PMAC | PRINCE MAHIDOL AWARD CONFERENCE 2025

REPORT ON THE PMAC 2025

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

28 JANUARY - 2 FEBRUARY 2025 | BANGKOK, THAILAND

True Success is not in the learning
but in its application to the benefit of mankind

His Royal Highness Prince Mahidol of Songkla


From

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From
Mahidol
to
Ananda Mahidol

PRINCE MAHIDOL AWARD

The Prince Mahidol Award was established in 1992 to commemorate the 100th birthday anniversary of Prince Mahidol of Songkla, who is recognized by the Thais as 'The Father of Modern Medicine and Public Health of Thailand'.

His Royal Highness Prince Mahidol of Songkla was born on January 1, 1892, a royal son of Their Majesties King Rama V and Queen Savang Vadhana of Siam. He received his education in England and Germany and earned a commission as a lieutenant in the Imperial German Navy in 1912. In that same year, His Majesty King Rama VI also commissioned him as a lieutenant in the Royal Thai Navy.

Prince Mahidol of Songkla had noted, while serving in the Royal Thai Navy, the serious need for improvement in the standards of medical practitioners and public health in Thailand. In undertaking such mission, he decided to study public health at M.I.T. and medicine at Harvard University, U.S.A. Prince Mahidol set in motion a whole range of activities in accordance with his conviction that human resource development at the national level was of utmost importance and his belief that improvement of public health constituted an essential factor in national development. During the first period of his residence at Harvard, Prince Mahidol negotiated and concluded, on behalf of the Royal Thai Government, an agreement with the Rockefeller Foundation on assistance for medical and nursing education in Thailand. One of his primary tasks was to lay a solid foundation for teaching basic sciences which Prince Mahidol pursued through all necessary measures. These included the provision of a considerable sum of his own money as scholarships for talented students to study abroad.

After he returned home with his well-earned M.D. and C.P.H. in 1928, Prince Mahidol taught preventive and social medicine to final year medical students at Siriraj Medical School. He also worked as a resident doctor at McCormick Hospital in Chiang Mai and performed operations alongside Dr. E.C. Cord, Director of the hospital. As ever, Prince Mahidol did much more than was required in attending his patients, taking care of needy patients at all hours of the day and night, and even, according to records, donating his own blood for them.

Prince Mahidol's initiatives and efforts produced a most remarkable and lasting impact on the advancement of modern medicine and public health in Thailand such that he was subsequently honoured with the title of Father of Modern Medicine and Public Health of Thailand.

In commemoration of the Centenary of the Birthday of His Royal Highness Prince Mahidol of Songkla on January 1, 1992, the Prince Mahidol Award Foundation was established under the Royal Patronage of His Majesty King Bhumibol Adulyadej to bestow an international award - the Prince Mahidol Award, upon individuals or institutions that have made outstanding and exemplary contributions to the advancement of medical, and public health and human services in the world.

The Prince Mahidol Award will be conferred on an annual basis with prizes worth a total of USD 100,000. A Committee, consisting of world-renowned scientists and public health experts, will recommend selection of laureates whose nominations should be submitted to the Secretary-General of the Foundation before May 31st of each year. The committee will also decide on the number of prizes to be awarded annually, which shall not exceed two in any one year. The prizes will be given to outstanding performance and/or research in the field of medicine for the benefit of mankind and for outstanding contribution in the field of health for the sake of the well-being of the people. These two categories were established in commemoration of His Royal Highness Prince Mahidol's graduation with Doctor of Medicine (Cum Laude) and Certificate of Public Health and in respect to his speech that:

TRUE SUCCESS IS NOT IN THE LEARNING, BUT IN ITS APPLICATION TO THE BENEFIT OF MANKIND.

In the past 32 years, the Prince Mahidol Award has been conferred to 96 individuals, groups of individuals, and institutions. Among them, 4 were Award recipients of Thai nationality, namely: (1) Professor Dr. Prasong Tuchinda, from studying the effects of Dengue virus to the disability of children who are sick with dengue hemorrhagic fever, (2) Dr. Suchitra Nimmannitya, from identifying severity classification of dengue hemorrhagic fever. Both of them received the Prince Mahidol Award in the field of Medicine in 1996; (3) Dr. Wiwat Rojanapithayakorn, from founding the project to promote the use of condoms to prevent the spread of HIVs; and (4) Mr. Mechai Viravaidya, from initiating the communication campaign to disseminate the use of condoms. Both Dr. Wiwat Rojanapithayakorn and Mr. Mechai Viravaidya received the Prince Mahidol Award in the field of Public Health in 2009.

The following Prince Mahidol Laureates have won the Nobel Prize at a later date:

(1) PROFESSOR BARRY J. MARSHALL from Australia received the Prince Mahidol Award in the field of Public Health in 2001 and the Nobel Prize in the field of Medicine in 2005 for the discovery of the new bacterium identified as Helicobacter pylori that caused severe gastritis and its sensitivity to particular antibacterial drugs;

(2) PROFESSOR HARALD ZUR HAUSEN from Germany received the Prince Mahidol Award in the field of Medicine in 2005 and the Nobel Prize in the field of Medicine in 2008 for the discovery of the human papilloma virus HPV16 and HPV18 from the cancer tissue and elucidated how the viruses turn normal cells into cancer cells;

(3) PROFESSOR DR. SATOSHI OMURA from Japan received the Prince Mahidol Award in the field of Medicine in 1997 and the Nobel Prize in the field of Medicine in 2015 for the discovery and development of various pharmaceuticals originally occurring in microorganisms. His research group isolated a strain of Streptomyces Avermitilis that produce the anti-parasitical compound avermectin which contributed to the development of the drug ivermectin that is currently used against river blindness, lymphatic filariasis, and other parasitic infections;

(4) PROFESSOR TU YOU YOU a member of the China Cooperative Research Group on Qinghaosu and its Derivatives as Antimalarials from China, received the Prince Mahidol Award in the field of Medicine in 2003 in an organisational category and the Nobel Prize in the field of Medicine in 2015 for the discovery of Qinghaosu as a new drug for treatment of the P.falciparum malaria;

(5) SIR GREGORY PAUL WINTER from the United Kingdom received the Prince Mahidol Award in the field of Medicine in 2016 and the Nobel Prize in the field of Chemistry in 2018 for his pioneership in the field of antibody engineering and modification technology. He invented techniques to humanise antibodies for therapeutic uses, which later led to the creation of cutting-edge therapeutic drugs;

(6) PROFESSOR DR. KATALIN KARIKÓ from Hungary/the United States of America AND PROFESSOR DREW WEISSMAN from the United States of America received the Prince Mahidol Award in the field of Medicine in 2021 and the Nobel Prize in the field of Medicine in 2023 for their timely research on the development of COVID-19 mRNA vaccine in response to the pandemic, making it possible to reduce the infection rate and severe illness. Their studies also serve as an important tool to contain the spread of the virus around the world, proving to be beneficial to public health and the lives of millions of patients around the world.

The Prince Mahidol Award Foundation under the Royal Patronage was established on 1 January 1992 in commemoration of the centenary of the birth of His Royal Highness Prince Mahidol of Songkla. With Her Royal Highness Princess Maha Chakri Sirindhorn as the President, the Foundation annually presents two Prince Mahidol Awards to individual(s) or institution(s) with outstanding and exemplary contributions to the advancement of the international medical and public health services. Each Award consists of a medal, a certificate, and a prize to the sum of 100,000 USD.

www.princemahidolaward.org

PRINCE MAHIDOL AWARD 2024

The Prince Mahidol Award Foundation of
which H.R.H. Princess Maha Chakri Sirindhorn
is the President, has decided to confer
the Prince Mahidol Award 2024

In the field of Medicine to
Professor Doctor Tony Hunter, Ph.D.

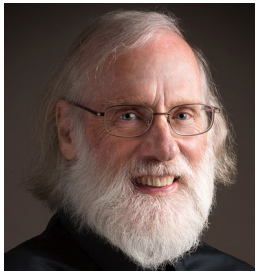
In the field of Public Health to
Professor Dr. Jonathan P. Shepherd, D.D.Sc.,Ph.D.

Her Royal Highness
Princess Maha Chakri Sirindhorn,
as the Representative of His Majesty the King,

Presiding Over the Presentation
Ceremony of the Prince Mahidol Award 2024
at the Chakri Throne Hall as well as a Dinner Party
in Honour of the Prince Mahidol Award Laureates 2024
at the Boromarajasathitmaholarn Hall
on Thursday 30th January, 2025

PRINCE MAHIDOL AWARD LAUREATE 2024

IN THE FIELD OF MEDICINE



Professor Doctor Tony Hunter, Ph.D.

Professor of Biology, Salk Institute for Biological Studies
Adjunct Professor, University of California, San Diego, California, USA
United Kingdom / United States of America

Professor Dr. Anthony Rex Hunter, known as Professor Dr. Tony Hunter, completed his bachelor's, master's, and PhD degrees in protein synthesis research at the University of Cambridge, United Kingdom. He later became a researcher at the Salk Institute for Biological Studies in the United States of America in 1975 and has remained there to this day. His significant contributions in the field have earned him successive promotions, leading to his current position as Professor at the Salk Institute and Senior Researcher (Renato Dulbecco Chair) at the Salk Institute for Biological Studies, USA.

Professor Dr. Tony Hunter's significant research achievement was the first discovery of tyrosine kinase enzymes and the phosphorylation process. Phosphorylation is the addition of a phosphate group to the amino acid tyrosine in proteins. This process is a fundamental mechanism of cellular signaling that regulates cell growth and function. Abnormal activation of tyrosine kinase enzymes, for example, by viruses or cancer-causing agents, can transmit signaling across the cell membrane, leading to excessive phosphorylation of proteins within the cell. This mechanism plays a crucial role in transforming normal cells into cancerous cells.

Understanding this mechanism led to the development of targeted cancer therapies by inhibiting the activity of tyrosine kinase enzymes.This breakthrough has resulted in the creation of numerous highly effective drugs, with no fewer than 86 tyrosine kinase inhibitors available, such as Imatinib (Gleevec™), used to treat leukemia. The application of the understanding has significantly benefitted the health and well-being of the public and has greatly contributed to the advancement of cancer treatment and research worldwide.

PRINCE MAHIDOL AWARD LAUREATE 2024

IN THE FIELD OF PUBLIC HEALTH

Professor Doctor Jonathan P. Shepherd, D.D.Sc., Ph.D.

Emeritus Professor of Oral and Maxillofacial Surgery
Director of the Institute for Crime, Security and Justice Innovation
Cardiff University, United Kingdom

Professor Dr. Jonathan P. Shepherd graduated with a Bachelor of Dental Surgery from King's College, University of London, a Master's degree in specialist training in Oral Surgery from the University of Oxford, and a Doctorate from the University of Bristol, United Kingdom. He served as Director of Cardiff University's Violence Research Group for 22 years.

Professor Dr. Shepherd's significant achievement was development and implementation of the "Cardiff Model for Violence Prevention".

Due to injuries from various violent incidents, which constitute a significant public issue in the country, there have been substantial losses in terms of injuries, lives, and emotional, psychological impacts, as well as economic consequences. Research findings by Professor Dr. Shepherd have shown that severe crime problems lead to a high number of patients seeking treatment in hospital emergency departments. However, most of these incidents, up to 75%, are unreported, leaving law enforcement and authorities unaware of them. Consequently, a data linkage was established between hospitals and the police to analyze frequent incident locations, times, as well as the scale and types of violence. This led to the creation of the Cardiff Model, which can be effectively used for planning violence prevention. The number of patients needing emergency department services significantly decreased by 42%, helping to reduce healthcare costs related to injuries considerably.

The Cardiff Model was developed between 1997 and 2001, and first implemented in Cardiff, the capital city of Wales, and later in London. It proved highly effective in reducing the impact of violent incidents, leading to its adoption throughout the United Kingdom and later in multiple other countries, including Australia, the Netherlands, South Africa, Colombia, Jamaica, Canada and the United States. The World Health Organization has used it for violence prevention among children, and the U.S. Centers for Disease Control and Prevention (CDC) has also applied it.

The Cardiff Model is now recognized as a vital public health tool and innovation for reducing community violence. It has significantly helped decrease loss of life and property, enhanced the quality of life in various communities, and gained acceptance across continents, benefiting the health of hundreds of millions worldwide.


PMAC 2025
Harnessing Technologies in an Age of AI to Build A Healthier World
From Central Dogma to Spatial Temporal Dogma
Genomics is the baseline
PMAC2025

PRINCE MAHIDOL AWARD CONFERENCE

The Prince Mahidol Award Conference was first organized in 1998 to celebrate the 5th anniversary of the Prince Mahidol Award, then again in 2002 to celebrate the 10th anniversary of the award. To celebrate the 15th anniversary of the award and the 115th Birthday Anniversary of His Royal Highness Prince Mahidol of Songkla, Her Royal Highness Princess Maha Chakri Sirindhorn, President of the Prince Mahidol Award Foundation under the Royal Patronage, requested the conference to be organized annually since 2007.

Since 2007, the Prince Mahidol Award Conference has been organized as an annual international conference focusing on policy-related public health issues of global significance. The 2025 conference is hosted by the Prince Mahidol Award Foundation, the Royal Thai Government and other global partners, for example the World Health Organization, the World Bank, the United Nations Development Programme, the United Nations Children's Fund, the United Nations Population Fund, the Joint United Nations Programme on HIV/AIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States Agency for International Development, the Japan International Cooperation Agency, the China Medical Board, the Rockefeller Foundation, the Chatham House, the National University of Singapore, the Hong Kong Jockey Club Charities Trust in association with the Institute of Philanthropy, FHI 360, the University of Gothenburg, the Bill & Melinda Gates Foundation, the International Federation of Medical Students' Associations, and other related organizations.

The general objective of the annual Prince Mahidol Award Conference is to bring together leading public health leaders and stakeholders from around the world to discuss high priority global health issues, summarize findings and propose concrete solutions and recommendations. It aims at being an international forum that global health institutes, both public and private, can co-own and use for the advocacy and the seeking of international advices on important global health issues. Specific objectives of each year's conference will be discussed among key stakeholders and co-hosts of the conference.

The conference participants include ministers, senior government officials, intergovernmental organizations, international development partners, global health initiatives, health policy and health systems researchers and advocators, civil society organizations, and high-level stakeholders from developing and developed countries.

THE PAST AND UPCOMING CONFERENCES INCLUDE:

1997: The International Conference Science and Health
2002: Medicine and Public Health in the Post-Genomic Era
2007: Improving Access to Essential Health Technologies: Focusing on Neglected Diseases, Reaching Neglected Populations
2008: Three Decades of Primary Health Care: Reviewing the Past and Defining the Future
2009: Mainstreaming Health into Public Policies
2010: Global Health Information Forum
2011: 2nd Global Forum on Human Resources for Health
2012: Moving Towards Universal Health Coverage: Health Financing Matters
2013: A World United against Infectious Diseases: Cross-Sectoral Solutions
2014: Transformative Learning for Health Equity
2015: Global Health Post 2015: Accelerating Equity
2016: Priority Setting for Universal Health Coverage
2017: Addressing the Health of Vulnerable Populations for an Inclusive Society
2018: Making the World Safe from the Threats of Emerging Infectious Diseases
2019: The Political Economy of NCDs: A Whole of Society Approach
2020: PMAC 2020 / UHC Forum 2020: Accelerating Progress Towards UHC
2021: COVID-19: Advancing Towards an Equitable and Healthy World
2022: The World We Want: Actions Towards a Sustainable, Fairer and Healthier Society
2023: Setting a New Health Agenda: At the Nexus of Climate Change, Environment, and Biodiversity
2024: Geopolitics, Human Security and Health Equity in an Era of Polycrises
2025: Harnessing Technologies in an Age of AI to Build a Healthier World
2026: Navigating Global Demographic Transitions Through Innovative Policy: An Equity-Centered Approach

www.pmaconference.mahidol.ac.th
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PMAC 2025

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

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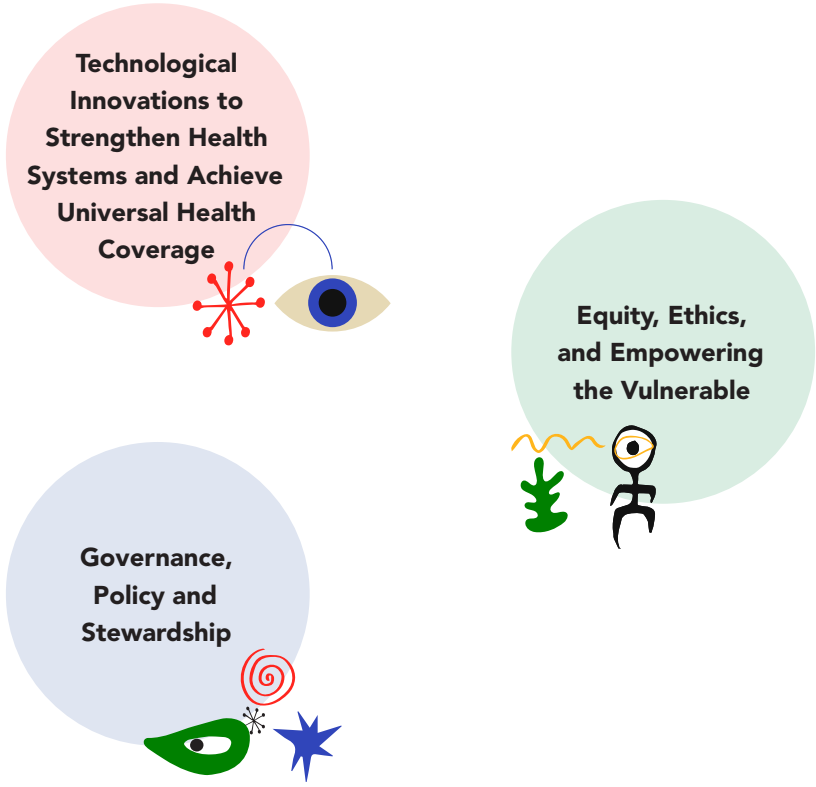
PRINCE MAHIDOL AWARD CONFERENCE 2025

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

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.

This year, there are three main sub-themes for the PMAC 2025, including:



The PMAC 2025 Conference Program Structure is given in ANNEX I.


and Her Royal Highness Princess Maha Chakri Sirindhorn


PMAC
2025

MESSAGE

FROM THE CO-CHAIRS OF THE INTERNATIONAL ORGANIZING COMMITTEE

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

As the world navigates the transformative landscape of artificial intelligence (AI) and digital health technologies, we stand at a crucial juncture with potential to redefine the future of global health and how people access services. AI is an incredible opportunity to revolutionize healthcare, address skilled workforce gaps, advance science and optimize resource allocation. Yet, with these possibilities also comes the responsibility to ensure that AI and other emergent technologies are developed and deployed in ways that are safe, ethical, and equitable. The apparent potential is matched only by the magnitude of the risks of harm, inequity and bias from the irresponsible or malicious use of these technologies.

In line with the recently adopted Pact of the Future which includes a Global Digital Compact and our common vision of "health for all, all for health," we aim to support countries in deploying AI and other technologies to accelerate progress in achieving universal health coverage (UHC), the Sustainable Development Goals (SDGs) and the pledge to leave no one behind. The PMAC 2025 will serve as a vital platform for this purpose, to foster collaboration, dialogue, and action that ensures AI enhances health equity and improves health outcomes for everyone, everywhere. This convergence of public health experts, domain leaders and policymakers, together with civil society, faith-based groups, youth leaders and industry specialists allow us to address difficult and controversial topics and build a vision for the future of technology-assisted healthcare, while identifying the risks and establishing a roadmap to mitigate them. This dialogue deliberately builds on prior PMAC conversations, including the 2022 and 2023 themes of 'The World We Want' (Towards a Sustainable, Fairer and Healthier Society) and the Triple Planetary Crisis – Climate Change, Biodiversity Loss, and Pollution.

As AI systems develop, we must all be vigilant about the risks associated with poor governance or implementation and the potential to exacerbate inequalities. These risks also include introducing ethical challenges and creating barriers to appropriate care, not to mention the intrinsic resource-intensity of AI – contributing substantially to the carbon footprint of health systems and technologies. It is imperative that we develop strong regulatory frameworks to address these challenges, ensuring that AI systems promote human dignity, fairness, and justice, while supporting global efforts to achieve UHC and the SDGs.

We must work together to build sustainable, evidence-based AI ecosystems that meet local needs and global standards. Several high-level bodies have been formed at the national and global levels to address these issues – including the UN Secretary-General's High Level Advisory Board on AI. Our guidance on AI calls for a collaborative, multi-stakeholder approach involving governments, technology developers, healthcare providers, UN partners and communities to foster trust in AI technologies, while emphasizing the importance of robust governance frameworks, transparent and explainable AI models, and inclusive policies that protect human autonomy, data privacy, and security.

The PMAC 2025 will be a key opportunity to advocate for this multi-stakeholder approach and harness the technologies in an age of AI for a better world. We envision a future where AI is used responsibly to strengthen healthcare delivery, but also empowers individuals and communities to take charge of their health, promotes health equity, and enhances global health resilience.

PRINCE MAHIDOL AWARD CONFERENCE 2025

Our discussions will revolve around three key sub-themes: **(a) Technological Innovations to Strengthen Health Systems and Achieve Universal Health Coverage, (b) Equity, Ethics and Empowering the Vulnerable; and (c) Governance, Policy, and Stewardship.** We will explore how AI and digital technologies can contribute to strengthening health systems and reducing health inequities, while upholding ethical standards and promoting inclusiveness and equity. We hope to stimulate a rich discourse that remains grounded in field realities, especially considering low-resource settings and the billions of adults and children still living in disconnected communities, seeking to meet their basic health needs.

We invite all participants to engage actively in the discussions, debates, and knowledge-sharing opportunities that PMAC 2025 offers. Together, we have the power to shape a future where AI is leveraged responsibly and effectively to enhance health systems, achieve UHC, and foster sustainable development. Let us collaborate to build a healthier, fairer, and more resilient world.

APPRECIATION

The Chairs extend their sincere appreciation to the many individuals and organizations whose efforts have made this conference possible. We especially thank the Prince Mahidol Award Foundation, the Royal Thai Government, and the PMAC Secretariat for their exceptional support and leadership. We also acknowledge the invaluable contributions of our speakers, panelists, and participants, whose expertise and passion will enrich PMAC 2025.

We look forward to welcoming you to PMAC 2025 and to the collaborative efforts that will shape a brighter future for global health.

Welcome all to Bangkok!

Dr. Vicharn PANICH
Chair
Prince Mahidol
Award Foundation

Ms. Winnie BYANYIMA
Co-Chair
Joint United Nations
Programme on HIV/AIDS

Ms. June KANUKI
Co-Chair
United Nations
Children's Fund

Dr. Ailan LI
Co-Chair
World Health Organization

Dr. Juan Pablo URIBE
Co-Chair
The World Bank

Mr. Marcos Neto
Co-Chair
United Nations Development
Programme

Dr. Marijke WIJNROKS
Co-Chair
The Global Fund to Fight AIDS,
Tuberculosis and Malaria

Dr. Atul GAWANDE
Co-Chair
United States Agency
for International Development

Ms. Saeda MAKIMOTO
Co-Chair
Japan International
Cooperation Agency

Dr. Roger I. GLASS
Co-Chair
China Medical Board

Dr. Naveen RAO
Co-Chair
The Rockefeller Foundation

Dr. David HARPER
Co-Chair
Chatham House

CONFERENCE CO-HOSTS AND SUPPORTING ORGANIZATIONS

A full list of the PMAC 2025 International Organizing Committee Members is given in ANNEX II.

OPENING REMARKS

HER ROYAL HIGHNESS PRINCESS MAHA CHAKRI SIRINDHORN

CHAIRMAN, BOARD OF TRUSTEES AND PRESIDENT,
PRINCE MAHIDOL AWARD FOUNDATION

HER ROYAL HIGHNESS PRINCESS MAHA CHAKRI SIRINDHORN

CHAIRMAN, BOARD OF TRUSTEES AND PRESIDENT,
PRINCE MAHIDOL AWARD FOUNDATION

It is an honor to welcome you all to the Prince Mahidol Award Conference 2025, focused on the theme, "Harnessing Technologies in an Age of AI to Build a Healthier World."

As Chair of the Prince Mahidol Award Foundation, it is both a privilege and a great responsibility to host this important gathering. Today, we bring together brilliant minds from around the world to explore solutions to some of the most pressing health challenges of our time.

There has never been a better moment to address this topic. Technologies, especially artificial intelligence, are no longer distant ideas—they are part of our daily lives. AI holds tremendous promise to transform global health, from improving diagnoses and streamlining health systems to personalizing care and reaching underserved communities.

Yet, alongside these opportunities come important questions about fairness, ethics, and inclusivity. This conference will explore key issues: technological innovation, equity and ethics, and governance and policy. These are the building blocks for a future where technology not only drives progress but also promotes justice and ensures no one is left behind.

Let us use this opportunity to reaffirm our commitment to making technology a force for good, ensuring its benefits are shared fairly and its risks managed responsibly.

I want to express my heartfelt thanks to our co-hosts and partners; the World Health Organization, the World Bank, the United Nations Development Programme, the United Nations Children's Fund, the United Nations Population Fund, the Joint United Nations Programme on HIV/AIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States Agency for International Development, the Japan International Cooperation Agency, the China Medical Board, the Rockefeller Foundation, the Chatham House, the National University of Singapore, the Hong Kong Jockey Club Charities Trust in association with the Institute of Philanthropy, FHI 360, the University of Gothenburg, the Bill & Melinda Gates Foundation, and the International Federation of Medical Students' Associations. They have been instrumental in making this conference a reality. On behalf of the Foundation, I express my deepest gratitude to all who have contributed to this endeavor.

I wish you meaningful discussions and fruitful collaborations. With that, it is my great honor to officially declare the Prince Mahidol Award Conference 2025 open.

PRINCE MAHIDOL AWARD CONFERENCE (PMAC) 2025

Digital technologies, including telehealth, big data analytics, and mobile health, and artificial intelligence (AI) are transforming healthcare, offering unprecedented opportunities to improve health systems, achieve the Sustainable Development Goals (SDGs), and enhance global well-being. However, these rapid evolving innovations also pose challenges, including digital inequities, ethical dilemmas, data privacy concerns, and its impact on environment. PMAC 2025 convened global experts to explore how technology can be harnessed responsibly to strengthen health systems while ensuring equity, security, and inclusiveness of society through ethical governance. The discussions focused on three key themes: 1) Technological Innovations to Strengthen Health Systems and Achieve Universal Health Coverage (UHC), 2) Equity, Ethics, and Empowering the Vulnerable, and 3) Governance, Policy, and Stewardship.

The main conference began with a short film presents a compelling narrative that interrogates the intersection of

Artificial intelligence,

Ethics, and

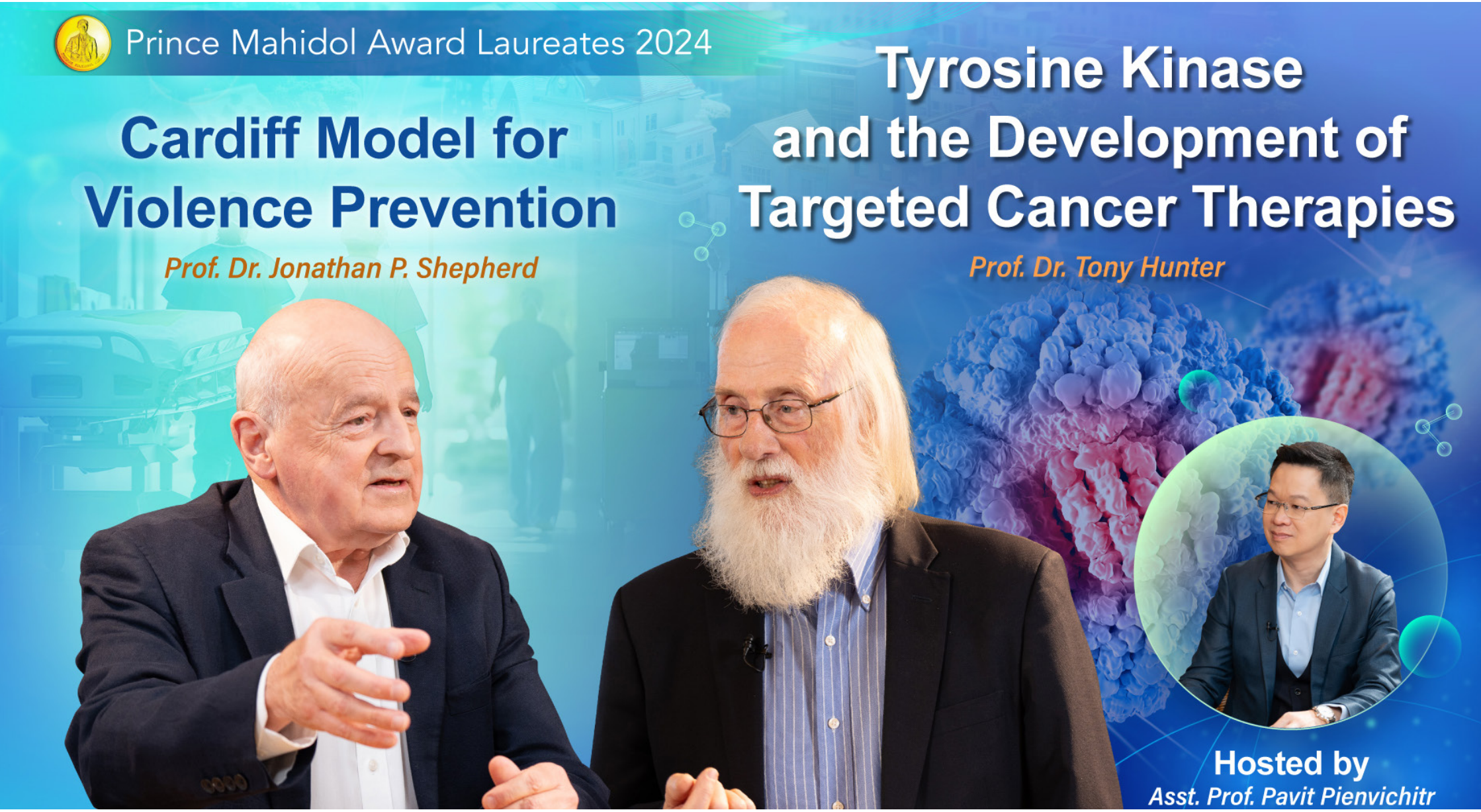
Societal perception

through the lens of a gifted child who demonstrates advanced diagnostic and analytical capabilities akin to those of an AI system. As his observations on health, behavior, and moral reasoning gain public attention, the child becomes the subject of both admiration and suspicion. The storyline raises critical questions about data privacy, ethical boundaries, and the societal implications of emerging technologies.

Ultimately, the film challenges viewers to reflect on

> how humanity chooses to shape and guide intelligent systems—
>
> emphasizing that while technology may evolve rapidly,
>
> its ethical compass must be cultivated through human values and responsibility.

The Full VDO
is Available on YouTube



The PMA Armchair Conversation (English Subtitle)
is Available on YouTube

The PMA Armchair Conversation (Thai Subtitle)
is Available on YouTube

KEYNOTE ADDRESS

KEYNOTE ADDRESS

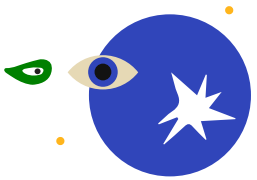
Wang Jian

Co-founder and Chairman, BGI Group
China

With a profound expertise in macro-data management, genomics, and bioinformatics, Dr. Wang has led groundbreaking initiatives such as “Omics for All” promoting equitable access to advanced health technologies.

This initiative aims to advance equitable well-being by making deep technologies, such as Advanced Therapy Medical Products (ATMPs), more accessible and affordable. Dr. Wang’s insights on “Universal Access to Deep Technologies for Equitable Well-Being” that will provide valuable perspectives and set a meaningful tone align the PMAC 2025 on focusing the leveraging technology toward achieving the Sustainable Development Goals (SDGs) and fostering a healthier, more equitable world.

SESSIONS AT



A GLANCE

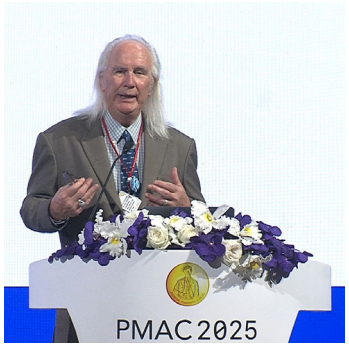
PLENARY SESSION 0

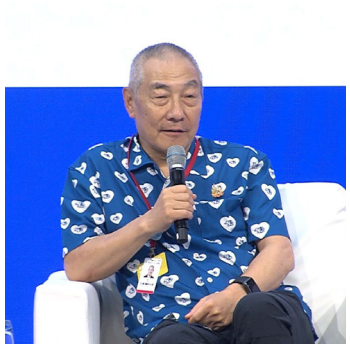
Harnessing Technologies in an Age of AI to Build a Healthier World

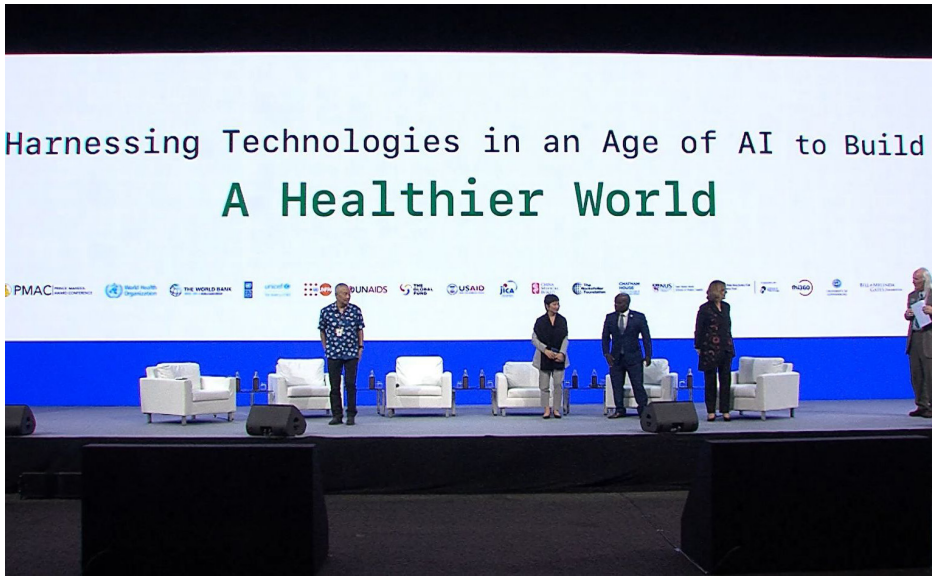
MODERATOR
Dennis Carroll

KEYNOTE SPEAKER
Rubindhiran Pillay

PANELISTS
Hani Kim
Jean Philbert Nsengimana
Meg Davis
Wang Jian







PLENARY SESSION 1

Achieving Positive Connections through Technological Innovations for Healthier Populations, Strengthened Health Systems and Universal Health Coverage

MODERATOR
Gabriel Leung

SPEAKERS
Deepali Khanna
Hani Kim
Toomas Palu

PARALLEL SESSION 1.1

Innovative Technologies to Leverage Health Financing for UHC

MODERATOR
Inke Mathauer

PANELISTS
Akihito Watabe
Mark Jit
Tiranee Achalakul
Toomas Palu
Trisna Sari

PARALLEL SESSION 1.2

Tech-Empowered Health Workers: Skills for the Future

MODERATOR
Hong Wang

SPEAKERS
Alex Ng
Derrick Muneene
Kate Tulenko
Nelson K Sewankambo
William Hersh

PARALLEL SESSION 1.3

Expanding Tech-Enabled Solutions for Service Delivery

CHAIR
Feng Zhao

MODERATOR
Matthew Thomas Hulse

SPEAKERS
Hongqiao Fu
Oommen John

PANELISTS
Nanjira Sambuli
Rahul Mullick
Yhuko Ogata

PARALLEL SESSION 1.4

Health Tech Rising: Youth Edition

MODERATOR
MyMai Yungrattanachai

KEYNOTE SPEAKER
Mechai Viravaidya

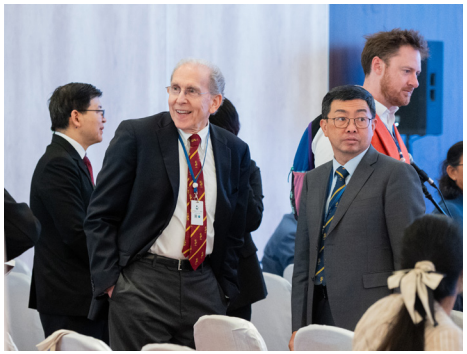
PANELISTS
Kelly Perry
Pear Poolvaraluk
Saad Soroya
Shadrack Frimpong

PARALLEL SESSION 1.5

Harnessing the Power of Data

MODERATOR
Marelize Gorgens

PANELISTS
Boonchai Kijsanayotin
Kara Sewalk
Mary-Anne Hartley
Peeter Ross



PLENARY SESSION 2

Ethical Technology:
For Whom, by Whom and for What Purposes

MODERATOR
Mandeep Dhaliwal

PANELISTS
Ghufron Mukti
Meg Davis
Osama Manzar
Ruth Jerop Limo

PARALLEL SESSION 2.1

Reducing the Digital Divide: How to Ensure an Enabling Environment for Equitable Tech for All

MODERATOR
Daniel Messer

PANELISTS
Debbie Rogers
Edward Booty
Osama Manzar
Rose Delilah Gesicho

PARALLEL SESSION 2.2

Harnessing Technology to Achieve Equitable Health Outcomes

MODERATOR
Kiesha Prem

PANELISTS
Alexo Esperato
Chaiyatorn Limapornvanich
Chioma Nwachukwu
Nada Malou
Suhel Bidani

PARALLEL SESSION 2.3

Our Tech Future and Implications for Society:
Promise or Peril?

MODERATOR
Jesse Bump

PANELISTS
Anasuya Sengupta
Eirliani Abdul Rahman
Hanna Barakat
Swapneel Mehta

PARALLEL SESSION 2.4

Data is Power!
Confronting Data Colonialism,
Ownership Issues and Hidden Biases

MODERATOR
Boonchai Kijsanayotin

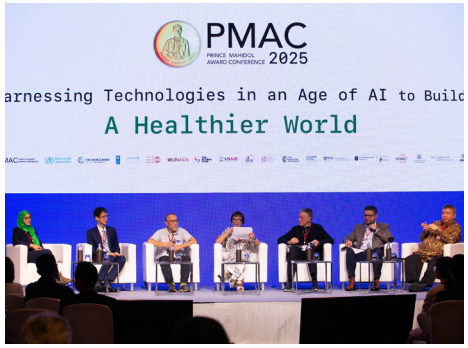
SPEAKERS
Chhorvann Chhea
Emma Rawson-Te Patu
Leo Anthony Celi
Michelle Skelton

PARALLEL SESSION 2.5

Unlocking Synergies: Health Tech and AI at the Climate-Health Frontier

MODERATOR
Thu Ba Huynh

PANELISTS
Carlos Escapa
Eduardo Banzon
Felipe J Colon-Gonzalez
Noboru Minakawa
Sara Khalid
Tuan Nguyen



PLENARY SESSION 3

Effective Governance of Health Technologies and AI

MODERATOR
Alain Labrique
Bilal Mateen

KEYNOTE SPEAKERS
Amandeep Singh Gill
Vilas Dhar

PANELISTS
Jean Philbert Nsengimana
Kidong Park

PARALLEL SESSION 3.1

Geopolitical Landscape:
Global Governance

CHAIR
Alain Labrique

MODERATORS
Sameer Pujari
Simao Campos

SPEAKERS
Batoul Albaz
Chaitali Sinha
Deepika Mishra
Gopal Ramchurn
Laura Reichenbach
Nancy Pignataro
Purvi Shah
Yasuhiro Fujiwara

PARALLEL SESSION 3.2

Strengthening
Health Data Governance:
Leadership and Action

MODERATOR
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KEYNOTE SPEAKERS
Fazilah Shaik Allaudin
Mathilde Forslund
Xin Rou (Jocelyn) Teh

SPEAKERS
Kidong Park
Nirmal Rijal
Shelani Palihawadana

PARALLEL SESSION 3.3

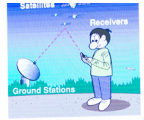
Articulating and Mitigating Risks of AI in Health

MODERATOR
Peiling Yap

KEYNOTE SPEAKER
Jiho Cha

SPEAKER
Ricardo Baptista Leite

PANELISTS
James Oughton
Magdalena Eltenberger
Mona Duggal
Raymond Chua



PARALLEL SESSION 3.4

Equity and Accountability in Digital Health and AI: Addressing Risks, Digital Health Foundation GAPS, and Advancing Open and Local Solutions

MODERATOR
Smisha Agarwal

PANELISTS
Alvin Marcelo
Leo Anthony Celi
Lucy Mambise Kombe
Marelize Gorgens

PARALLEL SESSION 3.5

Fortifying National Systems for the Age of AI

CHAIR
Jai Ganesh Udayasankaran

MODERATOR
Mark Landry

KEYNOTE SPEAKER
Anurag Agrawal

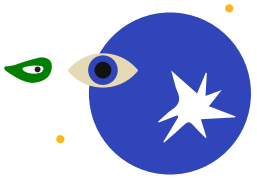
SPEAKERS
Anis Fuad
Farah Magrabi
Indira Dewi Kantiana
Patricia Mechael
Resham Sethi
Zoljargal (Zoey) Lkhagvajav

WELCOME DINNER

SYNTHESIS: SUMMARY, CONCLUSION & RECOMMENDATIONS

CLOSING PERFORMANCE

CONFERENCE



SYNTHESIS

Rapid technological advancements,

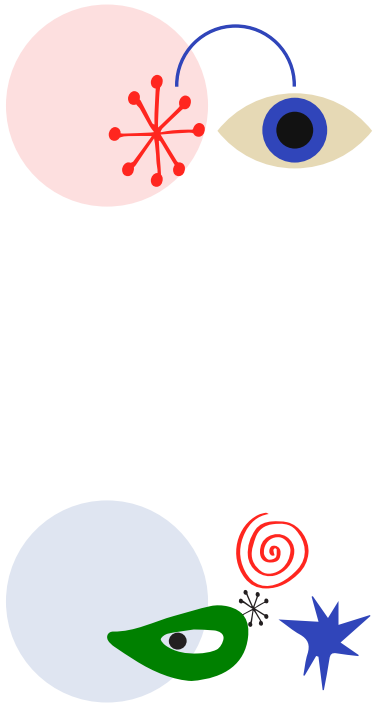
including those involving

Artificial Intelligence (AI),

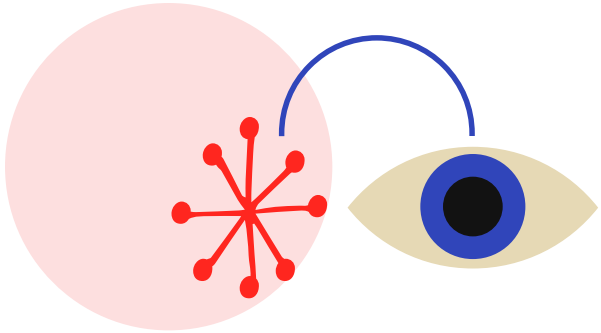
are deemed essential tools for

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. 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. PMAC 2025 emphasized 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. It also highlighted 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 were addressed.



The conference was systematically organized into three sub-themes: (1) Technological Innovations to Strengthen Health Systems and Achieve Universal Health Coverage, which addressed harnessing innovative technologies to improve public health and achieve Universal Health Coverage from a health systems perspective; (2) Equity, Ethics, and Empowering the Vulnerable, which explored overarching issues relating to equity, gender, ethics, and society that 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; and (3) Governance, Policy, and Stewardship, which discussed the global enabling ecosystem, national ecosystem, human capacity needs, and responsible use, covering the foundations for good governance, policy, and stewardship.



PROMISE OF TECHNOLOGIES AND AI FOR HEALTH

Technologies, in particular digital technologies, big data and AI, are rapidly transforming society.

These technological advancements provide great opportunities to modernize and improve health systems by increasing coverage, optimizing efficiency, and improving quality. In principle, these innovations should be co-designed with end-users, especially frontline health workers. However, digital infrastructure is unevenly distributed, limiting scalability and sustainability of health tech in low- and middle-income countries. Health systems often lack readiness for integration, due to undertrained workforces and weak leadership in digital transformation. Data fragmentation and lack of interoperability hinder evidence-based decision-making. Integrated digital health strategies, built on interoperable platforms, could enable scaling across service delivery, financing, and information systems. Virtual simulation and AI-adaptive curricula could be applied in order to accelerate reskilling of health workers. Models like India's digital ASHA network and Estonia's pharmacogenomics system demonstrate successful scaling when government leadership aligns with technology ecosystems.

PREDICTING DISEASE OUTBREAKS

One important application is the use of data analytics to understand the complex relationship between climate change and human health. Climate change has demonstrably impacted public health in recent decades.

Rising global temperatures contribute to increased heat-related illnesses and deaths, while localized changes in temperature and rainfall patterns can alter the distribution of waterborne diseases and the prevalence of disease-carrying insects. Furthermore, climate change can negatively affect food production, particularly in vulnerable populations.

To mitigate these climate-related health risks, technologies and AI are being used to develop sophisticated early warning systems.

These systems aim to proactively identify and communicate potential health threats to both public health authorities and the general public, enabling timely interventions and preventative measures. Effective early warning systems consider a wide range of risk factors and are often developed in collaboration with the communities they serve. Key components of these systems include the ability to forecast weather conditions associated with increased illness or mortality, predict potential health outcomes and identify triggers for effective response plans, communicate risks and preventative measures to vulnerable populations, and continuously evaluate and refine the system to enhance its effectiveness in a changing climate.

Heat wave early warning systems are a prime example of this technology in action.

These systems are becoming increasingly common, particularly in high-income countries. Numerous studies have demonstrated the effectiveness of these systems in reducing heat-related mortality. For instance, after implementing a heat wave early warning system, France saw a significant decrease in heat-related deaths during a subsequent heat wave, compared to previous events. While most studies have shown positive results, ongoing evaluation and refinement of these systems are essential to optimize their performance and ensure they are adaptable to evolving climate conditions. One study, however, was inconclusive.

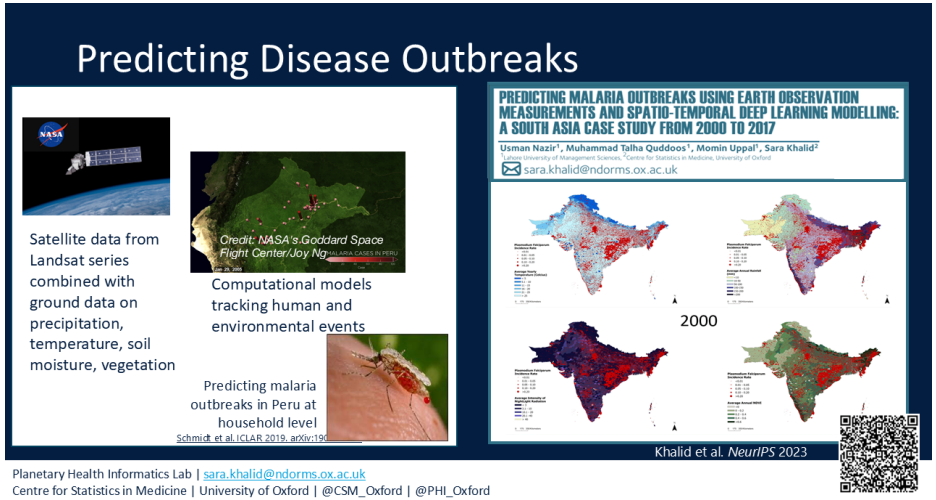
Beyond heat-related illnesses, technology and AI are also being applied to predict and manage outbreaks of infectious diseases.

Early warning systems are being developed for vector-borne and foodborne infections, although the evidence of their effectiveness in reducing disease burden is still somewhat limited. In Botswana, a system forecasts malaria incidence based on rainfall patterns, recognizing the link between climate variations and malaria outbreaks.

Similarly, in Singapore, a weather-based model predicts dengue fever epidemics, providing public health officials with valuable lead time to implement control measures. A study in the United States developed models for predicting campylobacteriosis risk with promising results. These examples highlight the potential of AI-driven disease forecasting to improve public health preparedness and response. Further research and development in this area are crucial to enhance the accuracy and effectiveness of these systems and to expand their application to a wider range of infectious diseases.

Figure 1

AI for disease outbreaks [PS2.5, slide by Kara Khalid]



In summary, climate change impacts health in various ways, from direct effects like heat-related illnesses and deaths to indirect effects on diet, lifestyle, migration, and conflict. This necessitates more resilient and adaptable health systems. AI has become increasingly important in advancing health technologies and strengthening climate responses. Machine learning enhances evidence-gathering, informing effective early warning systems, disease outbreak prediction, biodiversity monitoring, urban planning, and transportation modeling [PS2.5].

IMPROVING ACCESS TO HEALTH SERVICES OF PEOPLE IN REMOTE AND UNDERSERVED AREAS

Technologies, in particular digital technology, big data and AI, can play a significant role in achieving Universal Health Coverage (UHC) by strengthening health systems and improving equitable access to essential health services of population; crucial for reaching populations in remote and underserved areas.

Digital health refers to the field of study and practice using digital technologies to improve health. This includes and expands e-Health and tele-medicine, incorporating digital health consumers, a wider range of smart devices, and other applications such as the Internet of Things, advanced computing, big data analytics, AI (including machine learning), and robotics [2]. Digital health offers significant potential to improve universal and equitable access to health services ranging from health promotion & disease prevention to palliative care, including during public health crises.

AI-powered platforms can provide remote diagnosis, personalized treatment plans, and continuous patient monitoring, effectively bridging geographical barriers and addressing workforce shortages that often hinder UHC goals. This allows individuals in even the most isolated communities to access essential health services like tele-pharmacy, tele-examination and tele-consultation.

Figure 2

Telemedicine network [PS1.3, slide by Hongqiao Fu]

Protecting patient privacy and security is also essential. Furthermore, digital health's success relies on investments in governance, institutional capacity, and workforce training to manage digital systems and data effectively. Aligned with national digitalization strategies, these investments will enable digital health to improve care efficiency, cost-effectiveness, and facilitate innovative service delivery models.

OPTIMIZING CHRONIC DISEASE MANAGEMENT

Chronic diseases represent a substantial burden on health systems globally, and AI provides valuable tools to improve prevention, diagnosis, and treatment. AI algorithms can analyze comprehensive patient data, encompassing medical history, lifestyle factors, and genetic information, to predict potential complications and personalize interventions. AI-powered mHealth applications can further support patients in self-managing their conditions through medication reminders, vital sign tracking, and access to educational resources, fostering better adherence to treatment plans and improved health outcomes. Research on digital health interventions for conditions like rheumatic diseases supports this potential, demonstrating improvements in various health metrics, including disease activity scores and quality of life [3]. A systematic review on AI's role in managing chronic medical conditions summarizes that chatbots and eHealth applications are useful for reducing the workload of physicians and administration and can increase patient adherence. It is because of speed and non-fatigable nature of technologies and AI. Nonetheless, AI should be for supporting but not replacing health staff.

"Integrating AI into the existing health delivery system with realignment of the incentive may be a useful strategy to improve the performance of chronic disease management."

Feng Zhao [PS 1.3]

GAINING EFFICIENCY OF HEALTH SERVICES

AI contributes to streamlined and more efficient healthcare services. By automating administrative tasks, such as scheduling, billing, and record-keeping, AI frees healthcare professionals to focus on direct patient care. AI-driven tools also optimize resource allocation, ensuring efficient deployment of staff, equipment, and medications, thereby reducing costs and improving overall system performance. This streamlined approach enhances the patient's experience and makes healthcare delivery more efficient.

India's "Scan and Share" initiative exemplifies this by using mobile technology and QR codes to streamline outpatient appointments and reduce wait times significantly. This program, part of the Ayushman Bharat Digital Mission, has demonstrably improved access to care, although broader private sector participation is still needed. The "Scan and Share" service is transforming healthcare delivery, and its success offers valuable lessons for wider implementation.

SUPPORTING EARLY DISEASE DETECTION

AI plays a critical role in facilitating early disease detection, offering immense potential to improve patient outcomes and advance Universal Health Coverage (UHC).

AI algorithms can analyze complex medical data, including images, lab results, and patient records, identifying subtle patterns and anomalies indicative of disease in its early stages.

This enables timely interventions, increasing the chances of successful treatment, particularly for conditions like cancer and cardiovascular disease. AI-supported teleradiology exemplifies this potential, with portable, AI-powered x-ray units enabling real-time diagnoses, even in remote areas like Everest base camp, for conditions such as tuberculosis and pulmonary edema. These tools can help address the global shortage of radiologists by efficiently analyzing images and prioritizing serious cases for expert review. However, realizing the full potential of AI-driven early detection requires addressing challenges such as limited infrastructure in low-income countries, ensuring high-quality training data for AI algorithms to avoid bias, and integrating AI into broader healthcare strategies that address personnel gaps and ensure equitable access to care.

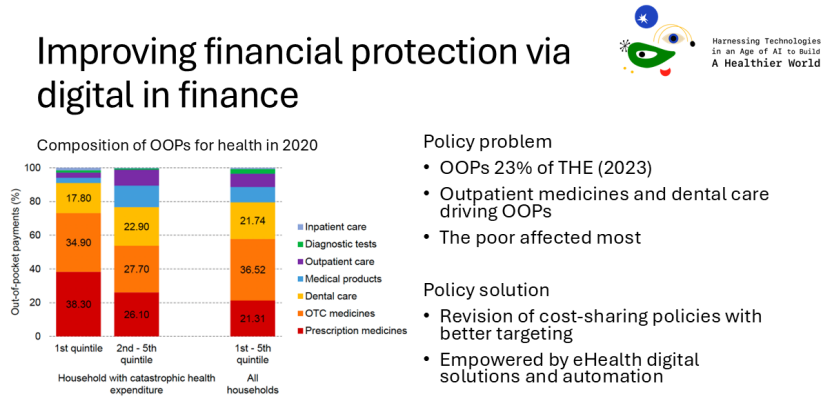
IMPROVING EFFICIENCY OF HEALTH FINANCING

Digital solutions play a crucial role in minimizing fraud, waste, and abuse in health financing.

Fraud detection and prevention technologies are being leveraged to enhance the integrity of healthcare claims.

Figure 3

Applying digital technology and AI in supporting health financing and UHC [PS1.1, slide by Toomas Palu]



Võrk et al, 2023

The Philippines' PhilHealth has implemented biometric authentication, including fingerprint scanning and facial recognition, to detect fraudulent claims. In 2020 alone, PhilHealth identified 9,200 fraudulent claims, demonstrating the effectiveness of this approach. Similarly, Indonesia's BPJS Kesehatan, which processes over 80 million claims annually, has faced significant challenges related to fraudulent activities. Therefore, Indonesia adopted the AI-driven DEFRAUDA system in 2017 for fraud detection, resulting in improved efficiency and reduced detection time. It has contributed to approximately 25-30% of the total efficiency gains realized by BPJS Kesehatan.

STRENGTHENING HEALTH INFORMATION SYSTEMS

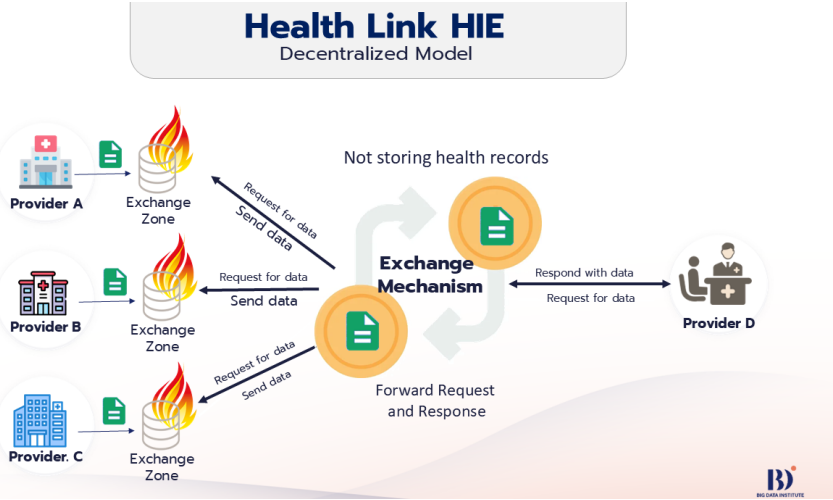
Health information systems are one of the foundations of health systems

as health data accounting for 30% of global data and growing at an annual rate of 36%.

However, its effective utilization remains a challenge, as only 3-5% of this data is currently used for health outcomes, while 50-60% is consumed by administrative and insurance processes. A decentralized approach to Health Information Exchange (HIE) emerged as a key strategy to ensure efficient data flow between healthcare providers while maintaining security and privacy. The Health Link HIE system exemplifies this approach, facilitating secure data exchange without centrally storing medical records, thus mitigating risks of data breaches and unauthorized access. By allowing real-time data exchange between providers, aligned with international data protection standards.

Figure 4

Health Information Exchange (HIE) [PS1.1, slide by Tiranee Achalakul]



Estonia's electronic health record system, recognized as one of the best globally, and India's federated health architecture, were cited as models for decentralized and consent-driven data-sharing. Boston Children's Hospital's AI-driven BEACON platform, was highlighted for their ability to analyze unstructured health data, predict infectious disease outbreaks, and support clinical decision-making using real-time data mining from news and social media sources. However, AI adoption in clinical settings faces hurdles due to data standardization issues, reliability concerns, and the lack of real-world validation for AI models.

There remains a debate on health data monetization, questioning whether individuals should receive dividends for consenting to data use.

While this model could incentivize data-sharing, concerns regarding data ownership, privacy, and regulatory governance remain central.

The need for robust governance structures, including federated data architectures and decentralized AI models, to balance innovation, privacy, and equitable access to health data is imperative.

ASSISTING HEALTH WORKFORCE

AI and digital technologies are not replacing the healthcare workforce, it is transforming healthcare delivery, improving efficiency, and addressing critical skill gaps among health professionals. AI, digital health, and telemedicine are increasingly being incorporated into competency-based training models to enhance professional preparedness. Virtual Reality (VR), medical simulations, and AI-driven chatbots facilitate adaptive learning, ensuring scalable, immersive, and personalized training for healthcare workers. Distance education platforms further bridge these skill gaps by providing accessible and structured digital learning, particularly in underserved regions.

"Bottom line is health workers are afraid—
they're very frightened of the concept of AI
and that their jobs might be taken away from them.

We need to work on this overlay to help them
understand AI's role in assisting them, not replacing them."

Kate Tulenko [PS 1.2]

"AI will not replace doctors, but doctors who use
AI effectively will replace those who don't.

It's about using AI to enhance medical decision-making,
not to hand over control to technology."

William Hersh [PS 1.2]

AI-driven decision support tools must remain under human oversight to mitigate misdiagnosis risks and ensure ethical clinical decision-making.

Tencent's WeChat-based ecosystem, for example, includes AI-powered medical literacy platforms, triage chatbots, and digital ID systems, all aimed at improving healthcare delivery and streamlining workflows. AI-based medical assistants support rural health workers by providing second opinions, pre-consultation diagnostics, and telemedicine connections to urban specialists. However, challenges remain, particularly regarding data validation and bias. AI models trained on low-quality data risk delivering inaccurate or biased medical recommendations, necessitating regulatory oversight.

Mental health support for healthcare workers has gained prominence, particularly through AI-driven applications such as Wysa, which provides self-guided mental health resources, including stress reduction techniques, mindfulness exercises, and guided self-assessment tools. These platforms offer confidential support to frontline workers, addressing burnout and psychological distress. AI-assisted diagnostics and digital therapy solutions further contribute to resilience-building by offering accessible, immediate interventions in high-stress medical environments.

The WHO's global digital health strategy calls for comprehensive digital skills training

for policymakers, healthcare practitioners, and administrators, alongside robust data privacy safeguards. AI helps reduce healthcare disparities in low-resource settings by enabling task-shifting and automating routine processes. However, limited infrastructure and insufficient AI literacy among health workers hinder widespread adoption.

"The future of health is digital, and AI will play a central role in making healthcare systems more resilient, responsive, and adaptive.

The success of AI adoption depends on how well we train and prepare healthcare professionals for this transition."

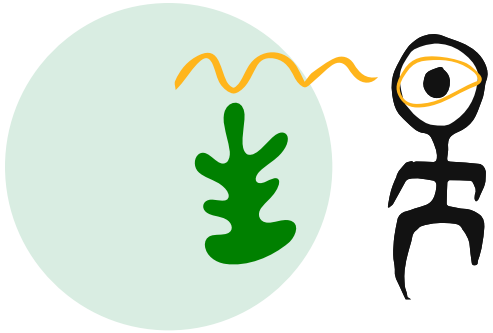
Alex Ng [PS 1.2]

ENGAGING YOUTH

Inclusive technological transformation requires youth engagement, data governance, and co-investment in infrastructure. However, youth innovators usually face systemic barriers in funding, mentorship, and visibility, especially in marginalized contexts. Youth-centered innovation challenges and dedicated investment channels (e.g., health hackathons, accelerator grants) empower next-gen solutions.

> One recommendation is
>
> to established dedicated innovation support for youth-led health tech initiatives in order to build structural support for youth to bring their local insight and digital fluency tied to public health priorities.

Including youth innovators in public-private research and development partnership is another possible approach.



PERILS OF
TECHNOLOGY AND AI FOR HEALTH

DIGITAL DIVIDE

Understanding digital divide

While digital technologies and AI continue to advance and offer transformative potential, they also risk exacerbating existing inequalities. The digital divide remains a significant barrier in the health system. The digital divide manifests in several ways.

First, Limited Access and High Costs:

Many individuals and communities lack access to affordable internet and digital infrastructure, restricting their ability to leverage technological advancements.

Second, Data Availability and Quality:

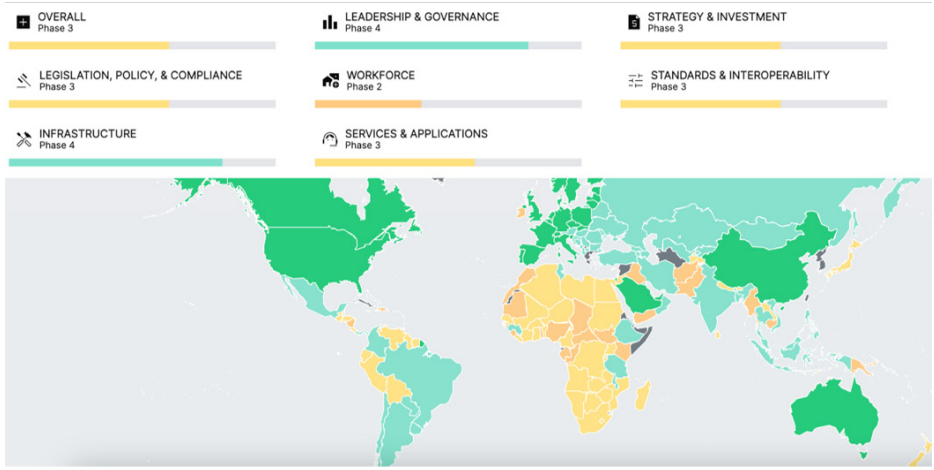
The accessibility and reliability of data remain crucial challenges, as the lack of comprehensive, high-quality datasets hampers digital health solutions.

Third, Skills vs. Opportunities:

While there is a growing pool of skilled professionals in data and AI, job opportunities in these fields remain limited, further widening economic disparities.

Figure 5

Digital Health Divide [PS2.1, slide by Debbie Rogers]



Digital Divide in India: A Case Study

India has emerged as a global leader in the digital economy, with impressive technological adoption rates. There were over 650 million smartphone users, and 950 million internet subscribers. However, these numbers mask a stark reality—millions of Indians remain disconnected, deepening social and economic divides. Here are some remarkable examples. In rural India, only 24% of the population has internet access, while, in urban India, the figure rises to 66%. Moreover, the Oxfam Inequality Report 2022 highlights a widening gap, with 31% of rural households having internet access compared to 67% in urban areas.

AI Accessibility and Its Challenges

Despite the rapid advancement of AI, accessibility remains uneven due to limited digital literacy and inadequate infrastructure in rural areas, as well as underrepresentation of marginalized communities in AI datasets, leading to biased algorithms and unequal benefits, and algorithmic biases reinforcing social inequalities, where AI-driven decisions may disadvantage already vulnerable populations.

Towards Equitable AI-Driven Digital Health Solutions

To ensure AI-driven health innovations are inclusive and equitable, several key actions must be taken.

Firstly, address global disparities in AI and digital technology to prevent the exclusion of marginalized communities, especially in the Global South.

Secondly, examine successful case studies and initiatives that focus on AI accessibility, fairness, and representation in last-mile healthcare delivery.

Third, foster collaboration between experts and local communities to develop ethical AI systems that address the needs of hyperlocal populations.

Lastly, recognize and navigate the existing and widening digital divide to create AI-driven solutions that prioritize accessibility, fairness, and community well-being.

By bridging the digital divide, we can harness the power of AI to create more inclusive, just, and impactful health solutions for all.

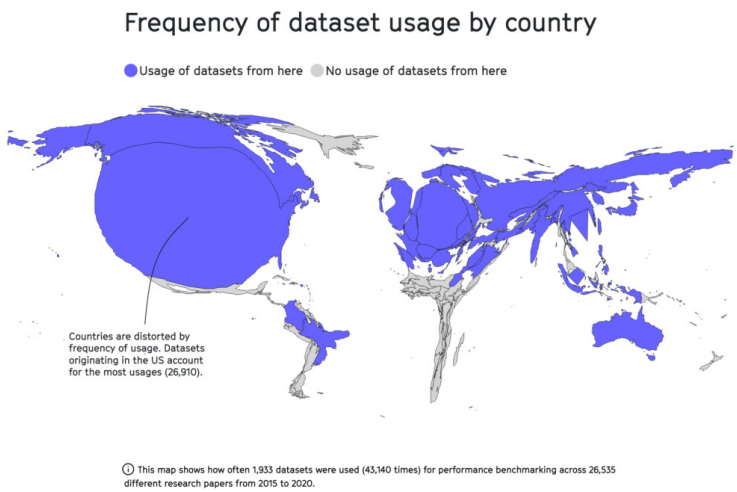
"People who are digitally excluded should not be data excluded."

Osama Manzar [PS 2.1]

DATA COLONIALISM

Figure 6

Data Colonialism



Source: Internet Health Report, 2022, https://2022.internethealthreport.org/fact/

The Global Struggle Over Data Ownership and Equity

Data has become a vital resource for global development, health, and technology—essential in the same way that energy or raw materials are. However, as technological advancements like AI grow, control over data is increasingly contested, leading to critical issues of **equity, ownership**, and **ethics**.

Data as a Resource: Just as physical resources like oil or minerals were historically extracted from colonized regions, data today is being extracted from developing countries and used by wealthier nations, often without fair compensation or consideration for the source countries' needs.

Inequality in Data Distribution: Data colonialism highlights the significant inequality in how the benefits of data are distributed. Developed nations and multinational corporations extract vast amounts of data from poorer countries, using it for economic and technological advancement while the originating countries remain powerless to control or benefit from it.

Impact of Data Colonialism on Developing Countries

Lack of Control Over Data Usage: Many developing countries face significant challenges in managing their data, despite high mobile phone usage and government efforts toward digitalization, due to several reasons e.g., lack of proper infrastructure, capacity, and knowledge to harness the value of the data they generate.

Data Overload and Exploitation: While data is being rapidly collected, developing countries are often overwhelmed by its volume and lack the means to utilize or control it. This results in a situation where data is exploited for profit without clear benefits or fair compensation flowing back to the countries of origin.

Digital Literacy Gap: There is a notable digital literacy gap in many developing countries, making it difficult for citizens and governments to make informed decisions about the data they generate. As a result, these countries are largely unaware of the ways their data is being exploited and are powerless to address it.

Loss of Data Value: By the time data from developing countries is truly harnessed, it may have already lost its value. The delay in effectively using local data diminishes its potential for improving local conditions.

Exacerbating Inequities Through AI and Technology

AI's Role in Data Colonialism: AI tools often reflect the inequalities present in data collection, as they are predominantly designed using data from wealthier populations. These tools, when deployed in less privileged contexts, fail to account for the local cultural, social, and economic realities, further perpetuating the divide.

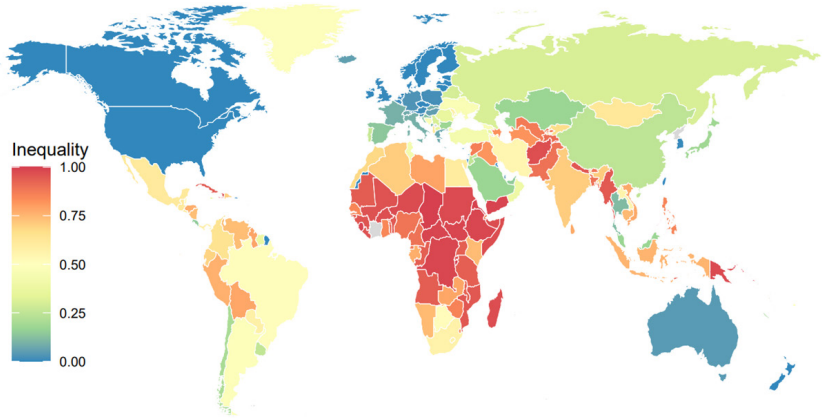
Bias in AI and Medical Systems: AI systems, especially in fields like healthcare, can be inherently biased due to the data used for their training. This bias often mirrors the existing racial, socioeconomic, and geographic inequalities, leading to misdiagnoses, ineffective treatments, and exacerbating health disparities in marginalized communities.

Exclusion of Indigenous Communities: Indigenous populations are often excluded from AI development, both as creators and users, leading to tools that fail to address their unique needs and contexts. These exclusions are a direct consequence of the unequal distribution of both data and technological resources.

Measurement Bias in AI: AI systems have been known to misdiagnose or misinterpret data due to biases in the measurement and collection processes, such as problems with language, skin color, and texture. This issue is particularly significant in health AI, where the failure to account for diverse populations leads to worse outcomes for underrepresented groups.

Figure 7

Visualization of the telecommunication service imbalance for the whole world by Service Imbalance Index



Source: Krause, B., & Dietrich, H. (2021). The digital divide: A comprehensive review of the literature (arXiv:2104.03948). arXiv. Retrieved February 13, 2025, from https://arxiv.org/pdf/2104.03948.

Proposed Solutions to Address Data Colonialism

Inclusive AI Development: AI systems must include diverse populations, particularly those from developing countries and indigenous communities, to ensure fair representation and mitigate the risks of perpetuating existing biases.

Promoting Digital Literacy: Increasing digital literacy and providing education on data ownership, privacy, and ethical use of technology are essential steps to empower individuals and governments in developing countries. Some literature even proposes digital literacy as a new social determinant of health.

Ensuring Ethical Data Use: Clear frameworks should be established to regulate how data is collected, stored, and used, ensuring that countries retain control over their data and that its use benefits the local population.

Building Local Data Infrastructure: Developing countries need support to build the necessary infrastructure and capacity to manage, analyze, and benefit from their data, including training in bioinformatics and AI.

Decolonizing AI and Data: One of the most critical steps in addressing data colonialism is ensuring that the benefits of AI and digital technologies are distributed equitably. This involves creating mechanisms that ensure multinational corporations do not exploit data but instead work towards mutual benefit.

Conclusion: A Call for Equitable Digitalization: The challenge is clear: data colonialism perpetuates global inequalities, with developing nations unable to control or benefit from the data they generate. By addressing the root causes—such as unequal data extraction, biased AI systems, and a lack of digital literacy—it's possible to work towards a more equitable and inclusive future where the digital revolution benefits all, not just the privileged few.

"AI is trained by people in the light but used by people in the dark."

Leo Anthony Celi [PS 2.4]

DATA PRIVACY AND AI FOR HEALTH

Health Data Governance

Health data is crucial for driving digital transformation, enhancing research, and improving decision-making in health systems. However, due to its sensitive nature, health data needs careful governance to prevent harm and maximize its benefits. There's a pressing need for globally recognized health data governance standards.

A global framework for health data governance, prioritizing equity, transparency, and international collaboration, is crucial to ensuring the protection of data privacy.

Governments and stakeholders must collaborate to align policies, drawing from diverse experiences to create effective frameworks.

The Model Law for Health Data Governance offers a non-prescriptive legislative approach that balances data use with privacy and human rights protections. It addresses individual and community rights, pandemic responses, emerging and accountability mechanisms. Health data should be managed ethically, respecting human rights and ensuring equitable benefits. Informed consent and responsible data use are key, and policies must balance individual privacy with the broader public good. The proposed model law helps countries navigate challenges related to data privacy, sovereignty, and ethics, while promoting optimized data sharing, building public trust, and including marginalized communities in decision-making. The framework encourages leveraging digital health technologies and data-driven decisions to strengthen health systems, advance universal health coverage, and improve health outcomes.

Prioritizing health data governance on both national and international agendas is essential.

Governments should develop frameworks to guide the secure and ethical use of health data. Establishing a globally harmonized health data governance standard requires integrating the experiences of various countries, ensuring compatibility across national approaches to facilitate cross-border data sharing. Governments can use flexible blueprints and frameworks to strengthen their national data governance approaches.

Current Problems and Solutions

Fragmented Governance: Inconsistent policies across countries hinder data interoperability and security. A global health data governance framework, supported by model law, is needed to harmonize standards while respecting individual countries' contexts.

Balancing Privacy and Public Health Needs: There is a tension between protecting individual privacy and leveraging data for public health. Building trust, especially within vulnerable communities, can be achieved through transparent governance and robust informed consent.

Political and Resource Constraints: Limited political will and resources can slow health data governance implementation. Creating a trust network among global institutions, policymakers, and stakeholders is crucial to fostering transparency,

Ways Forward for Addressing Data Privacy

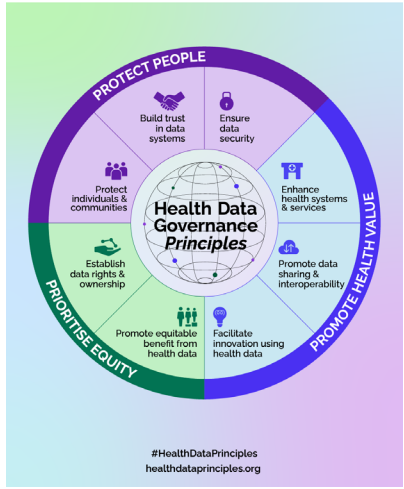
Strengthening health data governance is essential to fully realize the potential of health data while safeguarding individual rights and ensuring equitable access. Global collaboration, legislative harmonization, and ethical governance are critical to ensure that health data benefits the public good.

"I am giving you the data.
Even if you say there are penalties.
Are the penalties going to be enforced?
Do you have a model law or any type
of privacy legislation without
the people to enforce?"

Eric Sutherland [PS 3.2]

Figure 8

Principles of model laws on health data



Source: Transform Health Coalition. (n.d.). Health data governance. Transform Health Coalition, Washington, D.C. Retrieved February 14, 2025, from https://transformhealthcoalition.org/health-data-governance/.

AI AND CLIMATE-DRIVEN HEALTH CHALLENGES: OPPORTUNITIES AND RISKS

The Climate-Health Nexus: A Growing Concern

Climate change is increasingly affecting public health through multiple pathways, including direct impacts such as heat-related illnesses and dietary shifts, as well as indirect consequences like migration and conflicts. These threats underscore the urgent need to enhance health system resilience and adaptation. Over the past decades, AI has emerged as a powerful tool for advancing health technologies, strengthening responses to climate change, and upgrading evidence generation for early warning systems, disease outbreak predictions, biodiversity monitoring, city planning, and transport modeling. For example, AI has been used in Vietnam to estimate the environmental impact of non-breastfeeding practices to support breastfeeding policies, while machine learning models have helped predict malaria outbreaks in Africa, improving preparedness and response.

Challenges of AI in Climate and Health

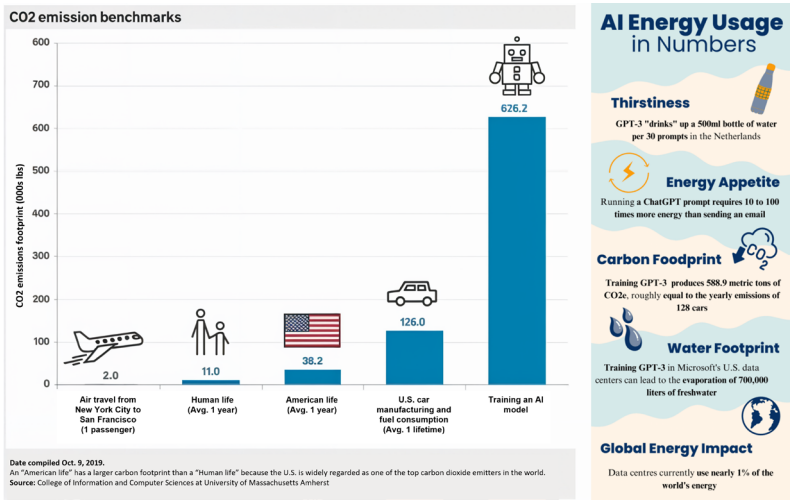
While AI significantly enhances health system capabilities, it still faces major challenges related to reliability, accessibility, equity, and transparency.

Bias and Data Limitations: AI training is constrained by the availability of data from minority populations and the limited inclusiveness of developer perspectives. This leads to biased outcomes that fail to address the unique needs of underrepresented groups, oversimplifying cultural contexts and missing critical societal nuances.

High Carbon Footprint: AI-driven processes consume vast amounts of energy, with data centers growing exponentially in storage and processing capabilities. The increasing demand for energy in AI operations contributes significantly to global carbon emissions, as current renewable energy sources are insufficient to meet these rising needs.

Figure 9

AI and its energy usage



Regulatory Gaps: Rapid AI advancements have outpaced regulatory frameworks. Governments and regulatory bodies struggle to keep up with these changes, leaving AI largely unregulated in critical areas of climate and health governance. This regulatory lag creates ethical and operational risks, further complicating responsible AI deployment.

Strategic Solutions for Ethical and Sustainable AI in the Climate-Health Nexus

To harness AI's potential while mitigating its risks, a structured global approach is essential

First, strengthening AI Governance: Establishing international AI climate governance frameworks will ensure ethical AI deployment in planetary health and sustainability. Comprehensive regulations must be enforced to balance innovation with responsibility.

Second, promoting Sustainable AI Practices: Encouraging AI industries to integrate green energy solutions will help reduce greenhouse gas emissions and optimize energy-efficient AI training.

Third, enhancing Data Accessibility and Equity: Improving digital literacy and ensuring AI models incorporate diverse datasets, including indigenous knowledge, will enhance AI-driven climate resilience and improve inclusivity in urban and rural areas.

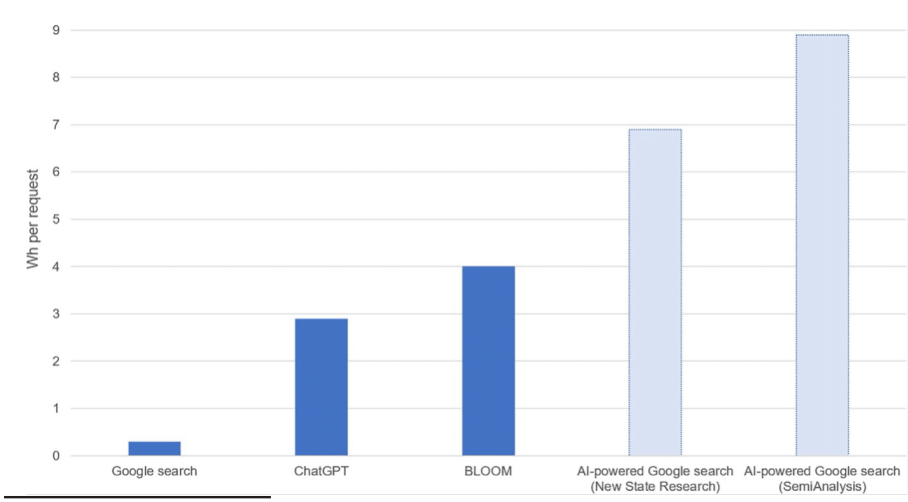
Lastly, developing AI Watchdogs: Independent monitoring systems should be implemented to ensure AI use in climate and health is transparent, accountable, and ethically sound.

A Collaborative Path Forward

The integration of AI with health and climate initiatives presents significant opportunities to tackle climate-related health challenges, strengthening global health systems. However, addressing key concerns around reliability, accessibility, transparency, and equity—particularly for disadvantaged communities—is crucial. By promoting sustainable AI practices and fostering interdisciplinary collaboration between health, technology, and climate sectors, we can ensure AI serves as a tool for resilience rather than deepening existing inequalities.

Figure 10

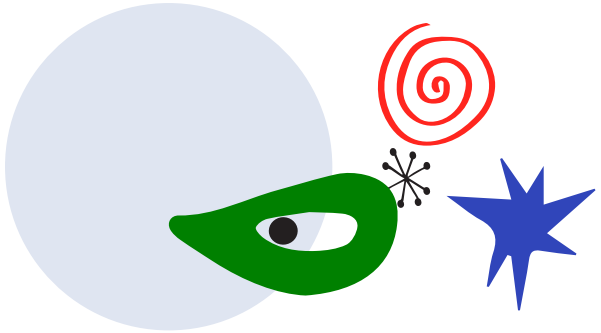
Amount of electricity used when interacting with a Large Language Model (LLM) to that used during a standard Google search



Source: Tilburg AI. (2024). AI & environmental impact. Tilburg University. Retrieved February 14, 2025, from https://tilburg.ai/2024/09/ai-environmental-impact/.

"Is AI the true hero for our climate actions and or other hidden trade off?"

Carlos Escapa [PS 2.5]



AI GOVERNANCE FOR HEALTH

A VISION FOR AI GOVERNANCE IN HEALTHCARE

The primary aim of AI governance in healthcare is to establish guidelines and regulations that ensure equitable and sustainable technological advancement. These regulations must safeguard data privacy and environmental sustainability while fostering innovation and entrepreneurship. The Prince Mahidol Award Conference (PMAC) 2025 highlighted critical aspects of AI Governance in Healthcare emphasizing both the urgent need for comprehensive frameworks and the challenges in developing them. A key finding was the current fragmentation and inconsistency in global AI governance approaches.

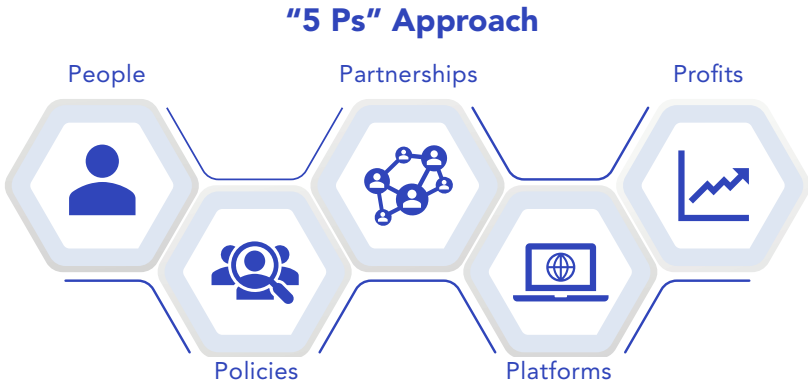
AI Governance in Healthcare

CRITICAL CHALLENGES & GAME-CHANGING SOLUTIONS

Building Trust with Governance Frameworks: Inclusion, transparency, and accountability are essential for AI governance. Effective governance frameworks are necessary to ensure data privacy, safety, efficacy, and trust in AI-driven health innovations. These regulatory frameworks must evolve to address AI's iterative nature and address data biases and ethical concerns through collaboration among policymakers, researchers, and stakeholders.

Bridging the Digital Divide, Tackling Bias & Inequity: A significant portion of the global population lacks access to technological advancements. The current situation of AI reflects the values and biases of its creators. Policies should promote innovation while ensuring equal development opportunities. Ensuring inclusiveness with diversity in AI development, along with transparent governance, can help mitigate inequities. AI systems must reflect the diversity of populations, maintain ethical decision-making standards, and ensure that governing bodies are responsible for their impact.

Balancing Regulation & Innovation: AI regulations should balance oversight with innovation. While necessary for protecting patient rights and ensuring equity, overly restrictive regulations may hinder scientific advancements and economic investments. Smart regulations that foster growth is required. Regulations should consider societal benefits while maintaining a balance that does not stifle innovation. The "5 Ps" approach (People, Policies, Partnerships, Platforms, Profits) ensures well-rounded governance.



Synchronizing AI Policy at Global Level / Global AI Alliance: International cooperation is crucial in establishing effective AI policies. WHO and the International Telecommunication Union (ITU) have been actively collaborating to establish a universal framework for AI governance in healthcare. This partnership aims to facilitate international cooperation and ensure that AI technologies benefit all populations equitably. WHO also supports AI regulations through training and policy consultations to align national policies with UN recommendations.

Pursuing Tech for All: Inclusive AI Development: Technological progress must not leave behind vulnerable populations. Regulations should consider societal needs, investment incentives, and economic sustainability.

Fueling Research & Development—The Catalyst for Change: Encouraging investments in large-scale infrastructure and research institutions can help sustain AI-driven innovations in healthcare. Academic/research institutions play a key role in shaping AI policies by providing evidence-based insights. Increased funding and interdisciplinary collaboration are needed to strengthen research efforts.

Empowering the Public with AI Knowledge and Awareness: Educating the public about AI's potential applications, its long-term impacts and risks is crucial for fostering an informed public and ensuring AI policies are effectively implemented.

AI GOVERNANCE ECOSYSTEM

The conference highlighted the need for an ecosystem approach to AI governance. This approach involves four key components: government oversight and regulation; private sector participation; community and individual engagement; and integration of diverse stakeholder perspectives. Second, it requires private sector participation. Third, it necessitates community and individual engagement. Fourth, and critically, it demands the integration of different stakeholder perspectives.

The conference emphasized that while AI offers significant promises for healthcare, proper governance is essential to ensure its benefits are realized equitably and responsibly. This requires careful consideration of power dynamics, representation, and the balance between innovation and the protection of public interests.

"I believe we should not just think about governance of AI.
We should also think about governance for AI,
other areas of the health sector that
may need to change because of AI.
We should think of governance with AI,
and we should think of governance by AI."

Marelize Gorgens [PS 3.4]

KEY GOVERNANCE PRIORITIES

The conference identified several priority areas for governance development, including the need for diverse representation in decision-making processes, data security frameworks, and environmental impact considerations. Participants emphasized that effective AI governance must address issues of data colonialism and power dynamics, noting that AI development and control are currently concentrated in specific regions, potentially perpetuating existing global inequities.

Representation and Inclusion:

- Ensure diverse voices and worldviews are represented in AI governance
- Consider whose data is being used (and whose is missing) in AI systems
- Include different communities in creation, use, and implementation decisions

Safety and Protection:

- Develop frameworks to keep information secure across different communities
- Balance innovation with responsible use of data
- Ensure governance structures protect both individual and community interests

Environmental Considerations:

- Include governance of AI's environmental impact, particularly regarding infrastructure
- Balance technological advancement with climate responsibility
- Consider resource usage in data storage and processing

FINAL THOUGHTS:

A UNIFIED PATH FORWARD AND CALL TO ACTION

THE CONFERENCE CALLED FOR

A BALANCED APPROACH TO GOVERNANCE THAT CAN KEEP PACE WITH RAPID TECHNOLOGICAL ADVANCEMENT WHILE ENSURING RESPONSIBLE INNOVATION.

This requires careful consideration of whose voices are included in governance discussions and whose data is being used in AI systems. A significant emphasis was placed on developing an ecosystem approach to AI governance that integrates government oversight, private sector participation, and community engagement.

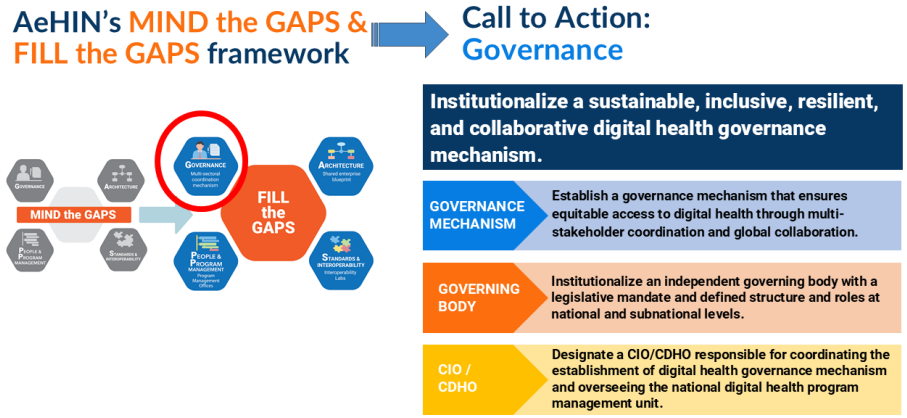
A robust AI governance framework in healthcare must address ethical considerations, regulatory challenges, and technological equity while ensuring transparency and collaboration. Policymakers, academia, and industry leaders must work together to create policies that foster both innovation and societal well-being.

"The governance of health technology is more than a technical necessity. It is a public responsibility."

Amandeep Singh Gill [PL 3]

Figure 11

Call to Action for Governance [PS3.4, slide by Alvin B. Marcelo]



The conference addressed the call to action.

First, it stressed the need for a consistent and coherent global approach.

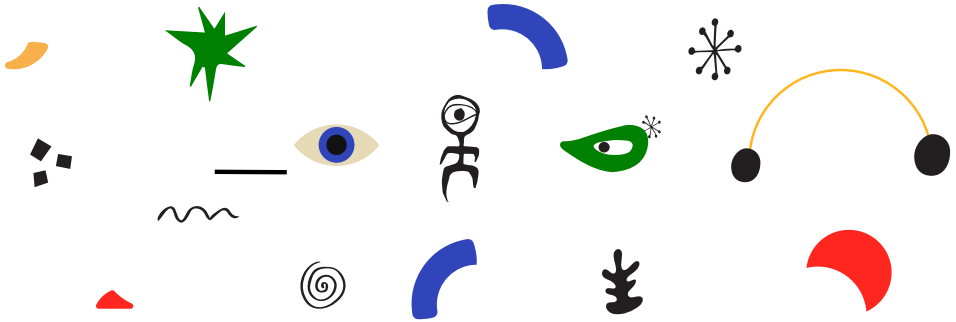
Second, the importance of communication and collaboration between stakeholders was highlighted.

Third, the call to action emphasizes focusing on regulated AI utilization that benefits all communities.

Forth, there is an urgent need for development of core guiding principles of AI governance.

"Inclusion is not just an ethical obligation but essential for creating effective, accurate and impactful tech solutions"

Rose Delilah Gesicho [PS 2.1]



CONCLUSION AND RECOMMENDATIONS

AI offers transformative potential for healthcare. Proper governance frameworks are essential to ensure its benefits are realized equitably and responsibly. This necessitates the development of coherent global standards that protect both individual and community interests while promoting innovation. Particular attention was given to the need for governance structures that can address both the immediate challenges of AI implementation and longer-term considerations such as environmental sustainability and equitable access to AI-enabled healthcare solutions.

The discussion at PMAC 2025 emphasized the complex interplay between rapid technological evolution and the need for effective governance structures.

A KEY FOCUS WAS

THE CURRENT FRAGMENTATION OF AI GOVERNANCE PLATFORMS AND THE URGENT NEED FOR COHESIVE FRAMEWORKS THAT CAN OPERATE AT GLOBAL, REGIONAL, AND NATIONAL LEVELS.

Fundamental principles for AI in health were highlighted, emphasizing that technologies must be responsive to both global and local needs while maintaining sufficient agility to keep pace with AI's rapid development.

The discourse acknowledged the significant role of private sector actors as primary drivers of AI innovation, raising important questions about aligning commercial interests with public health objectives. Special attention was given to the challenges posed by geopolitical dynamics and their impact on AI governance frameworks.

The discussion at PMAC 2025 underscored the imperative of developing governance mechanisms that can overcome traditional bureaucratic limitations while ensuring proper oversight, accountability, and transparency. The discussion considered building upon existing regulatory structures or creating entirely new frameworks better suited to AI's unique challenges in healthcare. The urgency of these considerations was emphasized given AI's accelerating advancement and its increasing influence on global health systems. This discussion contributed valuable insights to the ongoing dialogue about establishing effective governance mechanisms for AI in healthcare, highlighting the need for

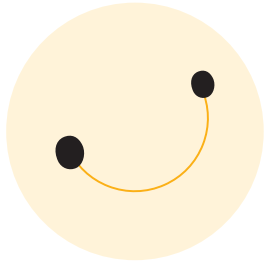
SWIFT BUT THOUGHTFUL ACTION IN DEVELOPING REGULATORY FRAMEWORKS THAT CAN PROMOTE INNOVATION WHILE PROTECTING PUBLIC HEALTH INTERESTS.

RECOMMENDATIONS OF PMAC 2025 ARE CLASSIFIED INTO 5 AREAS.

AREA 1
GOVERNANCE FRAMEWORK AND RIGHTS-BASED APPROACH

AREA 2
EQUITY AND ACCESS

AREA 3
SPEED VS. CAREFUL IMPLEMENTATION



AREA 4
STAKEHOLDER ENGAGEMENT

AREA 5
HEALTH SYSTEM INTEGRATION

AREA 1
GOVERNANCE FRAMEWORK AND RIGHTS-BASED APPROACH

- There is an urgent need for a rights-based approach to AI governance, focusing on the relationship between duty bearers and claim holders.
- The concept of "Digital Self-Determination" (DSD) was proposed as a way for individuals to protect their rights and collaborate with others.
- There is a need for faster regulatory capacity building to keep pace with rapidly evolving AI technologies.
- Ethics impact assessments should be required before AI health solutions are adopted.

AREA 2
EQUITY AND ACCESS

- AI governance frameworks must ensure equitable access across different populations in particular among developing and developed countries in order to reduce potential data bias of the current AI systems which are predominantly trained on Western/Anglo-Saxon countries.
- AI governance mechanisms must ensure that AI solutions are suitable for local contexts in terms of affordability, language, and culture.
- An investment is required and it is importance of considering infrastructure requirements and connectivity limitations in rural/resource-limited settings.

AREA 3
SPEED VS. CAREFUL IMPLEMENTATION

- There is tension between the need for rapid governance development due to AI's fast evolution and the importance of careful and inclusive planning. PMAC 2025 participants emphasized that a "slower, more careful rollout is better than a faster, hasty rollout" when it comes to transformative technologies. The challenge is finding balance between speed and proper governance.

AREA 4
STAKEHOLDER ENGAGEMENT

- Recognition that while inclusive processes may be slower, they are essential for responsible AI development with an importance of including diverse voices, particularly from Global South regions.
- There is a need for increased civil society organization representation in AI decision-making and there is a call for greater engagement of private sector participation in governance discussions.

AREA 5
HEALTH SYSTEM INTEGRATION

- Governance frameworks must consider impact on health workforce and existing health systems.
- Need for thorough evaluation of AI technologies against existing treatments and approaches.
- Importance of user-centered design that considers healthcare worker needs and workflow integration.
- Requirement for health technology assessment before AI implementation.

The overall PMAC 2025 emphasized that while AI advancement cannot be stopped, its development and implementation must be carefully governed to ensure it benefits rather than harms society. There was a strong consensus that governance frameworks must be developed quickly but thoughtfully, with broad stakeholder engagement and particular attention to equity, rights, and local contexts.

PMAC 2025

ACTIVITIES

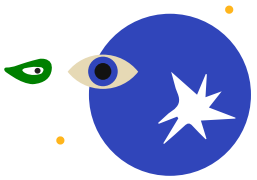
HEALTHY MEETING

CONFERENCE POLICY

PMAC 2025 is strongly committed towards a healthy meeting, continuing from last year's initiative in setting global and national norms and standards of a healthy and active meeting. The conference provides an opportunity to all participants to choose healthier diets and engage in physical activity. Nutrition information and a warning label for food containing high sugar, sodium, and fat have been placed in every food corner.

Furthermore, PMAC 2025 is an alcohol-free conference. More physical activity space has been set up and welcomes all participants throughout the meeting. Standing tables for conference participants are made available in the plenary venue though not in the side meeting venue. Everywhere in the conference venue is free of smoking.

PMAC 2025



FIELD TRIP

PMAC 2025
FIELD TRIP

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 Prince Mahidol Award Conference 2025 (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.

Our field trips are designed around three main themes of PMAC 2025 including Technological Innovations to Strengthen Health Systems and Achieve Universal Health Coverage (UHC); Equity, Ethics, and Empowering the Vulnerable; and Governance, Policy, and Stewardship. During these trips, participants will engage in four field visits to observe real-world examples of how Thailand is utilizing advanced technologies to enhance the country's Universal Health Coverage.

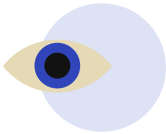
Under the theme of "Harnessing Technology in an Age of AI to Build a Healthier World," PMAC 2025 will be organized with three sub-themes:

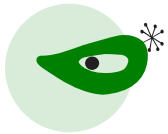
Site 1:

Exploring the AI Healthcare Ecosystem in Thailand:
A Journey from Invention to Nationwide Implementation

Site 2:

Establishing an Open Data Platform for AI Development and Utilizing Metaverse in Medical Training and Patient Care in Thailand





Site 3:

Utilizing Social Innovation and Technology to Improve Primary Care Access, Quality, and Financial Protection in UHC: The Case of "30-Baht Treatment Anywhere"

Site 4:

The Role of UHC in Strengthening Public Health and Fueling Local Innovation for Economic Growth: Thailand's Model

The Companion Book
for PMAC 2025 Field Trip

PMAC 2025
FIELD TRIP

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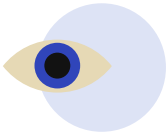

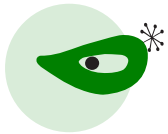

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The Companion Book
for PMAC 2025 Field Trip

SITE 1:

Exploring the AI Healthcare Ecosystem in Thailand: A Journey from Invention to Nationwide Implementation

Bangkok Hospital, Bangkok (Private Hospital)

Artificial intelligence (AI) is rapidly becoming a vital part of healthcare around the world. From improving diagnoses to creating better treatment plans, AI technologies are changing how medical professionals care for patients.

Thailand is embracing AI in medicine, with both the public and private sectors recognizing its power to transform healthcare. Siriraj Hospital, a leading medical institution in Thailand, is at the forefront of developing innovative AI applications, especially in radiology. AI-driven solutions in diagnostic imaging are helping healthcare professionals identify diseases more accurately and at earlier stages. These advancements not only improve diagnostic accuracy but also enable more personalized and effective treatment plans.

Experiencing AI Implementation at Siriraj Hospital & a Private Hospital (BDMS)

Witness AI-Powered Chest X-ray Analysis in Action

Siriraj Hospital is a leader in Thailand for developing AI in radiology, setting a new standard for accuracy and efficiency. During your visit, you'll have the chance to:

- Learn about Siriraj Chest AI, trained on Thai patient data, which excels in identifying multiple clinical findings and supporting tuberculosis screening with a high negative predictive value.
- Experience firsthand how AI interprets chest X-rays, detecting various lung diseases like tuberculosis, pneumothorax, and fibrosis, with high sensitivity for even small abnormalities.
- Discover how the hospital transitioned from traditional radiography to cutting-edge AI systems that enhance diagnostic accuracy and efficiency.

Glimpse into Other AI Applications

The Faculty of Medicine, Siriraj Hospital has the vision to bring AI-integrated health care delivery beyond chest X-rays. You'll also get a brief overview of:

- AI-powered mammography for improved breast cancer detection.
- CT brain imaging for rapid identification of hemorrhages.

Engage with Clinical and Technology Experts

The field trip is not just about observing technology; it's an opportunity to witness the expansion of the technology into the clinical practice.

- Engage in discussions with the Siriraj radiology team, pioneers in integrating AI into radiology. Learn about their experiences, challenges, and vision for the future of AI in healthcare.

Explore the Ecosystem for Implementing Innovations into Thailand's health system

- Gain insights into how the roles of regulatory bodies, product registrations, and endorsement organizations in enabling innovations adoption in Thailand.

The AI Healthcare Ecosystem in Thailand

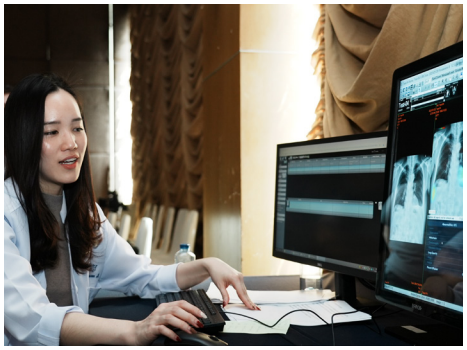
Implementing AI in healthcare in Thailand involves a complex network of stakeholders, each playing a crucial role in bringing innovative solutions from concept to reality. This ecosystem includes:

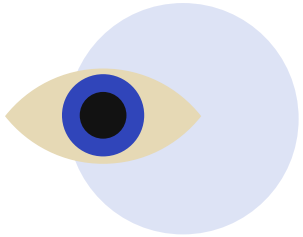
1. **Inventors:** The visionaries who create and develop AI algorithms and systems at department of radiology
2. **Private Sector, the Co-Inventor Partner:** The private company who has been

collaborating in AI development and commercialization at the early stages of development, Percepta.

3. **Regulatory Bodies:** Organizations such as the Thai FDA (T-FDA) that ensure the safety and efficacy of AI medical devices.
4. **Product Registrars:** Entities like NSTDA that manage the registration of AI products for healthcare use.
5. **Product Endorsement Bodies:** Organizations such as NHSO that validate and endorse AI solutions for widespread adoption.
6. **Product Expanders:** Initiatives like TCELS that help scale and disseminate AI technologies in healthcare.
7. **End Users:** Healthcare providers, including the government hospitals and private hospitals, that implement and benefit from AI solutions in clinical practice.

We look forward to welcoming you to an insightful field trip exploring the ecosystem of AI implementation in healthcare, with a special focus on chest X-ray AI. This unique opportunity will provide you with a comprehensive view of how various stakeholders collaborate to bring AI innovations into clinical practice, particularly in radiology. As we stand on the brink of a new era in medical care, this visit offers you a chance to witness firsthand the remarkable advancements that are shaping the future of healthcare delivery.





SITE 2:

Establishing an Open Data Platform for AI Development and Utilizing Metaverse in Medical Training and Patient Care in Thailand

Ramathibodi Hospital, Bangkok

The field of healthcare is undergoing significant transformation due to the adoption of digital technologies, data-driven platforms, and immersive learning tools. With these advancements, medical institutions like Ramathibodi Hospital are at the forefront of integrative management of new technologies to enhance patient care, medical training, and healthcare services.

As one of Thailand's leading medical institutions, Ramathibodi Hospital, in collaboration with the Department of Medical Services, Ministry of Public Health, and the National Science and Technology Development Agency (NSTDA), has pioneered the development of an **Open Medical Data Platform**. This critical infrastructure supports efficient healthcare delivery, research, AI, and medical innovations through the standardization and sharing of medical data. The platform enables seamless integration of large, high-quality datasets, which are essential for training AI algorithms. By providing access to diverse and standardized patient data, the platform allows for the development of advanced machine learning models that can drive diagnostic accuracy, predictive analytics, and personalized medicine. Furthermore, it fosters innovation by enabling AI researchers to collaborate across institutions, accelerating the development of new tools and solutions that improve patient outcomes.

At the same time, the hospital has also embraced Augmented Reality (AR) and Virtual Reality (VR) technologies, both in medical education and patient care, offering innovative solutions that improve learning experiences for students and provide therapeutic support for patients, particularly in palliative care.

This study visit aims to showcase key innovations and their potential to shape the future of healthcare. By engaging with Ramathibodi Hospital's expert teams, participants will explore how these cutting-edge technologies are being integrated into the Thai healthcare system and learn about the practical applications and future possibilities of these tools in advancing healthcare outcomes of Thailand.

Objectives of the Study Visit:

1. **Open Medical Data Platform :**
    1. Showcase Ramathibodi's pivotal role in developing a medical data platform for the Thai population.
    2. Demonstrate a model for data standards, sharing, and governance, ensuring secure, ethical, and efficient utilization of medical data.
    3. Examples of AI solutions derived from the platform.
    4. Highlight the platform's infrastructure, which includes cloud-based storage, data standardization tools, data processing, serving as the foundation for creating a robust AI ecosystem.
2. **Showcase AR/VR Integration :**
    1. To demonstrate the use of AR and VR technologies in medical training at one of Thailand's leading healthcare institutions.
    2. To demonstrate the use of AR and VR technologists to help in palliative care patients.
3. **Discuss Future Potential:** To engage with key stakeholders on how these innovations can enhance medical training, patient outcomes, and the overall healthcare system.

Field Trip Overview

Participants will visit the Faculty of Medicine Ramathibodi Hospital, Bangkok to see and experience the following activities:

1. **Open Medical Data Platform:** Participants will explore Ramathibodi Hospital's pioneering role in creating a medical data platform for the Thai population, designed to enhance healthcare outcomes and streamline the national health system. The tour will highlight the hospital's vision in establishing a foundation for data-driven healthcare and AI development. Attendees will learn about the hospital's model for data standards, sharing, and governance, ensuring the secure, ethical, and efficient use of patient information. This standardization enables safe data exchange between institutions and forms the backbone for AI research. Participants will see real-world examples of AI-powered solutions derived from the platform, such as diagnostic tools for early disease detection (e.g., pulmonary

or liver conditions) and clinical decision support systems that improve diagnostic accuracy and treatment outcomes. A comprehensive overview of the platform's infrastructure will demonstrate both on premise and cloud-based storage, data standardization tools, data processing networks, all of which foster a collaborative AI ecosystem involving hospitals, research institutions, and technology companies, accelerating AI-driven innovations in clinical practice.

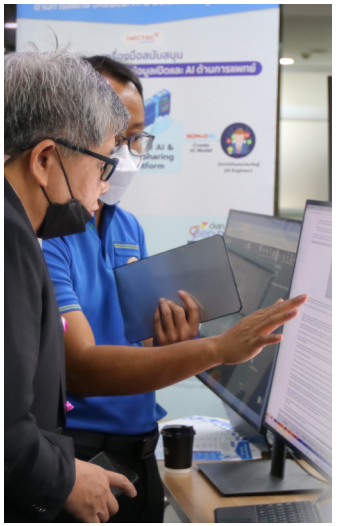
2. **AR/VR Application in Education and Patient's Care**
    1. **AR/VR in Anatomy Training:** Participants will see how AR and VR technologies create detailed 3D visualizations of human anatomy. The demonstration will highlight the ability to simulate virtual anatomical structures, allowing students to interact with lifelike models of bones, muscles, and tissues. This immersive experience offers a deeper understanding of complex anatomy, surpassing traditional textbooks and cadaver-based learning.
    2. **VR for Palliative Care:** The project is led by a team of experts from Ramathibodi Hospital, focusing on creating a new virtual environment to provide comfort and enhance the quality of life for these patients. Participants will see how AR and VR technologies fulfill patients' last wishes and enhance palliative care by alleviating pain and improving the well-being of patients undergoing end-of-life care in Thailand.
3. **Panel Discussion with Experts** This panel discussion will provide participants with a deep dive into two pioneering initiatives at Ramathibodi Hospital: The Open Medical Data Platform and the application of AR/VR technologies in medical education and patient care. The session will explore the hospital's role in data-driven healthcare, as well as cutting-edge immersive technologies in training and patient well-being.

Expected Outcomes

- **Comprehensive Understanding of Open Medical Data Platforms:** Participants will gain insights into how healthcare data can be standardized, shared, and governed to facilitate the development of medical AI and research to improve patient outcomes.
- **Immersive Learning through AR/VR:** The hands-on demonstration will show how AR and VR technologies are revolutionizing medical education and improving the patient care experience, particularly for palliative care patients.
- **Future-Ready Healthcare Systems:** Through expert discussions, participants will leave with an understanding of the future potential of these technologies in advancing medical training, enhancing patient care, and creating a more connected, data-driven healthcare system in Thailand.
- **Future Collaborations:** The trip will open avenues for future collaborations between Thailand's healthcare sector and international stakeholders in advancing digital healthcare education.

Conclusion

This field trip provides participants with the opportunity to observe and learn about the latest innovations in healthcare technology at Ramathibodi Hospital. Through a detailed presentation of the Open Medical Data Platform and live demonstration of the application of AR/VR in medical education and patient care, participants will gain practical insights into how these technologies are being integrated into the hospital's operations. The panel discussion with experts will offer additional perspectives on the potential of these innovations to improve medical training, patient outcomes, and the healthcare system overall.



SITE 3:

Utilizing Social Innovation and Technology to Improve Primary Care Access, Quality, and Financial Protection in UHC: The Case of "30-Baht Treatment Anywhere"

Government Center, Community Physical Therapy Clinic, Community Dental Clinic and Community Pharmacy in Saraburi Province

In an era marked by rapid technological advancements, particularly in artificial intelligence (AI), the global health landscape is experiencing transformative changes. Thailand, as a upper-middle-income country, first achieved Universal Health Coverage (UHC) in 2002. The system was reformed with the establishment of the Universal Coverage Scheme (UCS) to ensure healthcare accessibility for Thais who do not belong to any public health insurance scheme. Its aims include increasing financial protection and preventing people from being pushed into poverty.

During the COVID-19 pandemic, NHSO was concerned about and aware of the difficulties individuals faced in accessing healthcare. In response, NHSO initiated efforts to integrate modern technologies and innovative service models. These initiatives aim to ensure that healthcare remains accessible, high-quality, and affordable both during unexpected situations and in normal times.

At the Prince Mahidol Award Conference (PMAC) 2025 field trips, NHSO is honored to present its ongoing innovations under the theme "Harnessing Technologies in an Age of AI to Build a Healthier World." The focus will be on how these simple technological innovations and social innovations are being utilized to expand UHC in Thailand, with an emphasis on balancing quality, affordability, and accessibility. This field trip will provide participants with insights into how NHSO's innovative healthcare services are contributing to a healthier world, especially in the context of the challenges posed by the pandemic and limited financial resources.

Objectives:

1. To showcase NHSO's innovative approaches in utilizing digital platforms and AI technologies to improve healthcare accessibility, health benefits, and governance for both consumers and providers.
2. To demonstrate the impact of these innovations to health on expanding access to quality healthcare while maintaining affordability.
3. To engage participants in discussions on the challenges and opportunities in balancing quality, affordability, and accessibility in UHC through health innovation.

Core PHC Innovations:

Health Innovation Units:

In 2023, NHSO responded to the "30 Baht Treatment Anywhere" policy by expanding its Health Innovation Units in partnership with the Ministry of Public Health, healthcare units, and health networks across the country. This effort aimed to enhance the Universal Coverage Scheme (UCS), allowing people to access healthcare at any entry point using only identification card. By integrating digital health solutions and innovative approaches, the initiative made healthcare services more accessible, reduced hospital overcrowding and waiting times, and improved cost-effectiveness in healthcare spending.

Health Innovation Units have marked a significant advancement in delivering healthcare services, particularly in remote and underserved areas. These units offer a comprehensive range of services, including preventive care, diagnosis, and treatment, by leveraging mobile health technologies and telemedicine. Equipped with advanced diagnostic tools and telemedicine capabilities, they facilitate real-time consultations with specialists and remote monitoring of patients, enhancing the quality of care and ensuring timely interventions for chronic and acute conditions.

E-Claim Systems using AI: NHSO has successfully advanced its E-Claim system by integrating AI technology to enhance accuracy and efficiency in reimbursement and auditing processes. The new E-Claim system allows healthcare providers to submit reimbursement claims online, ensuring fast and precise processing. This innovation not only streamlines administrative operations but also fortifies NHSO's role as a key player in the nation's healthcare data management.

SITE 4:

The Role of UHC in Strengthening Public Health and Fueling Local Innovation for Economic Growth: Thailand's Model

King Chulalongkorn Memorial Hospital

At the global level, Heads of State and world leaders have committed to accelerating progress toward Universal Health Coverage (UHC) by 2030. However, in practice, progress has been slow and uneven. Even in countries that have achieved UHC, some are working to maintain and build on their progress, while others struggle to sustain it. A combination of factors—including conflicts, the impact of the COVID-19 pandemic, and worsening financial resources for health—has contributed to this stagnation

Achieving and sustaining Universal Health Coverage (UHC) has often been seen by some policymakers, governments, and health economists as a financial challenge, especially for low- and middle-income countries. However, UHC is increasingly recognized as a strategic investment that not only improves population health but also boosts productivity and economic stability in the long term.

Countries like India, South Korea, and Brazil have taken active steps to explore the potential of UHC in driving local innovation and fostering economic growth. India, for instance, has seen its health sector stimulate local innovations and employment opportunities, while Brazil has leveraged UHC to improve healthcare access and support its local pharmaceutical industry, contributing to economic development. These examples illustrate how UHC can be a catalyst for both improved health outcomes and economic benefits.

Thailand has established a policy that promotes the development and implementation of innovations within its Universal Coverage Scheme, encompassing advanced technologies for treatment, health promotion, and disease prevention.

This field trip offers participants the opportunity to experience firsthand the innovation development process in Thailand, showcasing research and development initiatives that facilitate data-driven and evidence-based decision-making for incorporating innovations into benefits packages. Key examples to be presented include 3D-Printed Titanium Skull Implants, Microalbuminuria Test Kits, the sPace Dynamic Foot, Precision Public Health, and Innovation in Medicine and Digital Health Center.

3D-Printed Titanium Skull Implants

Stroke is one of the leading causes of death worldwide. A 2019 survey revealed that over 101 million people globally have suffered from strokes, with 12.2 million new cases and approximately 6.5 million deaths annually. In Thailand, the 2020 Public Health Statistics Report by the Ministry of Public Health recorded 34,545 stroke-related deaths, a figure that continues to rise. Stroke symptoms fall into two main categories: 1) Acute cerebral ischemia (blockage), and 2) Cerebral hemorrhage (rupture). These conditions can be treated with clot-dissolving medications or surgical procedures like craniotomy. After recovery, neurosurgeons must close the skull, often using either the original bone or polymethylmethacrylate (PMMA), a widely used plastic material available under Thailand's Universal Coverage Scheme (UCS).

Despite its widespread use, PMMA has limitations, particularly in terms of strength and infection resistance. As a result, there has been a growing shift toward titanium or titanium alloy plates for skull reconstruction. While Personalized 3D-Printed Titanium Skull Implants represent a significant advancement in this field, their high production costs and limited manufacturing capabilities worldwide have restricted widespread adoption.

Recognizing the need for affordable and effective alternatives, the Health Systems Research Institute (HSRI) partnered with Meticuly Co., Ltd. and the Faculty of Pharmacy at Mahidol University to conduct a study titled "Personalized 3D-Printed Titanium Skull Implants for Patients with Skull Defects in a Multicenter Clinical Study." This research aimed to evaluate the performance of locally produced titanium skull implants according to international medical device standards, ensuring high-quality and global competitiveness. It also focused on the implants' safety, cost, patient quality of life, and economic value while considering the budgetary and social impacts.

The study's findings demonstrated that locally made Personalized 3D-Printed Titanium Skull Implants offer superior performance and cost-effectiveness. These results were presented at the policy level, eventually leading to their inclusion in Thailand's Universal Coverage Scheme health benefits package.

Albuminuria Test Kit

Chronic Kidney Disease (CKD) has been recognized as a significant health challenge and public health concern for the Thai population for a long time and has had an impact on the country's economy. The Department of Disease Control reports that approximately 1 in 10 of the world population has abnormal kidney function, almost 1 million deaths due to untreated chronic kidney failure.

The CKD situation in Thailand is increasing rapidly. Since the medical and public health data warehouse system in 2022 revealed that 1 in 25 patients with diabetes and hypertension were newly diagnosed with CKD. Additionally, there are currently 420,212 cases in CKD stage 3, another 420,212 cases in CKD stage 4, and 62,386 cases requiring dialysis at CKD stage 5.

In response, the Department of Internal Medicine at Chulalongkorn University, in partnership with the Health Systems Research Institute (HSRI) and its team, conducted research on the "Project to Develop a Screening System for Early Chronic Kidney Disease at the Primary Level with an Albuminuria Test Kit".

This research project aims to assess the effectiveness of the CKD screening kit for early detection and to establish a point-of-care testing approach. This includes screening kidney disease test kit an automated system for patient data recording, processing, and reporting. The research project also focuses on developing innovative kidney function tests that display results effectively, enabling early screening for kidney disease. This advancement will enhance public understanding of the significance of albumin levels as early indicators of kidney health.

This field trip will offer participants an in-depth look at how evidence-based research is leveraged to integrate local innovations into national health policy. The goal is to reduce healthcare disparities, enhance patient outcomes, and support the sustainable development of the Thai healthcare system.

Precision Public Health

Thailand's public health system has been exemplary, with achievements rooted in strong infrastructure, skilled manpower, and sound financial management. However, maintaining this success in the face of evolving challenges requires constant adaptation and innovation. One promising area identified by the World Health Organization (WHO) for improving global health is genomic technology. This cutting-edge science has the potential to revolutionize public health by providing tailored approaches to disease prevention and treatment.

Thailand has been an active participant in the equitable implementation of human genomics for population health. Equipped with advanced DNA sequencing technologies and high-performance computing, the country is well-positioned to leverage these tools for significant health benefits. Our focus has been primarily on the diagnosis and treatment of rare diseases, a crucial area that has previously seen limited progress in many regions.

Through these efforts, Thailand has already achieved notable success. Genomic technology has saved countless lives and significantly improved the quality of life for many patients. By identifying genetic factors behind rare diseases, clinicians can offer more precise diagnoses and treatments, reducing suffering and increasing life expectancy.

Looking to the future, Thailand aims to upscale its efforts, expanding genomic research and application to benefit even more people. One promising direction is the implementation of newborn sequencing programs, which could allow for the early detection and treatment of genetic disorders, further enhancing public health outcomes. As WHO has launched its genomics program for global health, Thailand's commitment to equitable and innovative health solutions will continue to drive progress, ensuring that genomic technology serves as a transformative tool in improving global health.

Innovation in Medicine and Digital Health Center

The Faculty of Medicine, Chulalongkorn University invites international participants to explore its state-of-the-art Innovation and Digital Health Center, a hub dedicated to advancing healthcare through technology. The center focuses on fostering medical innovations, integrating digital health solutions, and enabling digital transformation in medical education and clinical practice. Visitors will experience how cutting-edge technologies such as AI, telemedicine, and big data analytics are being utilized to improve patient care, enhance learning, and promote research. Through partnerships with various sectors, the center aims to cultivate a sustainable ecosystem for medical innovations, ultimately transforming healthcare delivery in Thailand and beyond.

Objectives of the Study Visit:

- To explore the use of research evidence in policy decision-making for integrating medical innovations into UHC benefit packages.
- To highlight the role of Health Technology Assessment (HTA) in enhancing access to advanced medical technologies.
- To examine the benefits of UHC in promoting and supporting locally developed innovations.

- To understand how genomic technologies are being applied to improve public health outcomes in Thailand, particularly for rare diseases and early disease detection.
- To showcase how the Innovation and Digital Health Center at Chulalongkorn University leverages AI, digital health, and data analytics to advance healthcare, medical education, and research.

Field Trip Overview

This field trip will take participants through the journey of integrating locally developed medical innovations, such as Personalized 3D-Printed Titanium Skull Implants, and Albuminuria Test Kit into Thailand's Universal Coverage Scheme (UCS). The visit will focus on how evidence-based research are utilized to inform policy decisions that shape the country's healthcare system.

Participants will have the opportunity to learn directly from key stakeholders, including researchers, healthcare providers, policy makers, and patients who have benefited from the innovations. The trip will highlight the comprehensive research behind the inclusion of 3D-Printed Titanium Skull Implants and Albuminuria Test Kit in the UCS health benefits package, emphasizing the importance, cost-effectiveness analyses, and multidisciplinary collaboration.

The trip will also showcase Thailand's Precision Public Health approach, leveraging genomic technology for tailored disease prevention and treatment, and will highlight the country's advancements in rare disease diagnosis and treatment. In addition, participants will visit the Innovation and Digital Health Center at Chulalongkorn University, where cutting-edge technologies such as AI, telemedicine, and big data analytics are utilized to improve patient care, medical education, and research.

By visiting King Chulalongkorn Memorial Hospital, participants will gain firsthand insights into the practical applications of these innovations and witness the ongoing efforts to improve patient outcomes and healthcare equity in Thailand.

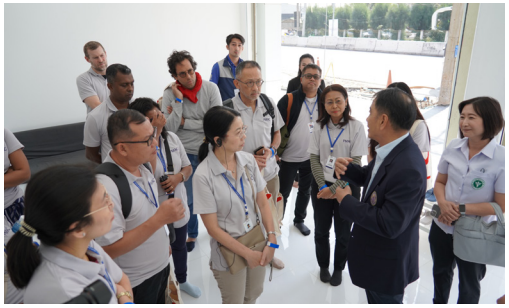
Expected Outcomes

- Participants will understand the critical role of research evidence, in the inclusion of new medical technologies in health benefit packages under UHC.
- Greater appreciation of Health Technology Assessment (HTA) and the importance of research as a key tool in improving access to advanced and locally produced medical technologies.
- Insight into the importance of UHC in promoting and sustaining local innovations, fostering a sustainable healthcare system.
- Enhanced knowledge sharing between participants on strategies for incorporating innovative healthcare solutions into national health policies.

Conclusion

This field trip will demonstrate how locally developed medical innovations, supported by rigorous research and economic evaluation, can be successfully integrated into national health policies. By highlighting the use of evidence-based decision-making in Thailand's Universal Coverage Scheme, participants will leave with a clearer understanding of how these processes can be replicated to enhance healthcare access, reduce disparities, and improve patient outcomes in other contexts. The trip will also reinforce the vital role of UHC in supporting the sustainable development and adoption of innovative medical technologies.

PMAC 2025 FIELD TRIP



PMAC 2025

WORLD ART CONTEST

PMAC 2025
WORLD ART CONTEST

Since 2013, a unique activity called the "Art Contest" was introduced to the PMAC which not only crossed over two different sides of knowledge, art and science, but also brought the public audience, the community, closer to the PMAC concept.

The Art Contest project was initiated as an instrument to communicate the idea of the conference theme to the public audience. The contest was opened to everyone, with the aim of raising the awareness of the young generation in how their health is connected to their little families and through the entire world. Vice versa, the various new perspectives of a successful world where all people live better, happy, healthy and equitably from the young generation have been presented to our prestigious participants.

This year, the theme of the Prince Mahidol Award Conference 2025 is "Harnessing Technologies in an Age of AI to Build a Healthier World." PMAC 2025 is dedicated to exploring the synergy of technological applications in enhancing health and well-being of individuals. This conference presents an opportunity to forge new perspectives on *"how technologies can be harnessed to create a more peaceful, sustainable, cleaner, and healthier societies for us all, where we harmoniously share its fruit of good quality for living altogether."*

We invited students and all people to take part in the PMAC 2025 World Art Contest under the topic

"Using Innovative Technologies to Create a Healthier World"

The project has received positive response nationally and internationally from young people, parents and schools. Out of 13 nationalities that participated, 529 entries were sent in; 51 young artists won the prizes (13 prizes worth over 148,000 Baht).

The winners were invited to recieve the award during PMAC 2025 on 30 January 2025 at the Centara Grand, CentralWorld. The award ceremony event was a fullfilling and enjoyable experience for the winners and participants.

All the winning artwork were displayed during the conference. The display art pieces amazed PMAC partipants by their high quality artistic skill and creativity. We recognized the difficulties of many schools which support our program as well. Consequently, we introduced the 'art contribution'. The purpose was to provide financial contribution from our prestigious PMAC participants to schools which supported the art program for their students. The art contribution of winning art pieces from the previous year, PMAC 2024 has raised over 153,896.50 Baht and 10 schools were invited to recieve 8,000 Baht each from the PMAC 2024 art contribution.

Additionally, at PMAC 2025, apart from the art contribution of the PMAC winning art pieces (which are not only from PMAC 2025, but also from the previous PMACs), there were various products (including umbrellas, shawls, tumblers, luggage tags and magnets) designed from the PMAC 2025 art pieces. The PMAC 2025 art contribution has raised 162,169.37 Baht (as of February 2025) and we will look for opportunities to increase the funds for art contributions to be given to the schools in PMAC 2026.

UNDER 9 YEARS OLD

WORLD FIRST PRIZE
Pachara Wandee

WORLD SECOND PRIZE
Bhatnaratana Aramruangsakul

WORLD THIRD PRIZE
Ammaline Suwanwanmanee

WORLD HONORABLE MENTION PRIZE
Peerawit Kaewthi
Benyapha Asawasukhon
Athipun Thinnabud
Pakorn Mingkaew
Sasiprapa Wadkasem
Tantawannoi Rikarthok
Sumitar Sukkaison
Aurisa Yangniyom
Nontawat Namsomboon
Nidanuch Sarawong
Panisara Thongpan
Yardpirun Saleesang
Supatsara Nonsurat

9 - 13 YEARS OLD

WORLD FIRST PRIZE
Natcha Nalampoon
Parinyada Tomprom

WORLD SECOND PRIZE
Pimmada Thongmee

WORLD THIRD PRIZE
Chawanwit Arngmatcha
Theeraya Baokeaw
Kanok-on Ket-in

WORLD HONORABLE MENTION PRIZE
Suwannaree Darakamon
Serene Sirikanchana
Apiwit Phakdeephruetthinan
Natcha Wichaidit
Kittiset Arlakboonsuki
Bowonchaiwat Waengwan
Thanawan Kachatong
Natthanich Thongsrikaew
Napat Panpattaranan
Anchana Nganrungphisit
Onkanya Mokchan
Suphavit Pasanpot
Pheksa Thaopanya
Chan Yi Fey
Thunyaporn Jachai

14 - 18 YEARS OLD

WORLD FIRST PRIZE
Haneeny Mohamadtohed

WORLD SECOND PRIZE
Viara Pencheva
Phattharapong Dongjai

WORLD THIRD PRIZE
Pakwalan Kachon

WORLD HONORABLE MENTION PRIZE
Theechutha Chosanthia
Pemika Bussaboon
Prakayvit Bookkathok
Khitaphat Ainta
Thaweetip Phingsanoi
Preedapon Swangrat
Thitikhun Sensena
Suthinee Phanakhorngsak
Denpum Dutarthit
Varayut Khajondetwana
Chatchawan Kraisang

ABOVE 18 YEARS OLD

WORLD FIRST PRIZE
Khachen Playbun

WORLD SECOND PRIZE
Jongruk Somboon

WORLD THIRD PRIZE
Theerawat Chanstamp

WORLD HONORABLE MENTION PRIZE
Panupong Kongyen
Nattayaporn Yodkong
Surasak Jongsomjit
Unchalika Kaewjan
Chatuphon Siretar
Somboon Unpracha
Nathaporn Thitinan
Wongsakorng Teebsuwan
Nattha Sawasdee
Sukit Chuasaidoung
Kittachaphol Watcharachaisakul
Sujika Srinantakul

THE AWARD CEREMONY OF THE

PMAC 2025 WORLD ART CONTEST

The Artwork are Displayed on
the PMAC 2025 Website

PMAC 2025

PUBLICATION

Bulletin of the World Health Organization for the Prince Mahidol Award Conference 2025

Theme Issues: Digital technologies to improve health services

Volume 103, Issue 2, February 2025, 85–176 (12 articles)

The Bulletin of the World Health Organization is an international journal of public health with a special focus on developing countries. Since it was first published in 1948, the Bulletin has become one of the world's leading public health journals. This month's theme is linked to the Prince Mahidol Award Conference 2025 on digital technologies to improve health services.

Read Full Articles

ANNEXES

ANNEX I

CONFERENCE PROGRAM STRUCTURE

46 SIDE MEETINGS

4 SPECIAL EVENTS

4 FIELD TRIPS

47 POSTER PRESENTATIONS

1 PUBLICATION
Bulletin of the World Health Organization Volume 103, Issue 2, February 2025, 85–176 (12 articles)

529 SUBMISSIONS
FOR PMAC 2025 WORLD ART CONTEST

1 KEYNOTE ADDRESS

4 PLENARY SESSIONS (PL)

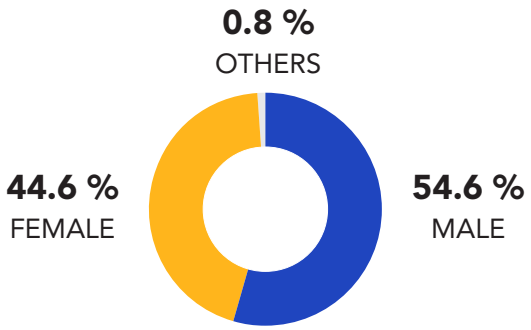
15 PARALLEL SESSIONS (PS)

28 JANUARY - 2 FEBRUARY 2025

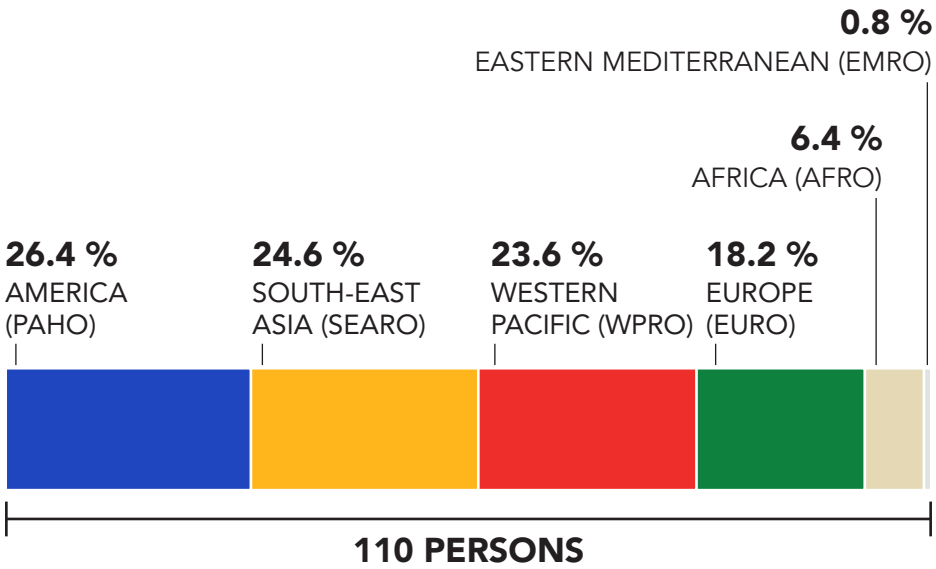
SPEAKERS, MODERATORS AND PANELISTS

There were a total of 110 speakers, moderators and panelists altogether (male 54.55 %, female 44.55 %) from 27 countries in all sessions of PMAC 2025. There were 98 speakers attending on-site and 12 speakers attending online.

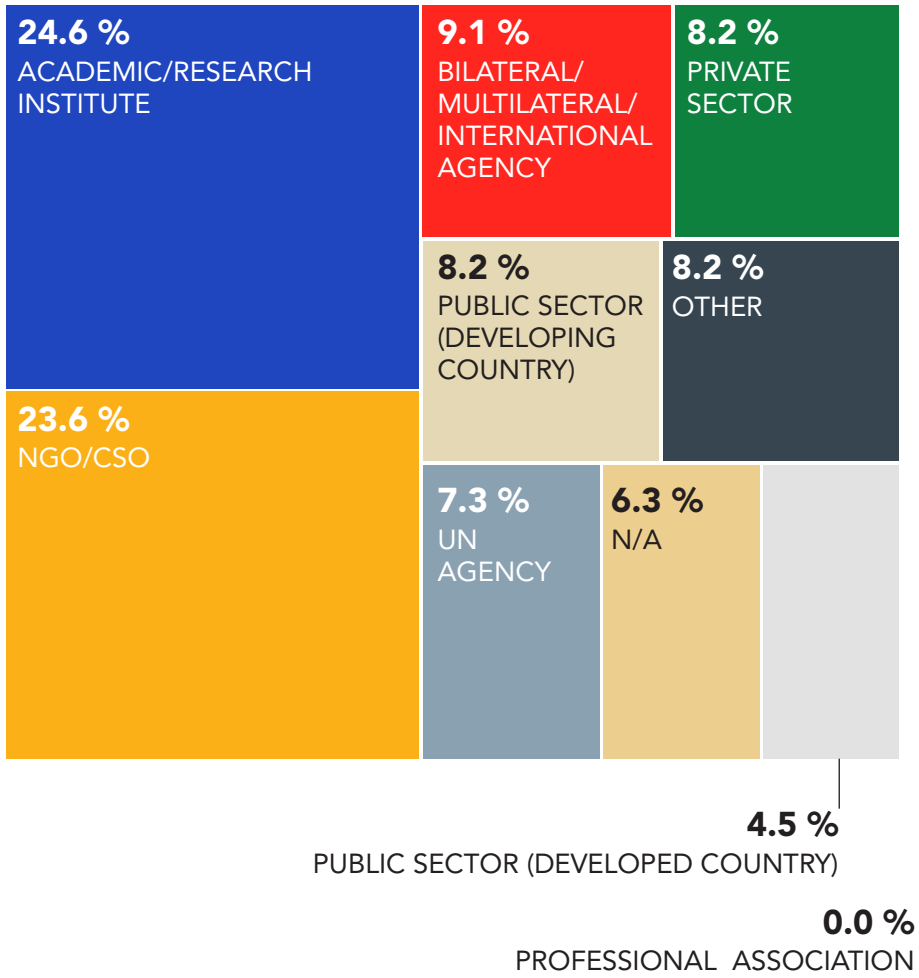
GENDER



COUNTRY OF RESIDENCE OF SPEAKERS, MODERATORS, AND PANELISTS BY SIX WHO REGIONS



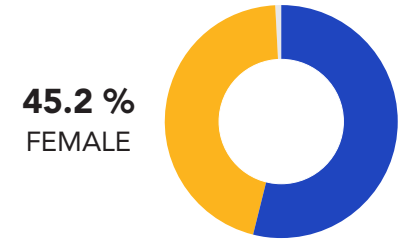
ORGANIZATION OF SPEAKERS, MODERATORS AND PANELISTS



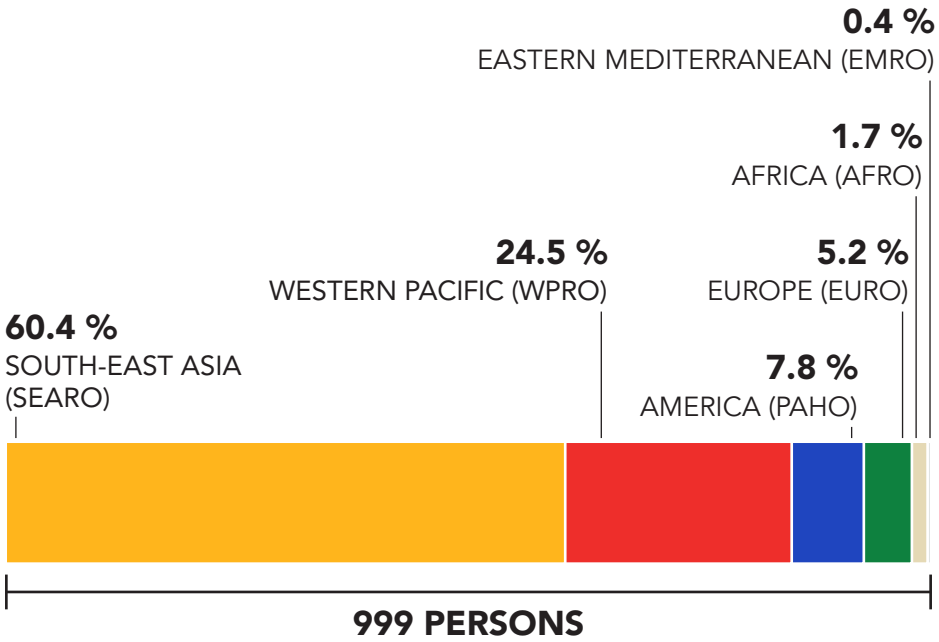
PARTICIPANTS

Total registered participants (including speakers, panelists, moderators, rapporteurs and attendees): There were a total of 999 participants from 50 countries (male 53.95 %, female 45.15%, others 0.9%)

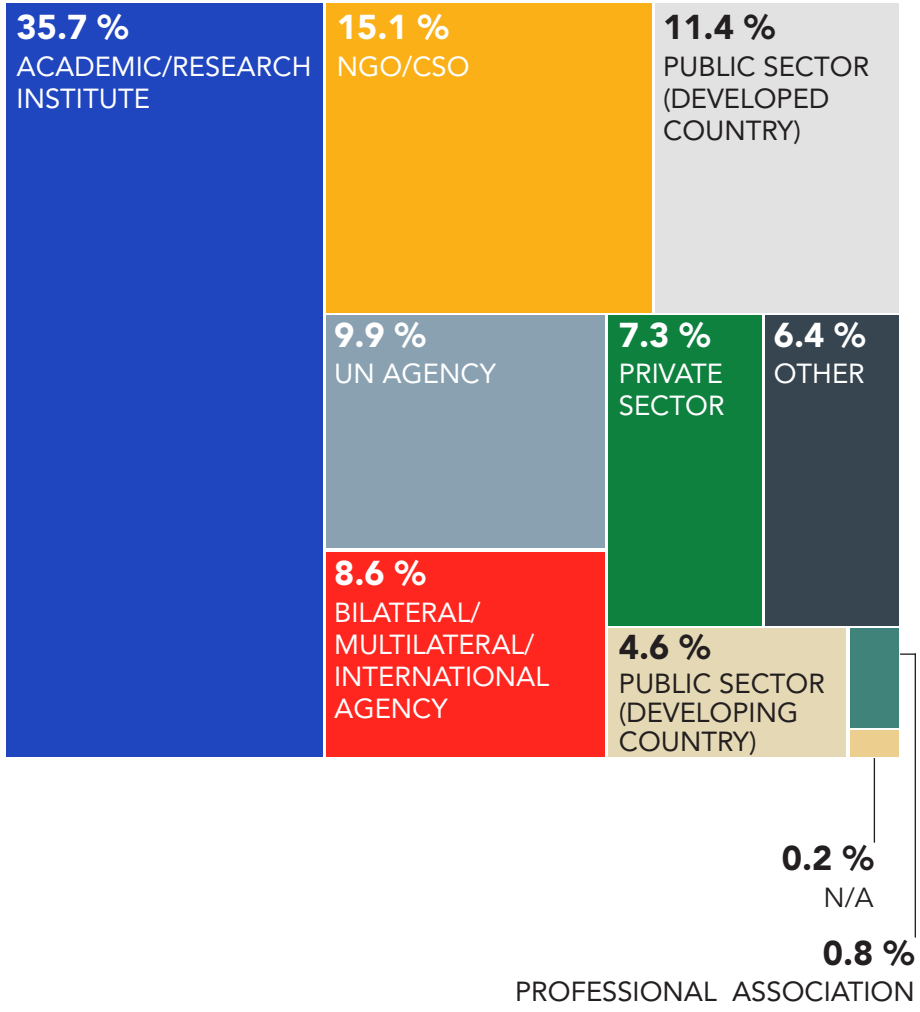
GENDER



COUNTRY OF RESIDENCE OF PARTICIPANTS BY SIX WHO REGIONS



ORGANIZATION OF PARTICIPANTS



ANNEX II
LIST OF INTERNATIONAL ORGANIZING COMMITTEE MEMBERS

NAME	POSITION	ORGANIZATION	ROLE
Dr. Vicharn Panich	Chair, International Organizing Committee	Prince Mahidol Award Conference, Thailand	Chair
Ms. Winnie Byanyima	Executive Director	Joint United Nations Programme on HIV/ AIDS, Switzerland	Co-Chair
Ms. June Kunugi	Regional Director, East Asia and the Pacific Regional Office	United Nations Children's Fund, Thailand	Co-Chair
Dr. Ailan Li	Assistant Director General, Healthier Populations	World Health Organization, Switzerland	Co-Chair
Dr. Juan Pablo Uribe	Global Director for Health Nutrition and Population	The World Bank, USA	Co-Chair
Mr. Marcos Neto	Assistant Administrator and Director of the Bureau for Policy and Programme	United Nations Development Programme, USA	Co-Chair
Dr. Marijke Wijnroks	Head, Strategy, Investment and Impact Division (SIID) a.i.	The Global Fund to Fight AIDS, Tuberculosis and Malaria, Switzerland	Co-Chair
Dr. Atul Gawande	Assistant Administrator for Global Health	United States Agency for International Development, USA	Co-Chair
Ms. Saeda Makimoto	Senior Deputy Director General, Human Development Department	Japan International Cooperation Agency, Japan	Co-Chair
Dr. Roger I. Glass	President	China Medical Board, USA	Co-Chair
Dr. Naveen Rao	Senior Vice President & Senior Advisor to the President, Health Initiative	The Rockefeller Foundation, USA	Co-Chair
Dr. David Harper	Senior Consulting Fellow, Global Health Programme	Chatham House, United Kingdom	Co-Chair
Mr. Pio Smith	Director, Asia-Pacific Regional Office	United Nations Population Fund, Thailand	IOC Member
Dr. Teo Yik Ying	Vice President of Global Health, and Dean at Saw Swee Hock School of Public Health	National University of Singapore, Singapore	IOC Member
Dr. Gabriel Leung	Executive Director, Charities and Community	The Hong Kong Jockey Club Charities Trust in association with the Institute of Philanthropy, Hong Kong	IOC Member
Dr. Stephen Mills	Asia Regional Director, Infectious Diseases	FHI 360, USA	IOC Member
Dr. Peter Friberg	Professor, School of Public Health and Community Medicine	University of Gothenburg, Sweden	IOC Member
Dr. Hong Wang	Senior Program Officer, Health Economics, Financing, and System Strengthening	Bill & Melinda Gates Foundation, USA	IOC Member
Mr. Salman Khan	Liaison Officer for Public Health Issues	International Federation of Medical Students' Associations	IOC Member
Dr. Dennis Carroll	Chair, Leadership Board	Global Virome Project, USA	IOC Member

NAME	POSITION	ORGANIZATION	ROLE
Dr. Jesse Bump	Executive Director of the Takemi Program in International Health and Lecturer on Global Health Policy	Harvard T.H. Chan School of Public Health, USA	IOC Member
Dr. Timothy Mastro	Professor, adjunct, Gillings School of Global Public Health	University of North Carolina at Chapel Hill, USA	IOC Member
Mrs. Eksiri Pintaruchi	Permanent Secretary	Ministry of Foreign Affairs, Thailand	IOC Member
Dr. Opart Karnkawinpong	Permanent Secretary	Ministry of Public Health, Thailand	IOC Member
Mr. Danucha Pichayanan	Secretary General	National Economic and Social Development Council, Thailand	IOC Member
Dr. Supat Vanichakarn	Secretary General	Prince Mahidol Award Foundation, Thailand	IOC Member
Dr. Jadej Thammatach-aree	Secretary General	National Health Security Office, Thailand	IOC Member
Dr. Piyamitr Sritara	President	Mahidol University, Thailand	IOC Member
Dr. Supakit Sirilak	Director	Health Systems Research Institute, Thailand	IOC Member
Dr. Pongthep Wongwatcharapaiboon	Chief Executive Officer	Thai Health Promotion Foundation, Thailand	IOC Member
Dr. Apichat Asavamongkolkul	Dean, Faculty of Medicine Siriraj Hospital	Mahidol University, Thailand	IOC Member
Dr. Chanchai Sittipunt	Dean, Faculty of Medicine	Chulalongkorn University, Thailand	IOC Member
Dr. Artit Ungkanont	Dean, Faculty of Medicine Ramathibodi Hospital	Mahidol University, Thailand	IOC Member
Ms. Kobkarn Wattanavrangkul	Chairperson	Kasikornthai Foundation, Thailand	IOC Member
Dr. Prasit Watanapa	Chair, International Award Committee	Prince Mahidol Award Foundation, Thailand	IOC Member
Dr. Udom Kachintorn	Advisor to The Dean	Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand	IOC Member
Dr. Suwit Wibulpolprasert	Vice Chair	International Health Policy Program Foundation and Health Intervention and Technology Assessment Foundation, Thailand	IOC Member
Dr. Viroj Tangcharoensathien	Senior Advisor	International Health Policy Program Foundation, Thailand	IOC Member
Dr. Walaiporn Patcharanarumol	Director, Global Health Division	Ministry of Public Health, Thailand	IOC Member
Dr. Yot Teerawattananon	Secretary General	Health Intervention and Technology Assessment Program Foundation, Thailand	IOC Member
Dr. Rapeepong Suphanchaimat	Researcher	International Health Policy Program Foundation, Thailand	IOC Member
Mr. Gerardo Zamora-Monge	Executive Officer, Office of Assistant Director-General, Division of UHC/Healthier Populations	World Health Organization, Switzerland	Member & Joint Secretary
Dr. Feng Zhao	Practice Manager, the Health, Nutrition and Population Program, South Asia Region	The World Bank, USA	Member & Joint Secretary

NAME	POSITION	ORGANIZATION	ROLE
Mr. Eamonn Murphy	Regional Director, Asia Pacific and Eastern Europe & Central Asia	Joint United Nations Programme on HIV/ AIDS, Thailand	Member & Joint Secretary
Dr. Myo-Zin Nyunt	Deputy Regional Director, East Asia and the Pacific Regional Office	United Nations Children's Fund, Thailand	Member & Joint Secretary
Dr. Mandeep Dhaliwal	Director, HIV, Health and Development	United Nations Development Programme, USA	Member & Joint Secretary
Dr. Mai Hijazi	Director of the Office of Health Systems, Bureau for Global Health	United States Agency for International Development, USA	Member & Joint Secretary
Ms. Emiko Nishimura	Director, Global Health Team, Human Development Department	Japan International Cooperation Agency, Japan	Member & Joint Secretary
Dr. Piya Hanvoravongchai	Equity Initiative Program Director	China Medical Board, Thailand	Member & Joint Secretary
Dr. Alexis Feeney Tallman	Managing Director, Health	The Rockefeller Foundation, USA	Member & Joint Secretary
Dr. Churnrurtai Kanchanachitra	Emeritus Professor, Institute for Population and Social Research	Mahidol University, Thailand	Member & Joint Secretary
Dr. Angkana Lekakul	Secretary General and Treasurer	International Health Policy Program Foundation, Thailand	Member & Joint Secretary

ANNEX II

LIST OF INDEPENDENT INTERNATIONAL SCIENTIFIC COMMITTEE MEMBERS

NAME	POSITION	ORGANIZATION	ROLE
Dr. Viroj Tangcharoensathien	Senior Advisor	International Health Policy Program Foundation	Chair
Dr. Alain Labrique	Director, the Department of Digital Health and Innovation	World Health Organization	Member
Dr. Angkana Lekagul	Secretary General and Treasurer	International Health Policy Program Foundation	Member
Dr. David Harper	Senior Consulting Fellow, Global Health Programme	Chatham House	Member
Dr. Dennis Carroll	Chair, Leadership Board	Global Virome Project	Member
Dr. Hong Wang	Senior Program Officer, Health Economics, Financing, and System Strengthening	Bill & Melinda Gates Foundation	Member
Dr. Jesse Bump	Executive Director of the Takemi Program in International Health and Lecturer on Global Health Policy	Harvard T.H. Chan School of Public Health	Member
Dr. Leslie Ong	Programme Specialist, Access and Delivery Partnership, HIV & Health Group, Bangkok Regional Hub	United Nations Development Programme	Member
Mrs. Milin Sakornsin Ruddit	Senior International Relations Officer	Thai Health Promotion Foundation	Member
Dr. Pataraporn Laowong	Plan and Policy Analyst, Expert Level	Office of the National Economic and Social Development Council	Member
Dr. Peter Friberg	Professor, School of Public Health and Community Medicine	University of Gothenburg	Member
Dr. Phanuwich Kaewkamjornchai	Doctor of Medicine	Faculty of Medicine Ramathibodi Hospital	Member
Dr. Prapat Suriyaphol	Deputy Dean of Information Technology	Faculty of Medicine Siriraj Hospital	Member
Dr. Rapeepong Suphanchaimat	Researcher	International Health Policy Program Foundation	Member
Dr. Saudamini Dabak	Head of International Unit	Health Intervention and Technology Assessment Program Foundation	Member
Dr. Stephen Mills	Asia Regional Director, Infectious Diseases	FHI 360	Member
Dr. Taninee Sahakitrungruang	Assistant Dean for Graduate Affairs	Faculty of Medicine, Chulalongkorn University	Member
Dr. Thu Ba Huynh	Senior Advisor, Environment and Climate Change	FHI 360	Member
Dr. Timothy Mastro	Professor, adjunct, Gillings School of Global Public Health	University of North Carolina at Chapel Hill	Member
Dr. Varalak Srinonprasert	Assistant Dean, Research	Faculty of Medicine Siriraj Hospital	Member
Dr. Wipaporn Natalie Songtaweesin	Lecturer, School of Global Health	Faculty of Medicine, Chulalongkorn University	Member
Dr. Yik Ying Teo	Vice President of Global Health and Dean at Saw Swee Hock School of Public Health	National University of Singapore	Member

ANNEX III

LIST OF SPEAKERS, PANELISTS, MODERATORS, AND RAPPORTEURS

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
KEYNOTE ADDRESS		
Wang Jian		
PLENARY SESSION 0 Harnessing Technologies in an Age of AI to Build a Healthier World		
Hani Kim Jean Philbert Nsengimana Meg Davis Rubindhiran Pillay Wang Jian	Dennis Carroll	Chawisa Wanda Vongsuly Shiela Marie Selisana Supida Komjakraphan
WELCOME DINNER SESSION		
	Alain Labrique	
PLENARY SESSION 1 Achieving Positive Connections through Technological Innovations for Healthier Populations, Strengthened Health Systems and Universal Health Coverage		
Deepali Khanna Hani Kim Toomas Palu	Gabriel Leung	Denese De Guzman Natthawat Sakthawisakul Saranya Sunanta Theeradon Sakpetch

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
PARALLEL SESSION 1.1 Innovative Technologies to Leverage Health Financing for UHC		
Akihito Watabe Mark Jit Tiranee Achalakul Toomas Palu Trisna Sari	Inke Mathauer	Akkarapol Sawanpanich Divya Lakhotia Jiraporn Kamonrungsan Kinanti Khansa Chavarina
PARALLEL SESSION 1.2 Tech-Empowered Health Workers: Skills for the Future		
Alex Ng Derrick Muneene Kate Tulenko Nelson Sewankambo William Hersh	Hong Wang	Jadyne de Jesus Krit Yodinlom Vorawee Varavithya Wilasinee Samniang
PARALLEL SESSION 1.3 Expanding Tech-Enabled Solutions for Service Delivery		
Feng Zhao Hongqiao Fu Nanjira Sambuli Oommen John Rahul Mullick Yhuko Ogata	Matthew Thomas Hulse	Anond Kulthanmanusorn Faraz Salahuddin Ayaka Kawarazaki Sukontee Suracharoenjai
PARALLEL SESSION 1.4 Health Tech Rising: Youth Edition		
Kelly Perry Mechai Viravaidya Pear Poolvaraluk Saad Soroya Shadrack Frimpong	MyMai Yuan	Anshul Chauhan Pariyakul Chuensuwonkul Pongpaka Puntaluck

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
PARALLEL SESSION 1.5 Harnessing the Power of Data		
Boonchai Kijsanayotin Kara Sewalk Mary-Anne Hartley Peeter Ross	Marelize Gorgens	Bianca Ysabel Hidalgo Nutwara Kijthammarat Wit Wichaidit
PLENARY SESSION 2 Ethical Technology: For Whom, by Whom and for What Purposes		
Ali Ghufron Mukti Meg Davis Osama Manzar Ruth Jerop Limo	Mandeep Dhaliwal	Chittawan Poonsiri Kyi Thar Sasatorn Sirikunsathit
PARALLEL SESSION 2.1 Reducing the Digital Divide: How to Ensure an Enabling Environment for Equitable Tech for All		
Debbie Rogers Edward Booty Osama Manzar Rose Delilah Gesicho	Daniel Messer	Aomi KATAGIRI Bharadee Lalitkittikul Natabhorn Kashemsri Na Ayudhaya Orawan Tawatipong
PARALLEL SESSION 2.2 Harnessing Technology to Achieve Equitable Health Outcomes		
Alexo Esperato Chaiyatorn Limapornvanich Chioma Nwachukwu Nada Malou Suhel Bidani	Kiesha Prem	Brandon Chua Chayanan Khutsutthipipat Nalinee Ruangrittisak Voraruthai Puengchanchaikul

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
PARALLEL SESSION 2.3 Our Tech Future and Implications for Society: Promise or Peril?		
Anasuya Sengupta Eirliani Abdul Rahman Hanna Barakat Swapneel Mehta	Jesse Bump	Awasaya Tungthong Liza Tabora Phatthanamon Sinsawat
PARALLEL SESSION 2.4 Data is Power! Confronting Data Colonialism, Ownership Issues and Hidden Biases		
Chhorvann Chhea Emma Rawson-Te Patu Leo Anthony Celi Michelle Skelton	Boonchai Kijsanayotin	Chuthamas Rattanapongvanich Napatrada Chanthachorn Shaheda Viriyathorn Shintaro TAKAHASHI
PARALLEL SESSION 2.5 Unlocking Synergies: Health Tech and AI at the Climate-Health Frontier		
Carlos Escapa Eduardo Banzon Felipe J Colon-Gonzalez Noboru Minakawa Sarah Khalid Tuan Nguyen	Thu Ba Huynh	Pat Ngamdachakij Suladda Pongutta Zoe Morrison
PLENARY SESSION 3 Effective Governance of Health Technologies and AI		
Amandeep Gill Jean Philbert Nsengimana Kidong Park Mary-Anne Hartley Vilas Dhar	Bilal Mateen	Krittin Chanprapab Puttinan Pingpitayakul Saki NARA

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
PARALLEL SESSION 3.1 Geopolitical Landscape: Global Governance		
Batoul Albaz Chaitali Sinha Deepika Mishra Gopal Ramchurn Laura Reichenbach Nancy Pignataro Purvi Shah Yasuhiro Fujiwara	Sameer Pujari Simao Campos	Chanya Mittrakulkij Gian Gabrielle Boc Jonas Sukgul Thanasak Thumbuntu
PARALLEL SESSION 3.2 Strengthening Health Data Governance: Leadership and Action		
Jocelyn Teh Kidong Park Mathilde Forslund Nirmal Rijal Shelani Palihawadana	Eric Sutherland	Charleen Co Daosattha Thamarangsi Ponlagrit Kumwichar
PARALLEL SESSION 3.3 Articulating and Mitigating Risks of AI in Health		
James Oughton Jiho Cha Magdalena Eltenberger Mona Duggal Raymond Chua Ricardo Baptista Leite	Peiling Yap	Kiesha Prem Sakditat Ittiphisit Tanatat Pisankunakit

KEYNOTE/SPEAKER/ PANELIST	CHAIR/MODERATOR	RAPPORTEUR
PARALLEL SESSION 3.4 Equity and Accountability in Digital Health and AI: Addressing Risks, Digital Health Foundation GAPS, and Advancing Open and Local Solutions		
Alvin Marcelo Leo Anthony Celi Lucy Mambise Kombe Marelize Gorgens	Smisha Agarwal	Hathairat Kosiyaporn Randolph Dacanay Suttithan Suwannoppakun
PARALLEL SESSION 3.5 Fortifying National Systems for the Age of AI		
Anis Fuad Anurag Agrawal Farah Magrabi Indira Dewi Kantiana Jai Ganesh Udayasankaran Patricia Mechael Resham Sethi Zoljargal Lkhagvajav	Mark Landry	Krittin Prechachaisurat Mayumi OKADA Nongnuch Borkham Orratai Waleewong
SYNTHESIS: SUMMARY, CONCLUSION AND RECOMMENDATIONS by Lead Rapporteur		
Walaiporn Pacharanarumol Dennis Carroll Emma Rawson-Te Patu Yik Ying Teo		
Rapporteur Coordinator		
Warisa Panichkriangkrai Rapeepong Suphanchaimat Phanuwich Kaewkamjonchai Nisachol Cetthakrikul Wilailak Saengsri Divya Lakhotia Jinnapat Suvannakatka Ravikanya Prapharsavat	Saudamini Vishwanath Dabak Woranan Witthayapipopsakul Jomkwan Yothasamut Titiporn Tuangratananon Somtanuek Chotchoungchatchai Jintana Jankhotkaew Chatpot Lairungruang	

ANNEX IV
LIST OF SIDE MEETINGS AND SPECIAL EVENTS

SIDE MEETINGS

TITLE	ORGANIZERS
South-South Collaborations Against Neglected Tropical Diseases for Health Security and Equity in an Era of Polycrises	Faculty of Medicine Siriraj Hospital, Mahidol University
Global and Regional Movements for Building Data Systems and Health Metrics Capacity in Asia for Health Systems Resilience and Health Systems Performance	China Medical Board Foundation
Building Partnerships for Data and Health Metrics Capacity for Better Health in the ASEAN region - Updates from Cambodia and Lao PDR	China Medical Board Foundation
Innovative Technologies for Mitigating Megatrend Impacts on Global Health in ASEAN Region	School of Global Health, Faculty of Medicine, Chulalongkorn University
Landscaping PHC Systems: Scanning Digital Horizons from the Field	Asia Pacific Observatory on Health Systems and Policies, The World Bank Group
Navigating the Future: AI and Global Health Diplomacy	International Health Policy Program
Strengthening Primary Healthcare through Pharmacies: Global Experiences and Innovations for UHC	National Health Security Office; Health System Research Institute; The Pharmacy Council of Thailand
Community Nurse: High-Tech & High-Touch Approach for Health Equity	National Health Security Office; Health System Research Institute; WEE Health Development Foundation; Princess Agrarajakumari Faculty of Nursing, Chulabhorn Royal Academy; Faculty of Nursing, Mahidol University; Thailand Nursing and Midwifery Council
Leveraging Technological Innovation for Health Promotion and Disease Prevention: Insights from Asia-Pacific	National Health Security Office; WEE Health Development Foundation; Thai Health Promotion Foundation; Health Systems Research Institute
Closing the Digital Divide: Evaluating Digital Health Technologies to Inform Equitable, Accountable and Affordable Access	Saw Swee Hock School of Public Health, National University of Singapore; Public Health Foundation of India
Is AI a Panacea for the Health Sector? Navigating the Barriers to Adopt AI to Strengthen Health Systems and Empower Limited Resource Settings	Health Intervention and Technology Assessment Program Foundation; World Health Organization
Advancing Health Solutions through Technologies: Supporting Health, Research and Innovation Ecosystem from UK-Thailand Partnerships	Health Systems Research Institute; British Embassy Bangkok
Integrating Planetary Health and Sustainable Healthcare into Healthcare and College-Level Education	Faculty of Medicine Siriraj Hospital; Mahidol University International College
Connecting Technology and Sustainable Financing for Human-Centred Healthcare	Joint United Nations Programme on HIV/AIDS; Asian Development Bank; The United Nations Population Fund; World Health Organization
Data Driven Decision Making for Health: Leveraging Claims Data	The World Bank Group

TITLE	ORGANIZERS
Digital Trade, Digital Marketing, and AI Tools for Surveillance and Monitoring of the Alcohol Industry	Thai Health Promotion Foundation; South East Asia Alcohol Policy Alliance; Global Alcohol Policy Alliance
Prince Mahidol Award Youth Program Conference 2025	Prince Mahidol Award Youth Program, Prince Mahidol Award Foundation under the Royal Patronage
Unboxing Innovations for NCDs Prevention	Thai Health Promotion Foundation; International Network of Health Promotion Foundations; National University of Singapore
National Digital Health Enterprise Planning, Architecture, and Capacity Building through Convergence Workshop Methodologies	The United Nations International Children's Emergency Fund; Asia eHealth Information Network
Exploring the PM2.5 Trader Concept: Accountability and Technological Innovations for Air Quality and Health	Faculty of Medicine, Prince of Songkla University; Thai Health Promotion Foundation
Digital Frontiers: Harnessing AI and Digital Technologies to Bridge Climate Action and Health Equity	Family Health International 360, Asian Development Bank; Health Care Without Harm, Southeast Asia; Health Intervention and Technology Assessment Program; The SingHealth Duke-NUS Global Health Institute; Wellcome Trust
Catalysing Digital Technologies for Non-communicable Diseases in the Global South	Institute of Philanthropy; United Nations Development Programme
Towards Universal Health Coverage: Innovative Technologies for Early Screening and Management of Diabetes	Institute of Philanthropy
Breaking the Malnutrition Cycle: Innovations in Tackling Stunting, Obesity, and NCDs	The World Bank Group

TITLE	ORGANIZERS
Health Technology Innovation for Medical Education towards UHC and SDG	Faculty of Medicine Siriraj Hospital, Faculty of Medicine Ramathibodi Hospital, Mahidol University
Harnessing AI and Technology for International Trade in Health Services: Opportunities and Challenges	International Health Policy Foundation
Global Health Case Competition: Pioneering Reverse Innovation in Real-World Challenges	Siriraj Medical Student Union, Faculty of Medicine Siriraj Hospital, Mahidol University
Cybersecurity in Healthcare: Not If, But When – Preparing Health Systems for the Inevitable Breach	Ministry of Public Health, Thailand; National Cybersecurity Agency, Thailand; Thai Medical Informatics Association; Health Systems Research Institute, Thailand; World Health Organization
Bridging Policy and Action: A Post-UNGA One Health Agenda for Antimicrobial Resistance	U.S. Agency for International Development; International Centre for Antimicrobial Resistance Solutions; Multi stakeholder Partnership Platform; The International Health Policy Program, Thailand
Digital Decision Support Tools for Enabling Robust, Integrated Community Health Systems	PATH Foundation
From Detection to Action: the Role of Artificial Intelligence in Strengthening Primary Health Care	PATH Foundation
Strategic Investment for Health System Resilience: Publication Launch Event	The World Bank Group, Exemplars in Global Health
Aging, Long-Term Care, and the Care Economy for Elderly Empowerment	The World Bank Group
Empowering Digital Competency in Health Workforce for Resilient Health Systems	Asia-Pacific Action Alliance on Human Resources for Health

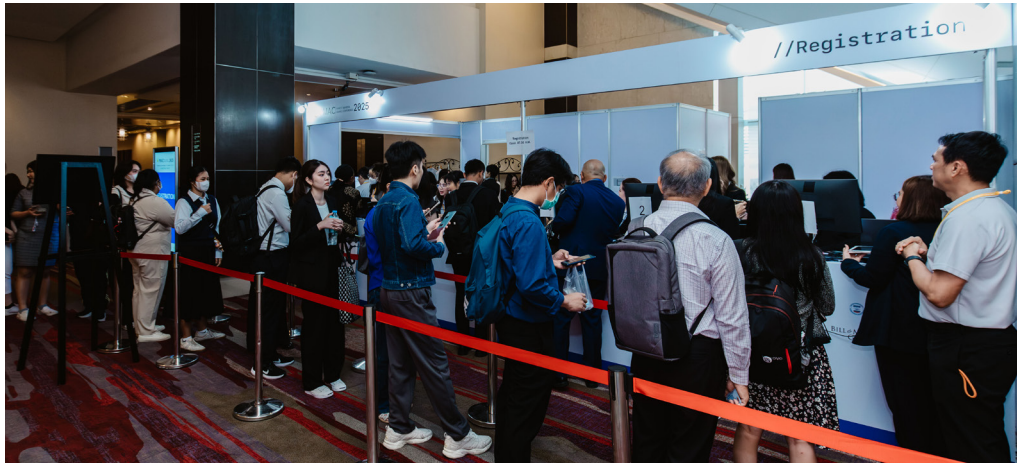
TITLE	ORGANIZERS
Pathways to Resilience: Equitable Data Systems for Climate and Health	Aapti Institute, Data2X; The Rockefeller Foundation
Climate Health Data Collaborative for Asia	CivicDataLab; The Rockefeller Foundation
Three Giants Go Digital: Insights from India, Indonesia, and Nigeria's Digital Transformation and Data Governance Journey.	The World Bank Group
Generative AI for Health for All: Guiding Responsible Implementation through Continuous Evaluation	Laboratory for intelligent Global Health and Humanitarian Response Technologies, Yale University; CMU-Africa; EPFL - Swiss Federal Technology Institute of Lausanne; Department of Digital Health and Innovation, World Health Organization
Health Data Sharing for UHC	Big Data Institute, Ministry of Digital Economy and Society; Mahidol University
Harnessing Data and AI-driven Solutions for Health System Resilience and Climate-Health Preparedness	AI & Robotics Tech Park (ARTPARK); The Rockefeller Foundation
Science for Health and Economic Growth: Building Sustainable Domestic Science Ecosystems	World Health Organization
Scaling South-South Collaboration in Digital Health: Addressing Divides and Fostering Innovation Across Asia-Pacific	Family Health International 360; Asian Development Bank; U.S. Agency for International Development; World Health Organization
Launch of the Bulletin of the World Health Organization's Theme Issue on Digital Technologies to Improve Health Services	World Health Organization

TITLE	ORGANIZERS
Global Health 2050: Leveraging Technological Advances to Halve Premature Deaths by 2050	Japan International Cooperation Agency; Hong Kong Jockey Club Charities Trust; Lancet Commission on Investing in Health
Complete Well-Being in the Age of AI: The Crucial Role of Spiritual Health and Practical Strategie	Thai Health Promotion Foundation
Advisory Committee Meeting on Well-Being and Sustainable Development, 1/2025 and Global Conversations: Navigating Sustainable Futures through Inner Development Workshop	International Health Policy Foundation

SPECIAL EVENTS

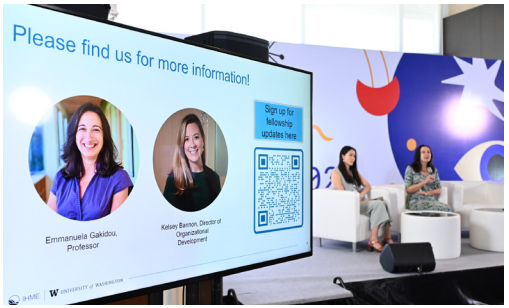
TITLE	ORGANIZERS
Second Lincoln C. Chen Lecture in Global Health	CMB Foundation
Rural Doctor Foundation	Rural Doctor Foundation
Unveiling the Legacy of Thailand's Universal Coverage Scheme and 37 Years on the Samphan Path: A Journey of Development and Public Policy Transformation	National Health Security Office
Non-Communicable Disease Management in Primary Healthcare Settings	Institute of Philanthropy

SIDE MEETINGS



SIDE MEETINGS

SPECIAL EVENTS



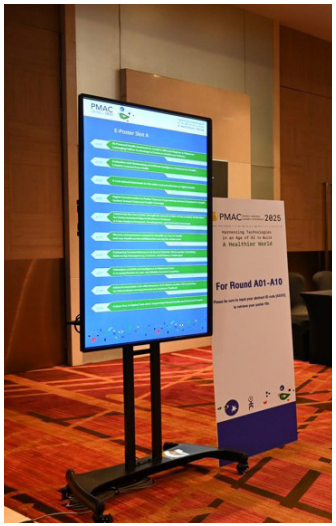
ANNEX V
LIST OF POSTER PRESENTATIONS

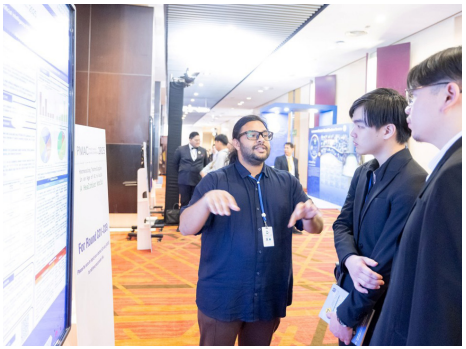
ID	TITLE	PRESENTER
A01	AI-Powered Health Assistant for Conflict-Affected Regions in Myanmar: Leveraging Offline Technology to Enhance Healthcare Delivery	Zarni Lynn Kyaw
A02	Evaluation and Stewardship of Artificial Intelligence Solutions for Health: Lessons Learned from USAID	Amit Chandra
A03	A Conceptual Framework for the Value and Prioritization of Digital Health	Alex Fischer
A04	Digital Transformation in Public Finance: Empowering Jammu & Kashmir's Health System Toward Universal Health Coverage	Rajeev Prasad
A05	Enhancing Vaccine Equity Through Iris-Based COVID-19 Vaccination Verification for Undocumented Migrant Workers in Thailand: A Case Study in Research, Development, and Potential Extensions	Jessada Karnjana
A06	Women Entrepreneurs Using AI to Simplify Access to Health and Non-Health Social Entitlements Among the Urban Poor	Suma Pathy
A07	Evaluating Trustworthiness in AI-Based Diabetic Retinopathy Screening: Addressing Transparency, Consent, and Privacy Challenges	Anshul Chauhan
A08	Utilisation of Artificial Intelligence in Maternal Care: A Scoping Review in Low- and Middle-Income Countries	Muhammad Rizky Widodo
A09	Initial Incremental Cost-Effectiveness of AI-Driven Mobile CXR Screening for Tuberculosis Among Prisoners in Southern Thailand	Nyi Nyi Zayar
A10	Future You: A Digital Twin AI for Supporting Mental Health and Personal Growth	Pat Pataranutaporn
B01	Challenges and Opportunities for Data Sharing Related to Artificial Intelligence (AI) Tools in Healthcare in Low- and Middle-Income Countries: A Systematic Review and Case Study from Thailand.	Aprajita Kaushik
B02	Visual Narration in Primary Health Care for Comprehensive: A Multimodal Approach Using LLaVA and Whisper	Shreya Ramakrishnan
B03	Promoting Scalable and Cost-effective Integrated People-centered Eye Care (IPEC for People with Diabetes in Rural China: Integrating Eye Care Services with Assistance of AI Technology to Primary Health Care (PHC) System	Phoebe Pu
B04	Strengthening Health Data Governance in India's Digital Health Landscape: Policy Pathways for Ethical and Protected Digital Health Practices	Oshia Garg
B05	Comparison of Health Information Systems Capacity among China and ASEAN Countries Based on the WHO SCORE Assessment Tool	Jing Kang
B06	So Safe: A Life-Cycle Digital Platform Leveraging Technology to Address Social Challenges and Enhance Well-Being and Resilience for People of All Ages and Genders in Thailand	Adhipat Warangkanand
B07	Leveraging AI-Driven Psychotherapy to Strengthen Mental Health Resilience in Post-Pandemic Africa	David Kennedy Okello
B08	Digital Health Governance in China and Cross-cutting Collaboration of Enabling Ecosystem: A Mixed Methods Study	Minmin Wang

ID	TITLE	PRESENTER
B09	Mental Health Support with Machine Learning: A Prediction-Based Intervention Chatbot for Mental Health Support	Rizma Adlia Syakurah
B10	Association Between Mobile Phone Use for Chronic Disease Follow-Up and Anxiety and Depression Among Elderly with Chronic Diseases in Guangxi, China: A Cross-Sectional Study	Hongye Luo
C01	Artificial Intelligence Utilization in Cancer Screening Program across ASEAN: A Scoping Review	Hein Minn Tun
C02	Study on Private Sector Adoption of Government-Led Digital Health Initiatives in India through a Focused Geographical Approach of Microsite	Komal Malhotra
C03	Bridging the Health AI Divide in the Asia Pacific: Policy and Regulatory Recommendations for Lower Middle-Income Countries	Dion Nicole Seow
C04	Advancing Tuberculosis Diagnosis in Vietnam: Implementation of AI-Integrated Chest X-Ray Interpretation in Health Facilities	Trang Thi Thu Le
C06	Integrating Participatory Mapping and Advanced Analytics to Enable Healthier Food Environments in Bangkok	Sabri Bromage
C07	Utilizing AI (Artificial Intelligence) for Predicting and Intervening in Adolescent Suicide and Self-injury through a Mobile-Based EMA and EMI Application	Dong Hun Lee
C08	Strengthening Neonatal Healthcare System in Underserved Geographies: Leveraging Advanced Telehealth (Tele-SNCU (Special Newborn Care Unit)) Hub-and-Spoke Models to Achieve Universal Health Coverage (UHC) and Neonatal Mortality Sustainable Development Goal	Roshan Mendhe

ID	TITLE	PRESENTER
C09	Study Design and Baseline Characteristics for a Cluster Randomized Controlled Trial of a Mobile Health-based Primary Care Program for Type 2 Diabetes in Rural Thailand – SMART Health Diabetes Program	Renu John
D01	Readiness of Managers and Health Care Workers for E-Health: A Cross-sectional Study in Khartoum Primary Health Care Centers, Sudan	Ibrahim A. Atia
D02	Bottlenecks of Leveraging Artificial Intelligence for Equitable Access in Rural Healthcare settings of Low and Middle-income Countries	Manas Ranjan Behera
D03	Effectiveness of Telemedicine in Patients with Respiratory Failure: Systematic Review of Randomized Controlled Trials	Vether Fernhandho
D04	Process and Outcome Evaluation of an Artificial Intelligence-Driven Integrated Diabetic Eye Care (AID-Eye) Model: A Quasi-Experimental Study in Rural China	Xiaochen Ma
D05	Applying an Integrative Suite of AI Tools for Understanding and Enhancing Healthy Food Systems	Jody Harris
D06	Harnessing AI to Increase the Efficiency of Outbreak Verification in EpiCore	Nomita Divi
D07	Enhancing Healthcare Access Analysis: Leveraging High-Resolution Population Density Data and Route API for Travel Time Mapping in Bekasi, Indonesia	Reyhan Alemmario
D08	Constructing Care Cascades for Hypertension and Diabetes Management Using Health Big Data in China: A Cross-Sectional Study	Tingzhuo Liu
D09	AI in Healthcare: Transforming Bangladesh's Urban and Rural Landscapes	Mahbubur Rashid Ories

ID	TITLE	PRESENTER
E01	A Real-World Evaluation of an Innovative Artificial Intelligence Tool for Screening Breast Cancer at Population Level	Karthik Adapa
E02	Unveiling the Ethical Enigma: Navigating the Boundaries of Artificial Intelligence and Informed Consent for Patients and Healthcare Providers in India	Garima Singh Verma
E03	Enhancing National Health Financing through Digital Technologies: Innovations and Lessons from Asia and the Pacific Region	Akihito Watabe
E04	Machine Learning' Learnings from the Brazilian Health System to Address the Global Burden of Noncommunicable Diseases	Bruno Nunes
E05	A Study on the Construction and Preliminary Evaluation of a Self-Help Online Intervention Model Among Newly Diagnosed People Living With HIV/AIDS	Xinya Tu
E06	Leveraging AI to Enhance Adolescent and Young People Access to Sexual and Reproductive Health Information and Services: Insights and Policy Implications from JustAsk! AI Chatbot in India	Sahil Kapoor
E08	Enhancing Primary Care in Timor-Leste with Medibot: An AI-Powered Clinical Decision Support Chatbot	Chi Ling Chan



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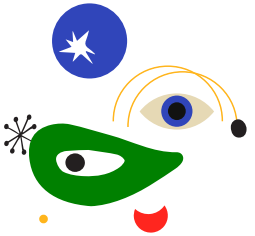

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