Global Strategy on Digital Health (GSDH) 2028–2033

Draft for consultation

Version dated 1 July 2026

DISCLAIMER

This document is a working draft made available for consultation purposes only. It has not been edited, formally reviewed, or approved by the World Health Organization (WHO)and does not represent the views, decisions, or stated policy of WHO or its Member States.

This document is not for distribution, citation, or reproduction. The content is preliminary and subject to revision based on feedback received through this consultation process. It may not be quoted, referenced, or shared beyond the purposes of this consultation.

DEVELOPMENT PROCESS

World Health Assembly Resolution WHA78/22 mandated the development of a new GSDH 2028-2033. This draft has been developed by the WHO Secretariat through an inclusive, consultative process, drawing on lessons learned from the implementation of the Global Strategy on Digital Health 2020–2027, outcomes of WHO governing body discussions, and inputs gathered from Member States, non-State actors, and partners across all six WHO regions. The draft will be further refined through a consultation process, including a Member State information session, and an online survey open to Member States, Non-State Actors and stakeholders, before its consideration through WHO governing body processes.

FEEDBACK

Member States, non-State actors in official relations with WHO, and members of the Global Initiative on Digital Health may submit feedback **through this form** Feedback on the draft Global Strategy on Digital Health 2028-2033 **by 1 September 2026.**

DRAFT

Contents

DRAFT

DRAFT

1. Foreword by DG

To be developed.

2. Introduction and rationale

Over the past two decades, countries around the world have increasingly recognized the transformative potential of data, digital technologies, and innovation to strengthen health systems, improve service delivery, support universal access to health services, and enhance resilience to public health threats. This growing global commitment has been reflected in successive resolutions of the World Health Assembly. Beginning with resolution WHA58.28 on eHealth in 2005,[1] followed by resolutions on eHealth standardization, interoperability, and digital health,[2] and culminating in the Global Strategy on Digital Health 2020–2027.[3]

Member States and Stakeholders have progressively advanced from the implementation of isolated digital solutions towards a broader vision of digitally enabled and data-driven health systems. This global momentum has been complemented by regional mandates across all WHO regions,[4] reflecting a shared commitment to harness data, digital solutions

[1] World Health Organization. *WHA58.28: eHealth*. Geneva: WHO; 2005. Available from: https://apps.who.int/gb/ebwha/pdf_files/wha58/wha58_28-en.pdf

[2] World Health Organization. *WHA58.28: eHealth*. Geneva: WHO; 2005. Available from: ttps://apps.who.int/gb/ebwha/pdf_files/wha58/wha58_28-en.pdf
World Health Organization. *WHA66.24: eHealth standardization and interoperability*. Geneva: WHO; 2013. Available from: https://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R24-en.pdf
World Health Organization. *WHA71.7: Digital health*. Geneva: WHO; 2018. Available from: https://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_R7-en.pdf

[3] World Health Organization. *Global Strategy on Digital Health 2020–2027*. Geneva: WHO; 2021. Available from: https://www.who.int/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca03c2d.pdf

[4] World Health Organization Regional Office for Africa. *Progress report on framework for implementing the global strategy on digital health in the WHO African Region*. Brazzaville: WHO AFRO; 2024. (AFR/RC74/INF DOC 3). Available from: https://www.afro.who.int/sites/default/files/2024-07/AFR-RC74-INF-DOC-3%20Progress%20report%20on%20...
World Health Organization Regional Office for the Eastern Mediterranean. *Regional strategy for fostering digital health in the Eastern Mediterranean Region 2023–2027*. Cairo: WHO EMRO; 2023. Available from: https://applications.emro.who.int/docs/Digital-Health-EMR-2023-2027-eng.pdf
World Health Organization Regional Office for Europe. *Digital health [EUR/RC72/5]*. Copenhagen: WHO EURO; 2022. Available from: https://iris.who.int/server/api/core/bitstreams/05678ea1-4e26-4f88-9802-f32cdcd9415a/content
Pan American Health Organization. *Plan of Action for Strengthening Information Systems for Health 2024–2030*. Washington, D.C.: PAHO; 2024. (CE174/15). Available from: ce174-15-e-information-systems

DRAFT

and, increasingly, artificial intelligence (AI), to improve health outcomes, strengthen resilience and accelerate progress towards universal health coverage (UHC) and the Sustainable Development Goals (SDGs).

Important progress has been achieved since the adoption of the first WHO mandate in this area in 2005. Countries have developed and/or expanded national digital health strategies, strengthened health information systems, increased the adoption of electronic health records and digital public infrastructure, improved surveillance capacities and established new mechanisms for international collaboration. Nevertheless, progress remains uneven. Many countries continue to face fragmented interoperable digital ecosystems, insufficient governance and regulatory frameworks, inadequate sustainable financing, workforce capacity constraints, cybersecurity risks and persistent digital divides that threaten to exacerbate existing health inequities.

The global health context has also become increasingly complex. While global life expectancy has largely recovered following the COVID-19 pandemic, progress towards many health-related targets remains insufficient. The world continues to face a growing burden of noncommunicable diseases, which account for nearly three quarters of all deaths globally, persistent maternal and child mortality in many settings, widening health inequities, population ageing, climate-related health threats, humanitarian crises, antimicrobial resistance and continuing shortages in the health workforce. At the same time, rapid advances in digital solutions, data science and artificial intelligence are transforming how health systems are designed, managed, and delivered, reshaping the way health information is generated and used, services are provided, decisions are made, and people engage with their own health and wellbeing. These innovations offer unprecedented opportunities to improve prevention, diagnosis, treatment, surveillance and health system performance, while also raising important questions related to governance, ethics, transparency, accountability, trust, equity and human rights.

More than halfway through the implementation period of the 2030 Agenda for Sustainable Development, the world is not on track to achieve many of the health-related SDGs. Recent WHO analyses demonstrate that the ability to monitor progress is increasingly constrained by weaknesses in health information systems, among other factors. A global assessment

---

World Health Organization Regional Office for South-East Asia. *Regional strategy for strengthening eHealth in the South-East Asia Region 2014–2020*. New Delhi: WHO SEARO; 2014. (SEA-HSD-366). Available from: https://www.who.int/publications/i/item/sea-hsd-366

World Health Organization Regional Office for the Western Pacific. *Regional action framework on digital health in the Western Pacific*. Manila: WHO WPRO; 2025. Available from: https://www.who.int/westernpacific/publications/i/item/9789290620983

Disclaimer: This is an operational preliminary version that is work-in-progress and subject to a consultation. Not for citation, circulation, or production in any form.

covering all 194 WHO Member States found that nearly one third of 43 health-related SDG indicators face severe data shortages, with more than 90% of data points missing in some areas. In 2024, 41 out of 43 health-related SDG indicators had more than 90% missing data, compared with 11 indicators in 2019. These findings underscore the urgent need to strengthen national capacities for data collection, analysis, governance and use as a prerequisite for accelerating progress towards the SDGs and ensuring that no population group is left behind[5].

The importance of stronger data and digital foundations is reinforced by the SCORE 2025 Global Assessment, and by other regional initiatives. While more than 80% of countries report moderate or higher capacity across all dimensions of health information systems, only two countries worldwide have achieved sustainable capacity across all SCORE domains. Significant gaps remain in interoperability, digital readiness, secure data sharing, governance maturity and the effective use of data for decision-making. Only 9% of countries have achieved sustainable capacity in data governance and secure data access, while fewer than one third have fully implemented electronic medical records. These shortcomings limit countries' ability to monitor progress, respond to emergencies, improve accountability and harness emerging technologies safely and effectively[6].

Recognizing the central role of data, digital solutions and AI in strengthening health systems, the WHO Fourteenth General Programme of Work (GPW14) identifies digital transformation as a key enabler for achieving healthier populations, universal health coverage and protection from health emergencies.[7] Output 3.3.1 focuses on strengthening integrated health information systems, digital transformation, interoperability, data governance, analytics and the responsible adoption of emerging technologies. Current baseline data demonstrate both progress and substantial remaining gaps. As of the start of GPW14 implementation, 126 countries reported having a digital health strategy and/or roadmap in place. However, only 54 countries have demonstrably improved their health information system capacity and increased their country assessment scores using the SCORE for Health Data technical package, highlighting the challenges countries continue

[5] Adib K, Salama N, Letchford N, Davia S, Azzopardi-Muscat N, Kluge HHP, Novillo-Ortiz D. Data gaps affecting health-related sustainable development goal indicators.

[6] World Health Organization. SCORE for health data technical package: global report on health data systems and capacity, 2020. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO. Available from: SCORE global report

[7] World Health Organization. *Fourteenth General Programme of Work 2025–2028: A Global Health Strategy Advancing Equity and Resilience in a Turbulent World*. Geneva: WHO; 2024. Available from: WHO Fourteenth General Programme of Work, 2025-2028

Disclaimer: This is an operational preliminary version that is work-in-progress and subject to a consultation. Not for citation, circulation, or production in any form.

to face in translating digital ambitions into stronger information systems and better decision-making.

The development of the Global Strategy on Digital Health 2028–2033 takes place within a rapidly evolving international policy environment. Building on the foundations established through the World Summit on the Information Society (WSIS), which since 2005 has advanced a people-centred, inclusive and development-oriented information society, the strategy will contribute to the implementation of the Global Digital Compact, the Pact for the Future, the United Nations 2.0 agenda and broader efforts to strengthen digital cooperation, data governance and responsible innovation across sectors. Together, these frameworks provide a renewed foundation for accelerating country-led digital transformation and strengthening global and regional cooperation. The strategy will serve as the health-specific framework that aligns these global commitments with national health priorities, ensuring that investments in data, digital solutions and artificial intelligence contribute directly to better health outcomes, stronger health systems, greater equity, health security and sustainable development.

Ultimately, the strategy aims to ensure that all people, regardless of where they live or their circumstances, can benefit from better health and well-being through trusted, inclusive, secure, and people-centred digital ecosystems.

3. Lessons from 2020–2026

The COVID-19 pandemic acted as an unprecedented catalyst for digital transformation across all WHO regions, accelerating the adoption of telemedicine, electronic health records, digital surveillance systems, remote service delivery and digital public health tools. What began as an emergency response evolved into a broader recognition that data and digital technologies are no longer optional innovations but essential components of resilient and sustainable health systems. This lesson was reinforced globally through WHO efforts to strengthen surveillance platforms, laboratory networks, diagnostics capacity and digital monitoring systems, highlighting the central role of health information systems in preparedness and response.

A first lesson is that digital transformation succeeds when it is embedded within broader health system reforms rather than implemented as isolated technology projects. Experience across countries has also demonstrated that digital transformation can no longer be viewed solely as a technological enabler. It has emerged as a strategic public health and health systems priority, influencing how services are delivered, how health

DRAFT

systems are governed and financed, how public health functions are performed, and how countries improve access, quality, equity, resilience, and health outcomes.

A second lesson is that sustainable digital transformation requires a transition from fragmented, pilot-based and often donor-supported initiatives towards integrated, nationally owned and sustainably financed digital ecosystems. While external investments have played a critical role in advancing digital health in many settings, countries consistently reported that long-term impact depends on strong national governance, alignment with health sector priorities, institutional ownership and predictable financing mechanisms that support the maintenance, scaling and continuous improvement of digital systems. As the global financing landscape evolves and external resources become increasingly constrained, strengthening domestic ownership and sustainability will be essential to ensure that digital transformation continues to contribute to resilient and equitable health systems.

A third lesson is that strong health information systems remain the foundation of digital transformation. Regions consistently reported challenges related to fragmented data systems, limited interoperability and insufficient data governance. WHO also expanded global surveillance and reporting mechanisms, promoting stronger integration of monitoring indicators into national health information systems. These experiences highlighted that the value of digital solutions depends not only on the ability to generate, exchange and govern reliable, timely and interoperable data, but also on the ability to transform that data into actionable intelligence. While many countries expanded digital platforms, electronic records and surveillance systems, challenges often remained in translating information into policy, planning, resource allocation, quality improvement and performance monitoring. This reinforced the importance of strengthening data analytics capacities, fostering a culture of data use, and ensuring that investments in digital transformation ultimately support better decisions, greater accountability and improved health outcomes.

Fourth, the experience of the past five years demonstrated that digital solutions can significantly improve access to health services and continuity of care, particularly for underserved populations. Telemedicine expanded rapidly across all regions, which delivered hundreds of millions of consultations. Member States also expanded digital learning platforms, patient safety applications and online knowledge repositories. However, countries also learned that digital solutions alone do not guarantee equity. Persistent digital divides related to connectivity, affordability, digital literacy and access to devices continue to risk widening health inequities if not explicitly addressed. At the same time, digital technologies demonstrated significant potential to strengthen primary health

Disclaimer: This is an operational preliminary version that is work-in-progress and subject to a consultation. Not for citation, circulation, or production in any form.

care by supporting community health workers, improving referral pathways, enhancing continuity of care and expanding access to essential services, particularly in underserved communities. These experiences reinforced the importance of people-centred approaches that prioritize inclusion, community engagement and equitable access, ensuring that digital transformation contributes to reducing rather than exacerbating existing inequalities.

A fifth lesson is that workforce capacity is emerging as one of the most important determinants of success. Increasingly, regions moved beyond technology deployment towards investments in digital literacy, workforce competencies and institutional capacities, and several regions expanded training in digital health, data science and AI. WHO similarly invested in digital learning, online training platforms and global capacity-building initiatives. These experiences demonstrated that digital transformation is fundamentally about people, skills and organizational change as much as technology. Recognizing this challenge, the strategy promotes stronger collaboration between the health and education sectors to modernize health-related curricula and strengthen digital, data, and AI competencies among current and future health professionals. This will help countries build a workforce capable of leading and sustaining digital transformation efforts while adapting to rapidly evolving technologies and models of care.

Sixth, artificial intelligence rapidly evolved from a niche area of innovation into a strategic priority across all regions. AI applications have been used to strengthen disease surveillance, tuberculosis screening, counterfeit medicine detection, public health intelligence, clinical decision support, improvement of medical devices, and operational efficiency, among others. At the same time, countries increasingly recognized the need for governance frameworks addressing ethics, transparency, accountability, privacy, cybersecurity and workforce preparedness.

Finally, countries increasingly recognized that digital transformation requires regional and global cooperation. As health systems become more interconnected and technology evolves at an unprecedented pace, stronger collaboration among governments, international organizations, development partners, academia, and the private sector has become essential. Public-private partnerships and academic institutions are playing an increasingly important role in advancing innovation, generating evidence, strengthening workforce capacities, and accelerating the adoption of scalable solutions. These experiences demonstrate that sustainable digital transformation depends not only on technology and financing, but also on the ability to build trusted ecosystems that bring together diverse stakeholders around shared public health goals.

Disclaimer: This is an operational preliminary version that is work-in-progress and subject to a consultation. Not for citation, circulation, or production in any form.

Taken together, these experiences demonstrate that successful digital transformation depends on a combination of strong governance, resilient information systems, interoperable digital infrastructure, a skilled workforce, trusted data ecosystems and responsible innovation. The lessons learned from Member States and partners provide a strong foundation for the next phase of global action, focused on transforming public health to become more equitable, resilient, people-centred and data-driven.

4. Vision, goal and guiding principles

Vision

A world where all people benefit from better health and well-being through trusted, equitable, inclusive and accessible data and digital ecosystems that strengthen health systems and accelerate progress towards universal health coverage, health security and health equity.

Goal

To support countries in building resilient, trusted and equitable data and digital ecosystems, and in responsibly leveraging digital solutions and emerging technologies to strengthen people-centred health systems, improve health outcomes, and accelerate progress towards universal health coverage, health security and the health-related goals of the sustainable development agenda.

Guiding principles

1. Governance, stewardship and sustainable foundations

Responsible and sustainable digital transformation requires strong governance, sound legal and regulatory frameworks, sustainable financing, institutional capacity and long-term commitment. Digital transformation should be aligned with national health priorities, protected by appropriate data governance and sovereignty frameworks, embedded within broader development agendas, and guided by the public interest. Governments play a critical stewardship role in developing and sustaining shared digital public infrastructure and services as publicly governed national assets that reduce fragmentation, lower costs, de-risk innovation and enable scalable solutions across the health sector.

2. Equity, inclusion and people-centred approaches

Data and digital technologies should improve health outcomes for all, reduce inequities, empower individuals and communities in safe digital environments, and ensure that no

DRAFT

one is left behind, particularly vulnerable and underserved populations. Digital transformation should be designed to strengthen people-centred care, improve accessibility and promote meaningful participation in health decisions.

3. Human rights, ethics and trust

Digital transformation should uphold human rights, privacy, data protection, security, transparency, accountability and meaningful human oversight, fostering trust in the use of data, digital solutions and emerging technologies. The rights, dignity, autonomy and well-being of individuals should remain central to all digital transformation efforts.

4. Data integration, interoperability and digital public infrastructure

Digital ecosystems should be built on open standards, interoperability and secure data exchange and digital public infrastructure as a shared foundation within health and across related sectors. These foundations should enable integrated service delivery, continuity of care, efficient use of resources and the secure flow of information across institutions, systems and sectors, while maximizing public value and reducing fragmentation.

5. Responsible innovation, evidence and environmental sustainability

Countries should promote responsible innovation and the adoption of digital solutions that are safe, effective, scalable and environmentally sustainable. Continuous monitoring and evaluation should be embedded throughout implementation to generate evidence, demonstrate impact, support accountability and inform improvements in health services, digital infrastructure and public health outcomes. Innovation should contribute to stronger health systems, better access to health services, preparedness, resilience and improved health outcomes.

5. Strategic objectives, directions and priority actions

Strategic objective 1: Strengthen resilient and sustainable governance, country ownership, trust, and sustainable financing for the digital transformation of the health sector

Direction 1.1 Establish integrated governance and regulatory frameworks to support national ownership and the digital transformation of the health sector, aligned with national and global health agendas

Actions for Member States:

DRAFT

- Develop or strengthen unified national governance and regulatory frameworks for data and digital transformation of the health sector, including periodic reviews and updates as needed, aligned with national priorities (and within whole-of-government digital strategies and coordination mechanisms), and relevant regional and global commitments.
- Establish clear institutional mandates, regulatory responsibilities, and cross-government coordination mechanisms to support coherent stewardship and governance of digital transformation in health.
- Implement adaptive governance and regulatory approaches, including regulatory sandboxes or pilot environments, to enable timely policy responses and the safe testing and scaling of innovation.

Actions for partners and stakeholders:

- Support country-led governance and regulatory processes by aligning technical assistance, product development, and implementation approaches with national policies, legal frameworks, and institutional capacities.
- Contribute with technical expertise, implementation experience, and evidence to support the development, review, and continuous improvement of governance and regulatory frameworks for data and digital transformation of the health sector.
- Promote regulatory and governance approaches that support public health objectives, equity, sustainability, and national ownership of digital transformation processes.

Actions for WHO Secretariat:

- Provide technical support, including through joint normative work with UN system entities and other multilateral partners, to develop and operationalize governance and regulatory frameworks for data and digital transformation of the health sector, tailored to country context and maturity.
- Develop normative and technical guidance, and practical tools to support implementation of integrated governance approaches, aligned with global standards.
- Convene multistakeholder dialogue platforms to foster alignment between innovation, regulation, and public health objectives.

Direction 1.2 Foster transparency, accountability, and oversight mechanisms to build trust frameworks among public, private, civil society and communities across digital health ecosystems

Actions for Member States:

DRAFT

- Establish or designate independent oversight and accountability mechanisms to monitor compliance, manage risks, handle non-compliance and ensure timely response to harms, breaches, or service failures.
- Embed transparency, accountability, and trust principles into data and digital health policies, including requirements for explainability, auditability, and public reporting where appropriate.
- Establish accessible and effective mechanisms to report, investigate and address harm, data breaches and failures associated with digital health services in a timely and equitable manner.

Actions for partners and stakeholders:

- Apply international human rights and ethical frameworks, including the UN Guiding Principles on Business and Human Rights, across the full lifecycle of data and digital health products and services.
- Align products and services with public health needs and equity considerations, investing in trust-building through inclusive design and responsible data practices.
- Support transparent and accountable digital health ecosystems by publicly communicating relevant information on system performance, governance practices, risk management, and safeguards in ways that are accessible and understandable to affected communities and institutions.

Actions for WHO Secretariat:

- Develop normative and technical guidance on transparency, accountability, and oversight mechanisms, including roles and responsibilities across the data and digital health value chain.
- Advance and synthesize evidence on benefits, risks, and unintended consequences of data and digital health solutions to inform policy and practice.
- Provide practical tools, assessment frameworks, and capacity-building support (e.g. checklists, maturity models, and knowledge exchange platforms) to help countries implement and evaluate trust, equity, gender, and human rights dimensions within oversight and accountability mechanisms across diverse contexts.

Direction 1.3 Establish sustainable financing, and coordinated investments to support long-term digital transformation of the health sector

Actions for Member States:

DRAFT

- Allocate sustainable domestic financing and establish incentive and public–private partnership frameworks to support equitable investment and operational costs in data and digital transformation of the health sector.
- Strengthen strategic procurement capacities to ensure digital health investments are standards-based, sustainable, interoperable, secure, and aligned with public health priorities.
- Conduct economic and impact evaluations of digital health interventions, including establishing mechanisms to monitor expenditures and investments, to assess cost–effectiveness, opportunity costs, efficiency, equity, and health outcomes to inform investment decisions.

Actions for partners and stakeholders:

- Shift investments from fragmented, short-term pilot projects towards coordinated support for long-term national digital architectures, foundational systems, and digital public infrastructure.
- Align external investments and partner-supported initiatives with national strategies, governance frameworks, and country priorities to avoid duplication, fragmentation, and unsustainable vertical solutions.
- Promote procurement and investment approaches that reduce long-term dependency, avoid vendor lock-in, and lower maintenance, upgrade and transition costs.

Actions for WHO Secretariat:

- Support country-led coordination mechanisms to align partner investments and technical assistance with nationally identified priorities and sustainable implementation plans.
- Provide technical guidance on sustainable financing, total cost of ownership. strategic procurement, and innovative contracting models for digital solutions and digital public infrastructure.
- Develop normative guidance, standards, and indicators for the economic, clinical and ethical evaluation and monitoring of digital health investments, including assessment of long-term value, sustainability, and return on investment.

DRAFT

Strategic objective 2: Build and scale resilient, sustainable, interoperable, and inclusive information systems and digital public infrastructure for health

Direction 2.1 Advance global norms, standards, and interoperability frameworks as part of information systems architecture

Actions for Member States:

- Develop (or enhance) and implement national interoperability architectures and enterprise architecture frameworks to enable integrated, person-centred, and interoperable health information systems, connecting clinical, public health surveillance and laboratory information systems.
- Adopt, implement, enforce and, where appropriate, require conformance testing and certification against internationally recognized standards and classifications, and other relevant terminology and interoperability standards, to support consistent and secure data exchange across levels of care and sectors.
- Participate in regional and global interoperability and data exchange initiatives to strengthen cross-border continuity of care, public health intelligence, and emergency preparedness.

Actions for partners and stakeholders:

- Comply with internationally recognized interoperability, terminology, security and privacy, and data exchange standards in the design of all digital products and medical devices, implementation and maintenance of digital products and medical devices, and demonstrate compliance where appropriate.
- Ensure all digital health initiatives align with national system integration pathways and avoid proprietary or siloed architectures.
- Support open, interoperable, and standards-based ecosystems that facilitate portability, scalability, continuity of care, and long-term sustainability.

Actions for WHO Secretariat:

- Lead and convene collaboration with other global standards development organizations and partners to jointly develop standards and promote harmonized interoperability frameworks, implementation guidance and conformance approaches that reduce fragmentation and duplication.

DRAFT

- Support Member States' participation in global and regional WHO frameworks, networks and trust infrastructures that enable secure, rights-respecting and verifiable cross-border exchange of health data and digital health credentials.
- Provide normative guidance and support for the adoption and implementation of ICD-11 and other WHO classifications and terminologies standards as foundational components of semantic interoperability.

Direction 2.2 Enable and scale resilient national digital public infrastructure and integrated health information systems aligned with whole of government digital agendas

Actions for Member States:

- Develop strategic plans and investment priorities based on evidence-based maturity and resiliency assessments of national health information systems and digital public infrastructure, including the integration of environmental, surveillance, laboratory, immunization and relevant cross-sectoral data to strengthen public health intelligence and preparedness, and expand equitable connectivity and digital access infrastructure, particularly in underserved, remote, and resource-constrained, and fragile settings.
- Develop, govern, and sustain digital public infrastructure for health as shared national assets, ensuring these are publicly governed, reusable across programmes, and maintained as long-term public assets that reduce duplication and enable sustainable, scalable innovation, while assessing dependencies on critical digital infrastructure and strengthening long-term operational resilience.
- Invest in resilient, environmentally sustainable, and resource-efficient digital and data infrastructure that supports preparedness, continuity of care, and long-term operational sustainability across health systems.

Actions for partners and stakeholders:

- Support the scale-up and sustainable integration of proven digital public assets and interoperable digital solutions, including offline-first and low-connectivity approaches, that respond to national priorities and reach underserved and vulnerable populations.
- Invest in the long-term sustainability, maintenance, modernization, and operational continuity of digital infrastructure and health information systems required for scaling systems beyond the project phase, avoiding proprietary dependencies that create lock-in or increase long-term transition costs.

DRAFT

- Support environmentally sustainable, climate-resilient, and resource-efficient approaches to the design, procurement, maintenance, and scaling of digital health infrastructure.

Actions for WHO Secretariat:

- Provide strategic guidance, steward and maintain WHO normative digital public assets, reference architectures, implementation blueprints, and transition support to help countries move from fragmented and parallel digital systems towards integrated, resilient, and interoperable digital health ecosystems across sectors and levels of care, particularly in emergency response situations.
- Develop and support practical interoperability acceleration frameworks that combine normative guidance, technical standards, and implementation support adapted to different country contexts and levels of digital maturity.
- Provide guidance on environmentally sustainable and climate-resilient digital health infrastructure, including resource efficiency, lifecycle management, and responsible use of computing resources.

Direction 2.3 Strengthen data governance, data sovereignty and cybersecurity to enable secure, and interoperable digital health ecosystems for continuity of care, cross border collaboration, decision-making, monitoring, and accountability.

Actions for Member States:

- Establish and implement national data governance and data sovereignty frameworks that define stewardship responsibilities, accountability mechanisms, lawful data use, and protection of individual rights while enabling secure interoperability and public interest use of health data.
- Establish mechanisms to improve data quality, completeness, timeliness, comparability, sustainability, and responsible use across health information systems, surveillance systems, laboratory information systems, surveys, registries, civil registration and vital statistics systems, and other foundational health data systems.
- Institutionalize minimum cybersecurity policies and technical control requirements and risk management processes across health facilities, digital infrastructure, and health information systems.

Actions for partners and stakeholders:

DRAFT

- Adhere to recognized accountability, cybersecurity, and data protection and data sovereignty frameworks that promote transparency, safety, clinical reliability, and responsible management of digital and AI-enabled health technologies.
- Collaborate across sectors and borders to strengthen collective preparedness and response capacities for cyber threats, including information sharing, technical cooperation, and coordinated incident response.
- Respect and protect individual rights, autonomy, and informed consent in the management and use of health data.

Actions for WHO Secretariat:

- Develop and provide practical guidance and global standards for federated data governance, pseudonymization, and anonymization of health data to enable secure interoperability, secondary use, research, and protection of national data sovereignty.
- Define baseline cybersecurity capabilities and standards for health systems, including risk assessment, incident preparedness, encryption, and cybersecurity maturity evaluation, while supporting countries in conducting assessments and rapid response readiness reviews.
- Provide a technical and legal blueprint for operationalizing data sovereignty while enabling participation in global cross-border health data exchange.

Strategic objective 3: Strengthening enablers for country-led data and digital transformation: capacity, cooperation and partnerships

Direction 3.1 Build digital and data literacy, skills, and competencies across the health workforce and wider population

Actions for Member States:

- Strengthen digital, data and AI literacy, leadership, institutional capacity and change management competencies across the health workforce, wider population and relevant institutions, prioritizing interventions that address identified gaps and support the safe, effective and equitable use of digital technologies.
- Integrate digital health, data, and AI competencies into pre-service and continuous education and training programmes for health professionals.
- Strengthen leadership and executive capacities for governing digital transformation, and implement inclusive, population-wide digital literacy initiatives that strengthen people's ability to safely access, understand, use, and engage with digital health technologies and health data, including awareness of digital rights and online safety.

DRAFT

Actions for partners and stakeholders:

- Support the development and scaling of accessible training programmes through open licensing frameworks, regional learning networks, and online educational platforms for health workers, policymakers, and the wider population.
- Collaborate in defining and supporting emerging workforce roles and multidisciplinary competencies needed for digitally enabled and AI-supported health systems.
- Develop and disseminate evidence-based educational resources on digital well-being, online safety, and responsible technology use, particularly for children, adolescents, and vulnerable populations.

Actions for WHO Secretariat:

- Develop standardized frameworks and assessment tools to measure digital, data, and AI literacy and competencies across both the health workforce and the wider population.
- Develop and maintain global competency frameworks for digital health, data, and AI capacities across different professional profiles and levels of the health system.
- Provide technical guidance on workforce transformation, change management, task shifting, and organizational readiness to support the safe, effective, and equitable adoption of digital and AI-enabled solutions in health systems.

Direction 3.2 Enhance coordinated global and regional action, strengthen multilateral governance, and foster multisectoral partnerships across public, private, and civil society stakeholders

Actions for Member States:

- Establish inclusive multistakeholder collaboration platforms to support dialogue, co-creation, partnership-building, and continuous engagement across the digital health ecosystem.
- Participate in regional and global cooperation platforms, networks, and peer-learning initiatives to exchange experiences, harmonize approaches, and strengthen regulatory and technical alignment.
- Contribute to regional and global assessments, benchmarking exercises, and shared learning mechanisms to monitor progress, identify gaps, and support continuous improvement of digital health capacities and systems.

Actions for partners and stakeholders:

DRAFT

- Actively participate in regional and global networks and communities of practice to harmonize technical implementation approaches and conformance testing, aligned with WHO normative frameworks, interoperability guidance and internationally recognized standards.
- Advocate for the integration of health priorities within broader digital agendas at national, regional, and global levels.
- Foster geographically diverse partnerships to enhance local capacity, research, innovation, and evidence generation.

Actions for WHO Secretariat:

- Lead and convene global and regional multistakeholder coordination and cooperation mechanisms to align partner resources, technical assistance, and policy dialogue with country-defined priorities and governance needs.
- Align implementation of the global strategy with broader global digital cooperation processes and frameworks, including WSIS+20, and advocate for the inclusion of health priorities and digital public infrastructure requirements within global digital governance processes.
- Support regional and country-level technical cooperation, peer-to-peer learning, and context-adapted implementation support to strengthen implementation capacities and facilitate exchange of good practices across Member States, particularly in LMICs, and decentralized health systems.

Strategic objective 4: Foster responsible and trustworthy innovation, including artificial intelligence and emerging technologies, to strengthen equitable person-centered health systems

Direction 4.1 Promote lifecycle governance and the responsible, safe, and evidence-based adoption of artificial intelligence and emerging technologies in health

Actions for Member States:

- Establish and implement risk-based governance and regulatory approaches for digital solutions, AI and emerging technologies in health, including proportionate validation requirements, regulatory sandboxes, and lifecycle oversight and evaluation mechanisms adapted to levels of risk and system impact.
- Ensure meaningful human oversight, accountability, and ethical safeguards throughout the lifecycle of AI-enabled and automated decision-making systems in health.

DRAFT

- Conduct evidence-based assessments of the clinical, organizational, safety and equity impacts of AI and emerging technologies to inform responsible adoption and scale-up, including validation and monitoring of performance across populations representative of the intended deployment context.

Actions for partners and stakeholders:

- Adhere to recognized accountability, transparency, safety, and ethical frameworks for AI and emerging technologies, including clear documentation of system assumptions, data sources, intended use, data provenance, intended use, representativeness, limitations, and risks.
- Support the generation and sharing of real-world evidence on the effectiveness, safety, equity, and health system impact of AI and emerging technologies across diverse settings, including low-resource environments.
- Apply responsible and human-centred design principles throughout the technology lifecycle, including bias mitigation, transparency, explainability, human oversight, and continuous monitoring of performance and unintended consequences.

Actions for WHO Secretariat:

- Convene international scientific, technical, and policy coordination mechanisms to monitor emerging risks, disruptive developments, and evolving governance challenges related to AI and emerging technologies, including autonomous and generative systems.
- Develop normative guidance, standards, and operational frameworks for the governance, regulation, validation, safety, and performance assurance of AI and emerging technologies in health.
- Provide frameworks, technical support, implementation guidance, and AI readiness assessment tools for AI evaluation, validation, adoption, and post-deployment monitoring, including assessment of performance, safety, bias, unintended effects, representativeness across intended populations, and equitable access to validation capacities and resources across Member States.

Direction 4.2 Ensure equitable, ethical, and rights-based approaches are embedded across the design, regulation, implementation, and evaluation of digital health and emerging technologies

Actions for Member States:

DRAFT

- Integrate equity, ethics, gender, accessibility, and human rights principles into the design, procurement, regulation, implementation, and evaluation of digital health and emerging technologies, with particular attention to underserved and vulnerable populations.
- Promote participatory and people-centred approaches by engaging patients, caregivers, communities, young people, and marginalized populations as active contributors throughout the lifecycle of digital and AI-enabled health technologies, while enabling individuals to securely access, manage and share their own health information in accordance with national legislation.
- Strengthen national capacities to monitor and address inequities in digital transformation, including through the use of disaggregated data and measures that assess access, meaningful use, digital literacy, and health outcomes across different population groups.

Actions for partners and stakeholders:

- Ensure that digital and AI-enabled health technologies uphold human rights, dignity, privacy, fairness, accessibility, safety, and non-discrimination, in line with international ethical principles and legal standards, including the responsible collection and use of health data.
- Support inclusive and equitable digital transformation by addressing structural, social, gender-related, economic, linguistic, geographic, and disability-related barriers affecting access to and use of digital health technologies.
- Promote safe, trustworthy, and people-centred digital environments by supporting access to evidence-based health information and preventing harmful, manipulative, discriminatory, or addictive digital practices that may negatively affect health and well-being.

Actions for WHO Secretariat:

- Develop practical guidance, assessment tools, and implementation frameworks to support Member States in integrating equity, gender, ethics, human rights, accessibility, and inclusion considerations into digital health and AI governance and implementation.
- Support the development and strengthening of national ethical review, oversight, and accountability mechanisms for high-impact digital health and AI applications.
- Provide normative and technical guidance on addressing risks associated with digital platforms, social media, and AI systems, including impacts on mental health, misinformation, harmful content, and addictive design patterns.

DRAFT

6. Implementation, monitoring and evaluation

Implementation of the Global Strategy on Digital Health 2028–2033 will be country-led and adapted to different levels of digital maturity, recognizing that countries start from diverse contexts, capacities and priorities. The strategy is designed as a global framework that supports countries in progressively strengthening the foundations for digital transformation, including governance, health information systems, digital public infrastructure, workforce capacity and responsible innovation. WHO regional offices will support the operationalization of the strategy through relevant regional mandates, action plans, roadmaps and implementation frameworks, ensuring alignment with regional priorities and contexts while maintaining coherence with global objectives. To facilitate implementation, WHO will complement the strategy with practical guidance, tools, and technical resources that can be updated over time to reflect emerging evidence, technologies and country experiences. Implementation will also leverage WHO's existing normative products, global public assets and collaborative platforms, including classifications, standards, implementation guidance, digital certification, technical networks and partnerships, to accelerate country implementation and reduce duplication of effort.

The strategy will serve as a mechanism to promote greater alignment and convergence across existing global, regional and national initiatives related to data, digital health and artificial intelligence. Implementation will leverage existing WHO networks and coordination mechanisms, including the Global Initiative on Digital Health and other regional networks and initiatives, to support country action, peer learning, partner alignment and knowledge exchange. The strategy will contribute to and align with broader digital cooperation efforts, including the Global Digital Compact, the World Summit on the Information Society (WSIS) process, the United Nations 2.0 agenda, regional initiatives such as the European Health Data Space, and other relevant frameworks, helping to ensure that investments, standards and implementation efforts reinforce rather than duplicate one another.

Monitoring and evaluation are essential to assess progress, promote accountability and support evidence-informed implementation of the Global Strategy on Digital Health 2028–2033. Building on WHO's longstanding experience in monitoring digital health through the Global Observatory for eHealth and subsequent digital health assessments at the global and regional levels, the strategy will adopt a pragmatic approach that maximizes the use of existing reporting mechanisms, in close coordination with international agencies and multilateral partners, and minimizes additional reporting burdens for Member States

DRAFT

The primary monitoring framework will be aligned with the WHO Fourteenth General Programme of Work (GPW14), particularly Output 3.3.1 on strengthening integrated health information systems, digital transformation, interoperability, data governance and the responsible adoption of emerging technologies. Two existing GPW14 indicators provide the foundation for monitoring progress:

- Number of countries with a digital health strategy and/or roadmap.
- Number of countries that have demonstrably improved their health information system capacity and increased their country assessment scores using the SCORE for Health Data technical package.

To complement these indicators, WHO will develop a monitoring framework and conduct periodic global assessments, building on existing surveys and tools, to monitor progress across the strategic objectives of the strategy. These assessments will focus on key areas such as governance, digital public infrastructure, interoperability, workforce capacity, cybersecurity and artificial intelligence.

A mid-term review in 2030 and a final evaluation in 2033 will assess overall progress, identify challenges and inform future strategic directions. Alongside quantitative monitoring, WHO will continue to document country experiences, good practices and lessons learned to support peer learning and continuous improvement.

This approach recognizes that digital transformation is an evolving process and prioritizes a limited set of meaningful indicators, complemented by periodic assessments and country learning, to provide a realistic and sustainable framework for monitoring implementation.

DRAFT