

ARTIFICIAL INTELLIGENCE FOR HEALTH
AND DISEASE ELIMINATION

CROSS-SECTOR ACTION FOR IMPACT

MEETING REPORT

MAY 18TH 2026 | 79TH WHA
HOTEL N'VY, GENEVA



ACRONYMS

01

AI

Artificial Intelligence

02

DNDi

Drugs for Neglected Diseases initiative

03

GLIDE

Global Institute for Disease Elimination

04

LMICs

Low- and Middle-Income Countries

05

NTDs

Neglected Tropical Diseases

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R&D

Research and Development

07

WHA

World Health Assembly

EXECUTIVE SUMMARY

The Global Institute for Disease Elimination (GLIDE) convened a high-level roundtable entitled Artificial Intelligence for Health and Disease Elimination: Cross-Sector Action for Impact on the sidelines of the 79th World Health Assembly (WHA79) in Geneva, Switzerland.

Building on discussions initiated during Abu Dhabi Global Health Week 2025 and the 80th United Nations General Assembly, the roundtable brought together policymakers, global health leaders, researchers, technology innovators, and philanthropic partners to explore practical pathways for translating artificial intelligence (AI) into measurable public health impact.

Participants recognized that AI is increasingly moving from promise to practice, with applications emerging across diagnostics, surveillance, drug discovery, and clinical development. However, they emphasized that AI alone will not transform health outcomes. Its potential will remain unrealized unless it is embedded within strong health systems, supported by robust governance frameworks, and designed around the needs of end users.

Discussions highlighted the importance of cross-sector collaboration, government leadership, local ownership, and equitable access to data and technologies. Participants also stressed the need to move beyond isolated pilots and toward responsible, scalable implementation models that strengthen health systems and accelerate progress toward disease elimination.

CONTEXT AND RATIONALE

AI is rapidly reshaping multiple sectors, including health, education, agriculture, and development. In global health, AI applications are emerging across prevention, diagnosis, surveillance, and care delivery, offering new opportunities to strengthen health systems and accelerate progress toward disease elimination.

Despite this potential, implementation remains fragmented and evidence on the effectiveness and health-system impact of AI remains limited, particularly in low- and middle-income countries (LMICs). Persistent challenges related to governance, ethics, data ownership, interoperability, and sustainability continue to hinder responsible adoption at scale. Moreover, many countries bearing the highest disease burdens remain underrepresented in the design, governance, and implementation of AI-enabled solutions.

This roundtable was the third convening in GLIDE's AI and Health Roundtable Series. The inaugural roundtable, Harnessing AI for Disease Elimination: A Game-Changer in Public Health, held during Abu Dhabi Global Health Week 2025, explored the opportunities and challenges associated with applying AI to infectious disease control and elimination. The second roundtable, Artificial Intelligence for Health and Disease Elimination: From Promise to Practice, convened on the sidelines of the 80th United Nations General Assembly, focused on moving beyond the potential of AI to identify practical pathways for implementation.

Building on these earlier discussions, this roundtable sought to examine how practical, cross-sector applications of AI can be responsibly operationalized and integrated into health systems at scale. The discussion aimed to bridge the gap between innovation and implementation and identify pathways for translating promising technologies into sustainable and equitable public health impact.

OBJECTIVES OF THE ROUNDTABLE

The roundtable pursued three objectives:

1. Advance cross-sector collaboration for health impact by showcasing applied AI solutions integrating health, environmental, epidemiological, and data systems to support sustainability and disease elimination.
2. Promote responsible and equitable AI adoption through discussion of governance, ethics, data stewardship, and meaningful engagement of governments, health workers, and communities.
3. Catalyze partnerships and pathways to scale by Aligning policymakers, implementers, technologists, and investors around practical approaches for moving AI beyond pilots.

PARTICIPANTS AND FORMAT OF THE ROUNDTABLE

The roundtable brought together 23 strategically selected stakeholders representing government institutions, multilateral organizations, philanthropic foundations, academia, technology companies, and global health and implementation organizations

The 90-minute closed session consisted of two parts. The first featured framing presentations illustrating practical applications of AI in diagnostics, disease surveillance, drug discovery, and clinical development, followed by an interactive question-and-answer session. The second consisted of a moderated discussion guided by key questions related to data foundations, governance, equity, scalability, and implementation.

Held under Chatham House Rule, the roundtable provided a space for participants to openly exchange perspectives, share lessons learned, and collectively identify opportunities to translate AI innovation into measurable public health impact.

PRESENTATION SPEAKERS

The two presentations demonstrated how AI is increasingly being applied across diagnostics, disease surveillance, drug discovery, and clinical development, while also highlighting the enabling conditions and challenges associated with responsible implementation and scale-up.

AI-Enabled Diagnostics and Digital Pathology

The first presentation focused on the application of AI-enabled microscopy and digital pathology to strengthen diagnostics and disease surveillance in resource-constrained settings. It highlighted the growing need for more timely, granular, and integrated data to support decision-making and programme monitoring in disease elimination settings.

The presentation noted that microscopy remains affordable, adaptable, and widely embedded within health systems. However, its scalability is constrained by shortages of highly trained personnel, labour-intensive processes, and variability in interpretation. To address these challenges, an AI-enabled, field-deployable imaging platform was presented that can operate without internet connectivity and be adapted across multiple sample types, including stool, blood, urine, and tissue specimens.

Evidence from field evaluations demonstrated strong agreement between human and AI-assisted readings, with particularly promising performance at low infection intensities, where conventional approaches become less sensitive. Applications were presented across several neglected tropical diseases (NTDs), including soil-transmitted helminths, schistosomiasis, lymphatic filariasis, and entomological surveillance for onchocerciasis, illustrating opportunities for more integrated and multiplex approaches to disease surveillance and diagnostics.

The presentation emphasized that successful implementation requires more than technological innovation. Local capacity for operation, troubleshooting, maintenance, and long-term ownership must be incorporated from the outset. It also highlighted the importance of co-designing solutions with end users, aligning innovations with normative guidance, establishing evidence and endorsement pathways, and planning sustainable financing mechanisms beyond the pilot stage.

AI in Drug Discovery and Clinical Development

The second presentation explored the growing role of AI across the R&D continuum for neglected diseases and clinical development. Examples were presented demonstrating the use of AI for target identification, protein folding, drug repurposing, pharmacovigilance, knowledge management, and clinical trial support.

The presentation illustrated how AI can accelerate the analysis of large and complex scientific datasets that would otherwise be difficult to process using conventional approaches. Emerging applications included the analysis of large-scale screening datasets to identify promising compounds and therapeutic targets, the use of AI to support drug repurposing efforts, and the development of AI-assisted tools to improve the efficiency of clinical trial implementation.

Applications of generative AI in clinical development were also discussed, including support for regulatory documentation and pharmacovigilance processes. The potential of AI-enabled assistants to provide rapid access to protocol information and operational guidance for field teams was presented as a promising avenue to strengthen efficiency and safety in research implementation.

The presentation underscored that AI should be adopted only when it addresses clearly defined needs and provides demonstrable value compared with existing approaches. Governance, training, data provenance, traceability, and regulatory compliance were identified as essential prerequisites for responsible adoption. The transition from successful pilots to sustainable implementation at scale was highlighted as one of the principal challenges that remains to be addressed.

KEY INSIGHTS FROM THE ROUNDTABLE

AI Is Moving from Promise to Practice

Participants recognized that AI is increasingly moving from promise to practice, with applications emerging across diagnostics, drug discovery, clinical development, and disease surveillance. Discussions highlighted examples of AI-enabled diagnostics, drug discovery platforms, pharmacovigilance applications, and tools to support clinical trial implementation.

However, participants emphasized that technological advances alone will not improve health outcomes. AI applications must address clearly defined problems and demonstrate value under real-world conditions. Discussions increasingly focused on practical implementation considerations and how promising technologies can be translated into measurable public health impact.

Strong Health Systems and Governance Are Prerequisites for Impact

Participants repeatedly stressed that AI will not contribute to disease elimination unless it is embedded within strong health systems, supported by governments, and connected to frontline delivery realities.

National policy and regulation were identified as enabling conditions for responsible adoption. Discussions highlighted the importance of governance frameworks, leadership, partnerships, digital skills, and infrastructure development to support implementation. Gaps in governance, implementation capacity, and health-system readiness were identified as central challenges to achieving public health impact.

CROSS-SECTOR COLLABORATION IS ESSENTIAL

A recurring theme throughout the discussion was that no single institution or sector can independently develop, implement, govern, and scale AI solutions for health.

Participants emphasized the importance of collaboration among governments, public health practitioners, researchers, technology developers, philanthropies, and financing partners. Philanthropy was specifically identified as having an important role in supporting evidence generation, ensuring user-centred design, supporting implementation alongside innovation, and providing catalytic support where markets remain underdeveloped.

Strong Data Foundations Are Fundamental to AI Adoption

Participants repeatedly noted that the principal constraint to AI implementation is not the availability of AI technologies but the quality and governance of the systems and data that underpin them.

Well-described, interoperable, and accessible data systems were identified as fundamental prerequisites for meaningful AI applications. Many health information systems remain fragmented, with data dispersed across ministries, health facilities, surveillance systems, and community health programmes that often operate in isolation.

Questions related to data ownership, access, accountability, and benefit-sharing also emerged as important considerations. Participants noted that on-device AI approaches and anonymized reporting mechanisms may help address privacy concerns while facilitating integration into existing reporting systems.

"The limiting factor is not the tools. The limiting factor is the systems and data that underpin the tools."

Equity, Local Participation and Capacity Building Matter Must Remain Central

Participants expressed concern that countries bearing the highest disease burdens remain underrepresented in the design, governance, and implementation of AI-enabled solutions.

The discussion highlighted the importance of involving affected countries in the development and application of AI solutions and ensuring that datasets are sufficiently representative and accessible. Participants also noted that trust in AI systems depends not only on model development but also on improving data access, diversity, and control.

The need to strengthen local technical and research capacity was also emphasized. Discussions highlighted the importance of knowledge-transfer mechanisms, local training in machine learning and domain sciences, and developing expertise in ethical AI frameworks, transparency, and explainability.

POLICY AND IMPLEMENTATION CONSIDERATIONS

The discussion highlighted several considerations relevant to policymakers and health system leaders seeking to advance the responsible adoption of AI in health systems.

1. Strengthening public digital infrastructure and improving interoperability across health information systems emerged as foundational requirements for meaningful AI applications. Participants highlighted the importance of integrating AI applications into established national and regional reporting systems and noted the risks associated with creating parallel systems and disease-specific approaches that may reinforce existing fragmentation.
2. Discussions underscored the importance of data governance. Questions regarding data ownership, access, accountability, and benefit-sharing remain unresolved and may affect trust and collaboration if not adequately addressed.
3. Participants noted that creating enabling conditions for responsible implementation and scale remains a significant challenge. Regulatory uncertainty, financing constraints, commercialization barriers, and limited implementation capacity continue to impede the transition from promising innovations to sustainable deployment of AI-enabled health solutions.

CONCLUSION

The roundtable reinforced the significant potential of AI to accelerate disease elimination and strengthen health systems. At the same time, participants recognized that technology alone will not solve public health challenges.

Realizing the benefits of AI will require strong health systems, robust data foundations, effective governance arrangements, and meaningful collaboration across sectors. It will also require ensuring that countries bearing the highest disease burdens are actively involved in shaping, implementing, and benefiting from AI-enabled solutions.

The discussion concluded with a shared recognition that AI should be viewed not simply as a technological innovation, but as an opportunity to strengthen health systems and foster more integrated, equitable, and responsive approaches to disease elimination.

APPENDIX

To help structure and anchor the conversation, some guiding questions were developed to encourage participants to share experiences and perspectives, and identify practical actions for advancing the responsible and scalable use of artificial intelligence in health and disease elimination.

Guiding Questions

- **1. Data foundation for impact**
What minimum data infrastructure is required before AI can add real value in health systems?
- **2. Moving beyond pilots**
What certification and equity standards should accompany that transfer, and who bears the cost of local validation?
- **3. Governance, trust and equity**
Should individuals have the right to opt out of training datasets, and is that right practically enforceable?
- **4. Communities and frontline use**
How do we ensure AI does not widen the gap between the health outcomes of the connected and the unconnected?

PARTICIPATING ORGANIZATIONS

