

Global Strategy on Digital Health 2020-2024

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1 FOREWORD

(to be written)

2 PURPOSE

The purpose for a Global Strategy on Digital Health is to promote healthy lives and wellbeing for everyone, everywhere, at all ages. The potential of Digital Health to advance the Sustainable Development Goals (SDGs) and to support health systems in all countries, in health promotion and disease prevention has been widely recognized¹. To deliver its potential, national or regional Digital Health initiatives must be guided by a robust Strategy that integrates financial, organizational, human and technological resources².

In May 2018, the Seventy-First World Health Assembly (WHA) passed Resolution WHA71.7 on Digital Health. Amongst other topics, the Resolution requested the Director-General “to develop in close consultation with Member States and with inputs from stakeholders, a global strategy on digital health, identifying priority areas including where the World Health Organization (WHO) should focus its efforts”. In addition, it urged Member States:

“...[T]o assess their use of digital technologies for health, including in health information systems at the national and subnational levels, in order to identify areas of improvement, and to prioritize, as appropriate, the development, evaluation, implementation, scale-up and greater utilization of digital technologies, as a means of promoting equitable, affordable and universal access to health for all, including the special needs of groups that are vulnerable in the context of digital health”.

The field of digital health is dynamic and progressing rapidly. eHealth, medical informatics, health informatics, telemedicine, telehealth and mHealth are some of the terms that have been used over the last five decades, depending on the available technologies and accessibility of the baseline infrastructure. These terms have been used to describe the application of information and communication technologies (ICTs) to areas of health, health care and wellbeing. More recently, the term digital health has been selected to embody integration of concepts yet be flexible enough to foster diversity of purposes, technologies and other specificities.

Moving from eHealth to Digital Health puts more emphasis on digital consumers, with a wider range of smart-devices and connected equipment being used, together with other innovative and evolving concepts as that of Internet of things (IoTs) and the more widespread use of artificial intelligence (AI), big data and analytics. Digital Health is changing the way health systems are run and health care is delivered.

In the context of this Global Strategy, Digital Health is understood to mean “*the field of knowledge and practice associated with any aspect of adopting digital technologies to improve health, from inception to operation*”. This definition is in line with WHO EB142/20 of 2017³ and encompasses eHealth.

¹ WHA71.7, 2018

² WHO/ITU National eHealth Strategy Toolkit, 2012.

³ WHO EB142/20 of 2017 stated that “*Today the term ‘digital health’ is often used as a broad umbrella term encompassing eHealth as well as developing areas such as the use of advanced computing sciences (in the fields of “big data”, genomics and artificial intelligence, for example)*”.

The proposed definition qualifies Digital Health as going beyond the rather simplistic meaning of the use of digital technologies in health. When understood as a broader field of knowledge and practice, Digital Health becomes more comprehensive and able to foster the diversity required to understand its multiple categories, functions and corresponding policy needs. It also ensures that digital technologies are understood as a means to an end. As a result, this definition also anchors Digital Health to matters linked to its practical application and demonstrated, measurable outcomes for improvements in health.

The following Global Strategy on Digital Health is designed to help countries achieve this objective. It sets out a vision, strategic objectives and a framework for action to advance digital health. The Global Strategy is developed in collaboration with countries and other stakeholders, considering their cultures, values and interests. The Strategy leads to concrete actions within the proposed timeframe of four years, from 2020 to 2024. However, the strategic objectives aim to set the actions for a longer period and can be reviewed and revised after the proposed timeframe.

The Strategy builds on previous WHA resolutions⁴ WHO global and regional reports on digital health, eHealth, mHealth, telehealth and other digital health related areas^{5,6,7} and a two-part ISO TC 215 Technical Specification⁸. In particular, the National eHealth Strategy Toolkit⁹, co-published by WHO and ITU, is an essential source of inspiration and methods. It provides an excellent and easy to use operational model, with step-by-step instructions that systematizes a simple but comprehensive framework for preparing and implementing National Digital Health Strategies.

3 GLOBAL SITUATION

Health systems and delivery of care across all countries have been challenged by the rise of non-communicable diseases, shortage of the health workforce, aging population, unplanned emergencies and infectious disease outbreaks. The potential use of digital technologies has been explored to address some of these challenges by a number of countries.

After the first wave of initiatives on eHealth applications in the late 1990s and early 2000s, the need for a more integrated approach to the application of information and communication technologies (ICT) to health care delivery and patient care was identified as necessary. The aim was to integrate eHealth services to use resources more efficiently, avoid fragmentation, and facilitate information sharing for better and faster decision-making. This effort led to the creation of national and regional eHealth policies and strategies.

In response to countries' emerging eHealth initiatives, organizations such as the WHO, the International Organization for Standardization (ISO) and the International Telecommunication Union (ITU), embraced the role of disseminating knowledge, facilitating collaboration, sponsoring discussion forums and developing tools and other guiding documents that would help policymakers and public servants

⁴Resolutions WHA58.28, WHA66.24 and WHA71.7

⁵PAHO CD56/INF/17, 2018.

⁶Regional Strategy for Strengthening eHealth in the South-East Asia Region, WHO, 2015.

⁷From innovation to implementation. eHealth in the WHO European Region, 2016.

⁸ISO TR 14639-1 Capacity-based eHealth architecture roadmap, 2012.

⁹WHO/ITU National eHealth Strategy Toolkit, 2012

understand the power of eHealth and recognise its complexity. Countries and stakeholders were urged to direct their efforts towards: a) creating a consistent eHealth vision that would adhere to the country's needs and resources; b) developing an action plan to deliver the proposed vision, and c) creating a framework for monitoring and evaluating eHealth implementation and progress.

Since then, a plethora of countries – including many low-and middle-income countries – have worked on the development of their strategies, policies and architectures. Despite these advances, there -is still the need for greater institutional support for the development of national digital health policies and strategies.

The successful adoption of Digital Health goes beyond the use of ICT to improve processes. Digital Health should also deal with issues such as scalability, replicability, interoperability, security and accessibility. It should benefit people in a way that is reliable, equitable and sustainable. There are various examples of ICT applications that have proven to be beneficial in some environments but have failed to scale or deliver results in different contexts. Alongside other challenges, they can sometimes result in information fragmentation due to a lack of integration with other digital or non-digital initiatives.

The evidence on the impact of systematic regional or national Digital Health architectures, policies and strategies on Health Systems and on population health is gradually being collected. However, in many areas it has not yet been firmly established.¹⁰ This can be partly explained by Digital Health being still in its infancy and by the fact that impact of digital technologies on Health may take years to be reliably measured. Therefore, there is the need to establish metrics for progress evaluation and set measurable expectations that are feasible, though challenging, for the development of Digital Health initiatives, thus providing a platform for consistent progress measurement and monitoring.

Advancing Digital Health requires collaboration. Countries, NGOs, universities, research centres, development banks and donors all need to work together towards increasing the reach and effectiveness of Digital Health, and to ensure it aligns with countries' needs, priorities, profiles and local as well as global strategic goals.

The surge of new digital technologies and services opens new ways of interacting with individuals, citizens, families, communities, patients and health care workers. However, it also requires new ways to protect populations against the increasingly sophisticated collection and misuse of personal data. These concerns are not restricted to specific countries. They influence all countries and organizations in the world.

Digital Health is particularly vulnerable to such abuses, given that it is predicated upon the increased use of emerging technologies to deliver health care more widely. In addition, users may not be aware of the potential misuse of new technologies and will assume benign effects unless appropriately informed of the potential risks.

These concerns are not restricted to specific contexts. Global cooperation is therefore critical to ensuring and sustaining an effective and comprehensive response to this challenge.

¹⁰ Resolution WHA71.7

4 GUIDING PRINCIPLES

The guiding principles aim at orienting the Global Strategy as well as the appropriate and sustainable adoption of digital health in countries.

4.1 ADVOCATE THAT SUCCESSFUL DIGITAL HEALTH INITIATIVES REQUIRE A UNIFIED STRATEGY

The development of sustainable Health Systems that promote universal access to care can only be enabled by the appropriate use of digital technologies. To deliver its potential, Digital Health initiatives must be guided by a robust Strategy that integrates financial, organizational, human and technological resources. History shows that ill-coordinated initiatives lead to vertical or stand-alone ICT solutions, that although well-intended, often result in information fragmentation, and consequently poor delivery of care.

4.2 ACKNOWLEDGE THAT THE DIGITAL HEALTH ADOPTION PROCESS IS A COUNTRY'S DECISION

This Global Strategy acknowledges that each country owns its Digital Health strategy and that along their journey towards universal health coverage and person-centred care, countries will adopt Digital Health in a way that best suits their vision, Health needs, available resources and core values.

4.3 PROMOTE THE APPROPRIATE USE OF DIGITAL TECHNOLOGIES

The Strategy will promote the ethical and appropriate use of digital technologies, to bridge the Digital Divide and ensure no one is left behind. It will promote ways to protect populations against the misuse of information, cyber-attacks, fraud, extortion, fake news, racism and other human-rights violations. It will stimulate the adoption of health technology assessment methods that support and encourage effective innovation.

5 THE STRATEGY AT A GLANCE

VISION

Improve Health for everyone, everywhere by accelerating the adoption of appropriate Digital Health.

STRATEGIC OBJECTIVES

1. Engage Stakeholders on a Shared Global Agenda on Digital Health
2. Build and Consolidate Global Digital Health Capacity that reflects National Needs
3. Commit and Engage Stakeholders to advance Digital Health in every Country
4. Improve Measurement, Monitoring, Research and Practice in Digital Health

FRAMEWORK FOR ACTION

1. Commit – encourage countries and involve stakeholders to commit to the Digital Health Strategy
2. Catalyse – create an environment and processes that will facilitate and induce collaboration
3. Measure – create processes for the Strategy monitoring and evaluation
4. Increment and Iterate – take a new cycle of actions based on what has been experienced, measured and learned

6 VISION

6.1 VISION STATEMENT

Improve Health for everyone, everywhere by accelerating the adoption of appropriate Digital Health.

This concept includes promoting the SDGs, equitable and universal access to quality health services; increasing health systems sustainability, accessibility and affordability; strengthening health promotion, disease prevention, treatment, rehabilitation and palliative care; enabling and enhancing innovation, research and education; encouraging the development and adoption of models and technologies for cross-border data sharing and surveillance and ensuring data privacy and cyber-security. The vision also embraces technologies that allow people to manage their health more effectively, improve caregiver-patient communication and monitor the impact of policies on population health. All these activities are designed to contribute to a Digital Health ecosystem that remains focused on delivering impact for better Health.

7 STRATEGIC OBJECTIVES

Four strategic objectives are identified. They are not intended to be pursued in a sequence, but rather to be developed in parallel. They are intended to provide guidance and strengthen synergies between projects and stakeholders, leading to a more robust and improved adoption of digital health.

7.1 SO1 – ENGAGE STAKEHOLDERS ON A SHARED GLOBAL AGENDA ON DIGITAL HEALTH

This Strategic Objective aims at aligning countries and stakeholders to collectively address opportunities, identify and communicate risks, and focus on threats associated with the use of digital technologies to improve health and achieve the SDGs. This objective aims to encourage action on common challenges that impact all countries and stakeholders, regardless of their situation.

The successful use of digital technologies demands an unprecedented level of awareness and understanding of their applicability and use, together with commitments from governments, organizations and individuals. Awareness is a goal on its own, which can be attained by informing, motivating and engaging stakeholders. They include government officials, aid agencies, donors, healthcare organizations, ICT providers and professionals, health informatics practitioners, clinicians, researchers and patients.

Broad collaboration is needed to realize the value and address the risks associated with implementing digital health technologies. It is important to establish mechanisms for joint action on shared goals, respecting inclusiveness and human rights. Key areas for action include the digital divide, digital health literacy, data privacy and security; data ownership rights and access; methods to support innovation that is effective, affordable, safe, scalable and sustainable.

This Strategic Objective includes the development and execution of actions in line with the proposed Global Agenda.

7.2 SO2 – BUILD AND CONSOLIDATE DIGITAL HEALTH CAPACITY THAT REFLECTS NATIONAL NEEDS

The second objective aims to build and consolidate the capacities, skills and attitudes identified as requirements for countries to embrace and advance Digital Health. It includes the need to keep on

disseminating the benefits of Digital Health and should help deepen the understanding that preparing and delivering a Digital Health Strategy requires specific capabilities that have historically been underestimated.

The WHO/ITU National eHealth Strategy Toolkit asserts that development and implementation of a successful national Strategy for Digital Health should consider seven components: a) Governance and Leadership; b) Strategy and Investment; c) Legislation, Policy and Regulation; d) Services and Applications; e) Standards and interoperability; f) Infrastructure; and g) Human Resources.

The target for this objective is to build capacity along all these seven components – which are equally applicable for Digital Health – in every country working to expand capacity in this field. Whilst needs vary from region to region and country to country, they often include cross-cutting issues such as system architecture, programme management, step-wise costing and implementation support. Apart from that, foundational capacities such as governance, leadership, advocacy and other organizational resources are frequently missing, and their importance underestimated. Mitigating this requires better awareness and the development of related capabilities.

The need for increased capacity for each of the seven components is not restricted to countries. It also applies to a broad range of international and global stakeholders who should be similarly encouraged to develop their expertise in all dimensions of Digital Health. Achieving this Strategic Objective will result in better capacity on all seven components of Digital Health, in-country and globally.

The Strategy recognizes that countries and stakeholders in general are at different stages in their Digital Health journey. This Strategic Objective aims at helping every country and stakeholder to identify their gaps in capacity and support them to fill in such gaps.

7.3 SO3 – COMMIT AND ENGAGE STAKEHOLDERS TO ADVANCE DIGITAL HEALTH IN EVERY COUNTRY

Strategic Objective three lies at the core of the Strategy. It aims to stimulate and support every country to adopt, own, evolve and strengthen its Digital Health Strategy in a way that best suits its vision, Health needs, available resources and core values.

While each country is expected to develop and own its strategy from inception to implementation, this strategic objective aims to strengthen commitment and systematic engagement of all stakeholders to develop, deliver, evaluate and share the prospect of digital health in every country. Commitment and coordinated engagement of stakeholders will support countries through their journey at all stages, from development to implementation of their national strategies. Countries and stakeholders will work together towards increasing the reach and effectiveness of Digital Health, by improving its adherence to each country's needs, priorities, profiles and local as well as global goals.

Countries should also be able to count on assistance from WHO and committed stakeholders on a wide range of issues, from governance, value propositions, operational models and other organizational matters to more practical issues on interoperability, standards, infrastructure, human resources, systems and services, for example.

WHO and relevant stakeholders will develop and share high-level normative and organizational guidance on Digital Health, identify and promote best practices, provide evidence, address emerging issues,

promote standards, support innovation, and disseminate successful examples of Digital Health architectures, programmes and services, along with correspondingly robust policy design.

Accomplishing this Strategic Objective means attracting and engaging countries and stakeholders to understand and prioritize issues and collaborate on solutions to common problems.

7.4 SO4 – IMPROVE MEASUREMENT, MONITORING, RESEARCH AND PRACTICE ON DIGITAL HEALTH

Objective number four aims to commit every country to adopt suitable monitoring and evaluation frameworks that continuously assess Digital Health activities and their interrelations providing alerts and insights to inform actions that will ensure progress. It helps to measure trends and report on progress in each country. This is not a simple task but one that can build on several WHO initiatives and stakeholders' experience in monitoring and evaluation.

This objective also aims to build the evidence base demonstrating the effectiveness and efficiency of existing Digital Health models and technologies, as well as to stay current with trends in the development and integration of cutting-edge technologies. It should be supported by suitable research in all aspects of Digital Health, from conception to development and deployment of new models, services and products. Likewise, this objective includes the need to monitor and report global developments and trends in digital technologies use in health systems, public health and data science. This should include analysing their implications for the achievement of the health-related SDGs.

8 FRAMEWORK FOR ACTION

The Framework for Action aims to propel Global Strategy implementation and advance Digital Health in every country by providing an organized collaborative environment formed by sets of concepts, tools, methods, roadmaps, funds and other resources to help countries through the different stages of their Digital Health journey.

WHO and relevant stakeholders shall define actions and guidance to coordinate the activities of all relevant stakeholders so that the global strategy can be implemented efficiently, and countries can benefit from an organized set of partners, tools, methods, roadmaps, funds and other resources to help them through the different stages of their Digital Health journey.

BASIC CONCEPTS

- The framework for action begins by attracting and engaging stakeholders and countries and anchoring them around the shared Strategy;
- The framework for action requires that WHO and relevant stakeholders provide guidance as well as appropriate technical and organizational assistance to countries;
- The framework for action requires that every country commits to adopting and owning their Digital Health strategy;
- The framework ensures that all actions are independent from each other, but coordinated;
- The framework for action encourages feedback and opportunities for testing new approaches in a safe setting. A mechanism for learning is essential for successful innovation generally, and in particular for

the long-term success of the Global Strategy itself. The framework needs to be continuously refined by the relevant stakeholders.

The Framework for Action is based on four major actions to be developed in parallel, in an incremental and iterative way. They are: Commit (encourage countries and involve stakeholders to commit to the Digital Health Strategy); Catalyse (create an environment and processes that will facilitate and induce collaboration); Measure (create processes for the Strategy monitoring and evaluation) and, finally; Increment and Iterate (take a new cycle of actions based on what has been experienced, measured and learned).

8.1 COMMIT

COMMIT aims to attract, engage and commit countries and relevant stakeholders to the Strategy. This action is continuous and will encourage and support every country to step up their commitment to advance Digital Health and to the Global Strategy. Accordingly, relevant stakeholders should be encouraged to commit to helping countries and other stakeholders, whilst taking the opportunity to review their own practices when working on Digital Strategies. Funding agencies may play an essential role here, as commitment by countries needs to be backed by concrete action to invest, by mobilizing domestic and external resources and, if necessary, reprogramming moneys previously committed to outdated approaches.

ACTIONS

In collaboration with other organizations of the United Nations system, WHO will actively work to attract and engage countries and stakeholders that are willing to commit to the Global Strategy, collaborate both ways and advocate for Digital Health, regardless of their current Digital Health status. Countries that are at early stages should be encouraged to develop their individual approach to Digital Health. Countries that are well ahead on their journey should contribute to strengthening the shared Global Health Agenda and collaborate with the Strategy but should also be stimulated to revise their current approaches, given the avalanche of new technologies and opportunities. All countries should be encouraged to revisit, assess and update their Digital Health Strategies and share their learned lessons and best practices.

This is a continuous and dynamic effort. Countries and relevant stakeholders that cannot or do not want to commit at some stage, may want to commit at other phases.

8.1.1 Create a roadmap for attracting and engaging countries and stakeholders

A robust roadmap for attracting and engaging countries should identify priority areas where normative guidance, technical assistance and advice on digital health would be beneficial, including, but not limited to, gaps in research, evidence-based standards, support to implementation and scale-up, financing and organizational models, content, evaluation, cost-effectiveness and sustainability, data security, ethical and legal issues, re-use and adaptation of existing digital health and other relevant tools. It should consider how digital technologies could be integrated into existing health systems infrastructures and regulation, to reinforce national and global health priorities by optimizing existing platforms and services, for the promotion of people-centred health and disease prevention to reduce the burden on health systems. The roadmap should also work towards and support interoperability of digital technologies by, inter alia,

promoting the use of international and open standards as an affordable, effective and easily adaptable solution.

The roadmap should address the need to build capacity for human resources for digital health across both health and technology sectors. The roadmap should address the need to improve the digital skills of all citizens and to promote the application of digital health technologies in the provision of, and access to, everyday health services.

8.1.2 Identify, approach and engage “champion” countries

In close collaboration with relevant stakeholders, identify countries that are willing to be Digital Health champions and partner with them to share their experience, successes and failures with other countries and stakeholders in a systematic and documented way. Use the National eHealth Strategy Toolkit and other relevant global, regional or local assets, as a foundation for attracting and engaging champion countries. Champions may be at any stage of their Digital Health journey. All that is required is that they be willing to actively collaborate and showcase their experience.

8.2 CATALYSE

CATALYSE is a continuous process that aims at creating and sustaining an environment and processes that will facilitate and induce collaboration in Digital Health. Collaboration among committed countries and stakeholders will be set alive by WHO and relevant stakeholders and will be coordinated by committed countries and partners, as part of the framework for action.

In a figurative way, *catalysis* accelerates processes by improving the interaction between agents, although the *catalyst*, itself, is not consumed by the reaction. In the Global Strategy, WHO will be the leading agent. Together with relevant stakeholders, they will initially catalyse collaboration among committed stakeholders by matching profiles, discovering potential synergies, unlocking hidden value and finding opportunities for growth. This is expected to be sustainable in a virtuous cycle led by WHO and committed stakeholders.

ACTIONS

8.2.1 Identify and qualify needs and offers

As a first step, WHO will work together with other organizations of the United Nations system, committed countries and partners, to identify and qualify countries’ needs, expectations and stages of development, according to the Digital Health framework. Countries will in turn state the kind of support they expect along the seven Digital Health components and in accordance with their current development needs.

WHO will identify and qualify stakeholders, areas of interest, offers, available resources, and other attributes that will help set the landscape for collaboration. Stakeholders will propose their specific roles and offers, acting, for example, as a think-tank; a convener for specific sets of activities (such as leadership training or providing a testbed for interoperability) or funding infrastructure in specific regions, amongst other possibilities.

8.2.2 Match needs and offers

The resulting map will be used to create clusters of countries and stakeholders with interests in common, and thus likely to collaborate. It will also identify existing gaps, overlaps, redundancies and synergies that will inform the decision on how to optimize or expand the use of resources.

The expected outcome is a network of hubs of committed countries and stakeholders that support the Strategy and will develop Digital Health initiatives in a collaborative way. This approach strengthens existing initiatives such as local and global hubs and uses a distributed model that is well known to WHO and the Health community.

8.2.3 Develop a roadmap for providing technical support and guidance

Jointly with relevant stakeholders, and based on the known offer-needs map, WHO will then develop a roadmap for providing countries with the technical support and organizational guidance they need.

Important aspects to be addressed by the roadmap are technical cooperation, the transfer of technologies and knowledge on mutually agreed terms; the collection, management and evaluation of health data; the robustness of the enabling environment in line with established good practices; and consideration of the sustainability, feasibility, inclusivity and scalability of innovation that is fit for purpose.

The roadmap should include the dissemination of best practices and successful examples of digital health architecture, programmes, and services, with focus in effective policy design and practical implementation, with the international community, including through WHO, bilateral, regional, cross-regional and global networks, digital platforms and hubs.

8.2.4 Accelerate and sustain progress

There is a plethora of assets available to the Strategy that should be considered to accelerate and sustain this work. These include, but are not limited to the Toolkit, resolutions, classifications and terminologies, teaching tools, standards and other resources that have been developed by or for WHO or can be available to be used as part of the Strategy. The Strategy needs to identify and qualify all relevant resources that may keep collaboration continuously catalysed.

WHO and committed stakeholders will work together to:

- propose and continuously refine methods and actions to coordinate and accelerate collaboration;
- strengthen collaboration and information sharing, as appropriate, through regional and global hubs, forums, observatories, research groups, community of practices, and language specific communities;
- propose, exercise and continuously refine processes for matching countries' needs with available resources and find ways to unlock value through innovative approaches to existing local and global challenges;
- stimulate countries and stakeholders to showcase their experience emphasizing successes and failures with evolving and innovative models, products, services, technologies and trends in fields as cyber-security, IoT, blockchain, AI, machine learning, biometric identification, wearables, implantable devices, analytics, and big data, to name a few.
- develop a repository on regulations, evidence related to improvements and unintended effects regarding health promotion, disease prevention and access to, and quality and cost-effectiveness of,

health services, and best practices relating to digital health technologies, provided by, inter alia, Member States on a voluntary basis.

By mapping and matching needs and resources, WHO and committed stakeholders will be informed to better COMMIT stakeholders and countries, and in doing so promoting the Strategy's sustainability.

8.3 MEASURE

MEASURE intends to provide ways for continuously assessing how effective and efficient COMMIT and CATALYSE have been as a platform for developing the Strategy and achieving its objectives. MEASURE requires the definition and implementation of metrics and methods for monitoring and evaluating the impact of the proposed collaboration on in-country and global use of digital health, including the impact of digital health on the health of countries' populations.

ACTIONS

WHO and its committed partners will measure the effectiveness of the Strategy and of the framework for action, from data gathered by countries and committed stakeholders. Results, findings and insights will be reported to Member States and will be widely disseminated.

Again, this is to be carried out in a collaborative way, by creating a network of capacities, competencies and attitudes, adapting and adopting the relevant available resources and innovating when suitable.

WHO and committed stakeholders will:

8.3.1 Assess Strategy and Framework for Action effectiveness

WHO and committed partners will define, exercise and continuously refine key indicators, metrics, expectations, targets, methods and processes to measure progress, generate insights, provide alerts and report the effectiveness of the Strategy, and that of the Framework for Action. Effectiveness needs to be measured by comparing expected with actual results on a systematic fashion. This action should take advantage of the existing initiatives, organizations, methods and experiences in health metrics and evaluation in other similar areas.

8.3.2 Technological trend monitoring

WHO and committed stakeholders will establish methods and coordinate actions to monitor and report developments and trends of digital technologies in health systems, public health and data science. They will analyse and report their implications for the achievement of the strategic objectives.

8.4 INCREMENT AND ITERATE

This action recognizes the Strategy will unfold in waves, or development cycles, that, at every iteration, provide assets and insights that inform and orient the next cycle of actions. It is a central aspect of digital development and is therefore reflected in the Global Digital Strategy. INCREMENT AND ITERATE are a vital pair of combined actions that aim at continuously understanding and guiding the Strategy's progress and impact.

ACTIONS

8.4.1 Propose, exercise and refine

WHO and its committed partners will propose, exercise and continuously refine the Strategy's incremental and iterative assessment and decision-making processes, including methods and cycle duration, in alignment with the MEASURE action. The network formed by committed countries and relevant stakeholders has an important role in this process, by providing perceptions, insights and recommendations. They will also collect evidence related to improvements and unintended effects regarding health promotion, disease prevention and access to, and quality and cost-effectiveness of, health services, as well as best practices relating to digital health technologies.

8.4.2 Optimize the Collaboration Network

A major challenge for the Strategy is its reliance on a coordinated and independent network of committed stakeholders. Such an arrangement needs to be continuously monitored and assessed to find ways to ensure the network activities are well coordinated and in alignment with the Strategy. WHO, in conjunction with committed stakeholders, will define criteria for continuously assessing collaboration outcomes and intervene as required.

9 PROPOSED ROLES

The Global Strategy for Digital Health will be led by WHO to support and respond to the ever-rising needs from countries to implement appropriate digital technologies solutions to address their Health priorities.

As proposed in the Strategic Objectives, in the Framework for Action, and in WHO's 13th General Programme of Work¹¹, WHO will measure impact, step up leadership at all levels, drive public health impact in every country, strengthen its normative work, transform its approach to resource mobilization and will act with a sense of urgency, scale, and quality.

For its history, relevance and mandate, WHO is in a unique position to mobilize countries and relevant stakeholders to collaborate towards advancing the Global Strategy.

WHO will develop guidance as necessary based on existing evidence and successful examples from global, regional and national initiatives, including through the identification and promotion of best practices, such as evidence-based digital health interventions and standards.

Advances in digital technologies and associate methods have allowed the development of better user- or patient-centred services and applications, by shifting from a "design-for-the-user" to a "design-with-the-user" approach¹². As the ultimate beneficiaries from Digital Health, healthy individuals, patients and their organizations are encouraged to collaborate with the international community to bring in the perspective from patients, communities, families and caregivers, advocate in favor of Digital Health, as well as disseminate best practices and successful examples of digital health initiatives.

¹¹ WHO Thirteenth General Programme of Work, 2019–2023, 2018

¹² Principles for Digital Development. <https://digitalprinciples.org/>

For the Strategy to be successful, relevant stakeholders need to build their capacities and work in a coordinated, though decentralized way. The framework for action is intended to be a platform for collaboration that supports the Strategy.

9.1 WHO AND RELEVANT STAKEHOLDERS

For such platform to be effective and efficient, WHO and relevant stakeholders should work together to:

- Establish a permanent coordination for the Global Strategy, under WHO's leadership, in close collaboration with Member States and relevant stakeholders;
- Define priority actions and a timeline for the first wave of actions;
- Secure the funds and other resources for the first wave of actions;
- Set the framework for action in motion;
- Promote and orchestrate collaboration in an incremental and iterative way.

9.2 COUNTRIES

Each Country is encouraged to:

- Collaborate with the international community, including through WHO, bilateral, regional, cross-regional and global networks, digital platforms and regional hubs to disseminate best practices and successful examples of digital health architecture, initiatives, and services;
- Develop and evolve, as appropriate, their Digital Health Strategy, with support from WHO and relevant partners as proposed in the Framework for Action;
- Be an active participant of the Global Strategy on Digital Health, by supporting its Strategic Objectives and the Framework for Action.