Background

Following years of political unrest and transition, Nepal adopted a new constitution as part of a new federal structure in 2015. The 2015 constitution takes a strong stance on social protections—including health as a fundamental human right. Further, the constitution guarantees access to health information, stating that “each person shall have the right to be informed about his/her health condition with regard to health care services.”

Since the adoption of the 2015 constitution, the government of Nepal has actively pursued the improvement of health care and health information through increased budget allocation, creation of a national health insurance scheme, and implementation of health information and telehealth systems. With the adoption of the Nepal Health Sector Strategy 2015-2020 (NHSS), the Ministry of Health and Population (MOHP) has continued to move toward their commitment to Universal Health Coverage.

In April and May of 2015, Nepal was affected by two devastating earthquakes, resulting in more than 9,000 fatalities and 23,000 injuries. These earthquakes also led to the destruction of health centers and hospitals—and the paper-based health information stored at these facilities. Inspired by the ongoing discussions around digital health information systems and new telehealth services, the MOHP embraced the potential of digital technologies as part of the recovery efforts, setting the stage for a new phase of digitalization in the health sector. A number of key policies were developed, including the National e-Health Strategy.

Description of Digital Health Coordination Mechanisms

Coordination in the Nepalese health sector is based on a sector-wide approach (SWAp), which the country adopted in 2007 to help define the relationship between the government and donors. The SWAp aligns donors and implementing partners behind a single sectoral policy and expenditure program with government leadership. Through structures like the Joint Annual Review, Joint Financing Agreement, Joint Coordination Mechanism, and Health Sector Development Partners Forum, the SWAp outlines expectations for both the government and external development partners (EDPs). The SWAp outlines additional coordination mechanisms, such as pooled funding, as further options for EDPs. The Health Sector SWAp has built a strong foundation for coordination in digital health, providing governance mechanisms and donor-government relationships already structured to allow for high levels of coordination. These mechanisms were used as a framework to develop the country’s National e-Health Strategy.

“The SWAp means we have one plan, one financial mechanism, one implementation. We sit together. We share the priorities. The country priorities become the priorities of the donors.”

– Key Informant Interview
Nepal’s National e-Health Strategy was approved in 2017 and serves as a foundation for the MOHP’s work on e-Health (electronic health) initiatives, as well as an advocacy tool to engage with donors and partners. The Strategy outlines the vision, guiding principles, and strategic pillars for e-Health in the country, emphasizing thoughtful, collaborative, and user-centered digital health systems.

Using strategies and guidance provided at a global level as a foundation, Nepal’s National e-Health Strategy launched the process of identifying and elaborating on national digital health priorities. The Strategy defines the target groups and prerequisites for a holistic e-Health approach in the country. While the development of an e-Health Action Plan is still forthcoming, the Strategy allows the government, donors, and implementing partners to align around the identified priorities and guiding principles. These priorities address seven of the nine outcomes listed in the NHSS—making e-Health a critical enabling element of Nepal’s health system moving forward.

**Coordination Through the National e-Health Strategy Creation Process**

The development of the National e-Health Strategy was characterized by strong coordination between the MOHP and their partners, and funding provided by the World Health Organization (WHO), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and UNICEF. Discussions around e-Health have been underway since before the 2015 constitution was adopted, and health information management featured heavily in the Nepal Health Sector Programme 2005-2010 (NHSP I) and 2010-2015 (NHSP II). The NHSP adopted in 2015 called for the development and implementation of a specific e-Health strategy. In April 2015, a contextual analysis was conducted by an e-Health Strategy Development Core Group to document the health and technology landscape of the country. This analysis was used by the Core Group to begin the process of prioritizing and drafting a strategy. Discussions with the Core Group, other stakeholders within the MoHP, and the EDPs continued over the course of 2015 and 2016. Then, in 2017, a convergence workshop was held with key stakeholders to review the draft strategy. The workshop utilized the WHO/International Telecommunication Union National eHealth Strategy Toolkit and the Asia eHealth Information Network’s (AeHIN) GAPS Framework to guide the finalization of the Strategy. Once final, the Strategy was socialized with stakeholders and formally approved by the Minister of Health and Population.

**Smart Health Unit in Nepal**

The government of Nepal is working to establish a National Health Information Center, which will be responsible for the management of health information systems. While this process is underway, the Ministry of Health and Population saw the need for an institutional home for e-Health initiatives and created the Smart Health Unit. This unit was formed to “harmonize e-Health initiatives and resources” and to “enhance accountability, transparency, and evidence-based decision making through technology.” The Smart Health Unit is working directly with the National e-Health Steering Committee on the development and implementation of the National e-Health Strategy and Roadmap.

“*The goal of the National e-Health Strategy is to harness the potential of information and communications technologies to improve health services, health governance, and management.*”

– Mahendra Prasad Shrestha
Enabling factors

Coordination in Nepal was successful for several reasons. Key informants agreed that champions both within and outside the government, global and regional resources, political will and vision, and growth within the digital health sector all contributed to the advancement of the National e-Health Strategy and coordination. In addition, the efforts of global-level initiatives such as the Sustainable Development Goals and increased focus on Universal Health Coverage, were critical to align donors at the global levels and encourage greater financial support for the health sector and digital health more specifically. Stakeholders were able to leverage personal and informal relationships to maintain momentum outside of the formal consultation process.

Digital health champions

Individuals within the MOHP, as well as partners such as WHO, GIZ, and others, were instrumental in advancing Nepal’s digital health sector. External champions brought a deep understanding of digital health and core concepts of interoperability, standardization, and governance. With increased knowledge of digital health, members of the MOHP pushed forward the development of the National e-Health Strategy in order to codify the priorities of the government and create a framework for future collaboration.

Global and regional resources

The development of Nepal’s National e-Health Strategy utilized resources from WHO and AeHIN. Beyond providing guidance documents, WHO involvement was essential to bring together a wide range of stakeholders. Using the organization’s unique convening power, WHO representatives were able to advocate for the development of the National e-Health Strategy both with government officials and other partners.

The MOHP also benefited from participation in AeHIN, which allowed key individuals within the Ministry to learn directly from peers in the region. Many countries in the region, including Nepal’s closest neighbors China and India, have made great strides in digital health—raising the interest of the government of Nepal and the MOHP in the sector. Peer-to-peer exchanges facilitated by AeHIN allowed government stakeholders to gain unique insight into the importance of developing an e-Health strategy, as well as expanding technical and experiential knowledge sharing, both of which strengthened the capacity of the MOHP. The Nepali participants in the learning exchanges were able to apply lessons directly to the strategy development process and continue to engage with peers throughout the region.

Strong political will

Another core consideration in the success of this process was the government’s desire to respond to the needs of Nepali citizens. With growing access to technology and calls for improved health services, expectations of health services and government responsiveness increased. The government of Nepal saw an opportunity to improve the quality and equity of health services by incorporating digital technologies to reach rural populations and strengthen decision-making at all levels. This desire to respond to citizens’ needs, as well as the increasing number of policies that emphasize the role of digital technologies in good governance, amplified the political will for the government and the MOHP.

Growth in the digital health sector

The MOHP and partners were actively involved in the rollout of several digital technologies to strengthen health services in Nepal prior to the development of the National e-Health Strategy. These included the implementation of a health information system, logistics information systems, and several telehealth services. The MOHP saw the need for coordination between these systems, which continued to underscore the importance of creating a national strategy.
Moving from Policy to Implementation

“Developing a strategy is different than implementation—so the challenges will be different.” – Key Informant Interview

Development of the National e-Health Strategy of 2017 was an important step in the creation of strong digital health systems in Nepal. The coordination mechanisms and processes resulting from the development of the Strategy allowed for the expansion of coordination in the sector through system architecture and system implementation. The MOHP has adopted OpenHIE (Open Health Information Exchange) as the foundation of a national digital health architecture, and work is underway to create registries of health centers, health workers, and patients. Telehealth systems are in the process of scaling to cover new regions of the country and reach more citizens in rural, mountainous areas. For more information on the implementation of OpenHIE and other e-Health activities in Nepal, see Digitalising Nepal’s Health Sector: A country’s journey towards an interoperable digital health ecosystem.7

The next intended policy step is the creation of an e-Health Roadmap based on the priorities outlined in the Strategy and incorporating digital health projects already underway. However, the ongoing process of federalization has led to the devolution of the health system. This devolution adds additional layers of complexity to ensuring national coordination of the health system; however, the National e-Health Strategy will continue to serve as a foundation for coordination in the digital health sector moving forward. Finally, in 2018, the Ministry of Communication and Information Technology released the Digital Nepal Framework,8 which further outlines the government’s commitments to digital governance. This document provides a blueprint for how digital technologies can support the development of eight domains: agriculture, energy, tourism, financial services, connectivity, urban infrastructure, education, and health.

Lessons Learned from the National e-Health Strategy

The development of Nepal’s National e-Health Strategy provides an example of coordination between government, donors, and implementing partners. All stakeholders in this process understood the importance of building consensus and resolving disagreements through discussion. The e-Health Strategy Development Core Group was able to weigh competing interests in the process and make decisions to ensure the resulting strategy promoted the consistent application of digital solutions.

Ensuring adequate time for coordination

The greatest challenge in the creation of the National e-Health Strategy was time. The consultation process was delayed on several occasions when there were challenges scheduling workshops and meetings. However, allowing for adequate time enabled the government and other stakeholders to take a thoughtful approach to this process and give proper attention to all voices. Setting realistic timelines for coordination, allows governments, donors, and implementing partners to build trust in one another. Coordination requires continuous discussion and engagement from all stakeholders. When formal discussion is delayed because of scheduling challenges, informal networks take over and provide a continuous link between those involved. By clearly connecting the strategy development to national priorities, constitutional mandates, and global normative standards, long-term conversations are easier to reengage.
Lessons for donors

Identify and align strategies and activities
Align first and foremost with government priorities. Use the digital health strategy to guide investment and ensure investments address gaps identified by the government.

Align with other donors by identifying a shared goal and mutually reinforcing activities. Identify areas of complementary interest to avoid duplication while covering a wider range of activities. For example, some donors may be more interested in supporting capacity-building activities within the MOHP, while others may be more interested in supporting the interoperability of a specific health information system. Donors should align with the priorities outlined by the government, and work with the government to define strategies that meet the needs of the country context.

Support technical skills and knowledge sharing
Support government involvement in peer learning and knowledge sharing. Other capacity-building activities could include seconding technical experts to the government, facilitating trainings and learning opportunities, and supporting hands-on learning for digital system implementation. Donors can help bridge the gap between health professionals and technology professionals.

Provide external perspective
Provide an external perspective and experiences from other countries. These can be provided directly by the donor, by supporting bilateral learning exchanges, or by enabling participation in organizations dedicated to peer learning, such as AeHIN. Work with the government to identify knowledge or capacity gaps that can be addressed through these activities.

Lessons for governments

Develop strong internal policies, procedures, and structures
Ensure policies, procedures, and other governance structures are in place. Digital health activities should have a designated institutional home within the government. Roles and responsibilities of government, donors, and partners should be clearly defined.

Determine a well-articulated vision
Ensure the government has a clear institutional vision of digital health. The vision should define the ideal end state for digital health interventions as well as identify the priority of activities necessary in order to achieve that vision. This will ease the process of defining roles and set a common language for the government, donors, and implementing partners.

Take a realistic perspective
Provide expertise on the country context and help guide conversations with realistic expectations. Governments should share insight on the enabling environment including both opportunities and challenges specific to the country. Governments should advocate for solutions that will be successful in the long term.

Consider all components of costing
Governments can provide great value to the coordination process by providing a realistic view of the cost of digitalization. This costing should be understood early in the process in order to support prioritization, and should consider the long-term costs of maintaining digital solutions. Governments should consider all components of digitalization in costing, including capacity-building.

Balance the coordination process
Define the roles of all stakeholders and ensure donors and implementing partners are properly represented in the consultation process. Weigh the voices and influence of all stakeholders. Governments can balance the interests of donors and implementing partners with what they consider to be in the best interest of the country and its citizens.
Interview List

Saurav Bhattarai, Deputy Chief Technical Advisor, Support to the Health Sector Programme, GIZ Nepal
Pawan Ghimire, Health Information System Officer, WHO Country Office
SP Kalaunee, Director, Possible Health
Susheel Chandra Lekhak, WHO
Sudip Pokhrel, Director of Partnerships for Asia, Medic Mobile
Pradeep Poudel, Monitoring and Evaluation Advisor, Nepal Health Sector Support Programme, Options United Kingdom
Dr. Shivalal Sharma, Chief, Integrated Health Management Information Section, Department of Health Services
Dr. Bhim Singh Tinkari, Chief, National Tuberculosis Center

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4 AejHiN’s “Mind the GAPS Framework.” Governments mind their governance, architecture, program management, and standards and interoperability.

Digital Square is a partnership of the world’s leading digital health experts from 40+ organizations working together with countries to strengthen digital health systems.

Digital Square offers a new way to invest in digital health—providing a space where countries and members of the global community can gather to think big and do good, together. By convening government officials, technological innovators, donor and implementation partners, and others across borders and boundaries in the Digital Square, we can grow possibility into reality by focusing on our common goal: connecting the world for better health.

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