



Leveraging artificial intelligence, digital and frontier technologies to achieve Universal Health Coverage by 2030: “Fuelling a movement towards action & leaving no one behind”

A position paper for decision-makers and funders in global health prepared by Fondation Botnar, PATH, Women Deliver and The Secretariat of the Partnership for Maternal, Newborn & Child Health (PMNCH)

Introduction

Digital innovation can no longer be considered separately from health service delivery. The past two decades have shown how digital health technologies can improve the response to outbreaks and epidemics, as well as strengthen routine care by increasing access to care and enabling leaders to take data-led action to improve care. Continuing with the status quo risks increasing the digital divide and health inequality, especially for women and youth in resource-poor settings.

Digital innovation has the power to accelerate health equity by making health systems stronger, more resilient, and ultimately more effective. In addition, artificial intelligence (AI), digital and frontier technologies have – if managed properly - the potential to improve health significantly by improving efficiency, medical diagnostics, data-based treatment decisions, self-management of care and outbreak prediction. This convergence provides unprecedented opportunity to improve health and wellbeing for all.

The time to act is now

Universal Health Coverage (UHC) and health for all remains an inherently human rights and political agenda, and political will is essential to secure and sustain investment in health for all and drive appropriate health system reforms. A unified vision for digital transformation is needed to overcome small-scale implementation, programmatic isolation, and piecemeal approaches. If we want to reach the vision of equity that UHC promises, we must engage a representative network of people who stand to benefit the most from UHC. As women are the primary decision makers around health and given that the health needs of young people, especially adolescents are chronically overlooked, it is imperative that we engage them to ensure a UHC system that truly works for all.

We believe that Sustainable Development Goal 3 which sets out to achieve UHC for all by 2030¹ is unattainable without AI, digital and frontier technologies. Digital innovation will be key in addressing issues around financial risk protection, including fintech and digital financial solutions for health insurance schemes, and access to quality essential healthcare services.

With a growing number of stakeholders, competing priorities, and rapidly changing technologies, AI, digital and frontier technologies risk creating additional burdens on health systems without government and partner coordination and collaboration. Importantly, these groups are already beginning to come together to define common needs to strengthen digital health systems², further supported by the recently passed WHO digital health resolution.

A call action

We feel there is an urgent need to fuel a movement that calls for:

- Improved efficiency, alignment and investment as rapid uptake of digital health technologies is creating unprecedented opportunities for health.
- Increased collective action for health data to be recognized as a global public good to avoid fragmented data collection and lack of harmonized approaches with multiple incompatible systems³.
- Empowered adolescents and meaningfully engaged young people, who are often neglected by the global healthcare sector. They are digital natives, who can meet their health needs by leveraging frontier technologies, whilst supporting in improving health of their own communities.
- Enhancement of women's role and participation, as well as recognition of the unique value they have to collectively achieve health equity and un-biasing health datasets, which is especially important given the gender bias and discrepancies in technology development, use and ownership by gender.

Resolution on Digital Health

At the 71st World Health Assembly, a historic resolution on digital health was passed, reaffirming the World Health Organization (WHO) mandate to advance the use of digital tools and technologies in pursuit of Sustainable Development Goal 3. The unanimous approval of the digital health resolution demonstrates the global will to improve coordination and collaboration across sectors to create more successful, strategic digital health initiatives. The digital health resolution is the first step toward creating a comprehensive, actionable global strategy that can guide governments, non-governmental organizations, the private sector, and others in collectively leveraging AI and frontier technologies to accelerate health equity and strengthen health systems worldwide.

¹ Sustainable Development Knowledge Platform, United Nations, <https://sustainabledevelopment.un.org/SDG3>

² e.g. WHO established an mHealth Technical and Evidence Review Group (mTERG); the UN convened a global meeting to discuss the development and deployment of AI applications to reduce poverty and deliver a broad range of critical public services; donors came together to develop the Digital Investment Principles in 2018; Principles for Digital Development in 2017; establishment of the multi-stakeholder platform, UHC2030 in 2016.

³ Health Data Collaborative, Progress Report (June 2018)

https://www.healthdatacollaborative.org/fileadmin/uploads/hdc/Documents/Health_Data_Collaborative_Progress_Report_2016-18_Final.pdf

Examples of cloud-based visual analytics, automation, social media nudges, secure digital identities and unique identifiers, which have potential to advance progress toward UHC over the next ten years:

- **Integrated, timely, accurate and complete information** that will assist health workers to holistically understand the health of communities and individuals.
- **Data accelerators** that can extend the reach of health workers and systems, to more affordably address the rising prevalence of non-communicable diseases and encourage healthy behaviours.
- **Data privacy and security innovations** that can ensure that people safely and securely have access to life-changing information while contributing to the global body of knowledge.

Source: http://www.who.int/sdg/global-action-plan/Global_Action_Plan_Phase_I.pdf, p. 25

The idea behind the ‘movement’

Social movements⁴ differ in size and are all essentially collectives. That is, they result from the more or less spontaneous coming together of people whose relationships are not defined by rules and procedures but who merely share a common outlook on society.⁵

Therefore, we believe in creating a **coalition** that will fuel a movement, rather than a single campaign, and bring together people, organizations and governments around the shared value of UHC and achieving health for all. The movement would eventually comprise a series of campaigns, programs and initiatives and utilize technology and modern communication to mobilize people globally, with a particular focus on youth as digital agents of change.

⁴ A social movement can be defined as "organizational structures and strategies that may empower oppressed populations to mount effective challenges and resist the more powerful and advantaged elites (Deric. Shannon (2011-01-01). *Political sociology : oppression, resistance, and the state*. Pine Forge Press) p. 150.

⁵ R. H. Turner, N. J. Smelser, L. M. Killian, "Social Movements", Encyclopaedia Britannica: <https://www.britannica.com/topic/social-movement>.

What will the coalition look like?

The coalition will co-create to support a 10-year consistent effort around advocacy, communication and accountability for AI, digital and frontier technologies as a catalyst for the 2030 UHC agenda. It will dissect and cluster the issues and problems facing the sector, position them as opportunities and inspire stakeholders to choose their own solutions, by:

Accelerating change that is already taking place without the coalition's existence.

Assembling stakeholders, including women and young people, in constructive dialogue that can yield better and more solutions and innovative ways of collaborating.

Amplifying the voices that are currently unheard or disempowered, including, women and young people.

Objectives of the coalition

- Empower and build capacities of people and population groups to make digitally enabled, good choices to protect and improve their health and wellbeing.
- Reduce the gap between the advancement of technologies and realities of countries/governments/populations -- particularly for people and vulnerable groups in resource-poor settings.
- Improve accessibility to care by building capacity and equipping Community Health Workers with appropriate tools and technologies, including leveraging AI and frontier technologies.
- Facilitate strong data 'infostructure' from standards, to governance, to create a resilient enabling environment.
- Increase, align and coordinate investments to reduce the duplication of efforts and create efficiency in the use of limited resources thereby increasing impact.

A joint commission on artificial intelligence and UHC 2030: leaving no one behind

In addition, we propose launching a **joint commission** that would frame and inform this global coalition. The Commission will set out to (a) develop a vision for AI and digital health and frontier technologies in resource-poor settings; (b) outline principles for the responsible and equitable deployment of these technologies, including from a perspective of human rights, safety and personal freedoms; and (c) define an associated research agenda. The commission would take approximately two years to develop and publish its report at UNGA 2021 to coincide with the launch of the 10-year coalition to leverage the recommendations and findings.

Proposed timeline



2019 June	Women Deliver -- first meeting of the core movement coalition
2019 Sept	UNGA Launch of commission
2020 Sept	UNGA High level mid-term consultation on the commission
2021 Sept	UNGA Commission report with multiple-launches in cities around the world
2021	Coalition launch and secretariat in place
2021-2030	Movement in 3 stages over 9 years