

**WORKING DOCUMENT**

# REALISING THE PROMISE OF DIGITAL HEALTH FOR NCDs AND UHC

## What Is the Opportunity for Civil Society

This working document was developed on the basis of the report “The Promise of Digital Health: Addressing Non-communicable Diseases to Accelerate Universal Health Coverage in LMICs” developed by the Working Group on Digital Health of the Broadband Commission co-chaired by the Novartis Foundation and Intel. It is intended to inform a series of dialogues on the potential of digital health for NCDs on an international scale.

# Introduction

Over the past decade, great progress has been made in reducing maternal and child mortality and infectious diseases such as HIV/AIDS. Yet low- and middle-income countries (LMICs) now face not only the threat of the rising tide of noncommunicable diseases (NCDs), which are wreaking a heavy toll on countries, but also the escalating costs of delivering healthcare and the lack of sufficient financial resources to meet these. NCDs are now responsible for 71% of global mortality and take the lives of 41 million people every year.



Because of the unique features of the NCD epidemic, progress on NCDs relies on a balanced, life-course approach that spans the continuum of care, from health promotion and prevention to screening, diagnosis, treatment, rehabilitation and palliative care. Comparatively low cost-effective solutions to other diseases exist for NCDs and the implementation of tried and-tested preventative measures combined with relevant policy interventions to treat NCDs can have a significant impact.

As national leaders strive to reach the ambitious health-related targets of the Sustainable Development Goals (SDGs), there has been increasing recognition that digital information and communication technologies (ICTs) can support health systems in coping with their growing disease and cost burdens and hold great promise in terms of accelerating progress towards achieving UN SDG 3 –

good health and well-being, in particular target 3.8 on universal health coverage (UHC).

Recent advances in digital domains such as network speed and efficiency, cloud computing, device connectivity and data analytics have highlighted ways in which these technologies can transform the way healthcare is delivered, in particular for NCDs. Worldwide, digital tools can lead to better and faster healthcare – healthcare that is more empowering and accessible for people at risk or living with NCDs, more efficient for providers and more cost-effective for health systems, thereby driving progress towards UHC and improving health outcomes.

However, demonstrating the impact of a digital health solution has proved challenging. Solutions such as teleconsultation can disrupt the traditional forms of interaction between

physicians and patients, and stakeholders may be reluctant to use them unless the right incentives and a positive effect on health outcomes can be proven. In addition, with the marriage of the ICT and health worlds, digital health systems have to navigate through two very different policy and regulatory worlds that need to be jointly regulated. However, there is only a limited evidence base available for informing the practical decisions that must be made to place ICT at the heart of strategies in order to improve the response to NCDs in LMICs. As of mid-2018, 120 countries had developed strategies in the digital health, telehealth or eHealth fields.<sup>1</sup> In some cases, these strategies have been successfully implemented at the national level as primary healthcare initiatives addressing NCDs. Nevertheless, very often, there is a limited number of solutions that progress beyond the pilot phase to become financially viable and can be integrated into national health policies and systems.

In order to best address these challenges, the Broadband Commission Working Group on Digital Health developed a report entitled “*The Promise of Digital Health: Addressing Non-communicable Diseases to Accelerate Universal Health Coverage in LMICs*” with the aim of fostering sustainable approaches using digital health solutions that address the specific needs of patients with NCDs and help countries accelerate the achievement of UHC. Building on practical lessons, examples and tools, this report provides guidance on how digital health can act as a transformation accelerator to support all stakeholders in combating the NCD burden by empowering patients to take care of their own health, enabling health workers to better deliver care, and helping governments and policy-makers manage the health system through data-driven insights.

Throughout the global political response for NCDs, the need for meaningful involvement of civil society has been highlighted and reinforced, in order to bridge global policy to national advocacy and action for eHealth and NCDs. Drawing upon the recommendations of this report, this working document seeks to highlight ways for civil society specifically to harness the full power of ICT for NCDs in pursuit of UHC.

<sup>1</sup> Arnold, V (2018). World Health Organization, Personal Communication

# Definition

Digital health and eHealth encompass the use of ICTs in all their forms for health, including mobile health (mHealth), health information technology, electronic health records (EHRs) and telehealth, and comprise three main functions:

- The delivery of health information for health professionals and health consumers through the Internet and telecommunications media (e.g. connecting remote, rural and underserved communities with referral centres and expert care);
- Using ICTs to improve public health services (e.g. through the education and training of health workers);
- Using health information systems (HIS) to capture, store, manage or transmit information on patient health or health facility activities (e.g. with electronic medical records).

**Created in 2010, the Broadband Commission for Sustainable Development includes more than 50 executives from the sectors government and industry to help countries to exploit the enormous potential of the digital health for the achievement of the objectives of sustainable development, particularly in health.**

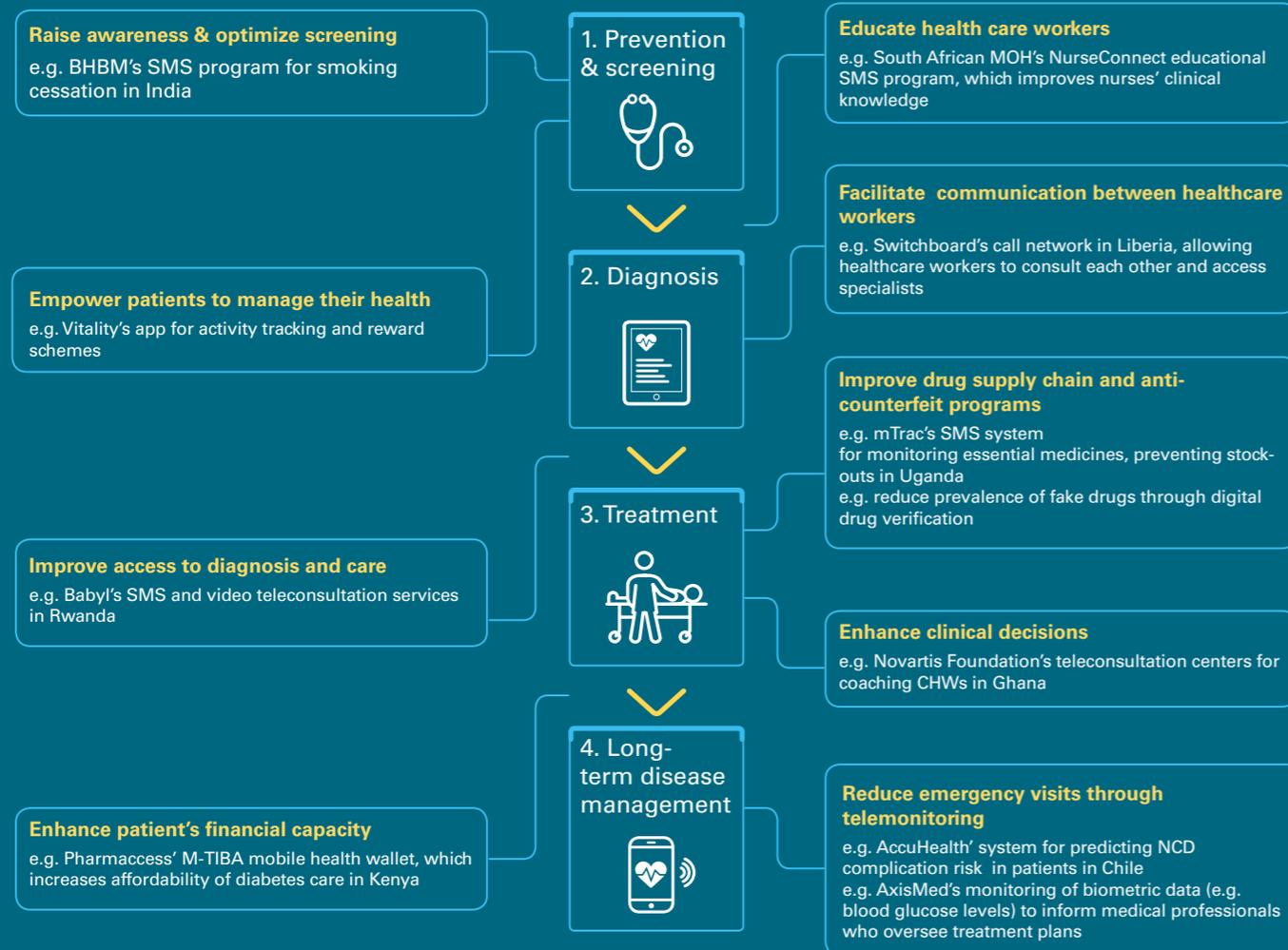
## Examples of digital health solutions for patients, health providers and national health systems/governments



### Individuals / patients



### Health providers & government



Source: Working Group on Digital Health. *The Promise of Digital Health: Addressing Non-communicable Diseases to Accelerate Universal Health Coverage in LMICs*, September 2018

## Delivering for UHC: the potential of digital health for NCDs

While delivering UHC will require an in-depth overhaul of existing healthcare systems as well as financing mechanisms for all countries irrespective of their income levels, investing in digital health specifically to combat NCDs can have wider health system benefits. Ultimately, digital health can transform how healthcare is delivered and experienced, helping LMICs to move from disease silos in healthcare to an integrated and resilient health system for NCDs.

This broad support from digital health to address NCDs can be built around the Five As of access to care:

### Awareness

Digital health solutions have the potential to improve public awareness about NCDs and their risk factors and educate people about their health independently, ultimately reinforcing the health literacy of the general population. Making the best use of digital innovation also means supporting health professionals to become competent guides and advisors, thereby helping patients gain more knowledge and control over their conditions in a safe and inclusive way.

### Acceptability

Access to health services can be limited by non-physical barriers, such as personal, cultural and religious values and gender. Digital health for NCDs can be tailored to particular cultures, languages and ethnic groups to provide accessible and adequate information and education at minimal cost for patients in under-resourced communities. Involving patients by empowering them to be actively involved in thinking about, monitoring, tracking and managing their health and conditions will ultimately result in better disease management and greater ownership of their personal health data.

### Availability

One of the greatest assets of digital health is its potential to overcome logistical barriers such as geographic location, transport and infrastructure and reach patients living in geographically remote areas. By bringing care closer to home and facilitating access to care in convenient locations where people live, digital health solutions can cater to the specific needs of patient communities, including people living in isolated situations.

### Affordability

Digital health solutions can be seen as a means of promoting equitable, affordable and universal access to health for all, including the special needs of vulnerable groups in the context of UHC. By placing people and communities at their heart, they can provide more personal, continuous, holistic and affordable treatment for individuals living with NCDs.

### Appropriateness

Digital health solutions can contribute to ensuring the continuity of care between different health and social settings as well as across the healthcare system as a whole. By enabling health professionals to better coordinate and have a closer overview of patients' relevant data, they can strengthen the link between services and patients' needs, timeliness, the amount of time spent assessing health problems and determining the correct treatment, and the technical and interpersonal quality of the services provided.



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## Challenges

Leveraging digital health solutions for NCDs is not without its challenges in terms of safe and strategic integration into health systems, scalability, and sustainability.

Key barriers to the uptake of eHealth as part of strategies to address NCDs include:

### Limited regulation

Interventions are generally developed through independent initiatives, which are largely unregulated, and they require complex legacy systems with quality control and data protection at their core to safeguard the health and personal information of users.

### Poor coordination

Countries face a proliferation of uncoordinated digital health projects resulting in fragmentation, unnecessary duplication and data silos, which hamper the promise of large-scale health data analytics. While the debate on systems interoperability continues to evolve, a focus on social interoperability for effective communication between users and information systems is needed.

### Lack of knowledge sharing and dissemination of knowledge sharing

Many innovators and implementers work independently without sharing good practices and lessons learnt more broadly, which hampers the ability of stakeholders to bring solutions to scale.

### Unsustainable funding

Although digital health offers the prospect of long-term cost savings, it usually requires significant investments upfront, as well as regular expenditure on training, maintenance and upkeep, which can be an obstacle to investment if there is no supporting environment.

### Lack of scientific evidence to demonstrate impact

There is a need for more evidence showing that it leads to successful outcomes and also that, in cases of behavioural change, these are long-term and not just temporary improvements that quickly dissipate as the novelty factor of the application wears off.

## The case for action: how can digital health strengthen the NCD response?

Governments, policy-makers, product developers and other stakeholders seek scalable and financially viable digital health solutions that can be integrated into national health systems. Drawing upon the WHO eHealth Strategy Toolkit, six building blocks have been identified to drive governments' interventions to better engage and meet the needs of various stakeholders within the digital health ecosystem, including PLWNCDs, health providers and civil society organisations (CSOs).



### Policy makers

need to prioritize and lead a national health strategy



### Legal frameworks

are essential to protect patients while enabling innovation



### Standardized infrastructure

that allows information to be used and shared is key to effective NCD management



### Interoperability

between diverse digital health solutions and data sources is a must to enable coordinated NCD management



### Partnerships

combine expertise, assets and ideas to amplify the scale and impact of successful digital health solutions



### Financing models

is mandatory if successful digital health solutions are to be scaled



### **Building Block 1** **Strategy, leadership and governance**

Ongoing collaboration will be central to the success and scalability of eHealth interventions for NCDs from the outset. More than a quarter of the organisations we surveyed consider that a national digital health strategy backed by strong political leadership is key to underpinning NCD efforts at national levels and ensuring committed financing. With an appropriate governance mechanism, this strategy can facilitate coordination among all the stakeholders involved and ensure the sustainability of joint efforts in the long run. Different governance models can be explored, depending on the approach adopted by the ministry of health to best leverage the technical capacity from different stakeholders and ensure the transparency of monitoring and evaluation processes.<sup>2</sup>



### **Building Block 2** **Regulation and policies**

Given the complexity of their interactions with health systems, end-users and service providers, digital health initiatives need to be adequately regulated to ensure the safety and privacy of patients' data while allowing innovation to continue apace. Regulatory frameworks should seek to ensure:

1. The safe and ethical collection of digital health data;
2. The high quality of new devices on the market;
3. That they facilitate the empowerment of health workers to meet patients' needs.



### **Building Block 3** **Communications, infrastructures and common platforms**

A robust communications infrastructure is essential for the deployment of digital health technologies. However, the adoption and use of digital health is contingent upon the development of a common health platform accessible to all health professionals and patients at all times. The development of unified standards and mechanisms for engaging with the data is crucial to the development and adoption of the common platform.



### **Building Block 4** **Interoperability**

Given their interconnected nature, NCDs need to be managed in a coordinated way across all levels of care and all stages of the patient journey. By allowing different ICT systems, software applications, data sources and devices to work together, ensuring full interoperability is essential to ensure that government programmes, hospitals, health workers and people living with NCDs can connect with each other.



### **Building Block 5** **Partnerships**

A comprehensive whole-of-government (multisectoral) and whole-of-society (intersectoral) approach is at the centre of effective NCD prevention and control. eHealth exemplifies such collaboration, with partnerships spanning not only the health sector and the technology sector but also bringing together national governments, UN agencies, financial and philanthropic entities, the private sector and civil society. Combining the expertise, ideas, assets and other resources of different stakeholders ensures not only that the potential contribution of all stakeholders is fully integrated into a programme but also that interventions suit the health system into which they are to be integrated, ensuring that existing services are complemented and avoiding duplication. In addition, strong ownership with ongoing dialogue can play a key role in establishing long-term trust, convincing governments and payers to finance or reimburse digital health innovations.



### **Building Block 6** **Adequate financing models for a common health platform**

Taking promising digital health solutions from proof-of-concept to scale requires committed financing and engagement of civil society players from the NCD community.

<sup>2</sup> Only 7% of the digital health initiatives have been evaluated according to the 2011 WHO survey.

## Action and engagement opportunities for civil society organisations

1

### Call for a civil society seat in the decision process

CSOs have an essential role to play in the development of national digital health strategies as service providers, community mobilisers and advocates, bringing their unique knowledge and experience to shape effective policies. By having more of a proactive role in decision-making, CSOs can help to deliver more equitable access to digital health technologies with greater impact, as well as track the effective implementation of these strategies, thereby holding institutions to account.

2

### Put community interest at the centre and drive change

CSOs commonly represent the voices of people living with NCDs and play an important role in voicing their concerns and key demands to ensure strategies put in place meet community needs. Given their interface role, CSOs can raise awareness about the benefits of digital health, promote its use and facilitate the adoption of new healthcare practices (e.g. task-shifting and telemedicine).

3

### Ensure no one is left behind by digital technologies

By contributing to the creation of standards that shape market and national policies on digital health, CSOs can incentivise telecommunications operators to accelerate the deployment of Internet communication in remote areas. As capacity-builders, CSOs can provide education and training services to accompany communities for a greater uptake of digital health solutions.

4

### Define the right standards and champion an 'Our health, our data' approach

CSOs can help protect users by ensuring the right standards are in place to guarantee that they maintain full ownership of their data across different platforms and countries. In particular, CSOs have a role to play in informing policies that creatively and effectively address the barriers resulting in the poor integration and late adoption of new digital solutions in order to ensure investments are optimised.

5

### Foster innovative partnerships for digital health

Digital health provides an opportunity to create partnerships with new stakeholders at all levels of the health system. CSOs can play an important role in helping to ensure that these partnerships deliver the highest quality services in response to the needs and concerns of the local populations. CSOs can also help to bridge the divides between innovators and patients/users.

6

### Invest in cost-effective digital health solutions for NCDs

There is an opportunity for CSOs to support governments in exploring how to invest in digital health and also reimburse relevant solutions. In the broader context of UHC, CSOs should support a debate on the most cost-effective promotional models and the best approaches to ensure that people can gain access without suffering from financial hardship.

*“Harnessing the potential of digital technologies in the health sector is critical to making UHC widely accessible to all hard-to-reach populations. It is extremely critical that digital technologies continue to reshape the world that we live in. Progress towards achieving UHC will need to be supported by new and innovative technologies, an environment that fosters appropriately well-trained medical professionals, a balance between the quantity and quality of healthcare services, and resource allocation decisions.”*

Patient living with chronic respiratory disease, Healthy India Alliance

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