



# THE FIFTH HEALTH INNOVATION CONFERENCE REPORT

**Theme:**  
Integrating and Scaling Innovations Into Healthcare Programs  
and Systems



**MINISTRY OF ICT & NATIONAL GUIDANCE**

A Knowledge and Productive Society driven by ICT & National Ideology



Academy for  
Health Innovation  
Uganda



**IDI**  
INFECTIOUS  
DISEASES  
INSTITUTE

# EXECUTIVE SUMMARY

Under the theme Integrating and Scaling Innovations into Healthcare Programs and Systems, the fifth Health Innovation Conference was organised by the Academy for Health Innovation Uganda at the Infectious Diseases Institute (IDI) and was held on the 26th – 27th August 2024.

The conference brought together over 145 delegates innovators in health, students, medical workers, government institutions, and organizations (local & International) with a similar cause; to drive innovations that lead to improved access to better health care.

This year's conference was opened by the Country Director, U.S. Centers for Disease Control and Prevention (CDC) Uganda Adetinuke (Mary) Boyd, MD FAAP CAPT, U.S. Public Health Service who lauded the efforts of the organization in the fight against infectious diseases but implored the need to develop more innovations to better predict health outbreaks amidst global climate change challenge, urbanization and evolving human – animal interactions.

Keynote speeches also featured the Minister of Science, Technology and Innovation. Dr. Monica Musenero Masanza and The Minister of ICT and National Guidance Hon Dr. Chris Baryomunsi who in his remarks highlighted the importance of incorporating technology into every discipline urging the young innovators to emphasize this for better outcomes and efficiency.



“Targeted tools are essential to improving health access, especially for men and young people. Tech innovations hold incredible potential for real-time collaboration, communication, and even predicting outbreaks. We are proud to be part of these groundbreaking initiatives, like tele-health and tele-mentoring, that are increasing access to quality healthcare in remote areas and saving countless lives.

**Adetinuke (Mary) Boyd, MD FAAP CAPT, U.S. Public Health Service**  
Country Director, U.S. CDC Uganda

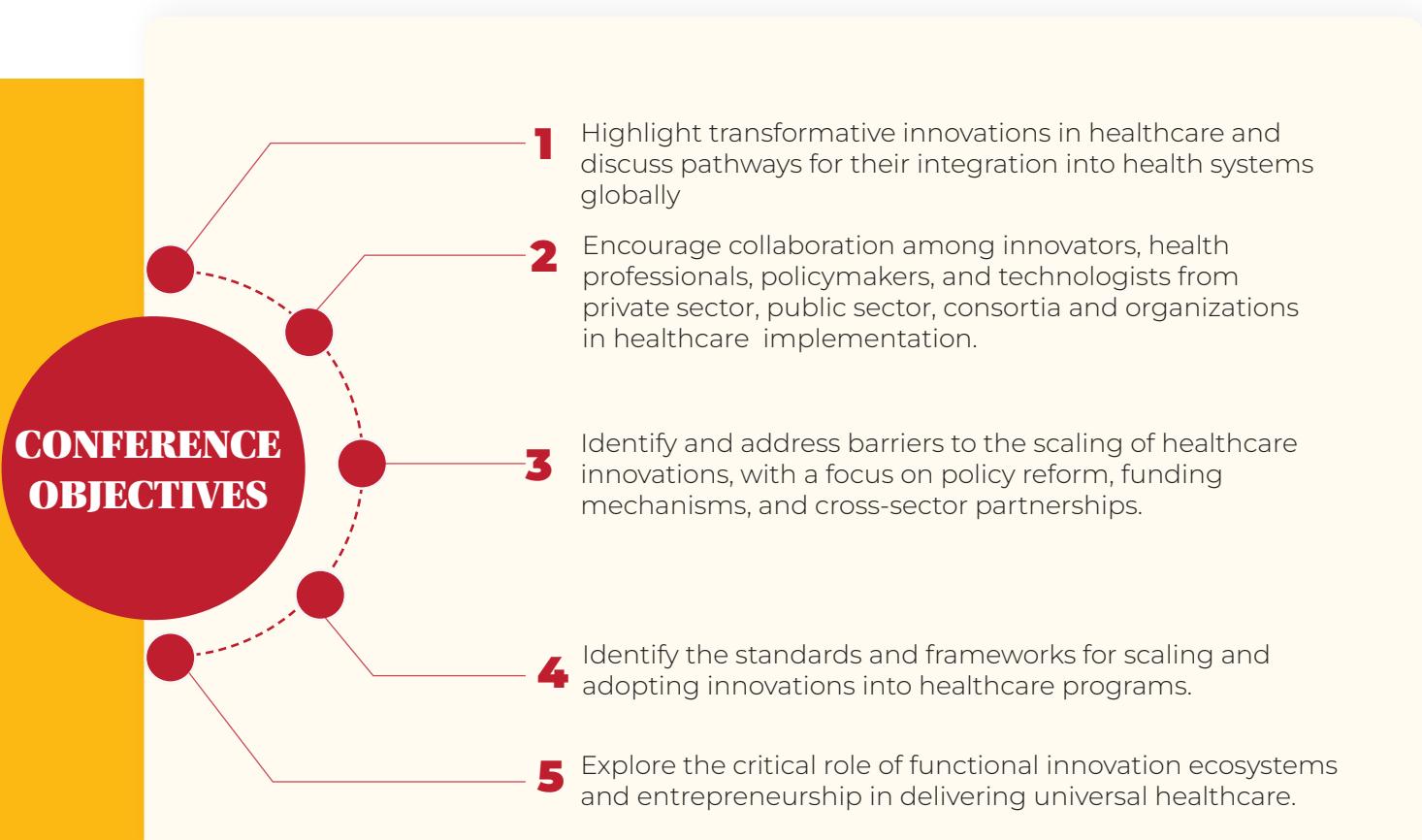
# BACKGROUND

Over the past decade, rapid technological advancements have transformed industries like finance and manufacturing. However, the healthcare sector has been slower to adapt due to challenges such as safety concerns, regulatory hurdles, and limited resources.

Despite these barriers, technology and innovation are now playing a pivotal role in reshaping healthcare, offering immense potential to improve health outcomes, reduce disparities, and strengthen health systems.

Innovations such as artificial intelligence (AI), digital health solutions, and blockchain are already enhancing patient care, expanding access to services, and improving data management. However, global disparities in access to these technologies, particularly between the Global North and South, remain a significant obstacle to achieving equitable health outcomes and universal health coverage.

Recognizing the urgent need to address these challenges, the Fifth Health Innovations Conference brought together stakeholders from governments, the private sector, academia, and civil society to foster collaboration. By showcasing groundbreaking innovations and facilitating dialogue, the conference aimed to accelerate the integration of these solutions into healthcare systems, promoting health equity, resilience, and progress toward global health goals like the Sustainable Development Goals (SDGs).



# FROM THE EXECUTIVE DIRECTOR



**Dr. Andrew Kambugu**  
Executive Director  
Infectious Diseases Institute

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At IDI, we believe that innovation means stepping out of our comfort zones and thinking outside the box. Our support for the Academy is driven by a commitment to nurturing growth and seeing ideas through to completion. It is fitting that the leading university in the country, Makerere, is at the forefront of driving innovation. We are grateful to our partners for being part of this journey.

The Health Innovation Conference has now reached its fifth edition. This milestone is proves just how critical innovation is particularly in health.

The community that gathers each year continues to evolve, now focusing on integration, scaling up, and strengthening systems. This is the only meeting dedicated to fostering such innovation on the continent.

The challenges we face demand that we think creatively. That is the essence of innovation.

As a representative of the leadership at IDI, I believe innovation is a mindset. Our inspiration in supporting the Academy is to cultivate a platform for growth, enabling ideas to take shape and be seen through to fruition.

We deeply appreciate our partners for their full support on this journey.

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# TRANSFORMATIVE TECHNOLOGIES IN HEALTHCARE

The theme “Transformative Technologies in Healthcare” delved into the transformative role of advanced innovations such as Artificial Intelligence (AI), Generative Pre-trained Transformers (GPTs), and digital health tools. These technologies are increasingly redefining healthcare delivery and outcomes, offering unprecedented opportunities to improve accessibility, accuracy, and efficiency.

One of the most significant discussions centered on AI’s potential to act as a personal assistant in healthcare, enabling tasks such as interpreting multilingual pathology reports and enhancing disease understanding at the community level. The Uganda Electronic Medical Records (EMR) system was highlighted as a practical example of scalable digital health innovation. Initially developed to manage HIV and TB cases, the EMR system has now expanded to over 1,700 facilities and accommodates various diseases, demonstrating the impact of adaptable health technologies.

However, the conversations acknowledged several challenges to adopting transformative technologies. Access to private health data is often restricted due to bureaucratic and privacy concerns, while the high computational resources required for AI technologies limit their widespread use.



Another critical issue is the resistance faced from healthcare workers when new technologies are introduced. For example, during the early rollout of the EMR system, many workers viewed it as an additional burden. Success, however, was eventually achieved through collaboration among health facilities, districts, and implementation partners. Capacity building emerged as a pivotal aspect of these discussions.

Programs like Refactory have played a vital role in advancing the use of technology for health:

**600+**

Individuals trained in technology skills

**80%**

Individuals securing job placements

Such initiatives are essential in creating a skilled workforce that can sustain and expand healthcare innovations.

Furthermore, the conversations underscored the importance of aligning these innovations with the broader healthcare context to ensure their relevance and scalability.

## Theme: INTEGRATING SCALING INNOVATIONS INTO HEALTHCARE PROGRAMS & SYSTEMS

The HIC offers continuous development and opportunities for young start-up innovators, healthcare workers, private sector developers, entrepreneurs, and investors.

Sub-



### Conclusion

The potential of transformative technologies in healthcare is immense but must be contextualized to address the unique challenges of different environments, particularly in Africa. Key barriers such as limited resources, lack of training, and ethical concerns require deliberate action.

### Recommendations

- Developing comprehensive ethical guidelines to address concerns like data privacy and misuse of AI-generated outputs.
- Strengthening interdisciplinary collaborations between governments, developers, and healthcare providers to ensure solutions are innovative yet practical.
- Increasing investments in capacity-building programs to equip healthcare workers and local tech talent with the skills needed to adopt and sustain these innovations.
- Improving policy coordination, particularly by health ministries, to clarify priorities and avoid duplication of efforts.

Ultimately, the success of transformative technologies lies in ethical deployment, strategic partnerships, and inclusive capacity development. These elements will ensure that innovations are not only scalable but also equitable and impactful in improving healthcare outcomes.



# SUSTAINABLE FINANCING FOR HEALTH INNOVATION



The panels on sustainable financing for health innovation explored strategies to bridge funding gaps and support the growth of impactful health solutions. A central theme was the need for strong relationship-building with investors and end-users. Speakers highlighted that aligning innovations with Sustainable Development Goals (SDGs) and actively incorporating community feedback significantly enhances their relevance and appeal to funders. Startups were encouraged to focus on market-driven and profitable innovations, while ensuring consistent quality delivery, as this builds trust with stakeholders and investors alike.

Crowdfunding was discussed as an alternative but often underutilized financing mechanism. However, revenue-based financing remains challenging for many startups. To overcome these hurdles, the value of strategic partnerships, particularly with international development agencies, which can provide grants to de-risk innovations during the pilot stages was stressed. They recommended that such pilot programs should ideally be time-limited, not exceeding three years, to ensure efficiency and sustainability.



The discussions also spotlighted the **persistent healthcare funding gap** in Africa, where an average of only 7% of national budgets is allocated to healthcare, compared to the global average of 11%. This underfunding, combined with regulatory hurdles and insufficient data, has stifled innovation across the continent. Panelists urged a shift toward market-responsive solutions, driven by a deeper understanding of customer needs and operational realities.

Regulatory challenges were also highlighted as critical barriers. Clearer and more supportive regulatory frameworks are essential to reducing delays and fostering an environment conducive to innovation.

Panelists noted that functional ecosystems should combine technical support, market intelligence, and access to finance to ensure sustained innovation. For innovators, clarity of objectives emerged as a vital consideration.

Entrepreneurs were advised to carefully assess funding models and be open to compromises when forming partnerships. The speakers noted that not all innovations require equity-based funding, emphasizing the importance of identifying commercial opportunities early to reduce dependence on external capital. Ultimately, the guiding principle is that “money follows value,” and innovators must focus on meeting market needs with solutions that deliver tangible, measurable outcomes.

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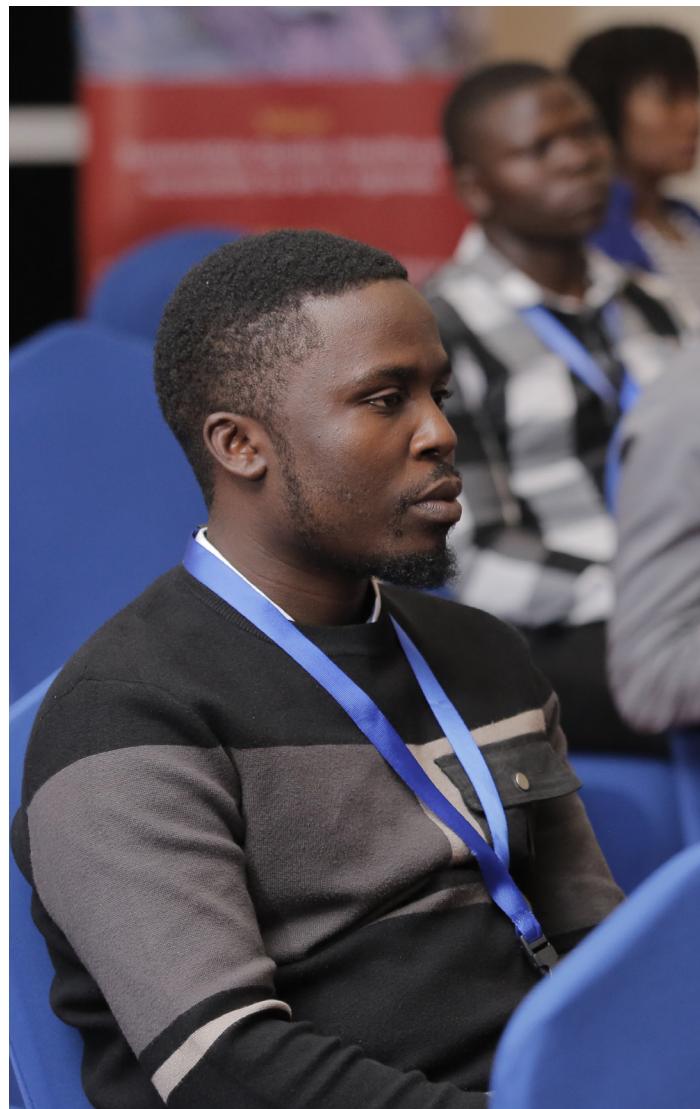
In conclusion, the sessions emphasized the importance of integrating innovation within broader health financing strategies. Recommendations included promoting partnerships, improving regulatory clarity, and encouraging value-driven entrepreneurship to ensure long-term sustainability and impact in healthcare innovation.



## CROSS-SECTOR COLLABORATION FOR HEALTH INNOVATION

This theme focused on the transformative potential of cross-sector partnerships in strengthening healthcare systems across Africa. The panel emphasized the need for collaborative efforts among academia, industry, and healthcare providers to drive innovation and improve public health outcomes. The discussions highlighted how organizations like the STI Secretariat and the Infectious Diseases Institute (IDI) are leading the way. The STI Secretariat focuses on supporting grassroots innovators from ideation to commercialization, while the IDI works to strengthen public health systems through partnerships at national and district levels, particularly in the areas of disease prevention and detection.

One key insight was the role of academia in fostering impactful healthcare innovations. Panelists noted the health sector's success in leveraging academic research to address pressing challenges, contrasting this with industries lagging in digital transformation. This highlighted the potential for academia-industry partnerships to be a catalyst for change.



The conference also stressed the necessity of adopting a holistic approach to tackle healthcare challenges. The interconnectedness of sectors such as e-commerce and healthcare was a focal point, with discussions emphasizing how advancements in e-commerce can facilitate telemedicine and other innovative health solutions. Stakeholder engagement emerged as a critical factor in aligning technological advancements with the unique needs of the health sector.

A recurring theme was the imperative to break down silos between industries and sectors to foster a culture of collaboration. Panelists called for greater integration of academic research, innovation, and real-world application to build resilient healthcare systems. The speakers also underscored the value of broadening stakeholder involvement, particularly in underrepresented regions, to drive inclusive innovation.

# Integrating and scaling innovations



26th-27th  
August 2024

Organised by



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In partnership with

## Key Recommendations:

- Strengthen Academia-Industry Partnerships: Leverage the power of academic research and align it with healthcare needs to create practical and scalable innovations.
- Encourage Digital Transformation: Promote a mindset shift across industries to embrace digital tools and platforms for collaborative growth.
- Adopt a Holistic Approach: Recognize the interdependence of sectors and foster cross-sector solutions that address healthcare challenges comprehensively.
- Break Down Silos: Create platforms and opportunities for collaboration across industries, academia, and governments to foster innovation.
- Enhance Grassroots Engagement: Support innovators at the grassroots level to ensure that local solutions are brought to scale.

Cross-sector collaboration is not just an opportunity but a necessity for creating resilient and adaptive healthcare systems capable of addressing Africa's unique challenges.

# POLICY INNOVATIONS AND HEALTH SYSTEMS STRENGTHENING



The discussions on policy innovations and health systems strengthening explored how innovative frameworks and practices can enhance healthcare delivery and resilience. Central to these conversations was the recognition of innovation as a driving force in addressing systemic challenges and improving health outcomes across diverse contexts. One of the key themes was the role of early stakeholder engagement and strategic partnerships in scaling health innovations.

Panelists highlighted success stories where collaboration with ministries, private sector partners, and academic institutions accelerated the integration of technologies into national health systems. Notable examples included the Augmented Infant Resuscitator (AIR), which improves neonatal resuscitation outcomes, and Mama OP, a tool for standardizing respiratory illness diagnoses. Both cases demonstrated the value of aligning innovation with national health priorities to achieve widespread adoption.

Another focus was the critical need for regulatory and policy support to facilitate innovation. Participants emphasized that policy frameworks must evolve to accommodate emerging technologies, streamline approval processes, and foster an ecosystem conducive to experimentation and scale. However, resistance to change within healthcare institutions and gaps in regulatory alignment across regions were identified as persistent barriers to adoption.

The discussions also underscored the role of capacity-building and education in strengthening health systems. Integrating intellectual property (IP) education into medical and technical training programs was recommended to empower innovators with the knowledge to protect and commercialize their ideas. Organizations like CAMTECH were lauded for their efforts in providing innovators with mentorship, financial support, and a platform for prototype development through initiatives like medical technology hackathons.

Key challenges, such as system integration and the high costs of scaling innovations, were acknowledged. To address these, speakers advocated for a multi-stakeholder approach that includes funders, policymakers, and end-users. This collaborative model not only enhances trust but also ensures that solutions are tailored to the realities of local healthcare systems.

In conclusion, the sessions emphasized that health systems strengthening hinges on policies that support innovation, address systemic barriers, and create environments for sustainable growth.

Recommendations included fostering cross-border collaborations, embedding innovation within health policies, and providing dedicated funding for scaling impactful solutions. These measures, combined with a deliberate focus on capacity-building, can enable healthcare systems to effectively respond to current and future challenges.



# INCLUSIVE INNOVATION FOR GLOBAL HEALTH EQUITY

The discussions here revolved around bridging systemic healthcare gaps and fostering innovations that prioritize accessibility and sustainability. Key highlights included the urgent need to strengthen the Global Health Security (GHS) agenda.

Integrating data from diverse sources to enhance outbreak prediction models and manage public health emergencies more effectively. However, they noted several barriers to innovation in LMICs, such as the high costs of Interactive Voice Response (IVR) systems, limited availability of Point-of-Care (POC) diagnostics for high-risk diseases, and insufficient supportive infrastructure.



To address these issues, the panel underscored the importance of creating enabling environments for innovation. This includes establishing policies that align with national health priorities, engaging local communities and governments in the co-creation process, and ensuring cultural adaptability of healthcare solutions.

The necessity of inclusive design, where marginalized populations are actively involved in shaping health interventions tailored to their unique challenges kept the conversation.

Regulatory barriers were another focal point of the discussion. Panelists highlighted the lack of clear frameworks for validating innovations and mitigating legal risks, particularly during early development stages. To overcome this, they recommended establishing centralized support hubs, or "one-stop centers," where innovators can access regulatory guidance, resources, and mentorship.

Collaborative initiatives, such as government-sponsored hackathons and digital innovation networks, were recognized as effective platforms for fostering inclusive innovation ecosystems.

In conclusion, the sessions emphasized that health systems strengthening hinges on policies that support innovation, address systemic barriers, and create environments for sustainable growth.

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# PARTICIPANT FEEDBACK

Feedback was gathered from 72 delegates (60%) of the attendees through the post event survey. Others were engaged through informal discussions after the conference. Overall the delegates and speakers expressed a high satisfaction with the HIC 2024 and expressed a interest in exploring partnerships for future conferences, highlighting the value of collaborative opportunities facilitated by the event.



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**Participant Satisfaction**

The majority of delegates rated their satisfaction as “excellent,” reflecting the seamless coordination and execution of the event. The overall experience, pre conference communication speakers & interactive workshops were all positively reviewed
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**Relevance of Breakout Sessions**

The most relevant sessions were:

  - Spotlight on Innovations Scaled into National Systems
  - Inclusive Innovations for Global Health Equity
  - Advanced AI and Disruptive GPTs in Healthcare
- ++
**Personal benefits**

Delegates valued networking with researchers, peers, and experts, fostering collaborations and fresh insights while boosting professional growth.
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**Key Takeaways**
  - There is a pressing need to focus healthcare innovations on equity and scalability.
  - Mental health integration should be prioritized within broader health programming.
  - Advocacy for robust healthcare ecosystems, inclusive of technology and partnerships, is essential.
- 💡
**Suggestions for improvement**

Participants recommended longer Q&A sessions, more diverse attendees, and added topics like health-tech financing and mental health integration with HIV programming.

# ACKNOWLEDGEMENT

We extend our heartfelt gratitude to all our partners, sponsors, delegates, and speakers for their invaluable contributions to the Fifth Health Innovations Conference. Your support, expertise, and active participation were instrumental in making this event a resounding success.

**To our partners and sponsors,** thank you for believing in the vision of this conference and for providing the resources and platforms needed to foster innovation and collaboration in healthcare. Your commitment to advancing health equity and innovation is deeply appreciated.

**To our esteemed speakers,** your insights, knowledge, and thought-provoking discussions enriched the conference and inspired actionable ideas that will shape the future of healthcare.

Finally, **to our delegates,** your enthusiasm, engagement, and willingness to share experiences and perspectives made this conference a truly collaborative and impactful event.

Together, we have set the stage for meaningful advancements in healthcare innovation, and we look forward to building on this momentum in the years to come. Thank you for being part of this journey toward equitable and sustainable health systems worldwide.

## THANK YOU



# HIC 2024 IN PICTURES







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