

## **Transforming Healthcare: how can we maximise the potential of AI while minimising the risks?**

Artificial intelligence (AI) is a transformative force in healthcare systems. By harnessing AI, they have the potential to address gaps in access, quality, and affordability, but they must navigate ethical, equity, and implementation concerns to ensure these technologies benefit everyone. Success will depend on those who must make decisions about health policy understanding what AI can do, what it cannot do, and what they must do to maximise its potential. This forum will draw on experiences from Taiwan and some other countries to explore how AI can either support or undermine health system performance.

AI has the potential to make healthcare more accessible, efficient, and patient-centred. One of its most significant contributions may lie in its ability to address workforce shortages, particularly in underserved regions. AI-powered diagnostic tools, for example, offer scope to support healthcare workers by analysing medical images, interpreting lab results, or identifying patterns in patient symptoms, in some cases with accuracy comparable to human specialists. This capability could reduce reliance on scarce expertise and enables timely interventions in remote or resource-limited settings. AI might also support health systems by improving efficiency. Automated administrative systems, such as chatbots for patient triage or algorithms for managing hospital workflows, reduce overhead costs. Predictive analytics can optimise resource allocation by forecasting patient volumes, supply needs, and potential disease outbreaks. These efficiencies can free up resources to expand coverage and improve care delivery. AI could make it easier to deliver personalised medicine, allowing healthcare providers to tailor treatments to individual patients' genetic and environmental profiles. While such precision care was once prohibitively expensive, AI-driven solutions could make it more accessible. AI also facilitates data-driven public health interventions. By analysing large datasets from electronic health records, social media, and other sources, AI can identify health trends and inform policies targeting the needs of vulnerable populations. For instance, predictive models can pinpoint areas at high risk of disease outbreaks, enabling targeted vaccination campaigns or preventative measures.

Yet despite its promise, AI also poses significant risks that could undermine health systems, and especially their ability to provide equitable care, if not carefully managed. Chief among these is the potential for exacerbating health inequities. AI systems often rely on data from high-income countries or affluent populations, leading to biases that render them less effective—or even harmful—for marginalised groups. For example, an AI tool trained on data from predominantly Caucasian patients might misdiagnose conditions in individuals with darker skin tones.

Access to AI technologies can also be uneven, favouring wealthy nations or well-funded healthcare systems. If low- and middle-income countries lack the infrastructure, expertise, or funding to deploy AI effectively, these tools may deepen the global health divide. Additionally, within countries, disparities in digital literacy and internet access could limit the benefits of AI for vulnerable populations.

Privacy and data security concerns are another critical issue. AI systems require vast amounts of data, raising the risk of breaches (including cyberattacks, by state and non-state actors) or misuse of sensitive patient information. Fear of data exploitation might deter individuals from seeking care, particularly in settings with weak regulatory frameworks, undermining the inclusivity of UHC.

Ethical and accountability challenges further complicate AI's role in healthcare. Errors in AI predictions or decisions can lead to misdiagnoses or inappropriate treatments. Without clear mechanisms to attribute responsibility, these errors could erode trust in AI-powered systems and the healthcare providers that use them.

To maximise AI's potential for supporting healthcare systems while minimising its risks, policymakers, healthcare providers, and technologists must adopt a collaborative and inclusive approach. This includes ensuring AI systems are designed with diverse and representative datasets, prioritising equitable access through funding and infrastructure investments, and establishing robust regulatory frameworks to safeguard privacy and ethical use.

Ultimately, AI is neither a panacea nor an inherent threat to UHC. Its impact will depend on how it is integrated into healthcare systems. When deployed thoughtfully, AI can be a powerful ally in achieving the goal of health for all. Achieving Universal Health Coverage requires a multi-faceted approach that addresses both the technological opportunities and the structural barriers in health systems. By navigating the legal, digital, financial, and trust-related challenges associated with health technology, we can create a more inclusive and resilient healthcare ecosystem. This forum presents insights from those at the cutting edge of developing, implementing, and evaluating AI in what is a rapidly changing field with the aim of stimulating a discussion among participants about how we can co-create solutions that ensure that everyone—regardless of location, income, or technological literacy—can benefit from the promise of digital health.

# Transforming Healthcare:

## How Can We Maximise the Potential of AI While Minimising the Risks?

**Time & Date: 09:00–12:15 Tuesday, 20 May 2025**

**Venue: Apollon, Hotel President Wilson, Geneva, Switzerland**

Time	Presentation Titles	Speakers
09:00-09:10	Opening Remarks & Group Photo	<ul style="list-style-type: none"> <li>○ Prof. Tai-Yuan Chiu, Minister of Health and Welfare, Taiwan</li> <li>○ Dr. Ashok Philip, President, World Medical Association</li> </ul>
<b>Session I: Experience with AI in Asia</b>		
○ Moderator: Prof. Chien-Jen Chen, Academician, Academia Sinica, Taiwan		
09:10-09:30	Maximizing AI in Taiwan's NHI: Innovation Meets Responsibility	Dr. Lian-Yu Chen, Deputy Director-General, National Health Insurance Administration, Taiwan
09:30-09:50	Exploring the Effectiveness of Lifestyle Interventions Based on Behavior Change Theory via Smartphone Applications: The Potential of Generative AI to Enhance User Engagement	Dr. Kayo Waki, Associate Professor, Graduate School of Medicine, the University of Tokyo, Japan
09:50-10:10	Service-Information-Finance: The Three Pillars of Successful Universal Health Coverage Implementation and AI in Thailand.	Prof. Boonchai Kijsanayotin, Chair, Asia eHealth Information Network (AeHIN), Thailand
10:10-10:30	Coffee Break	
<b>Session II: Experiences with AI in Europe and North America</b>		
○ Moderator: Prof. Chien-Chang Lee, Counselor and Chief Medical Information Officer, Information Management Department, MOHW, Taiwan		
10:30-10:50	How Healthy Is Artificial Intelligence For The Transformation of Health Care?	Prof. Bettina Borisch, Executive Director, World Federation of Public Health Associations
10:50-11:10	Enough But Not Too Much: The Complex Relationship Between Trust And Artificial Intelligence	Prof. Martin McKee, European Public Health, London School of Hygiene & Tropical Medicine, United Kingdom
11:10-11:30	The Importance of Physician Values In The Future of Healthcare AI	Prof. Jack Resneck, Chair of Council, World Medical Association
11:30-11:50	AI in Public Health Research - Insights from the Perspective of a National Public Health Institute	Dr. Katharina Ladewig, Managing Director, Centre for AI in Public Health Research, Robert Koch Institute, Germany
11:50-12:10	Panel Discussion and Q&A	Moderators & All Speakers
12:10-12:15	Closing Remarks	Prof. Jen-Der Lue, Deputy Minister of Health and Welfare, Taiwan

