HEALTH AI
The Global Agency for Responsible AI in Health

ANNUAL REPORT

2023
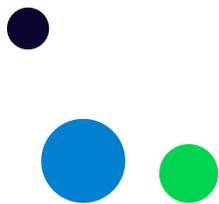
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A MESSAGE FROM OUR CEO

2023 was a year of renewal for I-DAIR, now known as HealthAI, The Global Agency for Responsible AI in Health.

When I joined the International Digital Health and AI Research Collaborative (I-DAIR) as CEO in May, I saw the incredible potential of this young organization, but also many of the headwinds we were facing. Through deep collaboration with our staff, Board, donors, and partners, we were able to set a new course that better aligns with the needs of the countries and communities we serve.

I-DAIR was created in 2019 as an acknowledgement that artificial intelligence and other advanced data analytics technologies would have immense impact on the world. A long history of division between countries created the potential for a further deepening of the digital divide–and so the founders of I-DAIR created an organization dedicated to protecting equity and innovation for all communities around the world. While our name may be different and our programs may change, this remains the driving motivation of our work.

After three years of work on our Pathfinder Projects, we had a better view of the AI landscape in health and the evolving challenges facing countries around the world. Of course, 2020 brought significant changes to the landscape of global health–and the broader world–many of which are ongoing. I-DAIR was able to respond nimbly to many of these challenges and adapt its projects. But along with COVID-19, the role of AI became quickly outsized. So as our initial period of work began to conclude, we had an opportunity to adapt and re-envision our role in the global health sector.

As we developed our new strategy and set ourselves up for the future, we also needed to deliver on our existing projects and commitments. When looking back at our accomplishments from 2023, I am proud to say we managed to find that balance. Many of our projects reached important milestones this year, and we continued to grow our partnerships around the world. This was only possible because of the talented, committed staff I have the pleasure of working with every day, along with the incredible support and guidance from our global community.

Thank you to everyone who worked alongside us, be it on one of our projects or in the development of our new strategy and implementation plan. We have set a course for 2024 and beyond – and I am honored to be part of it.

Thank you,
Dr. Ricardo Baptista Leite

2023
PROJECT
MILESTONES

AI FOR GLOBAL HEALTH

With support from Canada's International Development Research Center, I-DAIR is supporting the Artificial Intelligence for Global Health (AI4GH) Initiative through the Responsible AI in Global Health project designed to improve the implementation of inclusive, gender-responsive, and responsible AI in global health. The ultimate goal of this work is to enrich the international research agenda and regulatory discussions in order to create a shared understanding of how AI can be used responsibly in low-resource contexts.

2023 MILESTONES

RESPONSIBLE AI RESOURCE DATABASE

I-DAIR developed a Responsible AI Resource Database, compiling a diverse library of resources related to the responsible use of AI. This database includes resources from global standards, data protection laws, toolkits, journal articles, white papers, and more–consolidating into a single reference for practitioners and researchers alike.

REPOSITORY OF AI VALIDATION TOOLS

I-DAIR established a Responsible AI Validation Tools and Methodologies Repository, listing regulatory recommendations and the corresponding tools. This repository aligns the current WHO's regulatory recommendations with existing toolkits that meet these guidelines, creating a correlation between global regulatory advice and the practical tools available for compliance.

COLLABORATORY TOOL

I-DAIR completed an initial version of the Responsible AI platform, consisting of the Data Quality Measurement Tool and the Collaboratory tool. The former assesses the quality of data, ensuring the integrity and reliability of data used as the basis of AI models and acts as an advancement towards developing metrics for Responsible AI. The latter was designed to support collaboration on the establishment and monitoring of standards for the responsible use of AI by facilitating discussions and collaboration on ethics, responsibility, scientific and clinical research.

GENDER EQUITY AND INCLUSION TRAINING

I-DAIR hired a gender advisor to develop and facilitate a Gender Equity and Inclusion (GEI) training to enhance the gender-inclusive approaches to Responsible AI. This training covers the fundamentals of gender, inclusion, and intersectionality within the context of AI use in global health, tools and best practices for gender-inclusive AI programs, and frameworks for gender-transformative and gender-responsive approaches. It was tested within the I-DAIR team and it will be provided to all IDRC AI4GH partners.

TRUSTED RESEARCH INFRASTRUCTURE

I-DAIR's Trusted Research Infrastructure (TRI) is a flexible combination of hardware and software offerings that lower the barrier of entry to AI-enabled public health research. Research and advancements related to AI have historically required access to high-powered computational systems and specific technical expertise, which further entrench inequities across geographic and socioeconomic lines.

To expand the use of AI in public health research around the world, I-DAIR began the development of the Trusted Research Infrastructure to provide researchers a powerful and self-sovereign platform. The Research Infrastructure was also designed to account for varying levels of technical expertise in information technologies and data analytics–reducing the complexity and learning curve for AI-enabled research. By using a federated approach to data management, the Research Infrastructure also safeguards data sovereignty by utilizing predefined national, regional, and local data ownership boundaries.

2023 MILESTONES

INSTALLATION OF THE FIRST NODE

The first TRI node was installed at the African Population Health Research Centre (APHRC) in Nairobi, Kenya. This included the installation of a high-performance workstation together with a first release of the I-DAIR CODEX application, allowing public health researchers at APHRC to develop, refine and deploy their own ML models in a locally secured environment. The node can also be leveraged by the APHRC Data Science team for custom projects that need additional computing resources.

CODEX DEVELOPMENT

The I-DAIR-CODEX No-Code Machine Learning Tools was in active development across 2023. As a "code-less experience" it provides a user-friendly interface allowing public health professionals to engage with ML without deep technical expertise in data analytics. After three months of initial development, an Alpha version was showcased at the INSPIRE Network's Annual General Meeting hosted by APHRC in Nairobi. User feedback was gathered in March 2023, leading to further platform refinement and additional features for visualization and explainability.

In September 2023, the platform was used to provide an introductory course on machine learning for pharmacy students during the 81st FIP World Congress of Pharmacy and Pharmaceutical Science. During the last quarter of 2023, the CODEX transitioned from Beta to its first official release and will be available as open source in early 2024.

CAPACITY DEVELOPMENT NETWORK

Launched in 2022, the Capacity Development Network brought together research faculties, digital health practitioners, and training resources to expand the technical knowledge and skill sets related to digital health and AI. The Network helps align the existing capacity development resources with the priorities and needs of health professionals and patients, and contributes to the development of new training, frameworks, guidance, and other resources required to strengthen the management and use of digital health around the world.

2023 MILESTONES

DIGITAL HEALTH COMPETENCY FRAMEWORK

In collaboration with the WHO, I-DAIR facilitated the early development of a draft Digital Health Competency Framework. The Capacity Development Network formed a cross-disciplinary working group with more than 170 members that collaboratively defined the requisite knowledge, skills, and attributes required for policy making, planning, implementation, and using digital health. The vision for this framework is to provide globally-accepted standards for professional competencies, ultimately leading to more adaptive, resilient health systems supported by knowledgeable, well-trained digital health practitioners. The finalization and publication of the Competency Framework is expected in 2024 following additional rounds of feedback and review by the WHO and the global community, through the WHO Expert Working Group.

COURSE ENROLLMENT

I-DAIR and the National Center for Health Information systems (CENS) of Chile enrolled 100 participants in Digital Health: Planning National Systems, an 11-week virtual course created by USAID, WHO, TechChange, and other partners. This included the first Spanish-language delivery of this course, where learners from Chile, as well as eight other Latin American countries, engaged across 11 live sessions.

PANDEMIC PREPAREDNESS AND RESPONSE

In 2022, I-DAIR's Scientific Working Group defined a Research & Development (R&D) Agenda to co-develop a global pandemic preparedness and response scheme that is science-based, digitally enabled, and works across the continuum of pandemic phases. With an aim to strengthen collaborative and participatory mechanisms for pandemic preparedness and response, this work focuses on citizen science approaches, including the use of digital technologies.

2023 MILESTONES

NINE COUNTRY NEEDS ASSESSMENT

A 9-country needs assessment study was completed to evaluate community awareness and readiness to engage in participatory research as well as identify barriers and facilitators influencing participation in citizen science activities. With a total of 2,912 participants, this needs assessment provided important insight for policymakers and researchers in the future design of citizen engagement approaches. This work has been shared in a number of journal articles and international convenings.

PARTICIPATORY MODELING WORKSHOPS

Participatory Modeling workshops were held in Brazil, Vietnam, and Kenya. These workshops fostered participation of local communities which contributed to the development of an agent-based model that policymakers can use to understand citizen behavior towards public health policies during a disease outbreak.

ROLEPLAYING GAME

A roleplaying game, The Citizen Outbreak Responder, was developed and used in the Participatory Modeling workshops. This game helps participants experience a disease outbreak from a number of perspectives to better understand the decision-making and behaviors of different stakeholders. This game was presented at the International Simulation and Gaming Conference.

UNGA 78 SCIENCE SUMMIT

I-DAIR convened a session on Citizen Science during the UNGA 78 Science Summit. Through multiple panel discussions, thought leaders from academia, civil society, research organization, Wellcome Trust, WHO, and UNESCO explored how citizen science can contribute to more inclusive and collaborative research for digital health and AI for health, as well as the technologies needed for sustainable citizen engagement.

TRADITIONAL MEDICINE

I-DAIR partnered with the WHO to develop a Traditional Medicine Research Tool utilizing innovative algorithms that help uncover trends, insights, and opportunities within existing research on Traditional Medicine. Using visualizations and dashboards, this research tool provides a new way to explore journal articles and patents to inform research and shape decision-making.

2023

TRADITIONAL MEDICINE RESEARCH TOOL

I-DAIR developed a first prototype version of the Traditional Medicine Research Tool sharing progress at the first WHO Traditional Medicine Global Summit. The tool is implemented following a similar approach to the Global Research Maps (GRM). The Agreement for Performance of Work under which this prototype was developed was completed at the end of 2023 in agreement with WHO.

E-PROM

The electronic Patient-Reported Outcome Measures (e-PROM) project contributes to the development of a new generation of human-centered benchmarks for digital health and AI. Using both qualitative and quantitative methodologies, e-PROM shifts the focus on technical accuracy to the experience of patients using wearables, remote monitoring, and other digital health tools.

2023

SOFTWARE RELEASE

A first version of a custom e-PROM software was developed and provided to our partners at CMC Vellore and TMC Kolkata in India. The software was installed and health staff trained in its application. After an iteration of further customization and bug fixing the software is now ready for clinical trial use, with first results expected in mid-2024. The software has also been made available as open-source.

ORGANIZATIONAL UPDATES

The past year saw an important evolution in our organization – from the formal establishment of an independent organization, the appointment of a new CEO to the re-envisioning of the organization and its role in the global health sector.

Achieving Organizational Status

From its establishment in 2019, I-DAIR was housed within the Geneva Graduate Institute, which supported the institutional needs of the organization in its initial years. On 1 February, 2023, I-DAIR became operational as an independent organization, registered as a Foundation under Swiss Law.

Through the registration process, I-DAIR conducted a rigorous due diligence process with its donors, developed organizational policies and processes, introduced a new governance Board, and transferred all assets. This important milestone speaks to the impact of the organization's work and sets I-DAIR up for long-term growth and success.

Welcoming a New CEO

In 2022, I-DAIR's first CEO, Dr. Amandeep Singh Gill was nominated to serve as the UN Secretary-General's Technology Envoy, whereupon the I-DAIR Board conducted an extensive search.

On 3 April, Dr. Ricardo Baptista Leite was appointed as the new CEO of I-DAIR. Dr. Leite came with an extensive background in medicine, policy, research, innovation, and global health. He assumed his role on 22 May 2023.

Dr. Ricardo Baptista Leite is a Portuguese Canadian medical doctor with extensive experience in global health, health systems and science-based policy making. Before joining HealthAI, Dr. Baptista Leite was a 4-term Member of Parliament in Portugal, on both health and foreign affairs committees. He is city councillor in Sintra, having served in the past as deputy mayor of Cascais.

Forging a New Course

2023 also marked an inflection point for the organization. After three years of pursuing its Pathfinder projects, I-DAIR had an opportunity to evaluate its successes and the role of the organization going forward.

This process began during an all-staff strategy retreat held in June 2023. During this three-day meeting, I-DAIR staff reviewed its project portfolio, discussed its organizational strengths, and launched an in-depth strategy development process. This retreat also allowed for discussion on how global events had shifted the needs within the global health sector.

Based on these conversations and subsequent strategy discussions, both the I-DAIR staff and Board recognized the need for a new organizational direction.

Introducing HealthAI

On 23 October, the organization announced not only a new organizational strategy, but also a new organizational name. HealthAI- the Global Agency for Responsible AI in Health will focus on building trust, advancing equity, and delivering on the potential of AI in Health through governance and regulation.

HealthAI also launched its new brand identity, developed in partnership with the creative consultancy firm Blossom.

Since this announcement, HealthAI has been an active participant in the global conversation around responsible AI, highlighting the need for strong governance aligned with global standards. This includes active conversations with governments, with normative agencies like the WHO and OECD, and with partners in the global health sector, who are all wrestling with the potential implications of AI – and the importance of safeguarding patients, data, and health systems.
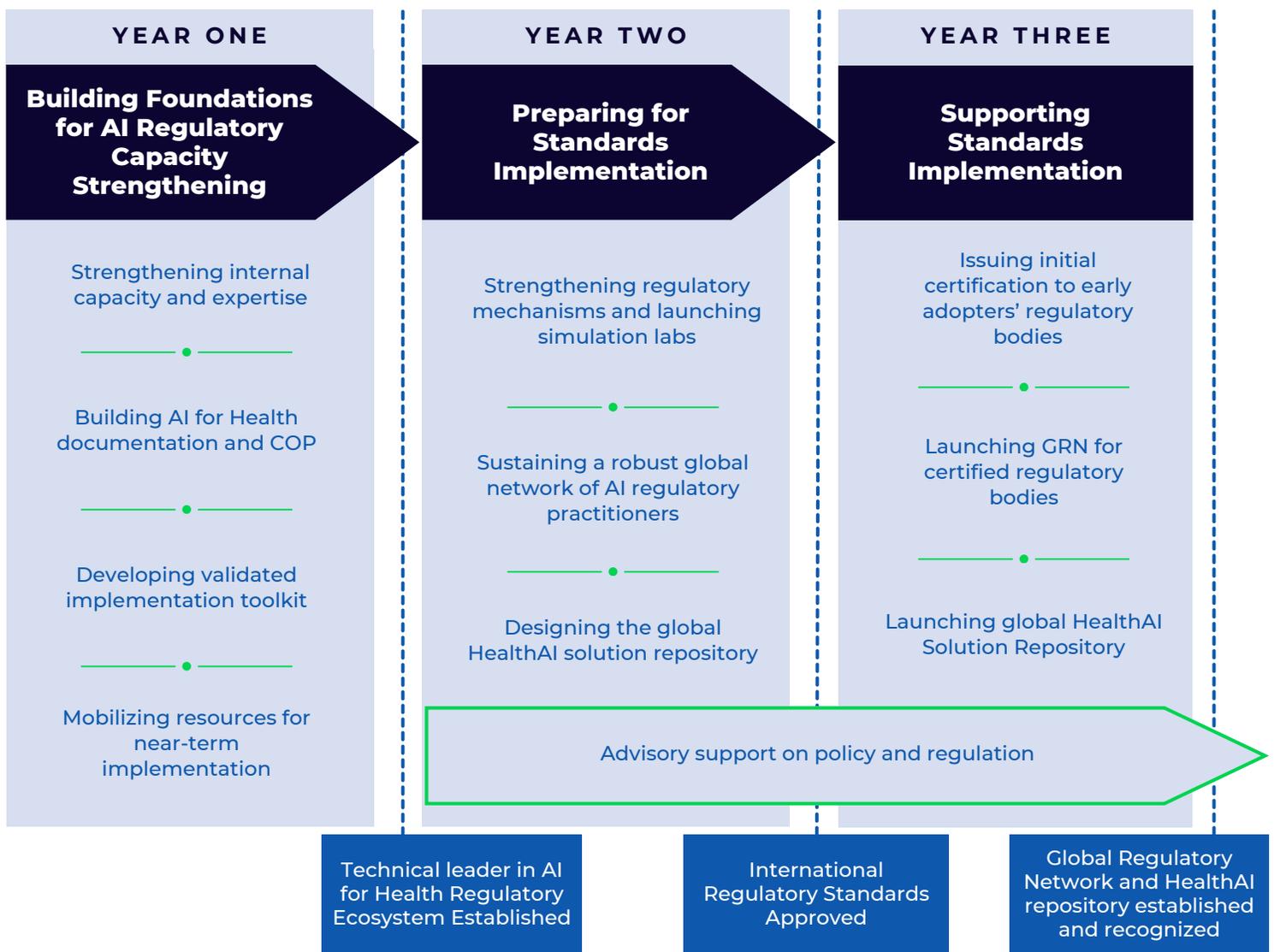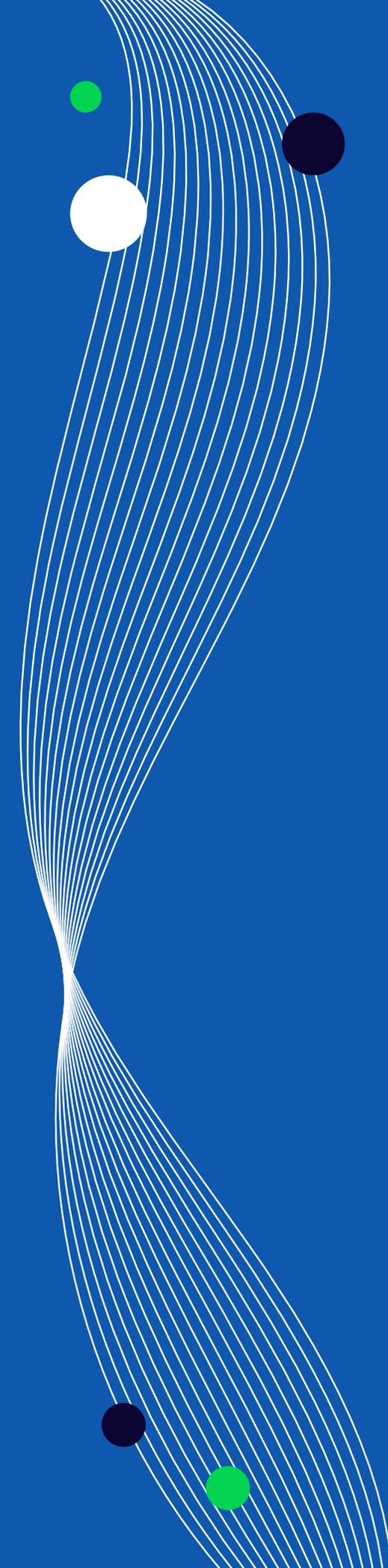
Sunsetting Projects

Along with the new organizational direction, HealthAI conducted a deep review of its ongoing work in order to align its efforts with its new strategy. Several projects will transition their activities in support of the strategy, while others have been concluded.

2024 & BEYOND

During the final meeting of the HealthAI Board, the 2024-2026 Strategy Implementation Plan was approved. The Implementation Plan provides a partnership-driven approach to designing, strengthening, and enabling the implementation of the new organizational strategy. It will guide the work of the organization over the next three years–setting up a strong foundation for progress.

HealthAI will work through three phases as it strengthens its partnerships and introduces new programs of work:

YEAR ONE	YEAR TWO	YEAR THREE
Building Foundations for AI Regulatory Capacity Strengthening	**Preparing for Standards Implementation**	**Supporting Standards Implementation**
Strengthening internal capacity and expertise	Strengthening regulatory mechanisms and launching simulation labs	Issuing initial certification to early adopters' regulatory bodies
Building AI for Health documentation and COP	Sustaining a robust global network of AI regulatory practitioners	Launching GRN for certified regulatory bodies
Developing validated implementation toolkit	Designing the global HealthAI solution repository	Launching global HealthAI Solution Repository
Mobilizing resources for near-term implementation		

Advisory support on policy and regulation

Technical leader in AI for Health Regulatory Ecosystem Established

International Regulatory Standards Approved

Global Regulatory Network and HealthAI repository established and recognized

HealthAI is a Geneva-based nonprofit organization focused on the use of Responsible AI in the health sector.

We work with governments, the World Health Organization, and many others in the health innovation sector to strengthen the governance and regulation of AI to build trust, advance equity, and deliver on the potential of emerging technologies.

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