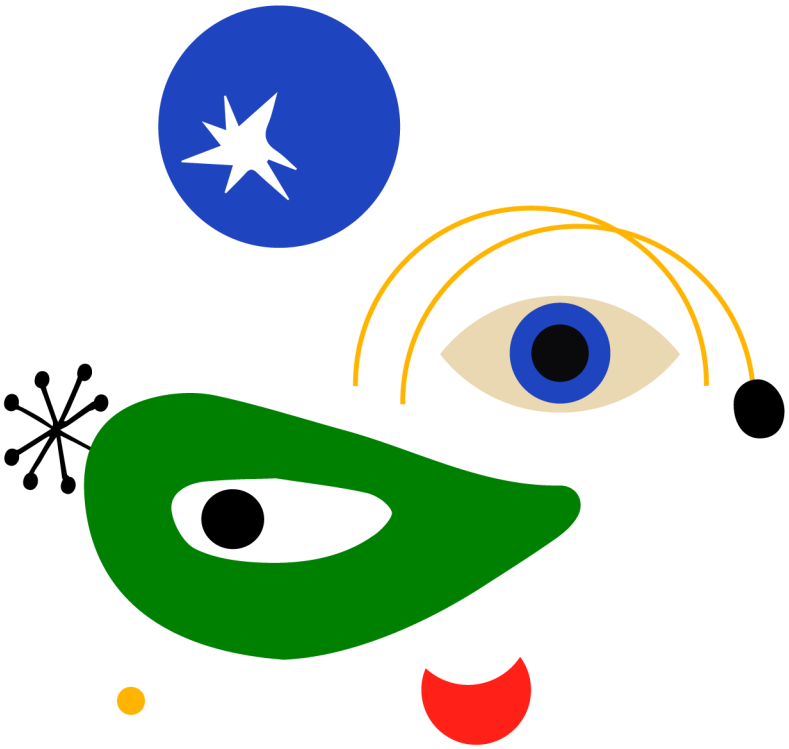
PMAC | PRINCE MAHIDOL AWARD CONFERENCE 2025



Harnessing Technologies in an Age of AI to Build A Healthier World

28 JANUARY - 2 FEBRUARY 2025 | BANGKOK, THAILAND

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HARNESSING TECHNOLOGIES IN AN AGE OF AI TO BUILD A HEALTHIER WOLRD

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Rapid technological advancements, including those involving Artificial Intelligence (AI), are deemed essential tools for creating a healthier, more equitable, and peaceful world. Inventive use of technologies to achieve the Sustainable Development Goals (SDGs) by 2030 has demonstrated significant benefits, for example by contributing to global environmental sustainability and biodiversity preservation. However, it is also crucial to consider the potential risks associated with these innovations, such as security threats, misinformation, disinformation, inequitable access, and privacy invasion.

The PMAC 2025 will emphasize leveraging these technological advancements to ensure equitable, affordable, and comprehensive access for all populations, especially in low- and middle-income countries and for resource-constrained individuals in high-income countries. The conference will also highlight the importance of synergizing technologies to strengthen health systems, achieve the SDGs, and foster a healthy planet. Key issues such as climate change, conflict, and emerging diseases will be addressed

Sub-Theme 1

Technological Innovations to Strengthen Health Systems
and Achieve Universal Health Coverage

SUB-THEME 1

The fourth industrial revolution, driven by technological change, is transforming health systems with innovative technologies such as AI, telehealth, Big Data analytics, and mobile health, which can enhance access, improve patient care, and promote self-management. These advancements support the global goal of achieving Universal Health Coverage (UHC) and improve public health. Despite the potential, barriers such as limited access to technology, data privacy concerns, and the risk of exacerbating inequities persist. The world is at a turning point and there is an urgent need for an accelerated response as recent reports indicate the world is off-track in meeting the goal of achieving UHC by 2030. Effective international collaboration is essential to harness these technologies responsibly. This sub-theme offers a platform for global health practitioners to discuss these challenges and explore opportunities for collaboration.

Sub-Theme 2

Equity, Ethics, and Empowering the Vulnerable

SUB-THEME 2

To ensure that the health benefits of digital technologies and AI can be equally shared across populations, existing biases in healthcare services and systems based on race, ethnicity, age, and gender, which are encoded in data used to train algorithms, must be addressed.

Well-designed digital technologies and AI for health should be ‘people-centered’ and inclusive. There is a critical need to ensure equitable access for all individuals, particularly for those who may be marginalized or vulnerable and face barriers related to gender, ethnicity, geographical location, socioeconomic status, native language, or internet connectivity. Even as advancements in technology may substantially improve healthcare delivery, they also pose significant risks to the exacerbation of health inequalities, weakening of data privacy, and environmental sustainability.

Safeguarding the rights of individuals and promoting planetary health will require careful consideration of innovative policies and practices that are necessary to ensure an enabling environment for the ethical development and deployment of healthcare technologies.

ST2 seeks to explore overarching issues relating to equity, gender, ethics and society that will need to be addressed to effectively harness the power of digital technologies and AI to advance universal health coverage and realize the right to health for everyone.

Sub-Theme 3

Governance, Policy and Stewardship

SUB-THEME 3

In the dynamic field of digital health and AI, strong governance, policy, and stewardship are essential for responsible and equitable implementation. Global frameworks promoting international collaboration and standardization are necessary, involving public and private sectors and civil society. A robust regulatory environment and effective data governance at the national level are crucial to protect data ownership, privacy, and sovereignty. These measures ensure the ethical and secure use of health data, mitigate risks, and build trust. Multilevel governance and collaboration will ensure that AI and digital health technologies contribute to improved health outcomes for all.

Well-The main areas for further exploration under ST3 comprise global enabling ecosystem, national ecosystem, human capacity needs, and responsible use; cover the foundations for good governance, policy, and stewardship. digital technologies and AI for health should be ‘people-centered’ and inclusive. There is a critical need to ensure equitable access for all individuals, particularly for those who may be marginalized or vulnerable and face barriers related to gender, ethnicity, geographical location, socioeconomic status, native language, or internet connectivity. Even as advancements in technology may substantially improve healthcare delivery, they also pose significant risks to the exacerbation of health inequalities, weakening of data privacy, and environmental sustainability.

| VENUE AND DATES OF THE CONFERENCE

Centara Grand at Central World Hotel, Bangkok

Tuesday 28 - Wednesday 29 January 2025	Side Meetings
Thursday 30 January 2025	Field Trip
Thursday 31 January - Sunday 2 February 2025	Main Conference

| STRUCTURE OF THE CONFERENCE

This is a closed, invitation only conference host by the Prince Mahidol Award Foundation, and the Royal Thai Government, together with other international co-hosts. The conference consists of:

1. **Pre-conference**
    - Side meetings
    - Field trip
2. **Main conference**
    - Keynote speeches
    - Plenary sessions
    - Parallel sessions
    - Synthesis: Summary and recommendations
    - Poster display

| PRE-CONFERENCE PROGRAM

Tuesday 28 January 2025

09:00-17:30	Side Meetings

Wednesday 29 January 2025

09:00-17:30	Side Meetings

Thursday 30 January 2025

09:30–18:00	Field Trip / Art Contest Award Ceremony

| MAIN CONFERENCE PROGRAM

Friday 31 January 2025

09:00 - 10:00	Opening Session by HRH Princess Maha Chakri Sirindhorn & Keynote Address
10:00 - 10:15	Break
10:15 - 12:00	Plenary 0: Harnessing Technologies in an Age of AI to Build a Healthier World
12:00 - 13:00	Plenary 1: Achieving Positive Connections through Technological Innovations for Healthier Populations, Strengthened Health Systems and Universal Health Coverage
13:00 - 14:00	Lunch / Special Event / Poster Presentation
14:00-16:00	◦ PS 1.1: Innovative Technologies to Leverage Health Financing for UHC ◦ PS 1.2: Tech-Empowered Health Workers: Skills for the Future ◦ PS 1.3: Expanding Tech-enabled Solutions for Service Delivery ◦ PS 1.4: Health Tech Rising: Youth Edition ◦ PS 1.5: Harnessing the Power of Data
16:00 - 18:00	Break / Special Event
18:00 - 20:30	Welcome Dinner

Saturday 1 February 2025

09:00 - 10:00	Plenary 2: Ethical Technology: For Whom, by Whom and for What Purposes
10:00 - 10:30	Break / Special Event / Poster Presentation
10:30 - 12:30	◦ PS 2.1: Reducing the Digital Divide: How to Ensure an Enabling Environment for Equitable Tech for All ◦ PS 2.2: Harnessing Technology to Achieve Equitable Health Outcomes ◦ PS 2.3: Our Tech Future and Implications for Society: Promise or Peril? ◦ PS 2.4: Data is Power! Confronting Data Colonialism, Ownership Issues and Hidden Biases ◦ PS 2.5: Unlocking Synergies: Health Tech and AI at the Climate-Health Frontier
12:30 - 13:30	Lunch / Special Event / Poster Presentation
13:30 - 14:30	Plenary 3: Effective Governance of Health Technologies and AI
14:30 - 15:00	Break / Special Event / Poster Presentation
15:00 - 17:00	◦ PS 3.1: Geopolitical Landscape: Global Governance ◦ PS 3.2: Strengthening Health Data Governance: Leadership and Action ◦ PS 3.3: Articulating and Mitigating Risks of AI in Health ◦ PS 3.4: Equity and Accountability in Digital Health and AI: Addressing Risks, Digital Health Foundation GAPS, and Advancing Open and Local Solutions ◦ PS 3.5: Fortifying National Systems for the Age of AI

Sunday 2 February 2025

09:00 - 10:30	Synthesis: Summary, Conclusion & Recommendations
10:30 - 11:00	Break
11:00 - 12:00	Closing Session
12:00 - 13:00	Lunch

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OPENING SESSION

| KEYNOTE SPEAKER

- **Wang Jian,** Co-founder and Chairman, BGI Group, China

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PL 0

HARNESSING TECHNOLOGIES IN AN AGE OF AI TO BUILD A HEALTHIER WORLD

| BACKGROUND

Rapid technological advancements, including those involving Artificial Intelligence (AI), are deemed essential tools for creating a healthier, more equitable, and peaceful world. Inventive use of technologies to achieve the Sustainable Development Goals (SDGs) by 2030 has demonstrated significant benefits, for example by contributing to global environmental sustainability and biodiversity preservation. However, it is also crucial to consider the potential risks associated with these innovations, such as security threats, misinformation, disinformation, inequitable access, and privacy invasion.

The PMAC 2025 emphasizes leveraging these technological advancements to ensure equitable, affordable, and comprehensive access for all populations, especially in low- and middle-income countries and for resource-constrained individuals in high-income countries.

| OBJECTIVES

To set the scence of the PMAC 2025 in highlighting the importance of synergizing technologies to strengthen health systems, achieve the SDGs, and foster a healthy planet. Key issues such as climate change, conflict, and emerging diseases will be addressed

| MODERATOR

- **Dennis Carroll,** Chief Scientist, URC, United States of America

| KEYNOTE SPEAKER

- **Rubindhiran Pillay,** Professor of Health Innovation, Assistant Dean for Global Health Innovation, and Chief Innovation Officer of the Health System, University of Alabama at Birmingham, School of Medicine, United States of America

| PANELIST

- **Meg Davis,** Professor on Human Rights and Digital Health, University of Warwick, United Kingdom
- **Jean Philbert Nsengimana,** Chief Digital Health Adviser, Africa CDC, Canada
- **Hani Kim,** Executive Director, RIGHT Foundation, Republic of Korea
- **Wang Jian,** Co-founder and Chairman, BGI Group, China

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PL 1

ACHIEVING POSITIVE CONNECTIONS THROUGH TECHNOLOGICAL INNOVATIONS FOR HEALTHIER POPULATIONS, STRENGTHENED HEALTH SYSTEMS AND UNIVERSAL HEALTH COVERAGE

| BACKGROUND

The fourth industrial revolution has arrived[1].

The world is transforming at a rapid pace with innovative technologies, impacting the way we live. The health sector is no exception and is in fact an active participant in the changes that could herald a new era for provision of health care. Novel technologies such as Artificial Intelligence (AI) and next generation sequencing offer an opportunity to reimagine provision of healthcare[2],[3]. Telehealth, which had been practiced in one form or another, received a boost during the COVID-19 pandemic, when social distancing measures meant a dramatic reduction in mobility and availability of technological platforms facilitated its use at scale and at a reduced cost[4]. Strengthening information systems and better data protection regimes has also created a greater space for use of Big Data analytics that can improve patient experiences and provision of care[5]. Mobile health has the potential to revolutionise public health and also offers opportunities to increase access to health services and encourage self-management of health, thus empowering people[6]. Social media is a powerful tool and can not only increase awareness on issues related to health among the general public but also create a movement for better health and improve accountability[7]. These technologies can be employed across the spectrum of healthcare, prevention, diagnostics and treatment. Technology's promise to increase access and reduce inequities in health speaks to the overarching goal of the global health community to achieve Universal Health Coverage (UHC) has been enshrined in the Sustainable Development Goals (SDGs). Recent analyses show that the world is off-track in achieving its goal by 2030 and that there is a need to rethink approaches which can be enabled by innovative technologies[8].

Yet, barriers remain in harnessing the potential that these technologies have to offer and risks that must be recognised when embracing them. The "Coming Wave" of technology could not only change the way we operate but, also threaten our existence[9]. There are concerns around who uses these technologies and for what[10]. Many of the world's poorest people lack access to technologies such as mobile phones and the internet. Data privacy and security remains a matter of concern and the implementation of interoperable systems is still a challenge. There is a risk of these technologies exacerbating existing inequities rather than diminishing them. Bias in AI algorithms could perpetuate biases and limit access to care. This is the case, both within and across countries, with low-and-middle income countries facing unique challenges on how to develop and utilise these emerging technologies effectively. There is a need for technology transfer from high income to middle and low-income countries, as was amply demonstrated in the development and distribution of COVID-19 vaccines. Acceptability and applicability of novel technologies among users also needs to be considered closely.

The world is at a turning point and there is an urgent need for an accelerated response to reach the goal of achieving UHC within the expected timeframe, and having healthier populations through improved public health by embracing technological innovations, which has been identified as one of the mega-trends impacting the health sector. It will be important to consider how to safeguard individual rights and privacy, while harnessing the benefits of shared data, diagnostic algorithms and computational insights. The global health community has begun discussions on how to better govern AI and this is a welcome step[11]. This field is being shaped by other mega-trends on planetary health, security and demographics, including the role of gender, which will be relevant considerations in forging the path ahead. The Prince Mahidol Award Conference (PMAC) provides a unique platform for global health practitioners to debate and discuss this topic and articulate potential areas for collaboration in the future.

References

[1] The term refers to the fundamental change in the way the world operates, driven by technological advancements. Fourth Industrial Revolution | World Economic Forum (weforum.org)

[2] Top 10 health care innovations | Deloitte US

[3] WEF_Top_10_Emerging_Technologies_of_2023.pdf (weforum.org)

[4] Implementing telemedicine services during COVID-19 : guiding principles and considerations for a stepwise approach (who.int) ; The State of Telehealth Before and After the COVID-19 Pandemic - PMC (nih.gov)

[5] The use of Big Data Analytics in healthcare - PMC (nih.gov)

[6] mHealth (who.int) ; Mobile Health: making the leap to research and clinics | npj Digital Medicine (nature.com)

[7] The role of media in supporting health (who.int)

[8] Tracking universal health coverage 2023 global monitoring report (who.int)

[9] The Coming Wave by Mustafa Suleyman review – a tech tsunami | Science and nature books | The Guardian

[10] MIT Solve | Ethical Innovation: A Conversation Between Yuval Noah Harari and Serhii Plokhy | Ethical Innovation with Yuval Harari & Serhii Plokhy

[11] AI Advisory Body | United Nations

| OBJECTIVES

Objectives

To harness innovative technologies to improve public health and achieve Universal Health Coverage from a health systems perspective.

Specific objectives:

- To understand the trends in technology and their health impact on societies from a health systems perspective.
- To identify challenges and devise potential solutions to harness these technologies effectively to achieve Universal Health Coverage and the Sustainable Development Goals;
- To identify areas for collaboration across and outside the health sector to achieve Universal Health Coverage and the Sustainable Development Goals Topics for discussion.

Key issues

In Sub-theme 1, the role of health technologies will be organised, through parallel sessions around the building blocks of the health system, centred around innovations to achieve UHC and the SDGs[1]. The building blocks of the health systems have been adapted to showcase issues of **health financing, health workforce and people, access to health technologies**; **innovations in the use of health technologies from around the world;** and **service delivery, health information systems and data.** The theme of leadership and governance will be a cross-cutting one and will be explored further in depth in Sub-theme 3. **Real-world examples, demonstrating both positive and negative consequences,** will be showcased to encourage learning and sharing among practitioners**.** In addition, issues related to **AI, planetary health, security and gender** will feature across the parallel sessions.

The term “technology” for the purpose of this sub-theme is conceived as including the any application of scientific knowledge for practical purposes that is dynamic in nature[2]. Additionally, the aim of the sub-theme would be to highlight those technologies, within and outside the health system, that are emerging, novel or disruptive in nature and impact human health. It encompasses digital health innovations, innovations in biotechnology, public health innovations and social innovations, within the context of AI. Digital health technologies can be categorised those used for persons, providers, health management and support personnel and data services as well as outlining services and application types (point of service, registries, etc).[3]

The plenary session (PL1) will frame the above issues and situate them within the context of improved public health, UHC and the SDGs. It will examine the imperative for the global health community to proactively engage on innovative technologies for achieving UHC and will seek to involve diverse speakers on the topic, taking a health systems perspective. A few of the key points to be discussed are:

The world is at a turning point: what are the implications for public health and achieving UHC?

- Current state and use of technology for tackling health challenges
- Opportunities for utilising innovative technologies for health to achieve UHC
- Challenges in terms of ethics, regulation and data security
- Implications for low-and-middle income countries
- Implications for collaborations across sectors and at the global level

Expected outcomes

- Increased understanding of key issues on the role of technologies and impact on health systems, public health and Universal Health Coverage;
- Frame discussion for Sub-theme 1 sessions.

References

[1] Monitoring the Bulding Blocks of Health Systems: A Handbook of Indicators and their Measurement Strategies. Link:

9789241564052-eng.pdf (who.int)

[2] Technology: Concepts and Definitions (Chapter 2) - Technology and Global Change (cambridge.org)

[3] Classification of digital interventions, services and applications in health: a shared language to describe the uses of digital technology for health, 2nd ed (who.int)

| MODERATOR

- **Gabriel Leung,** Executive Director, Charities and Community, The Hong Kong Jockey Club Charities Trust, China

| SPEAKER

- **Jeremy Farrar,** Chief Scientist, WHO, Switzerland
- **Toomas Palu,** Adviser, Health Systems and Financing, World Health Organization, Estonia
- **Hani Kim,** Executive Director, RIGHT Foundation, Republic of Korea
- **Deepali Khanna,** Vice President, Asia Regional Office, The Rockefeller Foundation, Thailand

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PS 1.1

INNOVATIVE TECHNOLOGIES TO LEVERAGE HEALTH FINANCING FOR UHC

| BACKGROUND

Health financing is one of the building blocks of health systems and digital health technologies are changing the way it operates. The functions of health financing are typically are typically characterised as revenue raising (sources of funds, including government budgets, compulsory or voluntary prepaid insurance schemes, direct out-of-pocket payments by users, and external aid), pooling of funds (the accumulation of prepaid funds on behalf of some or all of the population), and purchasing of services (the payment or allocation of resources to health service providers).

Digital technologies can change the nature of business processes and interactions between actors. They offer efficiencies to streamline processes and reduce fraud, increase revenue collections through mobile wallet applications, for example and can potentially enhance equity by extending access to care through telehealth, for example, if covered by public insurance schemes. Strategic purchasing can utilise health technology assessment (HTA) and availability of data can enable evidence informed decisions. At the individual level, digital technologies for health allows households to better manage their money using technologies. However, there are also risks such as potentially increasing inequities, requirements for large up-front investments, and potential fragmentation. Further data security and interoperability of systems are key concerns. These challenges require innovative solutions that can pave the way for use of digital health technologies for health financing and ensure that financing for health can be sustainable, adequate, fair and efficient.

The key issues will revolve around application of digital health technologies across the functions of health financing (collection, pooling and purchasing). These are:

- Use of AI for audits or fraud, waste and abuse detection in health financing
- Health Technology Assessment (HTA) of innovative health technologies
- Smart payment solutions for health financing for payers and providers
- Efficiencies related to digitalisation of processes

| OBJECTIVES

The overarching objective is to identify how digital health technologies can enhance the effectiveness and sustainability of health financing.

- To demonstrate the potential of digital health technologies for health financing through case studies;
- To identify challenges and devise potential solutions to harness these technologies effectively to achieve Universal Health Coverage and the Sustainable Development Goals;
- To identify areas for collaboration across and outside the health sector.

Expected outcomes

- Increased understanding of key issues on the role of health technologies on financing
- Enhanced networks to collaborate on key issues

| MODERATOR

- **Inke Mathauer,** Senior Health Financing Advisor, World Health Organization, Switzerland

| KEYNOTE SPEAKER

| PANELIST

- **Tiranee Achalakul,** President, Big Data Institute, Thailand
- **Akihito Watabe,** Health Specialist, Human and Social Development Office, Sectors Group, Asian Development Bank, Philippines
- **Mark Jit,** Chair and Professor of the Department of Global and Environmental Health, New York University School of Global Public Health, United States of America
- **Trisna Sari,** Officer, BPJS Kesehatan, Indonesia
- **Toomas Palu,** Adviser, Health Systems and Financing, World Health Organization, Estonia

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PS 1.2

TECH-EMPOWERED HEALTH WORKERS: SKILLS FOR THE FUTURE

| BACKGROUND

The rapid advancement of digital health technologies, including artificial intelligence (AI), telemedicine, mobile health, and data analytics, is transforming healthcare delivery worldwide. These technologies hold immense potential to improve efficiency, quality, and access to care, especially in resource-limited settings. This transformation necessitates a corresponding evolution in the skills and competencies required of the entire health workforce, from specialists in urban centers to community health workers (CHWs) in remote areas.

Community health workers, who play a vital role in delivering primary healthcare and preventive services, have proven to be indispensable, especially during public health emergencies like the COVID-19 pandemic. Empowering CHWs with digital tools and knowledge is crucial to extending the reach of healthcare systems and achieving universal health coverage (UHC). Additionally, ensuring that all health workers are equipped to leverage technology for patient-centered care, professional development, and data-driven decision-making is essential for maximizing the impact of these innovations.

The emergence of large language models (LLMs) and other AI tools presents a unique opportunity to not only revolutionize health workforce training but also to raise the overall standard of care by democratizing access to specialized knowledge and decision support. By leveraging AI, we can potentially equip health workers at all levels with tools that augment their skills, enhance their decision-making capabilities, and enable them to deliver more consistent, high-quality care, even in resource-constrained settings.

| OBJECTIVES

Objectives:

- **To identify the evolving skill sets needed by the entire health workforce**, with a particular focus on the unique needs of CHWs, to effectively utilize and integrate digital health technologies into their practice.
- To discuss the strategies for massively scaling up upskilling and reskilling efforts for the health workforce across all levels, leveraging AI-powered tools and platforms to meet the demands of the digital health era, achieve equitable access to training resources, and raise the overall standard of care.
- To explore the potential of LLMs and other AI tools to empower individuals with personalized health information and guidance, fostering a culture of self-care and preventive health.
- To highlight innovative approaches to training and education, such as AI-powered tutoring, mentorship platforms, and personalized health assistants, that democratize healthcare knowledge and skills and promote continuous professional development.
- To facilitate dialogue between stakeholders, including policymakers, educators, health workers, technology developers, and ethicists, to foster collaboration and address challenges in workforce development at all levels, ensuring that the integration of AI is ethical, equitable, and patient-centered.
- To identify key metrics and indicators to measure and monitor the impact of AI-powered tools on health worker performance, patient outcomes, and overall health system strengthening, ensuring the sustainability and effectiveness of these interventions.

Additional points

- burnout intervention? counseling/mental health application
- Platform to communicate between healthcare workers (including PHC)

migration of workforce

| MODERATOR

- **Hong Wang,** Senior Policy Advisor, Health Economics, Financing, and System Strengthening, Bill & Melinda Gates Foundation, United States of America

| SPEAKER

- **Alex Ng,** President, Tencent Healthcare, China
- **Kate Tulenko,** CEO, Corvus Health, United States of America
- **Derrick Muneene,** Head, Capacity Building and Collaboration of the WHO's Digital Health and Innovation Department, Switzerland
- **William Hersh,** Professor, Biomedical Informatics, Oregon Health & Science University, United States of America
- **Nelson K Sewankambo,** Professor Emeritus, Makerere University Medical School, Uganda

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PS 1.3

EXPANDING TECH-ENABLED SOLUTIONS FOR SERVICE DELIVERY

| BACKGROUND

Expanding tech-enabled solutions for service delivery in low- and middle-income countries presents significant opportunities and challenges. The integration of digital health technologies, such as telemedicine, mobile health applications, and electronic health records, can bridge gaps in access to healthcare, improve service efficiency, remove service delivery bottlenecks, provide new services not otherwise available, enhance patient outcomes and enhance public health efforts. These technologies can extend healthcare services to remote and underserved areas, reducing the burden on physical infrastructure, address the scarcity of health workers, and enabling more equitable access to care. However, challenges remain, including issues related to digital literacy, data privacy, and the need for robust regulatory frameworks to ensure the quality and safety of these services. Additionally, there are barriers related to infrastructure, such as inconsistent internet connectivity and limited access to digital devices, which must be addressed to fully realize the potential of tech-enabled solutions in transforming healthcare service delivery.

| OBJECTIVES

1. To showcase tech-enabled solutions in preventive, promotive, and curative service delivery for communicable and non-communicable diseases

2. To highlight practical and scalable digital solutions to tackle service delivery bottlenecks

3. To provide practical implementation know-how of how digital solutions can be used for supply-side and demand-side interventions (including behavioral change interventions)

| CHAIRS

- **Feng Zhao,** Practice Manager, the Health, Nutrition and Population Program, South Asia Region, The World Bank, United States of America

| MODERATOR

- **Matthew Thomas Hulse,** Senior Health Specialist, The World Bank, United States of America

| PANELIST

- **Rahul Mullick,** Senior Vice President - Digital, Resolve to Save Lives, India
- **Nanjira Sambuli,** Nonresident Scholar, Technology and International Affairs, Carnegie Endowment for International Peace, Kenya
- **Yhuko Ogata,** CCO, Melody International Ltd., Japan

| SPEAKER

- **Hongqiao Fu,** Assistant Professor, School of Public Health, Peking University, China
- **Oommen John,** Lead Health Systems Design, Data and Insights, Gates Foundation, India

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PS 1.4

HEALTH TECH RISING: YOUTH EDITION

| BACKGROUND

In the contemporary health landscape, "innovation" has become a pivotal buzzword, often touted as the solution to myriad challenges. Yet, the true essence and impact of innovation remain subjects for deeper scrutiny and discussion. This session, "Health Tech and AI Rising: Youth Edition," aims to dissect the concept of innovation, challenging conventional perspectives, such as the idea of “reverse innovation”. The concept of innovation in global health often conjures images of cutting-edge technology and digital solutions. The session aims to explore the full spectrum of innovation, from the latest technological advances to the revitalization and integration of traditional medicine, arts, and narrative medicine.

This session will delve into these questions and showcase transformative ideas from young innovators across the globe, highlighting their significant impact on public health and health system strengthening. Throughout the session, speakers will address critical issues such as the scalability of grassroots innovations, the role of technology in democratizing health access, and the impact of young leaders in reshaping health landscapes, particularly in the Global South. We will discuss the dynamic interplay between innovative technologies and cultural practices in shaping health systems that are not only effective but also equitable, thus advancing the discourse on what truly makes an innovation effective in the public health sphere.

| OBJECTIVES

1. To showcase examples of both successes and failures of health tech and AI driven by young leaders from various regions, particularly those from the Global South or underrepresented communities in the Global North. This includes discussing the unique challenges they face, the solutions they have developed, and their journeys to making a significant impact on health systems.

2. To analyze efficiency, effectiveness, equity, and scalability of innovations, highlighting their potential to offer high-quality outcomes at lower costs. This includes a discussion on how the integration of local insights and resource-efficient methodologies can lead to more sustainable and cost-effective products and services that benefit a broader audience.

3. To define and deconstruct “innovation” by critically examining what constitutes true innovation in global health, challenging conventional narratives such as the concept of reverse innovation.

4. To foster collaborative learning among young innovators and health professionals, encouraging a dialogue that bridges geographical differences and amplifies underrepresented voices.

| MODERATOR

- **MyMai Yungrattanachai,** Technical Officer, World Health Organization, Thailand

| KEYNOTE SPEAKER

- **Mechai Viravaidya,** Chairman, Population and Community Development Association (PDA), Thailand

| PANELIST

- **Kelly Perry,** PhD Student, Duke University, United States of America
- **Saad Soroya,** Director of Health Equity, United Health Group, United States of America
- **Shadrack Frimpong,** CEO and Founder, Mundaly, United States of America
- **Pear Poolvaraluk,** Founder, Vira, Thailand

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PS 1.5

HARNESSING THE POWER OF DATA

| BACKGROUND

In today's AI-driven era, data holds unprecedented significance across numerous sectors, notably in healthcare. Without adequate data, the development and functionality of AI would be severely hindered. Therefore, it's evident that data serves as the foundational cornerstone for the progress of AI in healthcare.

Nonetheless, the complexity and abundance of health data per individual, coupled with the multifaceted dimensions of such data, present formidable challenges. Additionally, ensuring the security of these highly sensitive datasets remains a critical concern.

| OBJECTIVES

- To demonstrate the potential of using big data in health sector to strengthen health systems and achieve universal health coverage
- To identify challenges and possible solutions of big data development and management in health sector from technology standpoint
- To illustrate potential collaboration opportunities among stakeholders for the development and governance of big data within the healthcare sector

| MODERATOR

- **Marelize Gorgens,** Lead: Digital and AI for Human Capital, World Bank, United States of America

| PANELIST

- **Kara Sewalk,** Senior Manager, Innovation & Digital Health Accelerator | HealthMap, Boston Childrens' Hospital, United States of America
- **Mary-Anne Hartley,** Professor of AI, Harvard University and EPFL, United States of America
- **Peeter Ross,** Professor of E-health and Head of eMedLab, Tallinn University of Technology (TalTech), Estonia
- **Boonchai Kijsanayotin,** Lecturer, Department of Clinical Epidemiology, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

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PL 2

ETHICAL TECHNOLOGY: FOR WHOM, BY WHOM AND FOR WHAT PURPOSES

| BACKGROUND

The application of technology and artificial intelligence (AI) in healthcare offers immense potential to improve population health outcomes by contributing to a more resilient, sustainable, and equitable health system. They have the power to enhance the quality of, and access to, health solutions, and protect society from public health threats, thus helping countries to advance efforts towards universal health coverage and ensure the realization of the right to health for everyone.

These technologies, however, can pose significant risk in exacerbating and entrenching existing inequalities and patterns of discrimination, leaving those who do not have access even further behind. Equitable access to technology and AI in healthcare is undermined by the gender digital divide - the measurable gap between women and men in their access to, use of and ability to influence, contribute to and benefit from information and communications technologies. Proper use of digital technologies in protecting human rights and discrimination involves the principle that health is a basic human right and everyone should benefit from digital advancements without worrying about their privacy and security being violated. Regulatory mechanisms should be in place that preclude any breach of privacy and confidentiality of data by public and private sector, holding them accountable for the same.

| OBJECTIVES

The objective of this plenary session is to highlight the range of ethical and human rights concerns and threats to society relating to the use of digital health and AI for healthcare, and explore the key principles, strategies and approaches in mitigating and addressing these threats.

Addressing these threats are critical to effectively harness the power of digital technologies and AI to advance universal health coverage and realize the right to health for everyone.

Key Issues: Scope and substance of discussion

Within the context of key ethical and societal threats highlighted above, the plenary discussion will aim to explore strategies and opportunities to address/mitigate these threats, and to promote an enabling environment for ethical, equitable and rights-based application of technologies and AI in healthcare. The plenary session will focus discussion on the following key issues:

- **Highlight the key threats and barriers and human rights concerns posed by digital health and AI in healthcare** on perpetuating inequalities in healthcare delivery, particularly among marginalized populations. The Plenary session will attempt to define key ethical and rights-based principles, and identify global trends of key threats and barriers, with a focus on algorithmic bias and discrimination, protection of health data, and the digital divide between various segments of society and countries. Panellists will discuss emerging ethical challenges posed by AI in healthcare - including patient safety, data privacy and security, exacerbating social and health inequalities and building trust on AI in health including issues relating to misuse of private information by technology companies.
- **Explore strategies and measures to mitigate, address and safeguard against key threats and barriers** posed by digital health and AI in healthcare and identify opportunities for promoting an enabling environment for technologies to be gender-responsive, equitable and inclusive. This includes strengthening digital literacy to optimise the benefits of technology and narrowing the digital divide.
- **Understand the responsibilities and obligations of public and private sector actors** to ensure that the deployment of technology is guided by the principles of equity, ethics and inclusivity, including through the promotion of intersectoral collaboration and inclusive participation, and strengthening legal, governance and regulatory frameworks, compliance and enforcement.
- **Explore planetary health gaps and concerns** with regards to digital and AI technology development and implementation to promote resilient health systems, human well-being and environmental sustainability.

| MODERATOR

- **Mandeep Dhaliwal,** Director, HIV & Health Group, Bureau of Policy and Programme Support, United Nations Development Programme, United States of America

| PANELIST

- **Ruth Jerop Limo,** Executive Director, AYARHEP, Kenya
- **Meg Davis,** Professor on Human Rights and Digital Health, University of Warwick, United Kingdom
- **Ghufron Mukti,** President Director, Social Security Administering Body (BPJS), Indonesia
- **Osama Manzar,** Director and Founder, Digital Empowerment Foundation, India

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PS 2.1

REDUCING THE DIGITAL DIVIDE: HOW TO ENSURE AN ENABLING ENVIRONMENT FOR EQUITABLE TECH FOR ALL

| BACKGROUND

AI and other innovative technologies are increasingly integrated into the fabric of society, including healthcare, finance, education, and law enforcement. If these systems are not developed and deployed with equity in mind, they risk being used by only by elites in societies and/or perpetuating and even exacerbating existing biases and inequalities. Those who could benefit most from digital health tools and interventions, like persons from low socio-economic strata, vulnerable or marginalized communities, older adults, people with disabilities, and those from rural communities, are often the ones with limited or no digital literacy. By ensuring equity in health technologies, we can mitigate these risks and even promote fairer, more just outcomes across different sectors of society.

Moreover, an equitable environment fosters trust and acceptance among diverse populations. By addressing the needs and concerns of marginalized communities and including them in technology development for their benefit, we can create systems that are more relevant and beneficial to a wider audience.

Thus, there is both promise and worry ahead as the use of health technologies spreads throughout the world. For example, in developing countries, where rural areas grapple with severe shortages of skilled healthcare providers, health technology holds transformative potential. It not only amplifies remote access to physicians and healthcare services but also presents a cost-effective and equitable solution. Adoption of technologies by vulnerable populations also significantly increase and democratize access to new capabilities and expertise. But this will only come if we purposively make it happen. Currently, the digital divide is wide and highly prejudiced. UNICEF estimates that only one in 20 school-age children from low-income countries has internet access at home, while nearly nine in ten from high-income countries do.[1] We must bridge these divides by providing the necessary infrastructure, education, and resources to ensure that benefits are widely distributed.

[1] How many children and young people have internet access at home? Estimating digital connectivity during the COVID-19 pandemic". UNICEF, 2020.

| OBJECTIVES

The objective of this session is to present and examine global examples of health technologies and biases and disparities in their design/implementation and how experts and communities – always a necessary collaboration - are working together to solve them.

| MODERATOR

- **Daniel Messer,** Chief Digital and IT Transformation Officer, FHI360, United States of America

| PANELIST

- **Osama Manzar,** Director and Founder, Digital Empowerment Foundation, India
- **Rose Delilah Gesicho,** Data Scientist and Community Manager at Zindi, Community Chair for Deep Learning, Kenya
- **Debbie Rogers,** CEO, Reach Digital Health, South Africa
- **Edward Booty,** CEO, reach52, Singapore

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PS 2.2

HARNESSING TECHNOLOGY TO ACHIEVE EQUITABLE HEALTH OUTCOMES

| BACKGROUND

Advancements in technology are revolutionizing public health and healthcare, particularly in promoting equitable health outcomes. Through telemedicine, mobile health apps, and data analytics, technology breaks down barriers to access, ensuring all individuals receive quality care regardless of location or socioeconomic status.

Telemedicine platforms enable remote consultations, bridging gaps in healthcare access for underserved areas. Mobile health apps empower individuals to monitor their health and access educational resources, promoting preventive care and early intervention. Data analytics identify disparities and inform targeted interventions, ensuring resources are allocated where needed most.

Electronic health records streamline information sharing and care coordination, enhancing continuity of care. Innovations in medical devices and diagnostics improve accuracy and accessibility of healthcare services, particularly in resource-limited settings. Translation tools and culturally sensitive materials overcome language and cultural barriers, ensuring healthcare information is accessible to diverse communities. Personalized medicine, driven by genomic data and predictive modeling, tailors treatments to individual patients' needs, optimizing therapeutic outcomes.

However, challenges such as digital literacy and access must be addressed to ensure equitable benefits. By harnessing technology effectively and addressing underlying disparities, healthcare systems can strive towards a system where everyone has equal opportunities to lead healthy and fulfilling lives.

| OBJECTIVES

This session will examine the role and potential of technology to deliver greater equity in the health sector, through a lens of existing technologies and also the lens of emerging technologies such as AI, blockchain, telemedicine and genomics.

Discussions will explore the challenges and opportunities presented by these technologies, particularly in resource-scarce countries, and how they can realistically aid policy makers and communities to achieve equitable health outcomes.

| MODERATOR

- **Kiesha Prem,** Assistant Professor at Saw Swee Hock School of Public Health, National University of Singapore, Singapore

| PANELIST

- **Chaiyatorn Limapornvanich,** Director of Innovation Strategy Department, National Innovation Agency (NIA), Thailand
- **Suhel Bidani,** Lead, Digital and AI, Bill & Melinda Gates Foundation, India
- **Alexo Esperato,** Senior Health Specialist, Asian Development Bank, Philippines
- **Nada Malou,** Antibiogo Program Manager, MSF Médecins Sans Frontiéres, France
- **Chioma Nwachukwu,** Head, Public Policy Engagement, Regions and Country, Gavi, the Vaccine Alliance, Switzerland

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PS 2.3

OUR TECH FUTURE AND IMPLICATIONS FOR SOCIETY: PROMISE OR PERIL?

| BACKGROUND

Considerable controversy surrounds the broad societal questions about Artificial Intelligence (AI), even though personal and commercial applications are already reshaping many aspects of life at home and in the workplace. The unaddressed issues linking emerging technologies with national and global outcomes are profound and the stakes could not be higher. Even the nature of truth, the most fundamental elements of democracy, and the drivers of socioeconomic inequality are exposed to poorly considered, extremely powerful, and completely unregulated realities that are already here. In positive terms, AI and other technologies have the potential to automate many tasks, analyze data in volumes that would be impossible otherwise, measure nearly everything, and enhance the efficiency and effectiveness of things as yet unimagined by humans.

| OBJECTIVES

The objectives of this session include identifying some of the major ways that technology is reshaping our future and discussing the possibilities for embracing the positive aspects, limiting threat, and adjudicating the lines between the two. The session will feature speakers who will draw attention to specific opportunities and problems that inform their engagement with the societal implications of emerging and future technologies.

| MODERATOR

- **Jesse Bump,** Lecturer on Global Health Policy, Harvard TH Chan School of Public Health, United States of America

| PANELIST

- **Anasuya Sengupta,** Co-Director and co-founder, Whose Knowledge?, United Kingdom
- **Hanna Barakat,** Research Analyst, Brown University, United States of America
- **Eirliani Abdul Rahman,** Senior Fellow, Georgetown University & Research Affiliate, University of Cambridge, United States of America
- **Swapneel Mehta,** Postdoctoral Associate, Boston University and MIT, United States of America

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PS 2.4

DATA IS POWER! CONFRONTING DATA COLONIALISM, OWNERSHIP ISSUES AND HIDDEN BIASES

| BACKGROUND

- To understand the shifting challenges and concerns regarding equity and ethical issues related to data use in technology and AI for health
- To explore solutions and resources needed to ensure that equity, ethics, and gender considerations are effectively incorporated into the design, implementation and oversight of data for health
- To examine the enabling environment and local capacity needed to ensure the availability of data and information systems to promote equitable access to health for all especially in vulnerable populations and low-income countries

| OBJECTIVES

- To understand the shifting challenges and concerns regarding equity and ethical issues related to data use in technology and AI for health
- To explore solutions and resources needed to ensure that equity, ethics, and gender considerations are effectively incorporated into the design, implementation and oversight of data for health
- To examine the enabling environment and local capacity needed to ensure the availability of data and information systems to promote equitable access to health for all especially in vulnerable populations and low-income countries

| MODERATOR

- **Boonchai Kijsanayotin,** Lecturer, Department of Clinical Epidemiology, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

| SPEAKER

- **Leo Anthony Celi,** Clinical Research Director and Principal Research Scientist, MIT Laboratory of Computational Physiology (LCP), United States of America
- **Michelle Skelton,** Principal Investigator, University of Cape Town, South Africa
- **Chhorvann Chhea,** Director, National Institute of Public Health, Cambodia
- **Emma Rawson-Te Patu,** President, World Federation of Public Health Associations, New Zealand

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PS 2.5

UNLOCKING SYNERGIES: HEALTH TECH AND AI AT THE CLIMATE-HEALTH FRONTIER

| BACKGROUND

- **Explore Synergies:** To explore the synergies between health technologies, AI, and climate resilience, focusing on how these intersections can address global health and climate challenges.
- **Highlight Applications**: To highlight practical applications of AI in mitigating, adapting to, and building resilience against climate-related health risks.
- **Identify Barriers and Solutions**: To identify the barriers and solutions to the equitable deployment of AI and health tech solutions, especially in low- and middle-income countries (LMICs).
- **Promote Collaboration**: To promote interdisciplinary collaboration among stakeholders from the health, technology, and climate sectors.
- **Encourage Innovation**: To encourage innovative approaches and investment in AI and health tech that address both climate change and health inequities.

| OBJECTIVES

- **Explore Synergies:** To explore the synergies between health technologies, AI, and climate resilience, focusing on how these intersections can address global health and climate challenges.
- **Highlight Applications**: To highlight practical applications of AI in mitigating, adapting to, and building resilience against climate-related health risks.
- **Identify Barriers and Solutions**: To identify the barriers and solutions to the equitable deployment of AI and health tech solutions, especially in low- and middle-income countries (LMICs).
- **Promote Collaboration**: To promote interdisciplinary collaboration among stakeholders from the health, technology, and climate sectors.
- **Encourage Innovation**: To encourage innovative approaches and investment in AI and health tech that address both climate change and health inequities.

| MODERATOR

- **Thu Ba Huynh,** Senior Advisor, Environment and Climate Change, FHI 360, Australia

| PANELIST

- **Sara Khalid,** Associate Professor of Health Informatics and Biomedical Data Science, Planetary Health Informatics, Centre for Statistics in Medicine – University of Oxford, United Kingdom
- **Tuan Nguyen,** Technical Advisor, Alive & Thrive East Asia Pacific, Global Nutrition, FHI360, Viet Nam
- **Noboru Minakawa,** Professor, Nagasaki University, Japan
- **Felipe J Colon-Gonzalez,** Technology Lead in the Data for Science and Health Team, Wellcome Trust, United Kingdom
- **Carlos Escapa,** Senior Principal, AI and Machine Learning Business Development, Amazon Web Services, United States of America
- **Eduardo Banzon,** Director, Health Sector Group, Asian Development Bank, Philippines

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PL 3

EFFECTIVE GOVERNANCE OF HEALTH TECHNOLOGIES AND AI

| BACKGROUND

In the dynamic field of digital health and AI, strong governance, policy, and stewardship are essential for responsible and equitable implementation. Global frameworks promoting international collaboration and standardization are necessary, involving public and private sectors and civil society. A robust regulatory environment and effective data governance at the national level are crucial to protect data ownership, privacy, and sovereignty. These measures ensure the ethical and secure use of health data, mitigate risks, and build trust. Multilevel governance and collaboration will ensure that AI and digital health technologies contribute to improved health outcomes for all.

| OBJECTIVES

The main areas for further exploration under ST3 comprise global enabling ecosystem, national ecosystem, human capacity needs, and responsible use; cover the foundations for good governance, policy, and stewardship. digital technologies and AI for health should be ‘people-centered’ and inclusive. There is a critical need to ensure equitable access for all individuals, particularly for those who may be marginalized or vulnerable and face barriers related to gender, ethnicity, geographical location, socioeconomic status, native language, or internet connectivity. Even as advancements in technology may substantially improve healthcare delivery, they also pose significant risks to the exacerbation of health inequalities, weakening of data privacy, and environmental sustainability.

| MODERATOR

- **Bilal Mateen,** Chief AI Officer, PATH, United Kingdom

| KEYNOTE SPEAKER

- **Vilas Dhar,** President, Patrick J Mc Govern Foundation, United States of America
- **Amandeep Singh Gill,** United Nations Secretary-General’s Envoy on Technology, , India

| PANELIST

- **Mary-Anne Hartley,** Professor of AI, Harvard University and EPFL, United States of America
- **Jean Philbert Nsengimana,** Chief Digital Health Adviser, Africa CDC, Canada
- **Kidong Park,** Director, Data Strategy & Innovation, Western Pacific Region (WPRO), World Health Organization, Philippines

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PS 3.1

GEOPOLITICAL LANDSCAPE: GLOBAL GOVERNANCE

| BACKGROUND

With the rise of artificial intelligence and continued investments in technologies, the future of global health will be intertwined with the responsible advancement of digital health in all of its aspects. This will require global health governance to, among other areas, drive the imperatives for the governance of health data that allows for cross-border collaboration; the involvement of the public and providers in the development, deployment, and evolution of digital health technologies; and the advancement of responsible AI that is equitable for all, environmentally sustainable, and scalable across facilities, regions, and borders.

When advanced collectively, this will require global health governance to drive actions that enable compatible policies across borders for enabling health data use and scaling of digital tools; standards for data and technology that are harmonised to improve data quality and timeliness as well as safety in the deployment of digital innovations; incentives to scale and be scale that in turn would realise exponential creation of value; and a culture that respects and fosters trust with sufficient workforce capacity to develop, implement, use, regulate, and evolve innovations.

To that end, global governance for health – in the context of digitalisation, health data, and artificial intelligence – needs to establish, oversee, and evolve the 'space' between the generation of digital innovations and their consumption. This space would be non-competitive and compatible in policies and standards to foster innovation; listen to consumers to understand and embed their requirements for innovations including safety and protection; and be agile to respond to changes in the operating environment – with new capabilities, dangers, and opportunities. The analogy for this space is similar to that for electricity – where new sources are identified and improved in generation and demands from consumers change continuously. In that context, the IEEE (Institute for Electric and Electrical Engineers) helps that function of establishing, overseeing, and evolving the 'space' between generation and consumption in ways that have generated significant value for humanity.

The question that this workstream will seek to answer is "what does Global Governance of Digital Health look like while taking lessons from our experiences with electricity and other global public goods".

| OBJECTIVES

The overarching objective of this session is to examine the fragmentation of the global regulatory ecosystem for AI in health and enhance global cooperation by promoting alignment on implementation strategies at the national and regional levels.

Key issues: Lack of common standards, benchmarks, and implementation interoperability within and between jurisdictions

| SPEAKER

- **Yasuhiro Fujiwara,** Chief Executive, Pharmaceuticals and Medical Devices Agency, Japan
- **Batoul Albaz,** Vice President, Health, King AbdulAziz City of Science and Technology, Saudi Arabia
- **Laura Reichenbach,** Dean, BRAC James Grant School of Public Health, Bangladesh
- **Gopal Ramchurn,** Chief Executive Officer, Responsible AI (RAi), United Kingdom
- **Purvi Shah,** Regional Advisor and Consultant, UNAIDS and WHO, India
- **Chaitali Sinha,** Senior Program Specialist in the Global Health Division, International Development Research Centre (IDRC), Canada
- **Deepika Mishra,** Additional Professor, Division of Oral Pathology and Microbiology, Centre of Dental Education and Research, All India Institute of Medical Sciences (AIIMS), India
- **Nancy Pignataro,** Associate External Relations Officer, External Relations Division, World Intellectual Property Organization (WIPO), Switzerland

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PS 3.2

STRENGTHENING HEALTH DATA GOVERNANCE: LEADERSHIP AND ACTION

| BACKGROUND

To fully harness the potential of health data for public benefit and improved health outcomes, while also managing risks, protecting individual rights, and ensuring people's data is protected from misuse, it is important to strengthen the governance of health data through more robust, effective and equitable legislation and regulation. While several countries and regions are taking steps to address this, approaches vary. By countries and other stakeholders coming together, this provides an opportunity to build on experiences and good practices, and establish a level of consensus around the essential elements that should be addressed through national legislation and regulation. There has been growing recognition of the need to strengthen health data governance approaches and increasing political will for action, with several governments exhibiting their leadership to drive this forward.

In support of this, Transform Health and partners, including AeHIN, HELINA, RECAINSA, OECD and Africa CDC, have been supporting the development of a draft model law on health data governance, articulating core elements, legislative guidance and reference legal text. The model law is underpinned by equity and rights-based principles (endorsed by more than 150 organisations and governments), and draws inspiration from the national legislative and regulatory landscape reviews of more than 30 countries, the OECD Recommendation on Health Data Governance (adhered to by 38 OECD member countries), among other national, regional and international instruments, commitments and best practice. It has been developed through a bottom up, consultative process, engaging nearly 1000 stakeholders from across the globe. This has included seven regional multi-stakeholder consultations (convened by AeHIN, HELINA and RECAINSA) engaging 500+ stakeholders from 65+ countries to inform an initial draft and a public consultation period on the draft, which included 16 national, regional and youth consultations, a widely disseminated survey and expert interviews to gather feedback.

The model law serves as a starting point to build consensus around core areas that should be addressed through national frameworks, while providing a blueprint and resource for a global framework and much needed data sharing agreements.

| OBJECTIVES

With the model law on health data governance as a starting point for discussion amongst governments and stakeholders in the Asia-Pacific region, contrasting with other regions including the EU and the AU, we see this session as having the following objectives:

- Help build consensus around core elements for health data governance legislation.
- Build political support for the endorsement of a global health data governance framework (containing a model law), looking ahead towards the WHO Executive Board meeting in January 2025 and the 78th World Health Assembly in May and ensuring health data governance is on the agenda.
- Discuss how a global framework, and the model law, can support countries in strengthening national health data governance approaches.
- Explore private sector perspectives on data governance (and a model law) in the age of digital advancements, including AI.
- Hear community perspectives and voices around health data governance for public benefit and expectations of governments and other actors.

| MODERATOR

- **Eric Sutherland,** Senior Health Economist, Organisation for Economic Co-operation and Development (OECD), France

| KEYNOTE SPEAKER

- **Mathilde Forslund,** Executive Director, Transform Health, United States of America
- **Fazilah Shaik Allaudin,** Director, Penang State Health Department, Ministry of Health Malaysia, Malaysia

| SPEAKER

- **Kidong Park,** Director, Data Strategy & Innovation, Western Pacific Region (WPRO), World Health Organization, Philippines
- **Shelani Palihawadana,** Facilitator, Young Experts: Tech for Health, Sri Lanka
- **Nirmal Rijal,** Independent Consultant, Freelance, Nepal

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PS 3.3

ARTICULATING AND MITIGATING RISKS OF AI IN HEALTH

| BACKGROUND

The recent surge of AI innovation has led to the rapid development of AI-driven health solutions with immense potential to improve the health and well-being of individuals and communities around the world, by accelerating drug discovery and development, increasing access to care, delivering personlized care, optimizing care delivery, and providing support to an overstretched health workforce. In order to build trust in AI systems, as well as further accelerate innovation and equitable access to these technologies, a regulatory ecosystem with effective guardrails and safety brakes need to be in place to safeguard individuals and communities.

AI technologies bring a unique set of risks and challenges, such as unethical data collection, cybersecurity threats and amplifying biases, that must be addressed. Without effective and robust regulatory and enforcement systems in place, AI health solutions could have access to sensitive personal information, compromising privacy, health security, and undermining collaboration. This results in biases, mistrust, inaccuracies, and ineffectiveness in health systems. The lack of governance mechanisms also contributes to the slow adoption of AI solutions within health systems. Governments are hesitant to approve technologies without evidence of safety and efficacy; technology developers do not have clear pathways to certification or regulatory approval; and private sector companies are left to develop ethical frameworks without a governmental mandate to protect the public good.

Therefore, strong, responsive governance frameworks and regulatory mechanisms are required to establish AI systems' safety and effectiveness by putting Responsible AI standards into actual practice. The use of regulatory sandboxes for safe innovation, promotion of open AI models and the use of AI in compliance tech present interesting options to explore as one establish a regulatory ecosystem for AI in health. A robust ecosystem will help mitigate risks, ensure AI's foundation remains firmly rooted in ethical principles and respect for human rights, as well as build trust for long-term acceptability and success of AI-enabled progress in the health sector.

| OBJECTIVES

This session seeks to:

- Provide a clear articulation of risks associated with the rise of AI systems in health
- Discuss the regulatory balance between ethical and economic incentives needed to safeguard patient safety and privacy while fostering innovation
- Draw lessons from current regulations for medical devices in the regulation of predictive and generative AI in health
- Explore engagement of diverse stakeholder groups in the regulatory process

Keynote speaker and panelists will explore the need for Responsible AI in health, consequences of not having regulatory mechanisms in place and how an agile and effective regulatory ecosystem can mitigate risks, accelerate innovation, increase access to healthcare and promote health equity.

| MODERATOR

- **Peiling Yap,** Chief Scientist, HealthAI, Switzerland

| KEYNOTE SPEAKER

- **Jiho Cha,** Member of Parliament, Korean National Assembly, Republic of Korea

| PANELIST

- **Raymond Chua,** Deputy Director-General of Health, Health Regulation, Ministry of Health, Chief Executive Officer, Health Sciences Authority, Singapore
- **James Oughton,** Chief Advisor Precision Health, Ministry of Health, New Zealand
- **Magdalena Eltenberger,** Postdoctoral researcher, University of Vienna, Austria
- **Mona Duggal,** Associate Professor, Advanced Eye Centre, Post Graduate Institute of Medical Education and Research, India

| SPEAKER

- **Ricardo Baptista Leite,** CEO, HealthAI, Switzerland

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PS 3.4

EQUITY AND ACCOUNTABILITY IN DIGITAL HEALTH AND AI: ADDRESSING RISKS, DIGITAL HEALTH FOUNDATION GAPS, AND ADVANCING OPEN AND LOCAL SOLUTIONS

| BACKGROUND

Digital technologies and AI are transforming healthcare delivery worldwide, especially in low-resource and emergency settings. However, without **proper governance, investment, architecture design and open solutions and standards** they risk introducing economic, ethical, and social asymmetries, potentially placing vulnerable populations at harm. At a global scale, countries seeking to benefit from digital health face challenges of: **data fragmentation**, **redundant investments**, **non-interoperability, non-local solutions of unknown quality that are difficult to scale and sustain**.

This session will explore the economic, ethical, and social asymmetries that, if not protected against, can arise with digital health technologies and AI, and **available strategies to mitigate such risks - Digital Health foundation GAPS** (Governance, Architecture, People and Standards & Interoperability), **local production and open solutions** Outcomes from this session would elaborate the asymmetry challenges, strategies to mitigate risks, and recommended solutions

| OBJECTIVES

1. Identify Risks and Challenges: Explore the economic, ethical, and social asymmetries that can arise with digital health technologies and AI, particularly in low-resource and emergency settings, to understand the potential risks and challenges that may place vulnerable populations at harm.

2. Examine Digital Health Transformation gaps: Investigate the digital health foundation challenges, the GAPS (Governance, Architectural design, People and Standards and Interoperability) and the misplaced investment that contributes to fragmented data, non-locally produced solutions, redundant investments, and non-interoperable solutions

3. Mitigation Strategies Development: Develop strategies to mitigate the risks of economic, ethical, and social asymmetries by emphasizing the importance of stakeholder engagement, and local production and accountability in the design and implementation of health technologies and AI.

4. Promote Open Solutions: Discuss the potential of open Standards, open Technologies, open Architectures, and open Content and DPIs (Digital Public Infrastructure) in creating interoperable, sustainable, and evidence-based AI and digital health systems that align with international frameworks like the Global Strategy on Digital Health.

5. Highlight Stakeholder Engagement: Emphasize the importance of inclusive stakeholder engagement (including private sector) to ensure that emerging health technologies genuinely promote health equity and do not exacerbate existing disparities.

6. Formulate Policy Recommendations: Formulate regulatory and policy recommendations that prioritize equity and accountability, quality assurance, privacy and trust, fostering a governance framework that supports responsible innovation in digital health technologies and AI.

7. Foster Global Collaboration: Encourage international collaboration to create digital [3] that supports interoperability and equity while reducing economic, ethical, and social disparities across different regions.

| MODERATOR

- **Smisha Agarwal,** Associate Professor, Johns Hopkins Bloomberg School of Public Health, United States of America

| PANELIST

- **Marelize Gorgens,** Lead: Digital and AI for Human Capital, World Bank, United States of America
- **Alvin Marcelo,** Director of the Asia eHealth Information Network, AeHIN, Philippines
- **Leo Anthony Celi,** Clinical Research Director and Principal Research Scientist, MIT Laboratory of Computational Physiology (LCP), United States of America
- **Lucy Mambise Kombe,** Program Coordinator, Zamara Foundation, Kenya

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PS 3.5

FORTIFYING NATIONAL SYSTEMS FOR THE AGE OF AI

| BACKGROUND

There is a need to facilitate dialogue and collaboration among diverse stakeholders to address the complex challenges of governing health technology and artificial intelligence (AI) in a manner that prioritizes safety, equity, and inclusivity in national health systems. This session will highlight and examine exemplars of national governance which creates the successful enabling environment for safe, equitable and inclusive adoption of health technology and AI applications in health systems.

| OBJECTIVES

1.Establishing a conducive environment for the governance of health technology and AI in national healthcare systems.

2.Key principles and considerations for ensuring safety, equity, and inclusivity in the development and deployment of health technology and AI.

3.Regulatory approaches and policy recommendations aimed at addressing ethical, legal, and social implications of healthcare AI.

4.Case studies demonstrating effective national governance models.

5.Stakeholder alignment and collaboration for consensus on governance strategies.

Through sharing of knowledge, experiences, and best practices, the session seeks to advance the development of effective governance frameworks that can support the responsible use of health technology and AI in countries for the benefit of all individuals and communities.

| CHAIRS

- **Jai Ganesh Udayasankaran,** Executive Director, Asia eHealth Information Network, India

| MODERATOR

- **Mark Landry,** Programme Officer, World Health Organization, Thailand

| KEYNOTE SPEAKER

- **Anurag Agrawal,** Founding Member, Digital Transformations for Health Lab (DTH), India