Global Initiative on
Artificial Intelligence for Health

Source:	GI-AI4H transition team
Title:	Preliminary Report of the 1st Workshop and Meeting of the ITU/WHO/WIPO Global Initiative on AI for Health
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Executive Summary

This document is a preliminary version of the report of the first workshop and inaugural meeting of the ITU/WHO/WIPO Global Initiative on AI for Health (GI-AI4H) that was convened in Riyadh, Saudi Arabia, from 30 October to 2 November 2023. The event was hosted at the King Abdulaziz City for Science and Technology.

The meeting saw the convergence of nearly 400 participants from 42 countries, representing six global regions. A substantial portion of the attendees (42%) participated virtually, showcasing the event's inclusive and wide-reaching approach. This diverse gathering of experts and stakeholders from various countries underscores the international commitment to advancing AI applications in health.

This initiative builds upon the legacy of the ITU/WHO Focus Group on AI for Health (FG-AI4H). A key decision made during the meeting was to partially re-establish working and topic groups and the leadership team from FG-AI4H and to introduce new participants. This decision is pending confirmation from the Steering Committee of the GI-AI4H, ensuring continuity and leveraging the expertise developed in the previous group.

A detailed summary of the meeting discussions will be added to a revised version of this report, in Annex B.

The meeting produced a tentative set of definitions for the three GI-AI4H pillars and defined a short-term action plan to start mobilizing structures that could be pursued in the GI-AI4H context.

However, after Riyadh, the team managing the FG/GI transition agreed on 06 December 2023 to put all these transitional discussions on hold, until the formal MoU between ITU, WHO and WIPO is completed, and clarity is brought to the governance, operations, and structure of the GI-AI4H.

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1   First Workshop and Meeting of the GI-AI4H

The first workshop and (inaugural) meeting of the ITU/WHO/WIPO Global Initiative on AI for Health (GI-AI4H) were held from 30 October 2023 until 2 November 2023 in Riyadh, Saudi Arabia, at the premises of the King Abdulaziz City for Science and Technology (in the building "The Garage" on 30 Oct., and in "The Innovation Tower" on the remaining days).
The GI-AI4H builds upon the work of the predecessor ITU/WHO Focus Group on AI for Health (FG-AI4H; https://itu.int/go/fgai4h). A preliminary website for the GI-AI4H can be found at https://giai4h.org/ (still under construction).

2   Participation

The meeting welcomed in total nearly 400 people coming from 42 countries across 6 regions, with an adequately large number of attendees (42%) joining virtually. The participants and speakers consist of a variety of the portfolios e.g., researchers, policy makers and health practitioners. In addition, more than 100 participants expressed interests in the Ideathon, an independent session running in parallel to the 4-day meeting agenda.
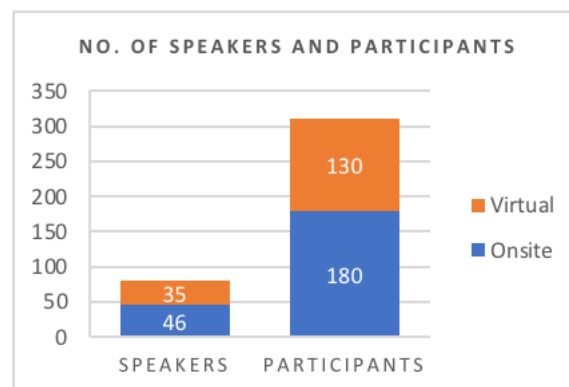
3   Presentations at the workshop and meeting

The comprehensive agenda, including all presentations from the workshop and meeting, is detailed in Appendix A. These days featured insightful presentations loaded with valuable perspectives and innovative ideas for GI-AI4H's future.

These presentations sparked a series of productive discussions among attendees, leading to a shared understanding of GI-AI4H's objectives and challenges. These conversations, driven by the diverse expertise present, were key in identifying collaborative opportunities and strategies for advancing AI in healthcare within the GI-AI4H framework.

Overall, the combination of informative presentations and collaborative discussions was essential in shaping a clear and unified direction for the initiative's future endeavors.

4   Discussions at the meeting

As this was the inaugural meeting of the GI-AI4H, a series of foundational discussions took place, focusing on the initiative's core aspects including its objectives, organizational structure, work plan, and timeline.

Key topics, such as the delineation of GI-AI4H's three main pillars, the development of a strategic work plan, and the formation of interim groups, were thoroughly explored during the event. These discussions were pivotal in charting the future course of the initiative, which is still subject to the formal MoU to be signed by ITU, WHO and WIPO. The subsequent sections provide a detailed summary of the outcomes and resolutions derived from these critical preliminary dialogues.

4.1   The three pillars of the GI-AI4H

The three pillars of the GI-AI4H were provisionally defined as a result of the discussions by meeting participants in a short, a medium-long, and a long version.

4.2   Definitions of the three pillars of the GI-AI4H (short version)

Enablement Pillar: continues the work of the ITU/WHO Focus Group on AI for Health (FG-AI4H) to establish the foundational principles and guidelines for AI for health development and implementation.

Facilitation Pillar: offers the essential roadmap for transitioning AI for health projects or products to large-scale implementation leveraging the foundational principles of the Enablement Pillar.

Implementation Pillar: ensures comprehensive support for executing large-scale deployment.

4.3   Definitions of the three pillars of the GI-AI4H (medium-long version)

Enablement Pillar: Delivers standards, normative guidance, governance documents, policies to be published by either ITU, WHO, or WIPO. Examples include:
- ITU: Technical specifications (e.g., ITU-T Rec. F.780.2), past FG-AI4H Deliverables, Technical Reports
- WHO: Regulations guidance on AI for health, Ethics guidance on AI for health, Guidance on AI and TB, Guidance on AI and Sexual and Reproductive Health and Rights (SRHR), Implementation guidelines.
- WIPO: IP guidelines to manage AI for health, toolkits on licensing, technology transfer and access models for AI, good practice case studies, training courses by the WIPO academy, country requested capacity building and technical assistance on IP for AI.

Facilitation Pillar: Delivers support and mechanism to facilitate AI for health implementation including:

- Support by facilitation groups (public health agencies, academic and research, AI agencies and regulators, investors, industry contributors etc.)
- Support by the Open Code Initiative through software implementation of standards and guidelines stemming from the enablement pillar.
- Support by an Innovation factory connecting foundations or VC funds with potential implementers.

For AI for health projects/products, the work and support will result in the creation of

- Data collection, annotation, and testing.
- Clinical evaluation, encompassing all steps from proof-of-concept to conducting studies, trials, and validation.
- Regulatory considerations and proceedings
- Consideration of intellectual property rights
- Cost-effectiveness assessment (economic evaluation)

Implementation Pillar: Delivers support and mechanisms for execution of sustainable large-scale implementations of AI4H at the country/regional level including:

- Support by facilitation and implementation groups.
- Support by an Innovation factory connecting foundations or VC funds with potential implementers.
- Support by country implementation programs.
- Support through developer workshops.
- Support through country workshops.

For countries or hospitals considering the deployment of an AI for health implementation, the work and support will result in the creation of

- Acceptance criteria for AI for health implementations.
- Others TBD

For AI4H implementers, the work and support will result in the creation of

- Scale-up planning detailing the extent of deployment.
- Business / financing model describing the financial basis of the deployment including installation, maintenance, etc.
- Ethics approvals.
- Legal aspects, including contracts and permissions.
- Execution plans.
- Evaluation plans.

4.4 Definitions of the three pillars of the GI-AI4H (long version)

The Enablement, Facilitation, and Implementation Pillars of the ITU/WHO/WIPO Global Initiative on Artificial Intelligence for Health (GI-AI4H) together form a comprehensive framework for the development, transition, and deployment of artificial intelligence for health (AI4H). The Enablement Pillar lays the groundwork, continuing the efforts of the ITU/WHO Focus Group on Artificial Intelligence for Health (FG-AI4H) to establish foundational principles and guidelines that are crucial for AI4H development and its ethical implementation. The Facilitation Pillar then builds upon these principles, providing an essential roadmap that guides AI4H projects from their emerging stages to large-scale implementation. Finally, the Implementation Pillar offers extensive support to ensure that

AI4H deployments are carried out effectively on a large scale, securing the bridge from theoretical guidelines to practical, widespread application in the health sector.

Enablement Pillar:

The Enablement Pillar serves as the foundation for AI4H solutions by delivering a suite of standards, guidance documents, governance materials, and policies. These are to be officially published by key international bodies, each contributing to their areas of expertise. The ITU is responsible for technical specifications and reports that are going to be built upon past FG-AI4H deliverables.

The WHO contributes by providing regulatory and ethics guidance specific to AI in health contexts, including specialized guidance for tuberculosis (TB) and sexual and reproductive health and rights (SRHR), along with implementation guidelines for AI systems in health. The WIPO focuses on the intellectual property aspect, offering guidelines on IP management for AI for health, along with toolkits for licensing, technology transfer, and models for accessing AI technologies. WIPO also supports through case studies, training programs, and technical assistance tailored to country-specific needs regarding IP for AI.

This holistic approach by the Enablement Pillar ensures that AI4H is developed and managed within a robust and internationally recognized regulatory framework.

Facilitation Pillar:

The Facilitation Pillar is instrumental in the practical implementation of AI4H, providing a multifaceted support system to bridge the gap between foundational principles and real-world application. It involves collaboration with facilitation groups—including public health agencies, academic and research institutions, AI agencies, regulators, investors, and industry stakeholders—to guide and accelerate the adoption of AI4H. This pillar leverages an Open Code Initiative to translate established standards and guidelines into software solutions, ensuring compliance and ease of integration.

Furthermore, an Innovation Factory plays a crucial role in connecting funding sources such as foundations and venture capital funds with AI4H implementers, facilitating the transition from concept to operation. This comprehensive support leads to the development of critical components for AI4H projects, including efficient data management, clinical evaluation processes, regulatory compliance mechanisms, intellectual property considerations, and cost-effectiveness assessments. These components ensure that AI4H projects are not only technically sound but also viable and ready for integration into health systems.

Implementation Pillar:

The Implementation Pillar is crucial for the actual deployment of AI4H solutions on a sustainable, large-scale level – nationally or regionally. It offers comprehensive support through various channels:

- Facilitation and implementation groups that guide the rollout process.
- The Innovation Factory that connects funders with AI4H implementers.
- Country-specific implementation programs that tailor AI4H deployment strategies to local needs.
- Workshops for developers and country-specific entities to ensure skill development and readiness.

For countries and hospitals, this pillar aids in establishing acceptance criteria for AI4H technologies to ensure its smooth integration. For implementers, it ensures the creation of detailed scale-up plans, financial models for the deployment lifecycle, processes for securing ethics approvals, addressing legal aspects such as contracts and permissions, and crafting both execution and evaluation plans. These comprehensive steps ensure that AI4H initiatives are effectively translated from concept to practice, with a focus on sustainability and adherence to regulatory, ethical, and financial considerations.

4.5   Workplan & Timeline

To ensure the successful realization of the GI-AI4H objectives by the first quarter of 2024, the following preliminary strategic plan has been shared for further discussion.

These discussions would be taken into consideration by ITU, WHO and WIPO in defining the GI-AI4H work plan.

Secretariat and Scoping

- Establish a multi-agency core secretariat team for GI-AI4H.
- Conduct a series of comprehensive scoping exercises to define and structure the core activities within the initiative's three pillars: Enablement, Facilitation, and Implementation.
- Develop a plan for the expansion of the core secretariat into a sustainable, long-term team to deliver on the identified activities, as financial resources become available.

Prioritization of Health Topics

- Strategically identify and prioritize health topics that necessitate immediate attention to maximize the impact of the facilitation and implementation efforts.

Core Activities and Infrastructure

- Determine core activities that will promote the application and evolution of the FG-AI4H deliverables and the Open Code Infrastructure (OCI) as support to the facilitation and implementation functions.
  - o **Normative Guidance Enhancement:** Enhance normative guidance for a diverse array of stakeholders, including regulators, health practitioners, and AI developers, ensuring clarity and applicability.
  - o **Engagement and Networking**: Create avenues for engagement through challenges, ideathons, and hackathons, fostering innovation. Facilitate networking opportunities to bridge the gap between supply (developers, innovators) and demand (healthcare providers, end-users).

Community Development

- By the fourth quarter of 2024, finalize and initiate a comprehensive plan to grow and sustain the global community of experts and practitioners (created previously by the GI-AI4H predecessor FG-AI4H), encompassing a wide range of stakeholders for tasks related to facilitation and implementation.

Education and Experience Opportunities

- Offer a range of educational and experiential opportunities, including paid internships and fellowships, with a focus on integrating student fellows or interns into the team to support the GI-AI4H vision and activities.

This strategic framework is aimed at not just achieving the set objectives within the specified timeframe but also ensuring that the GI-AI4H's impact is sustainable, global, and evolves in line with the dynamic landscape of AI in health.

5 Establishment of interim sub-groups and of interim GI-AI4H and subgroup chairs

In order to advance the transition work from the FG-AI4H into the GI-AI4H, a short-term action plan was drafted with a plan to have initial terms of reference and milestones for a work structure evolved / distilled from the FG-AI4H structures.

These discussions would be taken into consideration by ITU, WHO and WIPO in defining the GI-AI4H initial structure.

The GI-AI4H is structured through dedicated working groups and topic groups, each co-chaired by experts in the field.

In the transition phase of the GI-AI4H, the establishment of interim chairs for the various working and topic groups is a pivotal step. These interim chairs are entrusted with spearheading the early stages of the initiative, setting up the structural and strategic frameworks for their groups. Their selection is based on their specialized knowledge and leadership capabilities, with the aim of ensuring that each group begins its journey with a clear direction and purpose. They are responsible for defining the initial tasks, orchestrating collaboration among group members, and aligning their activities with the broader objectives of the GI-AI4H. This interim leadership is crucial for laying a solid foundation for the initiative's future progress and effectiveness.

The leadership and organizational structure of the GI-AI4H with its Working Groups (WGs) and Topic Groups (TGs) are as follows:

5.1 GI-AI4H
Co-Chairs: Thomas Wiegand (Fraunhofer HHI), To be determined (TBD.)

5.2 Working Groups
Clinical evaluation of AI for health (WG-CE)
Co-chairs: Naomi Lee (NICE, UK), Shubhanan Upadhyay (ADA Health, Germany), Eva Weicken (Fraunhofer HHI, Germany)

Collaborations and Outreach (WG-CO)
Co-Chairs: Andrew Farlow (University of Oxford, UK), and TBD.

Data and AI solution assessment methods (WG-DAISAM)
Co-Chairs: Luis Oala (Dotphoton AG), and TBD.

Data and AI solution handling (WG-DASH)
Co-Chairs: Ferath Kherif (CHUV, CH), and TBD.

Ethical considerations on AI for health (WG-Ethics)
Co-Chair: Andreas Reis (WHO), and TBD.

Operations (WG-O)
Co-chairs: Markus Wenzel, and Eva Weicken (Fraunhofer HHI, Germany)

Regulatory considerations on AI for health (WG-RC)
Co-Chairs: Ricardo Leite (HealthAi), Prathiba M. Singh (Delhi High Court), Dean Ho (NUS)

Open Code Initiative (OCI)
Co-Chairs: Marc Lecoultre (MLlab.AI, CH), and TBD.

IPR, innovation and economic considerations (WG-I2EC)
Co-Chairs: TBD.

5.3   Topic Groups

Topic groups are subject to re-evaluation (and further topic groups will be established) based on predefined criteria such as alignment with WHO priorities and the qualifications of participants. The current interim topic groups and their interim chairs are as follows:

Dermatology (TG-Derma):
Co-chaired by Harsha Jayakody and Ivy Lee

Falls among the elderly (TG-Falls):
Chaired by Pierpaolo Palumbo (provisionally)

Malaria detection (TG-Malaria):
Chaired by Rose Nakasi

Maternal and child health (TG-MCH):
Chaired by Alexandre Chiavegatto

Neurological disorders (TG-Neuro):
Chaired by Ferath Kherif

Ophthalmology (TG-Ophthalmo):
Chaired by Arun Shroff

Outbreak detection (TG-Outbreaks):
Co-chaired by Auss Abbood, Alexander Ullrich, Khahlil Louisy, Alexander Radunsky

AI for radiology (TG-Radiology):
Chaired by Darlington Akogo

Symptom assessment (TG-Symptom):
Co-chaired by Henry Hoffmann, Martin Cansdale

Tuberculosis (TG-TB):
Chaired by Manjula Singh

Dental diagnostics and digital dentistry (TG-Dental):
Co-chaired by Falk Schwendicke, Joachim Krois, Tarry Singh

AI for endoscopy (TG-Endoscopy):
Chaired by Jianrong Wu

AI for musculoskeletal medicine (TG-MSK):
Co-chaired by Peter Grinbergs, Mark Elliott

AI for traditional medicine (TG-TM):
Chaired by Saketh Ram Thrigulla

AI for point-of-care diagnostics (TG-POC):
Co-chaired by Nina Linder, Johan Lundin

5.4   Tasks for all interim working and topic groups
An initial list of tasks was initially devised at the meeting, with target delivery dates defined.

HOWEVER, on 06 December 2023, the team managing the FG/GI transition agreed to put all these transitional discussions on hold, until the formal MoU between ITU, WHO and WIPO is completed and clarity is brought to the governance, operations and structure of the GI-AI4H.

All working groups (WGs) and topic groups (TGs) are asked **to create a comprehensive document that captures the essence of their function and roadmap within the Global Initiative**. The required deliverables are to be **submitted by 10 January 2024** to tsbfgai4h@itu.int using a **template (provided by 29 November 2023** including suggested text length per item; to be sent via tsbfgai4h@itu.int), and should include the following elements:
- **Mandate**: Clearly define the purpose and scope of the group.
- **Terms of Reference**: Outline specific tasks and expected deliverables.
- **Work Plan**: Detail the planned activities, set milestones, and establish a reporting schedule along with a projected timeline for deliverables (6 months, 1 year, 3 years, etc.).
- **Group Composition**: List members, propose at least two co-chairs, suggest sub-groups, and identify both current and prospective participants.
- **Alignment with GI Pillars**: Clarify which parts of the group's outputs contribute to the enablement, and/or facilitation, and/or implementation pillars of the GI – and how.
- **Inter-Group Relations**: Describe the interaction and dependencies with other WGs and TGs.
- **Resource Planning**: Specify resource requirements, timelines for acquisition, and application purposes.
- **Forward Planning**: Chart the next steps to ensure the group's progression in line with the expected timeline.

6   Interim activities (online)

Virtual calls were scheduled (invitations sent by tsbfgai4h@itu.int on 29 November 2023 together with the template) to convene all WG chairs on 17 January 2024, and all TG chairs on 18 January 2024, from 14:00 to 16:00 CET, respectively, to discuss the documents and coordinate efforts moving forward.

- 17 Jan 2024, 14:00-16:00 CET **virtual call with all WG chairs**, online review/ discussion
- 18 Jan 2024, 14:00-16:00 CET **virtual call with all TG chairs**, online review/discussion

However, on 06 December 2023, the team managing the FG/GI transition agreed to put all these transitional **discussions on hold**, until the formal MoU between ITU, WHO and WIPO is completed and clarity is brought to the governance, operations and structure of the GI-AI4H.

7   Schedule and location of future meetings

The following were future meeting dates discussed at the Riyadh meeting.

- **11-14 March 2024**, GI-AI4H meeting, **Singapore** (to be confirmed by the end of November 2023)
- **30-31 May 2024**, workshop/ promotional event at AI4Good, **Geneva**, Switzerland
- **5-7 June 2024**, GI-AI4H meeting, **Geneva**, Switzerland
- **10-12 September 2024**, GI-AI4H meeting, **Melbourne**, Australia

However, all meeting plans were put on hold after the Riyadh meeting pending formal MoU between ITU, WHO and WIPO be completed.

8   Outputs of the meeting – news release

It was agreed that the communications departments of the ITU, WHO, WIPO would be developing new press releases that will build upon the earlier press release dated 25 July 2023; https://itu.int/hub/2023/07/new-un-initiative-aims-to-step-up-ais-contribution-to-health/).

However, as discussed above, these plans were put on hold on 6 December 2023, until the formal MoU between ITU, WHO and WIPO is completed.

9   Promotion & outreach – webpage, social media

It was suggested that ITU, WHO, WIPO contribute content for the GI-AI4H website https://giai4h.org/, which will be updated by ITU who maintains this website using this provided content. Social media like LinkedIn and X etc. should be reached out to via the main ITU/WHO/WIPO accounts (or potentially by new accounts dedicated to the GI-AI4H on these social media platforms, which however would have a smaller reach).

However, as discussed above, these plans were put on hold on 6 December 2023, until the formal MoU between ITU, WHO and WIPO is completed.

10   Timeline of the next steps

The following next steps were agreed at the Riyadh meeting:

- **November 2023**: Announcement of the dates and venue of the next GI-AI4H meeting in Singapore
- **29 November 2023**: ITU/WHO/WIPO officials have created the template for the *"comprehensive document that captures the essence of* [the] *function and roadmap* [of the working groups and topic groups] *within the Global Initiative"* (including suggested text length per item). Distribution to all WG/TG chairs via tsbfgai4h@itu.int.
- **29 November 2023**: Invitation (via [tsbfgai4h@itu.int)](mailto:tsbfgai4h@itu.int) of the interim WG/TG chairs to the online review/discussion of (a) working groups on 17 January 2024: 14:00-16:00 CET, and (b) topic groups on 18 January 2024: 14:00-16:00 CET; both in https://itu.zoom.us/j/95373601696?pwd=QVFOVUMrMkN3aCsyOE5wT1k0cFpLUT09
- **December 2023**: News releases, social media posts, and website updates
- **10 January 2024**: The interim chairs of the working groups and topic groups submit the required document using the template provided by ITU/WHO/WIPO to tsbfgai4h@itu.int .
- **17 January 2024**: 14:00-16:00 CET online review/discussion of working groups in https://itu.zoom.us/j/95373601696?pwd=QVFOVUMrMkN3aCsyOE5wT1k0cFpLUT09
- **18 January 2024**: 14:00-16:00 CET online review/discussion of topic groups in https://itu.zoom.us/j/95373601696?pwd=QVFOVUMrMkN3aCsyOE5wT1k0cFpLUT09
- **11-14 March**: Meeting in Singapore (to be confirmed by end of November)

However, as discussed above, these plans were put on hold on 6 December 2023, until the formal MoU between ITU, WHO and WIPO is completed.

Appendix A:
Agenda with all presentations during the workshop and meeting days

Day 0 (Workshop) – 30 October 2023

Time (UTC+3)	Sessions	Speakers
08:30 - 09:00	Entry & Registration	
09:00 – 09:20	**Opening remarks**	**Batoul AlBaz -** Vice President, Health Sector, King Abdulaziz City for Science and Technology (KACST), Saudi Arabia
09:20 – 10:00	**Opening session**	**H.E. Dr. Munir El Desouki** - President, King Abdulaziz City for Science and Technology (KACST), Saudi Arabia
		Alain Labrique- Director, Department of Digital Health and Innovation, Science Division, World Health Organization
		Seizo Onoe- Director, Telecommunication Standardization Sector, International Telecommunication Union
		Ulrike Till- Director, IP and Frontier Technologies Division, World Intellectual Property Organization
		Mariam Nouh - Vice President, Future Economies Sector, King Abdulaziz City for Science and Technology (KACST), Saudi Arabia
		Thomas Wiegand- Executive Director, Fraunhofer Heinrich-Hertz-Institut, Germany
		Sameer Pujari- AI Lead, Department of Digital Health and Innovation, Science Division, World Health Organization
		Simao Campos - Counsellor, Multimedia & AI4H standards, International Telecommunication Union
		Siddhartha Prakash- Head, Global Health, World Intellectual Property Organization
10:00 - 11:00	**Technical panel** **Moderators**	**Sameer Pujari-** AI Lead, Department of Digital Health and Innovation, Science Division, World Health Organization
		Thomas Wiegand- Executive Director, Fraunhofer Heinrich-Hertz-Institut, Germany
	Panelists	
	Osama Alswailem - Chief Information Officer-King Faisal Specialist Hospital and Research Centre (KFSH&RC), Saudi Arabia	
	Ricardo Baptista Leite- Chief Executive Officer, Health AI, Switzerland	
	Batoul AlBaz - Vice President, Health Sector, KACST, Saudi Arabia	
	Rigveda Kadam - Deputy Director, Digital Health, FIND	
	Mathew Magimai Doss- Senior Research Scientist and PI, Speech and Audio Processing group, Idiap Research Institute, IDIAP	

Time (UTC+3)	Sessions	Speakers
11:00 -11:30	Group picture + Coffee break (30 mins)	
11:30 - 13:00	**Flash Presentations:** Moderators	**Thomas Wiegand**- Executive Director, Fraunhofer Heinrich-Hertz-Institut, Germany **Haytham Sheerah**- International Health Officer and Assistant Deputyship, International Collaborations, Ministry of Health, Saudi Arabia
	Detecting Bias in AI Models	**Shrooq Alsenan** – Assisstant Professor, Princess Nourah bint Abdulrahman University, Saudi Arabia; Research Fellow, Computer Science & Artificial Intelligence Lab (CSAIL); Jameel Clinic, MIT, USA
	Quo Vadis TG Dental: Challenges to tackle as part of the Global Initiative	**Falk Schwendicke** – Professor, Charité Universitätsmedizin Berlin, Germany
	AI for improving healthcare decisions in disadvantaged areas	**Alexandre Chiavegatto Filho** – Associated professor, Universidade de São Paulo, Brazil
	AI in medical image analysis	**Ricardo Henao** - Associated professor, King Abdullah University of Science and Technology, Saudi Arabia
	AI for detecting diabetic retinopathy in Senegal with ITU and Senegal's Ministry of Health	**Arun Shroff –** CEO, Medindia/Xtend.ai & India / USA
	Use of AI in Point of Care	**Johan Lundin** – Research director, University of Helsinki, Finland
	Symptom assessment	**Henry Hoffmann** – Director of research, Ada Health, Germany
	Large language models	**Lonneke**- Associate professor and research scientist, IDIAP **Esau Villatoro**- Research Associate, IDIAP
	Breast Cancer Detection	**Ahmed Alsinan** - AI consultant, National Center for Artificial Intelligence at SDAIA
	Discussion and Q&A	
13:00- 14:00	Lunch break (60 mins)	
14:00-14:20	**Ideathon Opening**	**Alanoud Algethami** - Associate Project Manager, The Garage, KACST, Saudi Arabia
14:20-15:00	**Ideathon Overview (Open Code Initiative Theme)**	**Marc Lecoultre**- Lead, GI-AI4H Open Code Initiative, ITU-T
15:00-15:30	**Ideathon Teams and Mentors Mapping**	**Marc Lecoultre**- Lead, GI-AI4H Open Code Initiative, ITU-T
15:30-16:30	Coffee and Brainstorming with the Teams	
16:30-17:30	**High-Level Policy Panel on the 3 Pillars of the GI-AI4H** Moderators	**Sameer Pujari**- AI Lead, Department of Digital Health and Innovation, Science Division, World Health Organization **Simao Campos** - Counsellor, Multimedia & AI4H standards, International Telecommunication Union
	Panelists	

Time (UTC+3)	Sessions	Speakers
	Government representative	**Osama Elhassan** – Health Informatics Specialist, Dubai Health Authority, United Arab Emirates
	Developer community representative	**Deemah Alabdulaali** – Machine Learning Head, Lean Business Services, Saudi Arabia
	Health care provider/ worker community representative	**Mohammad Alhamid** - Director of Center for Healthcare Intelligence, King Faisal Specialist Hospital & Research Centre, Saudi Arabia
	Donor community representative	**Mariam Nouh** - Vice President, Future Economies Sector, KACST, Saudi Arabia
	Regulators and AI authorities representative	**Ali AlDalaan**- Executive Vice President, Medical Devices Sector, Saudi Food and Drug Administration, Saudi Arabia
		Ehsan Hoque - Chief Scientist, National Center of AI, Saudi Data and AI Authority, Saudi Arabia
		Shan Xu - Director, International Collaboration, Health Bigdata and Network Research Center, CAICT, China
	Research community representative	**Mathew Magimai Doss-** Senior Research Scientist and PI, Speech and Audio Processing group, Idiap Research Institute, IDIAP
		Thomas Wiegand- Executive Director, Fraunhofer Heinrich-Hertz-Institut, Germany
Thinkathon continues in the break-out rooms or shared space		
Social networking event in the evening		

Day 1 – 31 October 2023

Time (UTC+3)	Sessions	Speakers
09:00 - 09:30	Entry and registration	
09:30 -10: 00	**Briefing session: Enabling pillar**	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO **Thomas Wiegand** - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany **AI4H Campos** – Counsellor, Multimedia & AI4H standards, ITU **Ursula Yu Zhao** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO **Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
10:00 - 10:40	**Flash Presentations (Achieved work) Moderator**	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO
	Ethics and governance of AI for health	**Andreas Reis**- Co-Unit Head, Health Ethics & Governance, WHO
	Patent landscape for AI and technologies in the medical and life sciences	**Alica Daly**- Senior Policy Officer on AI and Data, WIPO

Time (UTC+3)	Sessions	Speakers
10:40 - 11:10	Regulatory considerations on AI for health	**Shada AlSalamah**- Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
	Clinical evaluation on AI for health	**Eva Weicken**- Chief Medical Officer, Fraunhofer Heinrich Hertz Institute, Germany
	Data quality and assessment	**Markus Wenzel** – Senior scientist, Fraunhofer HHI **Marc Lecoultre** - Chair, FG-AI4H DASH
	Flash Presentations (Ongoing work) Moderator	**Thomas Wiegand**- Executive Director, Fraunhofer Heinrich-Hertz-Institut, Germany
	Governance approach for AI 4H	**Vijaytha Muralidharan** – Clinical researcher, Stanford Medicine, USA
	Using AI in evidence informed policy making	**Sara Marcucci** - Research fellow, GovLab **Stefaan Verhulst** - Chief research, GovLab
	AI in medical image analysis	**Ricardo Henao** - Associate Professor, Biological and Environmental Science and Engineering Division, King Abdullah University of Science and Technology (KAUST), Saudi Arabia
	AI for automated microscopy	**Rose Nakasi** - Makerere University, Uganda
11:10-11:45	Group picture + Ideathon + Coffee break	
11:45-12:30	**Panel 01**	**Addressing global health needs, research gaps and governance challenges in the use of AI for health**
	Moderators	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO
	Panelists	**Ahmad AlJadaan -** Advisor, Research, Development and Innovation Authority, Saudi Arabia
		Mathew Magimai Doss- Senior Research Scientist and PI, Speech and Audio Processing group, Idiap Research Institute, IDIAP
		Ricardo Baptista Leite- Chief Executive Officer, Health AI
		Areej AlWabil - Director of Alfaisal's AI Research Center, Alfaisal University, Saudi Arabia
		Shan Xu - Director, International Collaboration, Health Bigdata and Network Research Center, CAICT, China
		Robert Hoehndorf - Associate Professor, Computer Science, King Abdullah University of Science and Technology (KAUST), Saudi Arabia
12:30 - 13: 30	**Lunch break (60 mins)**	
13.30 -14.00	**Coffee table brainstorming - introduction**	**Ursula Yu Zhao** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO **Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
14:00-15:30	**Coffee table – brainstorming** On-site participants will rotate to each of the	All participants (in-person and virtual) **Team/Room 01** Room host: Peiling Yap Moderator: Munim Deen Rapporteur: Silvia D'Angelo (Virtual)

Time (UTC+3)	Sessions	Speakers
	three rooms every 30 minutes	**Team/Room 02** Room host: Mathew Magimai Doss Moderator: Eva Weicken Rapporteur: Jose Diaz Mendoza **Team/Room 03** Room host: Shan Xu Moderator: Markus Wenzel Rapporteur: Khulood AlGhamdi
15:30 -16:45	**Brainstorming report, Q&A and general discussion**	All participants (in-person and virtual)
16:45-17: 00	**Summary & round up**	
17:00-17:30	**Ideathon team joint effort**	
Social networking event in the evening		

Day 2 – 1 November 2023

Time (UTC+3)	Sessions	Speakers
09:00-09:30	Entry	
09:30-10:00	**Briefing session: Facilitation pillar**	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO **Thomas Wiegand** - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany **Simao Campos** - Counsellor, Multimedia & AI4H standards, ITU **Ursula Yu Zhao** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO **Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
10: 00-10:45	**Flash Presentations: facilitating health for all** Moderator	**Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
	Tuberculosis	**Matt Arentz** - Senior Technical Officer, Digital Health, FIND, Switzerland
		Hana Aballah - Assistant Professor of Medical Biology, College of Medicine at Alfaisal University, Saudi Arabia
	Traditional Medicine	**Pradeep Dua** - Technical officer, Traditional and complementary medicine, WHO
	Pharmaceutical	**Rohit Malpani,** Consultant, Health Ethics and Governance, WHO
		Siddhartha Prakash, Head, Global Health, WIPO
	Evidence-informed policymaking	**Davi Mamblona Marques Romao**- Consultant, Evidence to Policy and Impact, Research for Health Department, WHO
		Nancy Pignataro - Associate External Relations Officer, WIPO
	Sexual and Reproductive Health and Rights	**Tigest Tamrat**- Scientist, Department of Sexual and Reproductive Health and Research, WHO

Time (UTC+3)	Sessions	Speakers
	Brain health	**Ferath Kherif** - Vice director, Neuroimaging Research Laboratory (LREN), University Hospital of Lausanne (CHUV), Switzerland
10:45 - 11:45	**Panel 02: Understanding the impact of AI on Health Technology Innovation: supporting health technology innovators address IP challenges and opportunities to build a robust health technology ecosystem**	
	Moderator	**Siddhartha Prakash**- Head, Global Health, WIPO
	Panelists	**Hari Krishnan** - Founding Director, SparshMind Innovations
		Abdulrahman Alsheikh - Assistant Professor and Head of the Public Health Department, IMSIU; Consultant - Lean Business Services, Saudi Arabia
		Claudia Seitz - Professor for Public Law, European Law, Public International Law and Life Sciences Law, Faculty of Law, Private University of the Principality of Liechtenstein
		Juanita Acosta - Partner, Dentons Cardenas & Cardenas Abogados, Colombia
		Sabine Wildschütz - Chief Patent Counsel Diabetes Care, Roche
		Basma AlBuhairan - Managing director- C4IR, Saudi Arabia
11:45 -12:00	Ideathon + Coffee break	
12:00 - 12:45	**Flash Presentations:**	**Moderator: Thomas Wiegand - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany**
	Centralized and distributed data sourcing	**Ferath Kherif** (University Hospital of Lausanne, Switzerland), **Dimitar Jetchev** (Co-Founder & CTO, inpher.io, Switzerland)
	Metrological Machine Learning	**Luis Oala** - Head of Machine Learning, Dotphoton, Switzerland
	Open Code Initiative	**Marc Lecoultre** - Lead, GI-AI4H Open Code Initiative, ITU-T
	Medical Large Multimodal Model: from Design, Development, Deployment to MVP - Cyber Security, Privacy, and Compliance Perspective	**Md Abdur Rahman** - Associate professor, College of Computer and cyber sciences, University of Prince Mugrin, Madinah, Saudi Arabia
	AI in point of care	**Nina Linder** – Senior research, University of Helsinki, Finland
	AI in radiology	**Darlington Akogo** - Chief Executive Officer, Mino Health AI, Ghana
	World Health AI Partnership:	**Mohummad Hassan Raza Raja** – Research associate, Aga Khan University, Pakistan

Time (UTC+3)	Sessions	Speakers
	Preliminary Results of Qualitative Analyses- First part	
	World Health AI Partnership: Preliminary Results of Qualitative Analyses- Second part	**Zarmeen Nasim** – Lecturer, Aga Khan University, Pakistan **Mark Sendak** – Population Health & Data Science Lead, Duke Institute for Health **Zainab Samad** – Chairwoman, Department of Medicine at Aga Khan University, Pakistan
	Private-public partnership policies in setting community standards for AI implementation	**Ivy Lee** - American Academy of Dermatology, USA
12:45 - 13:45	**Lunch break (60 mins)**	
13:45 - 14: 00	**Introduction to Breakout Sessions**	**Sameer Pujari, Shada Alsalamah (WHO)**
14:00 - 16:00	**Breakout sessions by different Facilitating community groups with coffee break**	All participants (in-person and virtual) Moderators: **Denise Schalet**, Technical Officer, Department of Digital Health and Innovation, WHO **Jose Diaz Mendoza**, Consultant, Department of Digital Health and Innovation, WHO **Kanika Kalra**, Consultant, Department of Digital Health and Innovation, WHO
	Academics and research group	**Shrooq Alsenan** - Assistant Professor, Princess Nourah bint Abdulrahman University, Saudi Arabia; Research Fellow, Computer Science & Artificial Intelligence Lab (CSAIL); Jameel Clinic, MIT, USA
		Thomas Wiegand - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany
		Hessah Alsalamah - Dean, College of Computer and Information Sciences, Al Yamamah University; Associate Professor, College of Computer and Information Sciences, King Saud University, Riyadh
		Mashael S. Maashi – Associate professor, King Saud University, Saudi Arabia
		Mathew Magimai Doss- Senior research scientist and PI, IDIAP
	Public health group	**Lothar Wieler** - Chair, Digital Global Public Health, Hasso Plattner Institute
		Haytham Sheerah- International Health Officer and Assistant Deputyship, International Collaborations, Ministry of Health, Saudi Arabia
		Siddhartha Prakash, Head, Global Health, WIPO
	Industry and developers' community group	**Darlington Akogo** - Chief Executive Officer, Mino Health AI, Ghana
		Sadek Alshouli- Chief Executive Officer, DAL Digital

Time (UTC+3)	Sessions	Speakers
		Abdulrahman Alsheikh - Assistant Professor and Head of the Public Health Department, IMSIU; Consultant - Lean Business Services, Saudi Arabia
		Mohamed Saleh - Regional Health & Life Sciences Director - EMEA Microsoft
		Khalaf N. Aldawsari – Business analyst, Saudi Arabia Telecommunication
	Partners community group	**Marwan Al Sabri** - Lead Architect, IBM Global Business Services, Saudi Arabia
		Mariam Nouh - Vice President, Future Economies Sector, KACST, Saudi Arabia
	Healthcare provider community group	**Thamer Nouh** - Head, Trauma & Acute Care Surgery Unit, Department of Surgery, College of Medicine, King Saud University
		Bassam Mahboub - Consultant pulmonologist and allergy diseases specialist, Dubai Health Authority
		Khulood AlGhamdi - IT Project Manager, King Khalid University Hospital, Riyadh
	AI authority community group	**Xu Shan -** Director, International Collaboration, Health Bigdata and Network Research Center, CAICT, China
	Civil societies/ patient organization group	**Andreas Reis** - Co-Unit Head, Health Ethics & Governance, WHO
		Rohit Malpani – Consultant, Health Ethics & Governance, WHO
	Responsible AI Regulation Group	**Ricardo Baptista Leite** (CEO, Health AI), **Oliver Deak** (CTO, Health AI), **Peiling Yap** (CSO, Health AI)
	Data technology and infrastructure for generative AI and beyond	**Luis Oala** (DotPhoton), **Marc Lecoultre** (ML Labs), **Ferath Kherif** (CHUV, CH), DMLR, **Kurt Bollacker** (MLC), **Girmaw Abebe** (Microsoft)
16:00-16:45	**Report back & overall discussion**	All community group representatives and participants (in-person and virtual) Rapporteur: one per community group
16:45-17:00	**Summary & round up**	
17:00-17:30	**Ideathon team joint effort**	

Day 3 – 2 November 2023

Time (UTC+3)	Sessions	Speakers
09:00-09:30	Entry	
09:30-10:00	**Briefing session: Implementation pillar**	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO **Thomas Wiegand** - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany **Simao Campos** - Counsellor, Multimedia & AI4H standards, ITU

Time (UTC+3)	Sessions	Speakers
		Ursula Yu Zhao - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO **Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO
10:00 - 10: 15	**Introduction to case study: welcome to AMARA**	**Shada AlSalamah**- Technical Officer (Digital Health and AI), Department of Digital Health and Innovation, WHO
10:15 - 12:00	**From Ideation to Implementation: role-play breakout sessions**	All participants (in-person and virtual)
	Moderators:	**Denise Schalet**- Technical Officer, Department of Digital Health and Innovation, WHO
		Kanika Kalra- Consultant, Department of Digital Health and Innovation, WHO
		Jose Diaz Mendoza- Consultant, Department of Digital Health and Innovation, WHO
		Mohammed Hadrawi- KACST
		Mohamed Saleh- Regional Health & Life Sciences Director - EMEA Microsoft
12:00-13:00	**Report back on the breakout sessions**	
13:00-14:00	Lunch break (60 mins)	
14:00-15:00	**Ideathon Presentations**	
16:00-16:30	**Social Culture and Award session**	
16:00-16:30	**Reflection & Closing**	**Sameer Pujari** - AI Lead, Department of Digital Health and Innovation, Science Division, WHO **Thomas Wiegand** - Executive Director, Fraunhofer Heinrich Hertz Institute, Germany **Simao Campos** - Counsellor, Multimedia & AI4H standards, ITU **Siddhartha Prakash**- Head, Global Health, WIPO **Shada AlSalamah** - Technical Officer, Department of Digital Health and Innovation, Science Division, WHO

Appendix B:
Summary of the discussions

Appendix B will be filled with a detailed summary of all discussions held at the meeting (in the final version of this preliminary report).

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