

**WIMUN NEW
YORK 2026**



STUDY GUIDE

World Health Assembly
Digital Health and AI

INTRODUCTION

See documents EB146/26 and EB146/REC/2, summary records of the thirteenth meeting, section 2.

2

United Nations General Assembly resolutions: 73/218 (2019) and 70/125 (2016).
3
Resolutions WHA58.28 (2005), WHA66.24 (2013), WHA69.24 (2016) and WHA71.7 (2018); various resolutions of the regional committees include EM/RC53/R.10 (2006), AFR/RC56/R3 (2006), AFR/RC60/R3 (2010), CD51.R5 (2011), AFR/RC63/R5 (2013) and WPR/RC69/8 (2018).

In 2005 the World Health Assembly through its resolution WHA58.28 on eHealth urged Member States “to consider drawing up a long-term strategic plan for developing and implementing eHealth services... to develop the infrastructure for information and communication technologies for health... to promote equitable, affordable and universal access to their benefits.” Countries and stakeholders were urged to direct their efforts towards creating a consistent eHealth vision in line with a country’s health priorities and resources, developing an action plan to deliver the proposed vision, and creating a framework for monitoring and evaluating eHealth implementation and progress. More than 120 Member States – including low- and middle-income countries – have developed such strategies and policies.

In 2013, the Health Assembly adopted resolution WHA66.24 on eHealth standardization and interoperability, which urged Member States “to consider developing ... policies and legislative mechanisms linked to an overall national eHealth strategy”.

Drawing on these resolutions and recognizing the need to strengthen digital health implementation, in May 2018 the Health Assembly adopted resolution WHA71.7 on digital health, in which it requested the Director-General “to develop ... in close consultation with Member States and with inputs from relevant stakeholders ... a global strategy on digital health, identifying priority areas including where WHO should focus its efforts”. The strategy was developed through a consultative process launched in March 2019 that included discussions in online public forums, technical consultations, meetings of the WHO regional committees and the Executive Board at its 146th session¹. The global strategy on digital health 2020–2025 was endorsed by the Seventy-third World Health Assembly in decision WHA73(28) (2020). The global strategy on digital health builds on resolutions adopted by the United Nations General Assembly² and the World Health Assembly,³ related WHO global and regional

1 Definition

eHealth refers to Healthcare that is delivered or supported through electronic processes and communication. Examples of eHealth include but are not limited to: the Internet, telemedicine, patient portals, and wearable health tracking devices, electronic health records and mobile health apps.

1 Something to Think About

How can each country implement these plans and what are the differences in difficulty to implement affordable and equitable access to healthcare?
It is important to reflect on how different it is for developing countries to implement health advances but it’s also important to reflect on how Artificial Intelligence (AI) might help make this process more effective.

2 Did You Know That

Since this resolution, the WHA has adopted another 12 resolutions which have all come to mention the use of eHealth in order to improve Health distribution on an international scale. Only two of those resolutions, other than WHA66.24 mentioned here, were centered around digital health.

INTRODUCTION

4

WHO Regional Office for South-East Asia. Regional strategy for strengthening health in the South-East Asia Region, WHO (2014-2020). Manila: Regional Office for South-East Asia; 2015 (<https://apps.who.int/iris/handle/10665/160780>); World Health Organization. Regional Office for Europe. From innovation to implementation: eHealth in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2016 (<https://apps.who.int/iris/handle/10665/326317>); PAHO. Strategy and plan of action on eHealth: final report. Document CD96/INF/17 (2018) (https://www.paho.org/hq/index.php?option=com_document&view=download&category_id=56&directing-council-english-9964&lang=es&id=45846-cd96-inf-17-s-strategy-poa-ehealth-846&Itemid=270&lang=en, accessed 17 December 2019).

5

ISO. Part 1 - Health informatics: capacity-based eHealth architecture roadmap. Part 2 - architectural components and maturity model. TR 14639-1. Geneva: International Organization for Standardization; 2014.

6

WHO, ITU. National eHealth strategy toolkit. Geneva: World Health Organization and International Telecommunication Union; 2012 (<https://apps.who.int/iris/handle/10665/75211>) (<https://apps.who.int/iris/handle/10665/75211>, accessed 17 December 2019).

reports,⁴ regional strategies, the two-part report of the ISO Technical Committee on Health Informatics on eHealth architecture,⁵ the resolution on ICD-11 and the WHO Family of international classifications and terminologies, **the three-part National eHealth strategy toolkit**,⁶ Member States' current digital health situation and status, actions, strategies, policies and investments, and recommendations of various United Nations panels on digital and innovation topics.

1 Definition

International Telecommunications Union (ITU) that helps governments develop eHealth services in their countries by highlighting things such as steps, methods, specific investments, establishing a vision and an intention in the wider population, along with many other things. The ITU site will be in the annotated bibliography and provides access to everything that it has to offer, becoming a cornerstone of developing eHealth.

DIGITAL TECHNOLOGIES – SHAPING THE FUTURE OF GLOBAL HEALTH

1

Adopted in United Nations
General Assembly resolution
70/1 (2015).

2

United Nations General
Assembly resolution
70/125 (2015).

3

Engagement with non
State actors to follow
resolution WHA 69.10
(2016), Framework of
engagement with
non-State actors.

The 2030 Agenda for Sustainable Development highlights that the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies. The outcome document of the high-level meeting of the United Nations General Assembly on the overall review of the implementation of the outcomes of the World Summit on Information Society (New York, 15–16 December 2015) highlighted the technology-enabled breakthroughs in government in the provision of health care, with greater numbers of people having access to services and data that might previously have been out of reach or unaffordable.² The participating ministers and heads of delegation committed themselves to harnessing the potential of information and communications technologies to achieve the 2030 Agenda for Sustainable Development, noting that they could accelerate progress across the health-related Sustainable Development Goals.

Stressing the critical role played by the private sector,³ civil society and technical communities in information and communication technologies, the United Nations General Assembly in resolution 73/218 (2019) “encourages strengthened and continuing cooperation between and among stakeholders from both developed and developing countries”, and encourages WHO, within its respective mandate and strategic plan, to contribute to the outcomes of the World Summit on the Information Society and emphasize the importance of allocating adequate resources in this regard. With the recognition that information and communications technologies present new opportunities and challenges for the achievement of all 17 Sustainable Development Goals, there is a growing consensus in the global health community that the strategic and innovative use of digital and cutting-edge information and communications technologies will be an essential enabling factor towards ensuring that 1 billion more people benefit from **universal**

1 Definition

The 2030 Agenda for Sustainable Development is a plan of action created by the United Nations in order to tackle worldwide issues such as poverty, gender inequality, pollution, preservation of wildlife along with other important issues. Its main objective is to create a consensus for countries to work together in order to achieve these goals and is a reference point when discussing the UN's intentions for the future.

2 Something to Think About

How have countries handled this? It is important to consider to what extent collaboration between countries has actually happened and how much development it has brought. Have developed countries also initiated efforts to develop the rest of the world as well?

4

WHO guideline
recommendations on digital
interventions for health
system strengthening:
evidence and
recommendations. Geneva:
World Health Organization;
2019
(<https://apps.who.int/iris/handle/10665/311980>,
accessed 17 December
2019).

health coverage, that 1 billion more people are better protected from health emergencies, and that 1 billion more people enjoy better health and well-being (WHO's triple billion targets included in its Thirteenth General Programme of Work, 2019–2023).

Digital transformation of health care can be disruptive; however, technologies such as the Internet of things, virtual care, remote monitoring, **artificial intelligence**, big data analytics, blockchain, smart wearables, platforms, tools enabling data exchange and storage and tools enabling remote data capture and the exchange of data and sharing of relevant information across the health ecosystem creating a continuum of care have proven potential to enhance health outcomes by improving medical diagnosis, data-based treatment decisions, digital therapeutics, clinical trials, self-management of care and person-centred care as well as creating more evidence-based knowledge, skills and competence for professionals to support health care.

Despite the considerable progress made by some countries, **many countries still require institutional support for the development and consolidation of national eHealth and/or digital health strategies** and the implementation of their action plans, which usually requires more resources and capabilities. The global strategy on digital health will enhance and complement the work of existing and newly created digital health networks. The Health Assembly in resolution WHA71.7 also requested the Director-General to provide normative guidance in digital health, including "through the promotion of evidence-based digital health interventions". WHO subsequently issued its guideline with 10 evidence-based recommendations on digital interventions for health system strengthening.

4 Digital health should be an integral part of health priorities and benefit people in a way that is ethical, safe, secure, reliable, equitable and sustainable. It should be developed with principles of transparency, accessibility, scalability, replicability, interoperability, privacy, security and confidentiality.

1 Interesting Facts

We as a worldwide population are very far from reaching this objective, but as of this decade many different resources have provided opportunities to help reach this objective. This includes AI that has many use cases in eHealth.

Another interesting fact is that the majority of health coverage that has developed since this document was adopted was done by countries' own governments, making the cooperation between countries to reach this goal very slim.

2 Something to Think About

Many technologies have been mentioned on this list, however the one that has developed most of all is Artificial Intelligence. It is important to think about how the way AI learns has evolved along with its cases to help spread information and education. How might AI be used with all of the new changes it has adopted?

3 Something to Think About

How might AI help spread eHealth to developing countries and create an impact in order to improve the process of implementing eHealth on a worldwide scale? This can be done in many different ways, an example of this possibility is using AI to reduce the need for human resources or use AI to help improve health education.

VISION

The vision of the global strategy is to improve health for everyone, everywhere by accelerating the development and adoption of appropriate, accessible, affordable, scalable and sustainable person-centric digital health solutions to prevent, detect and respond to epidemics and pandemics, developing infrastructure and applications that enable countries to use health data to promote health and well-being, and to achieve the health-related Sustainable Development Goals and the triple billion targets of WHO's Thirteenth General Programme of Work, 2019–2023.

Digital health will be valued and adopted if it: is accessible and supports equitable and universal access to quality health services; enhances the efficiency and sustainability of health systems in delivering quality, affordable and equitable care; and strengthens and scales up health promotion, disease prevention, diagnosis, management, rehabilitation and palliative care including before, during and after an epidemic or pandemic, in a system that respects the privacy and security of patient health information. The vision further seeks to enhance research and development, innovation and collaboration across sectors. It recognizes that digital health can radically change health outcomes if it is supported by sufficient investment in governance, institutional and workforce capacity to enable the changes in digital systems and data use training, planning, and management that are required as health systems and services are increasingly digitized. With this essential investment in people and processes, in line with national strategies that lay out a vision for the digitalization of the health sector, digital health can improve the efficiency and cost-effectiveness of care, allowing for new business models in the delivery of services.

The implementation of appropriate digital health technologies is a key component of a national strategy but may be difficult to accomplish especially in low- and middle-income countries. Exploring the potential of global solutions and shared services should be considered as part of the national health strategy of Member States, at the same time as generating evidence on the implications for access, cost, quality, safety and sustainability of applying these global solutions in health systems within vastly different country contexts.

1 Interesting Facts

AI has been implemented in multiple bureaucratic processes in companies, education and even governments throughout the last year. Having that in mind, it is feasible to use AI to accelerate the implementation of the global strategy and reach places that cannot develop this strategy without more resources.

2 Interesting Facts

This paragraph highlights what the WHO considers a valuable use case for digital health that can be adopted. However it is important to question if this needs change considering the development of AI. Moreover this section mentions the need to enhance the efficiency of health sectors which AI has a lot of potential to do.

PURPOSE

Document EB142/20 on *rdHealth*, noted by the Executive Board at its 142nd session (see document EB142/2017/ REC/2, summary records of thirteenth meeting, section 2), 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 purpose of this global strategy is to strengthen health systems through the application of digital health technologies for consumers, health professionals, health care providers and industry towards empowering patients and achieving the vision of health for all. The strategy is designed to be fit for purpose and for use by all Member States including those with limited access to digital technologies, goods and services. In the context of this global strategy, digital health is understood to mean "the field of knowledge and practice associated with the development and use of digital technologies to improve health". This definition encompasses eHealth, in line with that used in the report by the Director-General noted by the Executive Board.¹ Digital health expands the concept of eHealth to include digital consumers, with a wider range of smart and connected devices. It also encompasses other uses of digital technologies for health such as the Internet of Things, advanced computing, big data analytics, artificial intelligence including machine learning, and robotics. The global digital strategy emphasizes that health data are to be classified as sensitive personal data, or personally identifiable information, that require a high safety and security standard. Therefore, it stresses the need for a strong legal and regulatory base to protect privacy, confidentiality, integrity and availability of data and the processing of personal health data, and to deal with cybersecurity, trust building, accountability and governance, ethics, equity, capacity building and literacy, ensuring that good quality data are collected and subsequently shared to support planning, commissioning and transformation of services. It is important to maintain transparency and effectively communicate about the data security strategies. The global strategy aims to create a shared understanding among all Member States regarding the importance of digital health solutions, and an approach towards creating an interoperable digital health ecosystem which is to be understood as a digital interoperable information technology infrastructure that is primarily used by the health care community across all care settings, in particular by health

care providers, health service providers and patients as well as by public health authorities, universities and research institutions. An interoperable digital health ecosystem should enable the seamless and **secure exchange of health data** by and between users, health care providers, health systems managers, and health data services. Health data are predominantly generated by and processed between health care providers and the health care community.

Sharing health data in the context of a person-centric digital health ecosystem and for the purpose of public interest should be encouraged with the patient's consent, when undertaken in a manner that is built on trust, protects patient privacy, secures digital systems, and protects against malign or inappropriate use. Such sharing is vital as it can contribute to the enhancement of quality of processes, the outcomes of health services and the continuity of care for patients (primary use of health data). It may also lead to the building of a knowledge base, which should be able to interact with other data systems including for example data on social determinants of health and registries. The secondary use of health data is important to improve the quality of health care and research effectiveness. It could enable testing, validating and benchmarking artificial intelligence solutions and big data analyses across various parameters and settings, the continuity of care of patients (primary use of health data). It also leads to the building of a knowledge base, which should be able to interact with other data systems, registries, etc. The secondary use of health data with appropriate de-anonymization of datasets would enable ethically managed testing, validating and benchmarking artificial intelligence solutions and big data analyses across various parameters and settings.

The further work resulting from the global strategy of WHO as a normative institution will give guidance and orientation to the public policy makers in Member States for their populations and health care providers, the health care industry and manufacturers, investors and procurement authorities when it comes to digitalization in health care.

This global strategy sets out a vision, strategic objectives, a framework for action and implementation principles to advance digital health,

1

Something to Think About

how may this be done more effectively within the world's technological grasp and how AI might help in making data transfer easier?

globally and within countries at national and subnational levels, that will contribute to building an internationally connected digital health system with consideration of potential risks. It aims to encourage international collaboration and to support countries in their national programmes towards improved health care service delivery, implementing national health strategies, promoting research and development and working towards achieving universal health coverage and the health-related Sustainable Development Goals. The global strategy will lead to concrete actions and results within the time frame from **2020 to 2025**.

1**Something to Think About**

Many individual developments have singlehandedly modified the world of Health as we know it. How will this change worldwide strategies going forward? As mentioned, prior relevant events have taken place, which include but are not limited to: the pandemic, the development of new technologies and the expansion of IA.

GUIDING PRINCIPLES

The four guiding principles aim to orient the global strategy towards the appropriate and sustainable adoption of digital health technologies within the context of national health sector and health strategies.

1

Acknowledge that institutionalization of digital health in the national health system requires a decision and commitment by countries

The global strategy acknowledges that each country owns its digital health action plan built on the strategy, within its own national context. Along their path towards the health-related Sustainable Development Goals, countries will adopt digital health in a way that is sustainable, respects their sovereignty, and best suits their culture and values, national health policy, vision, goals, health and well-being needs, and available resources.

2

Recognize that successful digital health initiatives require an integrated strategy

Digital technologies are an essential component and an enabler of sustainable health systems and universal health coverage. To realize their potential, digital health initiatives must be part of the wider health needs and the digital health ecosystem and guided by a robust strategy that integrates leadership, financial, organizational, human and technological resources and is used as the basis for a costed action plan which enables coordination among multiple stakeholders. These initiatives should be led through strong governance structures. The strategy should address an approach that will work across multiple health priorities underpinned by standards and an architecture that enables this integration.

Historical review shows that ill-coordinated or disjointed digital health initiatives lead to vertical or stand-alone information and communications technology solutions that, although well-intended, often result in information fragmentation and, consequently, poor delivery of services.

2

Interesting Facts

In the past, campaigns for advances in health have brought to light possible infringement of sovereignty. One example of this is when there was a worldwide initiative to take the polio vaccine everywhere, however, countries such as Nigeria and Pakistan went against the vaccine and testified that the western popularization of this vaccine was infringing their population's sovereignty. This highlights the need to be careful when spreading information and resources as many instances can appear where the integration of certain eHealth resources can risk a violation of sovereignty.

5

Interesting Facts

Some historical examples of ill-coordinated digital health initiatives are the following:

- Global assistance during the West African Ebola outbreak
- Distribution of the COVID-19 vaccine to developing countries
- WHO's initiative to diminish the smallpox disease

These are some examples of well intentioned initiatives which failed to reach their desired impact. Looking back at past projects and the trajectory they had can help develop future action with well structured planning.

3

Promote the appropriate use of digital technologies for health

The global strategy promotes the appropriate use of digital technologies as digital public goods which are adaptable to different countries and contexts to help address key health system challenges to support equity in access to digital resources so that no one is left behind. It promotes the protection of people, populations, health care professionals and systems against **misinformation** and the misuse of information, malicious cyber activities, fraud and exploitation, inappropriate use of health data, racism and human rights violations within the framework established by international treaties binding the Member States.

The **"digital determinants of health"**, such as literacy in information and communication technologies and access to equipment, broadband and the internet, become more important as digital health becomes more prevalent. The global strategy underscores the need to ground digital foundations within national strategies and emphasizes the need to work with different sectors and stakeholders at all levels.

The global strategy promotes syntactic and semantic interoperability with **WHO norms and standards** as a cornerstone of health information to enable sharing of information in a connected world.

The appropriate use of digital health takes **the following dimensions** into consideration: health promotion and disease prevention, patient safety, ethics, interoperability, intellectual property, data security (confidentiality, integrity, and availability), privacy, cost-effectiveness, patient engagement, and affordability. It should be people-centred, trust-based, evidence-based, effective, efficient, sustainable, inclusive, equitable and contextualized. The growing global challenge of digital waste on health and the environment must also be appropriately managed.

1 Interesting Facts

Misinformation has been a large issue on the internet throughout the last two decades. When it comes to digital health, misinformation has a large effect due to online resources such as social media, which are extremely popular to the public but can often spread false information about health, which is provided by unreliable resources. It is important to consider that not only is this still a large issue but the development of AI also creates more issues in regards to misinformation. However, AI can also help identify misinformation, making it both something negative and positive when trying to tackle this issue.

2 Definition

"Digital determinants of health" can be defined by everything in the digital world that may affect our health and well-being

3 Definition

The WHO norms and standards for communication are defined in their website and highlight the importance of specific factors in communication. These factors are: Accessible to decision-makers, Actionable by decision-makers, Credible and trusted as perceived by decision-makers, Relevant to decision-makers, Understandable to decision-makers and Timely to enable decision-making.

4 Something to Think About

The following paragraph states multiple uses for digital health that the WHO considers appropriate. It's important to ask how AI might help with some of these aspects such as patient safety. AI might be able to assist through clear communication with patients that is often a repetitive task for health care professionals. This is just an example but AI might also be able to help with intellectual property or patient engagement, but how would it be implemented in an effective way?

4

Recognize the urgent need to address the major impediments faced by least-developed countries implementing digital health technologies

There is a pressing need to invest in efforts to overcome the major impediments that developing countries face in engaging with and accessing new digital health technologies, such as an appropriate enabling environment, sufficient resources, infrastructure to support the digital transformation, education, human capacity, financial investment and internet connectivity, as well as issues related to legacy infrastructure, technology ownership, privacy, security, and adapting and implementing global standards and technology flows.

2

Interesting Facts

When it comes to education, using digital health AI has been able to take strides towards efficiency. One of the more famous examples that people have taken note of recently has been the Alpha School in Texas. This elementary school has used AI to create personalized work plans as well as having AI serve as a tutor for children in order to teach all school subjects. AI has the potential to help in educating a wider population, not only in educational facilities but on an everyday, worldwide scale.

STRATEGIC

The four strategic objectives are intended to provide guidance and coordination on global digital health transformation and to strengthen synergies between initiatives and stakeholders to improve health outcomes and mitigate associated risks at all levels.

1

Promote global collaboration and advance the transfer of knowledge on digital health

This strategic objective aims to align countries and stakeholders to collectively act upon global opportunities to improve health and work towards universal health coverage, while meeting challenges, identifying and communicating risks, and focusing on threats associated with the use of digital technologies both to improve health and to enable universal health coverage, the core of the health-related Sustainable Development Goals. This objective encourages action on common opportunities and challenges that are relevant to all countries and stakeholders, regardless of their situation.

Maximize the impact of both new and existing collaborations and partnerships in the wider digital health ecosystem. Knowledge of and investments in digital health design and implementation are shared across domains; hence this strategic objective aims to maximize collaborations and partnerships with other agencies within the United Nations system, countries and other stakeholders and to help to build new ones.

Assess and promote the latest, appropriate and innovative health technologies. Pioneering health technologies are creating new and advanced health care services and solutions. This sub-objective helps to ensure that the quality and outcome of the new health technologies are assessed in order to enable their timely adoption and promotion. Norms, standards, policies and regulations are needed to ensure the investment, sustainability, quality, security and safety of both digital health products and cutting-edge health technologies that not only are used in health care but that may also be directly marketed to individuals. Global guidance, coordination



1

Interesting Facts

The more the digital health world evolves the more difficult it is to explain and contextualize new tools and methods within the medical industry. This is also not considering the misconceptions with known and studied methods that still receive speculation from a larger population.

4

Did You Know That

Developed countries have been taking this into account throughout the past four years. An example of this is the United States of America which invested around \$4.9 trillion in their healthcare system. Healthcare can be seen as a consistent expenditure in developed countries, but how much is put into digital health varies and not all countries have their healthcare system as a priority.

and implementation of tools are required for their adoption and integration into existing systems and services at the national level.

Policy options and actions

The following policy options and actions are proposed:

- 1) co-create the global strategy on digital health and establish mechanisms for strengthening national digital health strategies and implementing key collaborations on agreed-upon appropriate use of digital technologies to achieve national health and well-being goals;
- 2) establish a knowledge management approach to identify and share good practices, knowledge about implementation of new methods and techniques, evidence and lessons learned on digital health across countries and international communities;
- 3) support countries in establishing information centres for disease surveillance to manage and implement timely decisions during epidemics and other public health emergencies; align countries and
- 4) stakeholders to address collectively global, regional and national challenges and opportunities; identify, manage and communicate risks; and mitigate threats associated with the use of digital technologies to improve health and enable universal health coverage, the core of the health-related Sustainable Development Goals.

Outputs

The following outputs are envisaged:

- 1) digital health is prioritized and integrated into health systems at global, regional and national levels through **dedicated bodies and mechanisms for governance**;
- 2) multistakeholder groups are convened on a regular basis to support the appropriate use and scaling up of digital health and innovation in order to accelerate progress towards the health-related Sustainable Development Goals;

1

Something to Think About

Are all mechanisms for governance capable of integrating digital health easily? Which strategies might be used to implement digital health and make it be considered a priority in the eyes of the general public as well as governing bodies?

- 3) information centres for disease surveillance are established or strengthened at national, regional and global levels.

2

Advance the implementation of national digital health strategies

Strategic objective 2 aims to stimulate and support every country to own, adapt and strengthen its strategy on digital health in a way that best suits its vision, national context, health situation and trends, available resources and core values. Strategic objective 2 encourages the development of a national strategy on digital health through an all-inclusive multistakeholder approach including actors collaborating within communities of practice and with consideration to the following core components: (1) leadership and governance; (2) investment and operations; (3) services and applications for scaling up (4) integration and sustainability, while (5) standards and interoperability are respected; (6) a flexible digital infrastructure; (7) an adaptable health workforce and (8) legislation, ethics policies and compliance; and (9) a people-centred approach. These should all be developed while the necessary alignment of country stakeholders is ensured in order that the needs and expectations with given resources be met. The strategic objective aims to develop cross-sectoral partnerships at national level to align resources and investments to ensure the sustainability and growth of digital health. The objective also seeks to work with existing digital health partnerships to advance global digital health efforts. Developing national partnerships for the sustainability of digital health advances would accelerate their adoption by Member States.

Although each country is expected to review or **develop and own** its strategy from inception to implementation, this strategic objective aims to build human and institutional capacity for the safe and appropriate use and scale-up of digital health by strengthening the commitment and systematic engagement of all stakeholders in every country. The objective underpins the promotion of innovative integration of digital technologies into health systems.

SO2

Digital strategy
implementation

2

Something to Think About

This section states that each country is responsible for developing their own strategy to implement digital health as well as being responsible for this implementation on their own. Should there be a more developed course of action built by the WHO and if so how would it be structured?

To strengthen health systems by introducing digital technologies, a key objective is to find ways to build capacity and create a digitally-capable health workforce. Needs will vary from country to country, but they often include basic capacities, such as leadership and governance, and the development of a skilled health and technological workforce.

Policy options and actions

The following policy options and actions are proposed:

- 1) stimulate and support every country to adopt or review, own, and strengthen its national digital health strategy in a way that enhances the level of country maturity regarding digital health to achieve positive health outcomes in line with the national health plans, updated norms and standards recommendations, and universal health coverage;
- 2) ensure that institutions, decision-makers and personnel involved in the provision of health care services and all end-user communities and beneficiary populations are adequately engaged in the design and development phases;
- 3) facilitate a systematic engagement of all relevant stakeholders in the realization of the vision and its strategic objectives as part of an integrated digital health ecosystem at the national level; define a
- 4) national digital health architecture blueprint or road map, adopt open-source health data standards and aim for reusable systems or assets including interoperability of health information systems both at national and international levels in order to establish an innovative integration of different digital technologies using shared services, ensuring data are of good and comparable quality;
- 5) adopt legal and **ethical frameworks** for assuring patient safety, data security, appropriate use and ownership of health data, privacy data recoverability, as well as protection of intellectual property rights;

5

Did You Know That

Developed countries have been taking this into account throughout the past four years. An example of this is the United States of America which invested around \$4.9 trillion in their healthcare system. Healthcare can be seen as a consistent expenditure in developed countries, but how much is put into digital health varies and not all countries have their healthcare system as a priority.

- 6) identify and promote sustainable financing models in support of digital health development and sharing of learning to inform future products and services. This is especially important in artificial intelligence including **machine learning**, implementation, integration and maintenance, including economic incentives; and
- 7) design, implement and monitor a change management plan, to support conducive organizational behaviour surrounding newly digitized health processes and practices.

Outputs

The following outputs are envisaged:

- 1) a national digital health strategy or equivalent strategic framework exists, is integrated in the national health strategy and is actively used to guide development and accelerate progress towards the health-related targets of the Sustainable Development Goals and in the context of digital transformation of health systems; and
- 2) a dynamic digital health maturity model assessment to guide prioritization of national investment in digital health is made in support of primary health care and universal health coverage.

3

Strengthen governance for digital health at global, regional and national levels

This strategic objective focuses on strengthening the governance of digital health at national and international levels through the creation of sustainable and robust governance structures and building the capacity for digital health at global and national levels. Governance for digital health aims to strengthen the capabilities and skills needed for countries to promote, innovate and scale up digital health technologies. The strategic objective promotes standards for safety, security, privacy, interoperability, and the ethical use of data within and outside the health sector. Actions to strengthen governance



6 Interesting Facts

Machine Learning is the focal point of the AI industry. The way it works is that a piece of code is built to predict the most likely next word in a sentence. It is then given an abundance of data to make this estimation. When an AI is given a prompt it will provide the most likely word that answers this prompt. Then it will run its code again and find another word. It does this until it has constructed a logical sentence and there is no other likely next word. This artificial intelligence that is known as Machine Learning is developing but it has amazing potential to spread a large amount of data quickly depending on what data it is provided.

should include defining principles and reaching cross-sectoral and international agreements for data sharing, quality and accuracy of health data and prioritization of investment plans and policy. It should also include principles for the ethical use of health data in technologies such as **artificial intelligence** and big data analytics.

It also aims to improve measurement and monitoring of and research on the application of digital health in the health sector. The research agenda should meet the need to improve and disseminate evidence and information on the use of digital health at all levels. Research on and evaluation of digital health outcomes and impact are essential to support its safe implementation, to establish and promote accountability and to justify the financial investment. The agenda should also address the need to stimulate the development and testing of technologies, methods and infrastructures that overcome obstacles to the application of digital health to health priorities. This agenda is closely linked to capacity-building of research teams and the improvement and sharing of methods and data analytics.

Policy options and actions

The following policy options and actions are proposed:

- 1) strengthen governance of digital health at national and international levels by leveraging existing structures and as appropriate creating sustainable and robust governance structures, including regulatory frameworks, and the capacity for the implementation of evidence-based and proven digital health solutions at global and national levels;
- 2) coordinate investments in evidence-based approaches to assess promote and disseminate new and innovative health technologies for national scaled digital health programmes using a person-centred approach to facilitate actions and investments based on informed decisions;
- 3) promote and facilitate digital health competencies in the education and training curricula of all **health professionals** and allied workers; and

1 Interesting Facts

Many large AI companies such as OpenAI have been involved in lawsuits regarding ethical uses of AI. Most famously, the legal case between OpenAI and the New York Times regarding the training of AI with news articles. Studying these lawsuits and understanding the direction they pose for ethics in AI can provide a larger understanding of how countries might lead with the ethical use cases for AI.

3 Interesting Facts

Digital Health is the best way to diminish the workload on health professionals allowing them to reach a larger audience in less time. The biggest example of how this could be implemented is the large workload healthcare workers had during the Covid-19 pandemic and how much AI would have facilitated the distribution of information and making bureaucratic processes more efficient.

- 4) promote capacity-building for leaders of public health authorities, affiliated agencies and policy-makers to take informed decisions to support digital health investments.

Outputs

The following outputs are envisaged:

- 1) governance exists, in accordance with Secretariat-led development of regulatory framework, to agree on global appropriate use of health data and on concepts such as health data as a global public good and to outline principles of equitable data-sharing principles for research, consistent metadata and definitions, artificial intelligence and data analytics, and primary and secondary use of data; a voluntary guideline on global interoperability
- 2) standards for digital health is developed in collaboration with stakeholders and adopted, that a) tries to build upon results already broadly achieved, b) includes a list of commonly agreed use cases for the public health care sector, its functional requirements and a set of functional and technical specifications, standards, semantics and profiles derived thereof, c) defines requirements for a sound legal and regulatory framework with clearly defined roles for data governance and d) encompasses political leadership regarding public investment, procurement and standardization to create an interoperable digital health ecosystem at the national and international levels;
- 3) global guidance on planning, development and use of digital hospitals, digital clinical trials and digital therapeutics is developed; and
- 4) a set of recommendations is developed for pseudonymization and anonymization of health data.

4

Advocate people-centred health systems that are enabled by digital health

This strategic objective advances digital health literacy, gender equality and women's empowerment and inclusive approaches to adoption and management of digital health technologies.

SO4

Human-centred
health systems

The strategic objective places people at the centre of digital health through the adoption and use of digital health technologies in scaling up and strengthening health service delivery. The individual is an essential component in the delivery of trust-based, people-centred care. This focus covers not only patients, families and communities but also the health workers who need to be prepared to deploy or use digital health technologies in their work. Planning for capacity-building includes workforce assessment, ranging from professionals in information and communication technologies to health workers providing care services. Being intrinsically multidisciplinary and interdisciplinary, capacity-building entails instilling capabilities, attitudes and skills which may range from computer sciences, strategic planning, finance and management to health sciences and care delivery, depending on the digital health application and its context. Assessment of the workforce should also consider the implications for the health labour market of introducing digital technologies and their management. This objective would call for countries to move away from the current disease focused systems to an **integrated approach** with the patient at the centre.

Attitudes to, practices in and public awareness of digital health should also be addressed. Possible actions include improving digital health literacy at the population level, engagement of patients, families and communities, and education of patients about health. Better responding to the social and commercial determinants of health to improve digital health-enabled health systems will need the engagement of civil society but also non-health sectors and actors. Increasing awareness of evidence based self-management tools and increasing access to these is a further action to consider.

3 Definition

This integrated approach in hospitals refers to a more centered treatment, taking into account the patient's preferences and specific needs. This operating method requires a very well coordinated effort and sacrifices efficiency in order to provide better, more specific and intensive care for all patients.

Policy options and actions

The following policy options and actions are proposed:

- 1) place people at the centre of digital health through the appropriate health data ownership, adoption and use of digital health technologies and development of appropriate literacy; the focus will cover not only patients, families and communities but also health workers;
- 2) develop approaches to the management of health at the population level through digital health applications that move health and well-being from reactive-care models to active community-based models, and reduce the burden of data collection from front-line workers by reorienting reporting-based tools into service delivery tools;
- 3) establish monitoring and evaluation models to facilitate monitoring the contribution of digital systems to health system processes, health workforce processes, and individual and community health needs;
- 4) strengthen gender equality and health equity approaches and accessibility for people with disabilities to promote inclusive digital society with enhanced digital health skills. When planning and prioritizing digital health interventions, relevant factors of inequality should be assessed in order to ensure that the introduction of digital health technologies does not aggravate these “(do no harm)” and that access for specific population groups is guaranteed. In addition, the specific potential of digital technologies to promote health equity should be leveraged. Designed properly, digital solutions can propel inclusiveness as digital connectivity can transcend physical barriers;
- 5) implement mechanisms for more effective public participation and transparency in national and international digital health decision-making processes, such as through international consultation processes or a stakeholder forum; develop digital health training or Massive Open Online Courses to
- 6) **develop digital health training** or Massive Open Online Courses to improve **digital health literacy**, and

6

Something to Think About

Digital health training consists of teaching individuals how to use technology in order to make informed medical decisions. This can provide more methods to educate a wider population and inform a greater public. Is it necessary to question whether AI can help spread this information reliably? How many resources might this save and would it be beneficial?

6

Definition

Digital health literacy is the ability to understand, evaluate and apply information provided by technological resources to develop informed health decisions in a constant and reliable manner.

- 7) create an international **communication campaign** to sensitize people to the benefits of digital health solutions and the use of their data for public interest research, and thereby promote the vision of people being actors of innovation.

Outputs

The following outputs are envisaged:

- 1) Improved digital health literacy in using and understanding digital health technologies and systems as well as health data is prioritized, and the validated tools are accessible by all populations;
- 2) a framework allowing individual feedback in validating the performance of digital health tools and services, diffusion of increasing digital health demand is implemented and used;
- 3) global minimum health data standards for prioritized digital health technologies and processes are established, adopted and applied at national level; and
- 4) global guidance on personalized medicine is developed.

7

Did You Know That

Around 67% of the world's population has access to the internet. This makes it so that many communication campaigns will have a harder time expanding to certain developing countries and more isolated locations. This does not make the usage of the internet obsolete but complicates the possibility of purely using the internet to propagate educational content regarding health practices.

FRAMEWORK FOR ACTION

The framework for action aims to facilitate the implementation of the global strategy by providing a structure and tools for collaboration. Working collectively towards shared strategic objectives, local and global partners can accommodate diversity and jointly consider concepts, road maps, methods, tools, funding and other factors to help implementation and support countries in various development contexts to make optimal use of digital health technologies.

The framework for action is guided by four major components: commit, catalyse, measure, and enhance and iterate. The framework for action is accompanied by an action plan, which outlines impact, outputs, policy options and actions for each strategic objective.

1

Commit

Encourage countries and stakeholders to commit themselves to the implementation of the global strategy on digital health. In order to reach the strategic objectives of the global strategy, the Secretariat, Member States and stakeholders shall maintain their voluntary commitment and contributions, respecting national priorities, capabilities and resources.

2

Catalyse

Generate and sustain a conducive environment to create, scale up and maintain processes that will facilitate collaboration towards implementing the global strategy. This component envisages the generation of a cooperative environment that is conducive to the creation, introduction and **scaling up** of appropriate digital health technologies and enabling processes that will facilitate and accelerate the implementation of the global strategy and its objectives. The Secretariat will promote collaboration among stakeholders to ensure progress by building synergies, facilitating technical

2

Something to Think About

In this plan of action the term 'scaling up' refers to digital health technologies and also enabling processes that might help develop the global strategy proposed in the document. What technologies that have been developed during the past five years might be able to help this initiative? Might AI be a part of these resources and if so how might it enable the acceleration and facilitation of this project?

collaboration, and developing digital global public goods that can be shared and used globally. The collaboration will include building on synergies, facilitating technical collaboration, and developing quality assured and evidence based global digital health public goods that can be shared and used globally.

3

Measure

Create and adopt processes and metrics for monitoring and evaluating the effectiveness of the global strategy. This component calls for the continuous assessment of whether the global strategy on digital health has been true to its purpose and effective in supporting countries. The Secretariat will measure the effectiveness of the global strategy from data collected globally and will report findings to Member States.

4

Enhance and iterate

Undertake a new cycle of actions based on what has been experienced, measured and learned. This component will respond to feedback on the progress of global strategy in adapting to emerging digital health technologies. The action plan will be reviewed annually to determine whether a new cycle of new actions is needed to deliver on the strategic objectives. The Secretariat and its partners will propose, exercise and continuously refine the global strategy as well as its iterative assessment and decision-making processes.

4

Interesting Facts

A lot has changed since the implementation of this document. A new action plan should consist of new strategies using new technological developments and focus on having the most effective impact possible. This means a lot of change must be implemented, especially considering the technological advancements in the past years.