



ROADMAP TO 2030

HEALTH FOR ALL IN THE DIGITAL AGE





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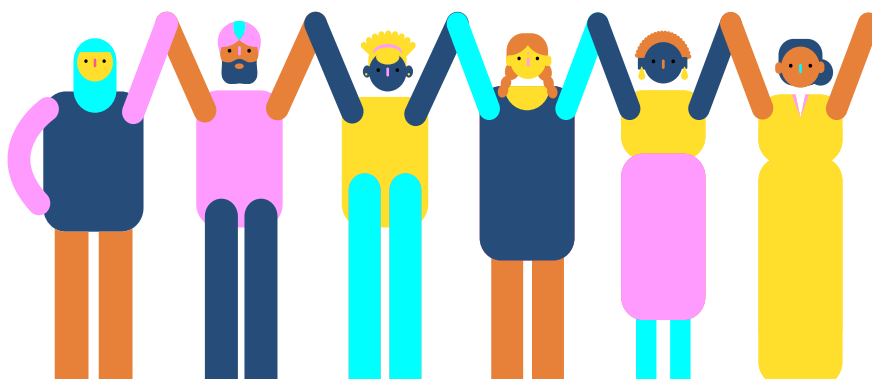
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ABOUT TRANSFORM HEALTH

Transform Health is a global coalition of organisations that work to harness the potential of digital technology and the use of data to achieve universal health coverage (UHC) by 2030. To learn more about Transform Health visit: www.transformhealthcoalition.org

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ROADMAP TO 2030

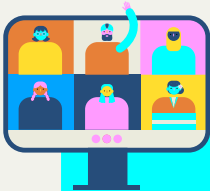
Health for all in a digital age



The Roadmap to 2030: Health for All in the Digital Age **sets out the changes that need to take place over the next five years** to accelerate the digital transformation of health systems and progress towards universal health coverage (UHC) by 2030.

It also **sets out a series of goals, ambitions and actions that need to be taken**. The Roadmap is informed by situation and trends analysis: **Framing the Future: The Current State of Digital Transformation of Health and the Road to Universal Health Coverage**.

The Roadmap is not prescriptive, it does not set out timelines for achieving specific milestones, but offers an action oriented framework that can be adopted and adapted to context. It is guided by the underlying principles that **national digital health sovereignty and trust** are the basis for the digital transformation of health to achieve UHC.

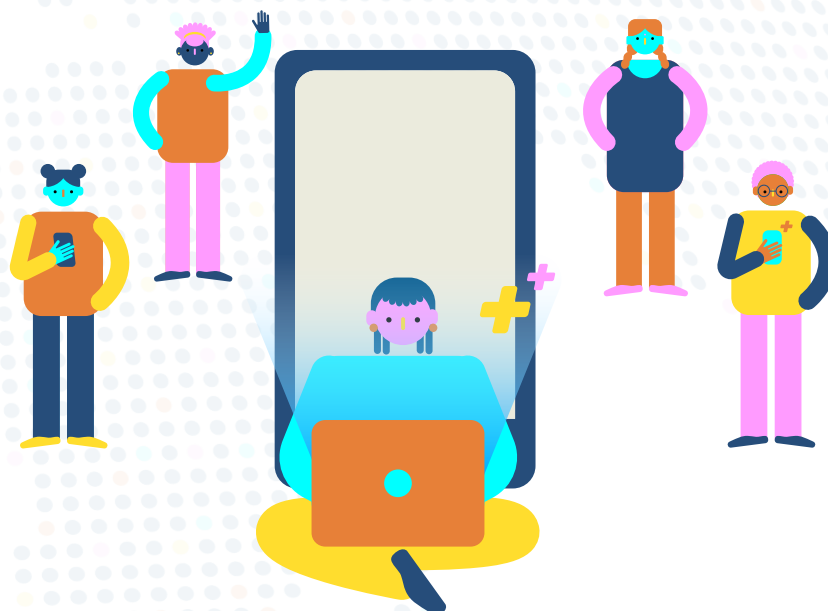


The **main premise** underlying the Roadmap to 2030 is that

National leadership and ownership happens when governments make digital transformation a key part of their political programmes, and develop an enabling legislative and regulatory environment, with clear and coherent policies and strategies, accompanied by costed plans and adequate resource allocation. **This also requires the establishment** of strong national management and coordination mechanisms, including multi-stakeholder platforms, which facilitates better coordination and alignment with a focus on digital transformation of health systems.

The second premise underlying the Roadmap to 2030 is that governments tend to prioritise issues their voters/citizens are concerned about and call on them to act on. Therefore, civil society **plays a critical role**, to call for government action, hold governments accountable, and ensure that the perspectives of the whole population are represented in the planning and development of digital health. This creates a wider economy of trust in digital health solutions developed with and for people.





THE GOALS

The Roadmap to 2030 is structured around **five goals** organised around the following themes:

GOAL 1	Inclusive, people-centred digital health ecosystem
GOAL 2	Rights-based digital health & health data governance frameworks
GOAL 3	Coordinated, sustainable investment aligned with national priorities
GOAL 4	Strong governance structures & national leadership
GOAL 5	Interoperable, secure, sustainable digital health architecture

Each goal has three ambitions that will lead to its realisation. Under each ambition is a list of actions that will achieve it.

Different stakeholders are invited to join us and work with governments towards these common goals that will lead to the digital transformation of health systems and accelerate progress towards UHC by 2030.





GOAL 1.

Inclusive, people-centred digital health ecosystem



Global and regional levels



This will require creating normative standards and accountability frameworks to include equity and non-discrimination in all digital health policy, funding, and practice.



National level



This will require making participation, user feedback, and inclusive governance mechanisms standard practice across health and digital transformation/ICT programmes. This will ensure that equity indicators are built into national monitoring and evaluation systems.



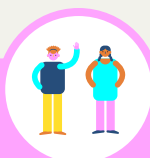
Community level



This will require empowering communities, youth, and marginalised groups with tools, platforms, and resources to co-design, monitor, and advocate for digital transformation created with and for all people.



Ambitions under this goal



Ambition 1

Digital health initiatives are designed *with* people, not *for* them, so that solutions reflect lived realities and build trust.



Actions needed to fulfil this ambition



National policies and standards need to include anti-discrimination provisions. All digital health systems need to be developed with, and to work for, youth, women, and marginalised and excluded populations, including people in areas with poor connectivity, to ensure that no one is left behind.



Equity and inclusion outcomes need to form part of procurement processes and funding conditions. Regular surveys need to be conducted to highlight the needs of gender, youth, and marginalised communities and show the programme's benefits.



Public complaint portals need to be created so that citizens can seek resolution or compensation when their health data rights are violated.



Programmes to improve affordable technology and internet access for marginalised and rural communities need to be developed and implemented.



Locally relevant, language-appropriate, digital health content and services need to be developed and rolled out.



GOAL 1

Inclusive, people-centred digital health ecosystem



Ambition 2

Barriers to access (financial, linguistic, geographic, social, cultural,) are identified and reduced, so that no group is excluded from the development and use of digital health.



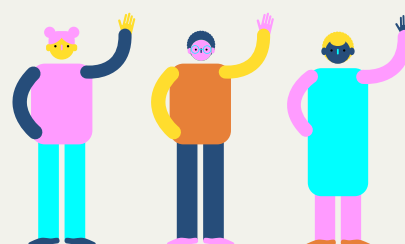
Ongoing monitoring and evaluation systems need to be established for all digital health interventions, with benchmarks for equitable access, use, and outcomes.



Reports that include disaggregated population data on digital health access and use needs to be made public and resulting recommendations put to use.



National digital health strategies need to be regularly reviewed and updated. The interventions need to be adapted to ensure the increased and continuing participation of women, youth, and marginalised communities in the design, testing, and policy oversight of digital health.



Ambition 3

Digital literacy and participation are recognised as necessary for ensuring inclusion. This enables individuals and communities to play an active part in the development and implementation of digital health systems.



National digital literacy campaigns to address the barriers faced by women, girls, youth, people with disabilities, rural residents, and other excluded groups, need to be developed. Digital health modules need to be integrated into school and community programmes.



National awareness campaigns on health data governance and digital privacy need to be designed and implemented to increase public awareness and trust.



Incentive programmes, such as scholarships and career advancement opportunities, need to be made available for women, youth, and marginalised people to enter and advance in digital health professions. These programmes will ensure gender equity in digital health leadership by 2028.



Funding needs to be provided for community-driven digital literacy and technology access projects that are aimed at underserved populations.



Support needs to be provided for peer-to-peer digital health ambassador networks that prioritise the recruitment and training of women leaders, youth leaders, and representatives from indigenous and marginalised communities.



South-South knowledge exchange that supports peer learning on inclusive digital health best practices, advocacy, and accountability need to be established.



GOAL 2.

Rights-based digital health & health data governance frameworks

By 2030:

Countries have established digital health and health data governance frameworks that are inclusive, equity-driven, and rights-based. Countries that have already developed digital health governance frameworks are implementing these, and have clear accountability mechanisms in place.



Global and regional levels



This will require the development and adoption of global and regional frameworks that include data governance, and responsible use of AI for health data governance, and responsible use of AI for health. It will also require collaboration and coordination across different governance frameworks and the establishment of tracking and reporting mechanisms to ensure mutual accountability.



National level



This will require stronger legislative and regulatory frameworks that ensure accountability, transparency, and respect for rights and equity. In places where these frameworks have been set up, specific steps are being taken to implement them.



Community level



This will require citizens to be aware and enabled and civil society to participate in the development, monitoring, and evaluation of digital governance policies. In places where these processes have already been developed, civil society is supported to fulfill its accountability role.

+ Ambitions under this goal



Ambition 1

Every country has a rights-based framework for digital health and health data governance. Laws, policies, and institutions protect privacy, security, and ethical data use.



Actions needed to fulfil this ambition



Parliaments need to pass a comprehensive law on digital health that defines health data governance (drawing on the Model Law), mandates interoperability, and the creation of an oversight and coordination authority, and includes privacy, ethics, and accountability safeguards.



Laws regulating AI-assisted decisions in health need to ensure final decisions remain subject to clinician oversight and establish a citizen's right to human review to prevent harm from unchecked automation.



Countries with digital health and health data governance legislation need to conduct a post-legislative review three years after adoption. Where necessary, laws need to be updated to adapt to emerging technologies (AI, cloud services, quantum computing), penalties and legal channels for individuals to seek resolutions developed.

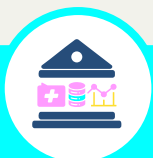


Regional and global health data governance frameworks need to be domesticated into national legislation once they are developed.



GOAL 2

Rights-based digital health & health data governance frameworks



Ambition 2

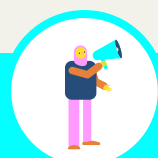
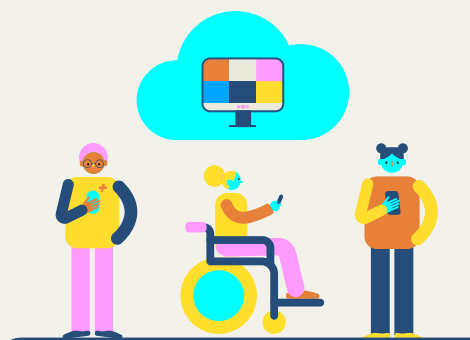
Cross-border regulatory and policy coherence is achieved. Countries and regions collaborate on shared governance principles, harmonised standards, and mutual accountability.



Regional health data governance frameworks need to be developed by countries and made into law through the correct legal pathways.



A World Health Assembly resolution on health data governance needs to be agreed upon and adopted by all countries (member states).



Ambition 3

Civil society and affected communities participate in governance. Decision-making processes include those who are most affected by digital transformation.



Processes need to be created to allow public consultations where citizens can review legislation and regulation on digital health and health data governance. These need to be part of the development and adoption processes.



Funding for civil society needs to increase to allow it to fulfill its public awareness and accountability role, including on issues such as health data governance, the right to health in a digital age, and the adoption and use of AI in health.





GOAL 3.

Coordinated, sustainable investment aligned with national priorities



Global and regional levels



This will require coordination among donors, development banks, and private investors to align financing with shared principles and reduce duplication.



National level



This will require the integration of digital transformation into national health financing plans, ensuring budget allocations for digital public infrastructure, workforce, and governance.



Community level



This will require ensuring that finances flow to subnational and community levels, to enable locally-led implementation and participation.

+ Ambitions under this goal



Ambition 1

National budgets include predictable, dedicated funding for digital health transformation that provides adequate resources to cover the total costs of ownership.



Actions needed to fulfil this ambition



National budgets need to be reviewed and restructured to address the funding needs of digitalisation. This includes dedicating budget lines (and codes) for digital health transformation with a separate allocation for digital public infrastructure, systems (including maintenance and updates), governance and staff, and include the total cost of ownership, as well as the following:

- Funding for a dedicated digital health management unit or agency that will oversee the implementation of the national digital health strategy, as well as system maintenance, workforce growth, research, and innovation.
- Funding for legislative, regulatory and policy reviews and updates to ensure these align with technological developments.
- Funding for ongoing training, maintenance, and the continual upgrade of digital health systems.



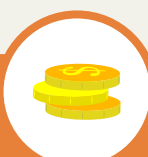
Public participation in the budgeting and planning processes to ensure that investments reflect real population needs, including regular public consultation and demand-driven design.





Ambition 2

Investments align with national strategies, avoid duplication and support an enabling environment that allows for the digital transformation of health.



Ambition 3

More transparent tracking and reporting of digital health investments to advance UHC



Regional development banks and lenders need to structure conditionalities/fiscal support to ensure long-term government funding for cross-sector digital health coordination and implementation. This also needs to cover the effective development and application of legislation, regulation, and policies on digital health.



A significant shift needs to be made to innovative finance mechanisms such as debt swaps, health credits, or blended finance. These types of finance mechanisms will allow countries to expand fiscal space for digital public infrastructure investments.



Investments need to shift from project-based funding (digital solutions) to funding that also includes the digital health-enabling environment. This includes strong governance, regulatory, and legislative frameworks for digital health, as well as effective oversight (e.g. parliamentary committees), civil society engagement, and transparent reporting mechanisms.



Resources allocated to national digital health infrastructure assessments and gap analyses guide country investments, ensuring equitable coverage that focuses on underserved and rural areas.



Resources need to be allocated to capacity building for digital health and regulatory institutions so they can effectively regulate the digital health ecosystem. This includes regulating the adoption of AI and other automated systems.



Endorse and use the [digital health investment checklist](#), which provides a tool to ensure investments promote sustainability, equity, and UHC.



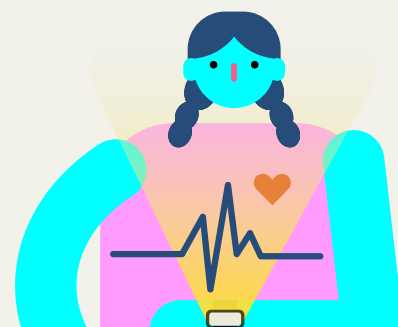
A digital health taxonomy needs to be developed, endorsed, and used by countries, donors, the private sector, and all investors in the digital health transformation. This system can guide and standardise digital health budget and investment classification systems, and improve transparency and tracking of investments.



Digital health investment needs to be integrated and tracked as part of existing funding tracking mechanisms, including the OECD DAC Creditor Reporting System and National Health Accounts.



Governments need to publish national health accounts.





GOAL 4.

Strong governance structures & national leadership



Global and regional levels



This will require support for national leadership through harmonised technical guidance, flexible financing, and support for innovation, recognising levels of digital maturity.



National level



This will require strengthening institutional structures that coordinate digital health efforts. This ensures national digital strategies are operational, costed, and integrated in health and development plans.



Community level



This will require ensuring that civil society and local actors have channels for contributing to national policymaking and monitoring the application of digital strategies.

+ Ambitions under this goal



Ambition 1

Governments establish a national management unit or coordination agency with a clear mandate and the resources to oversee the implementation of the digital transformation/AI for health strategy. This includes managing coordination across sectors, the scale up of the infrastructure and maintaining standards.



Actions needed to fulfil this ambition



A digital health strategy (including AI) needs to be developed that sets out how digital transformation will contribute to the national health strategy and other development plans.



Governments (through an Act of parliament, or through the ministry of health or the presidency) need to set up a national coordination agency or programme management unit (PMU).



The agency or PMU needs to establish a civil society engagement and participation mechanism. This will ensure that digital solutions, strategies, and policies are developed with different community representatives, and to build trust and ensure accountability.



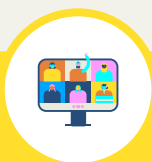
A national registry of all digital health providers and solutions across public, private, and non-governmental organisation sectors needs to be developed and maintained. This can be used to better coordinate the digital transformation efforts.



Investment in evidence-based models to strengthen the capacity for mixed health system management at the ministry level are needed. This will reduce fragmentation, and accelerate adoption and use at national and subnational levels.

GOAL 4

Strong governance structures & national leadership



Ambition 2

Governments set up a cross-ministerial mechanism at the highest level of government to drive the digital transformation of health and accelerate UHC.



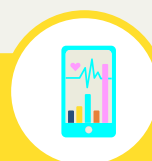
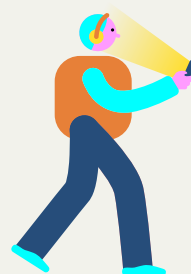
Digital transformation of health needs to be included in National Action Plans or Medium-Term Strategic Frameworks.



A cross-ministerial steering committee is set up to oversee digital health transformation over the next five years (as part of the wider digital transformation agenda).



Governments provide reports to parliament on the progress made towards the digital transformation of health to accelerate UHC.



Ambition 3

Digital transformation is included in broader national health and development strategies and implementation across public institutions is fully resourced..



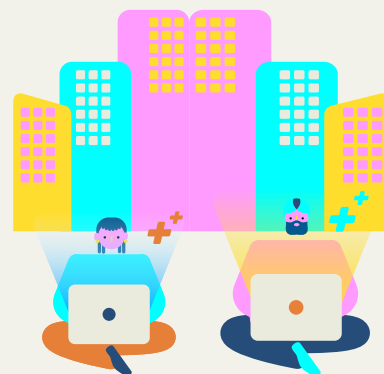
Digital health is integrated into national development and health sector plans, including animal health. These plans include the use of digital solutions to implement the Health in All Policies approach.



The impact that digital health investments have on broader health and development goals are regularly monitored and evaluated.



Digital health performance metrics need to be integrated into health sector accountability frameworks.





GOAL 5.

Interoperable, secure, sustainable digital health architecture

By 2030:

Every country has a digital health architecture that is interoperable, secure, and is sustainable. This architecture connects systems, protects people, and strengthens health system resilience.



Global and regional levels



This will require accelerating the use of global standards, digital public goods, and shared frameworks that support interoperability and sustainability, and promote the regular updating and adoption of these global standards.



National level



This will require investing in infrastructure and workforce capacity for secure data exchange, system integration, and digital continuity of care.



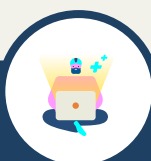
Community level



This will require ensuring that frontline health facilities and workers have access to connected systems and reliable connectivity.



Ambitions under this goal



Ambition 1

Investments prioritise infrastructure to ensure connectivity, cybersecurity, and long-term system sustainability.



Actions needed to fulfil this ambition



Nationwide mapping and assessment of digital health infrastructure and digital health systems are conducted. These assessments need to identify connectivity gaps in health facilities, silos and data flow bottlenecks at national and subnational levels.



Internet connectivity and power solutions need to reach at least 50% of primary healthcare (PHC) facilities.



Infrastructure support for evolving digital health applications (AI, remote diagnostics) is integrated.



Investments are made in sustainability of infrastructure projects that enhance green energy solutions and maintain capacity-building.



Investment to support the upgrading of infrastructure for advanced digital health applications, including AI tools, machine learning, and remote diagnostics are made.



Ambition 2

Shared standards enable seamless and secure data exchange across the health ecosystem.



A national taskforce to monitor digital health standards, involving public and private participants, is set up. The taskforce reviews international standards (e.g., HL7, ICD-11, SNOMED) and adapts these to local context.



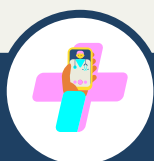
Agreed health information standards are adopted across all existing and new digital initiatives, and ensure that all digital health systems, including legacy systems, are compliant by the end of 2030. These standards are periodically updated based on global developments or international standards, new technology, and local feedback.



Regular audits on compliance with standards are conducted and certification of digital health solutions issued.



Regional or cross-border harmonisation initiatives supporting interoperability beyond country borders are developed and scaled.



Ambition 3

Countries adopt open, interoperable solutions that reduce duplication and fragmentation.



The national programme management unit or digital health agency is mandated to scale up the health information exchange (HIE) to all regions and priority programmes (HIV, TB, NCD management).



The national programme management unit or digital health agency mandates the use of open APIs and adherence to interoperability frameworks and fosters partnerships between public and private health system actors for data exchange.



Nationwide real-time data exchange is adopted across all public sector health information systems.



People have secure, patient-centred, longitudinal health records that are accessible across care points.



National Integration of digital health and health data records with broader digital ecosystems include civil registration, supply chain, and social protection systems.

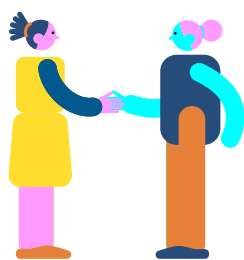


Governments integrate with regional and international interoperability networks where applicable.



Interoperable systems enable real-time data exchange and patient-centred longitudinal health records.





COLLABORATING

to reach our common goals

Reaching the goals and ambitions set out above requires a **collective multi-stakeholder effort**. Below are some practical steps that different stakeholder groups could consider to support progress.



CIVIL SOCIETY, PROFESSIONAL BODIES, AND ACADEMIA

can play an important role in ensuring that governments prioritise the digital transformation of health systems. They can generate evidence and advocate for governments to prioritise equitable and inclusive digital transformation of health and make progress towards UHC. This includes the following:

- Holding governments to account for equitable, rights-based digital health transformation by ensuring that investments are transparent, they protect individual data, and align with health system goals.
- Producing research and generating evidence on the impact of legislation, regulation, and government investments in digital health and making the case for digital transformation.
- Working with other civil society organisations to develop multi-stakeholder platforms at national level to create a space for consensus building, allow donors to pool funds, and provide governments with a single point of reference for partnership and collaboration.
- Establishing multi-sectoral coalitions to coordinate efforts and serve as an organising body. This group can communicate with donors and make it easier to invest or to pool funding.
- Strengthening digital literacy among citizens. This can be used to demand digitally enabled health services and hold governments accountable for the delivery of quality services to achieve UHC.
- Influencing governments to create multi-sectoral spaces for civil society to contribute to the design, piloting, adapting, and scaling of digital health solutions. Where these spaces exist, they can be actively contributed to and expanded by making access easier for youth, women, and marginalised community representatives
- Advocating for robust data protections and cybersecurity safeguards by calling for stronger health data governance, policy, laws, and/or regulation.



THE PRIVATE SECTOR

can play an important role in working with governments and others to ensure national digital health strategies take into account the private sector's perspectives and contributions as service providers and technical experts. The private sector can also play an important role in working with civil society and others to shape legislation, regulation, and policies around digital health. This can ensure a predictable business environment that will create trust and confidence for longer-term investment. This includes the following:

- Assessing consumer needs and market gaps, to develop new products and services that can complement and strengthen national digital health transformation. This would be in line with national digital health strategies.
- Partnering with the government to invest in and leverage DPI as a foundation for aligning private-sector driven solutions.
- Working with the government to establish market conditions (e.g., regulations, legislation, technical guidelines, standards, incentives). This can drive private sector participation in digital health for UHC.
- Co-investing with governments in national innovation hubs to catalyse public-private partnerships and build digital solutions.
- Supporting local innovators with the development of digital health systems that are created around local market and community demands.
- Aligning digital health systems with standards and other technical guidance provided by the government. This can allow them to participate in building national digital health architectures and promoting interoperability.
- Contributing to national digital health plans, and adopting systems that align with technical guidance to enable data to follow a patient between the public and private sector health facilities where they seek care.



REGIONAL PARTNERS

can play an important role in creating normative standards for accelerating the adoption of digital health solutions and facilitate data exchanges across borders. This includes the following:

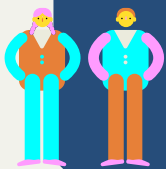
- Securing high-level political commitment to digital transformation of health to accelerate UHC. This can come from regional heads of state through a political declaration at a meeting of heads of state.
- Working with regional bodies to harmonise standards to facilitate health data exchange and collaboration. This can occur through disease surveillance, research and innovation.
- Encouraging regional collaboration and exploring joint funding through mechanisms such as the World Bank's International Development Assistance (IDA) to support the development and implementation of cross-border health data governance protocols. These would allow the exchange of health data for the purposes of the public good.
- Work with regional bodies to establish a continental or regional health data governance framework. This framework can enable legislative coherence across jurisdictions and establish the basis for cross border health data sharing protocols and agreements.
- Regional parliamentary bodies can ensure ongoing monitoring and oversight of implementation.
- Working with governments and others to develop adaptive, practical health technology assessment (HTA) approaches, and engage in regional HTA collaborations to overcome common limitations such as lack of data, and receive support through global initiatives to institutionalise HTA for their specific needs.



LEGISLATORS



- can play a critical role as lawmakers and as guarantors of continuity across political cycles. This can ensure long-term accountability, sustained budget allocations, and oversight of national strategies. Parliamentary committees and the legislative process can be a critical part of the adoption and adaptation of laws to govern emerging technologies. These include AI and cross-border data governance. Legislators, as defenders of their voters' interests, help build trust by ensuring that effective governance and oversight of the digital transformation of the health system is checked. Legislators can also play an important role in ensuring government accountability through oversight processes such as audit committees, procurement scrutiny, and public hearing, and also in ensuring civil society participation in reviews.



FUNDING PARTNERS

can play an important role in supporting stakeholders to create the right enabling environment for digital transformation of health to accelerate UHC. This includes creating the right incentives, through their funding decision, correcting power imbalances, and ensuring greater equity and inclusion. This can ensure a more coordinated and transparent approach to investment in digital health. Funders may want to consider the following:

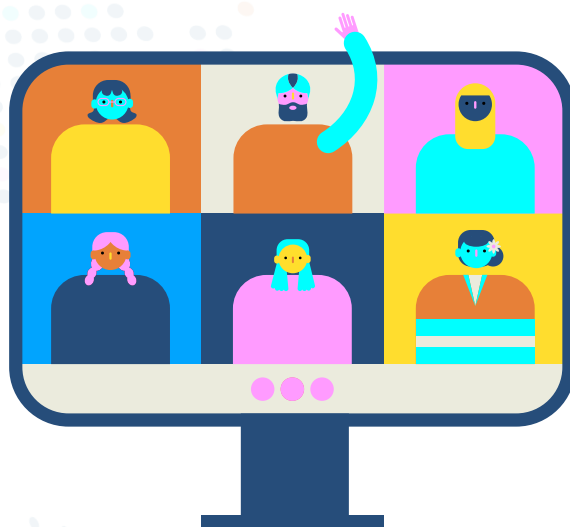
- Enhancing global, regional, and country-level coordination and collaboration to align priorities and pool funding to meet country needs and priorities.
- Investing in country DPIs to build sector-agnostic digital components that the health sector can leverage.
- Partnering with and investing in civil society organisations that bring together multi-sectoral groups and support digital transformation of country health systems.
- Investing in and leveraging expertise and relationships of regional bodies to support country governments with digital health transformation in support of UHC goals.
- Co-investing in capacity building initiatives that can support governments to develop needed technical expertise to support digitisation of the health system.
- Strengthening national ownership and accountability by supporting national and local civil society organisations to advocate and hold the government accountable for the development and application of policies, legislation, and regulation on digital health, and for the resourcing and implementation of the national digital health strategy.
- Supporting national civil society organisations that work with youth, women, and marginalised communities to facilitate their engagement in the process of digital transformation of health.

NOTE



Funding partners include bilateral donors, as well as philanthropic organisations, the private sector, development banks, government investment arms, and venture capital funds, among others.






ROADMAP
TO 2030
HEALTH **FOR ALL** IN THE DIGITAL AGE



Transform
Health
HEALTH **FOR ALL** IN THE DIGITAL AGE