "those aspects of the environment that reduce or limit the ability of an activity, or set of activities, to achieve a particular output"[1].

Once a draft action plan has been developed, the toolkit focuses on the need to quantify the skills and expertise required to deliver it. This triggers an examination of the availability of the necessary skills on the local market and the identification of potential constraints in implementation. With this knowledge, the funding "envelope" required to execute the action plan can be derived.

Monitoring and evaluating outcomes

Monitoring and evaluation of progress in delivering national eHealth outcomes is often a neglected or under-valued part of the strategic development process. In particular, monitoring and evaluation can play a key role in ensuring ongoing stakeholder engagement throughout the entire process and serve as a valuable feedback mechanism to donors and other potential financial contributors.

The national eHealth strategy toolkit proposes the inclusion of monitoring and evaluation as an integral component of strategy execution and outlines a simple and effective framework for delivery. This consists of the development of a number of indicators, their respective baselines and targets, and a supporting governance process. Costs and resource allocation for monitoring and evaluation are proposed to be included as part of the planning and costing of the national eHealth programme, thereby ensuring the necessary continuity and prioritization. An overview of the methodology presented by the toolkit for the development of a national eHealth monitoring and evaluation framework is illustrated in Figure 5 below.
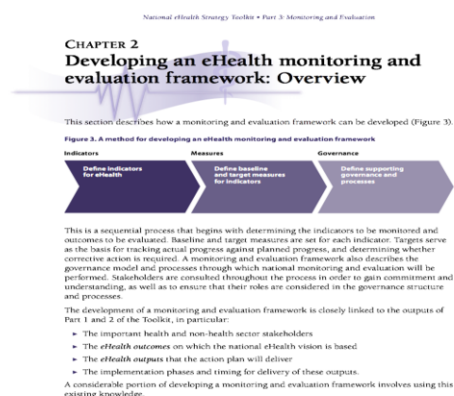

Figure 5 – Methodology for developing an eHealth monitoring and evaluation framework

The governance process is established in the monitoring and evaluation context to ensure "timely intervention when there appears to be divergence between what is actually happening and what a country was aiming to achieve through its eHealth programme" [1]. It is effectively supported by processes which describe how, exactly; the adoption and results of eHealth are to be monitored.

Defining the national process for monitoring and evaluation of eHealth during implementation of the action plan is framed by the toolkit within a cyclical approach that takes as input the indicators, baselines and targets developed, and then formulates a process that includes measurement, analysis and reporting, and corrective action planning. Figure 6 illustrates the monitoring and evaluation process presented by the toolkit.
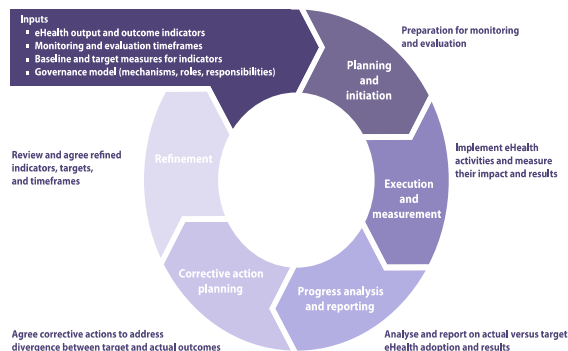

Figure 6 – The national monitoring and evaluation process

Conclusion

The national eHealth strategy toolkit provides an intuitive, results-oriented framework for the development, execution, monitoring, and evaluation of a national eHealth strategy. It emphasizes the importance of appropriate stakeholder engagement, governance, and management of the process and highlights the key components to be considered in accordance with national context for eHealth.

Ultimately, national eHealth strategy derivation is a starting point for a new phase of development and implementation planning. An eHealth strategy itself can offer few significant gains unless resources are assembled around the stated objectives, plans are derived and followed, and budgets are allocated and spent wisely. However, having a strategic framework that encompasses the relevant components will serve to unite health professionals and stakeholders, and to provide leverage for financing discussions while sending a clear message to the public in terms of stability and focus. The well-constructed national eHealth strategy will certainly provide a value outweighed   the cost in time and effort required for its development and can serve as a focal point for health systems reform and advancement. As health technology implementations become increasingly complex and demanding, there is a need for simple and clear "road signs" towards obtaining tangible progress and measuring results. The WHO-ITU national eHealth strategy toolkit should be considered as an excellent resource for countries to use in approaching the design and execution of their own eHealth strategies, and as an effective tool to help ensure that the directions taken, and investments made by governments, achieve the maximum value possible for their citizens.

References

[1] WHO-ITU National eHealth Strategy Toolkit. Steering committee: Najeeb Al-Shorbaji, Joan Dzenowagis (WHO); Mario Maniewicz, Hani Eskandar (ITU).

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