AMERICAN UNIVERSITY OF BEIRUT

GLOBAL HEALTH INSTITUTE AUB

معهد الصحة العالمية

CALL FOR
PROPOSALS

GHAIN MENA

Global Health And Artificial Intelligence Network in MENA

In partnership with

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ABOUT AUB GHI

The Global Health Institute (GHI) at the American University of Beirut (AUB) is the first global health institute in the Middle East and North Africa (MENA) region, and is one of the very few in the Global South.

Established in 2017, GHI addresses global health challenges with a focus on context and sustainable impact by employing an interdisciplinary approach. The primary focus of GHI are challenges that are affecting the MENA region, but have relevance to and impact on other regions in the global south.

The work of GHI is defined by three divisions:
1. GHI Programs, which focus on generating context specific research, policy, and advocacy to address major global health challenges in the region.
2. GHI Academy which delivers contextualized global health education to various populations through smart and innovative learning modalities.
3. GHI ASSIST, which provides community-based services and interventions to address the needs of vulnerable and underserved populations, and

ABOUT GHAIN MENA

The Global Health Artificial Intelligence Network in the Middle East and North Africa region (**GHAIN MENA**) is a 3-year project led by the E-Sahha Program at the Global Health Institute in partnership with the Eastern Mediterranean Public Health Network (EMPHNET) and the Jordan University of Science and Technology (JUST). Supported by the International Development Research Centre (IDRC), **GHAIN MENA** aims to empower researchers from different institutions of the MENA region to design and implement responsible AI-based digital health interventions through partnerships and tailored capacity building.

The **GHAIN MENA** hub intends to:
1. Enhance understanding and application of responsible AI-based digital health interventions in improving SMRH outcomes in MENA
2. Strengthen research capacity in MENA on the use of AI to improve health outcomes
3. Ensure all applications of AI methodologies are gender-sensitive and inclusive
4. Enhance the relevance and scalability of the research to inform and influence policies and practices

PROJECT JUSTIFICATION

More than two decades have passed since the first Artificial Intelligence (AI) tool was developed for a woman's health issue (preterm birth) and around half a century since the first health-based AI system was developed. Despite its relatively long existence, much remains to be done in the realm of harnessing AI methods to improve women's health including sexual, reproductive, and maternal health (SRMH). The sustainable development goals (SDGs) continue to prioritize SRMH through goal 3 on 'ensuring healthy lives and promoting well-being for all at all ages' and goal 5 on 'achieving gender equality and empowering all women and girls" and corresponding relevant targets. Nevertheless, the gap remains existent.

Artificial Intelligence offers a promising potential in achieving the targets related to these goals by improving women's SRMH. The potential of artificial intelligence is even more prominent in Low- and Middle-Income Countries (LMICs) of the Middle East and North Africa (MENA) region where women account for 44% of adults living with HIV and maternal mortality and morbidity (e.g. hemorrhage, gestational diabetes, hyperglycemia, and others) remain leading concerns threatening pregnant women. The region also demonstrates significant rates of early marriage, unintended pregnancies, unsafe abortions, and gender-based violence particularly among adolescents, refugees, and displaced populations.

To ensure equity, accessibility, acceptability and cultural sensitivity, many parts provide guidelines to support the inclusion of comprehensive SRMH services into primary healthcare of health systems in MENA countries. Yet, the actual implementation, adoption, or uptake of these services remain relatively low due to several factors. These include lack of trained health providers, sub-optimal stakeholders' commitment, lack of awareness of women about the importance/added value of accessing and using SRMH services, and the availability of the latter within their communities, in addition to economic barriers related to transportation, among others. Luckily, digital health innovations based on artificial intelligence and machine learning may offer solutions to more than one of these barriers. These innovations could include AI-based mobile applications targeting health providers, AI-based prediction and triage models/algorithms that could flag complications in need for medical assistance, (AI)-enabled chatbots, or others.

On top of that, the MENA region exhibits a gender divide in both health outcomes as well as in access to digital technologies with implications for digital health. Other examples of inequalities across social stratifiers were reported in literature, emphasizing the gap in SRMH outcomes between the most and least advantaged based on residence (rural/urban), socioeconomic status (wealth and education) digital literacy levels, or other factors. While artificial intelligence can contribute to minimizing the existing gaps and divide, attention should be paid to the importance of implementing responsible AI-solutions (i.e. AI innovations that are ethical, respect human rights, inclusive and contribute to environmental sustainability), that avoid algorithm biases (ethical, social, etc.) and consider context-specific factors, social determinants, gender equity, diversity, and inclusion.

On that note, as part of **GHAIN MENA**, AUB GHI is releasing a call for proposals aiming at improving the sexual, reproductive, and maternal health in the MENA region through responsible artificial intelligence and digital health interventions.

CALL SUMMARY

As part of **GHAIN MENA**, AUB GHI is launching an open call for proposals for research projects submissions from institutions/ individuals in the MENA region. Following a thorough selection process, six (6) successful applicants will be awarded sub-grants issued by AUB GHI to implement their proposed projects for a duration of up to 18 months.

WHY GHAIN MENA

The selected grantees will benefit from:

1. **Training and capacity building:** The hub will build the capacity of the network members on a variety of topics that may be relevant to the proposed projects such as gender, social inclusion, digital health and artificial intelligence and others.
2. **One to one mentoring sessions:** Each grantee will benefit from a one to one mentoring session during which the research team can raise any questions or highlight area(s) in need for support such as project design, development, implementation, among others.
3. **Engaging with relevant stakeholders and policymakers:** The hub will facilitate engaging with relevant stakeholders through multidisciplinary dialogues and discussions that aim to advance the understanding of the role of responsible AI in improving SRMH outcomes besides scaling up of the members' projects.

PRIORITY AREAS

Submitted proposals should focus on responsible AI-based digital interventions that support at least one of the following priority areas:

- Improving Sexual, Reproductive, and Maternal Health (SMRH) outcomes
- Promoting adolescent sexual and reproductive health
- Enhancing access to and quality of Sexual, Reproductive, and Maternal Health (SRMH) services in primary healthcare settings
- Addressing gender-based violence
- Advocating for and supporting family planning
- Fostering partner involvement
- Enhancing the professional development and building the capacity of healthcare providers (HCPs) in areas related to Sexual, Reproductive, and Maternal Health (SRMH)

TRACKS

Proposals should fall under one of these tracks:

- **Research track:** This track supports exploratory research studies that aim to generate evidence on the effectiveness of proposed responsible AI-based digital health interventions targeting at least one of the priority areas stated above.

- **Innovation track:** This track supports the development, testing, and scaling of innovative AI-based solutions that have the potential for long-term impact on at least one of the priority areas stated above. It also entails the use of applied research where a prototype/application/concept already exists and requires advancement. This track may, among many other possibilities, produce a system as an output.

ELIGIBILITY CRITERIA

To be eligible to apply to the **GHAIN MENA** grant, the primary applicant must:

- Be based in the MENA region or affiliated with an organization based in the MENA region with official legal registration
- Have a track record of conducting research related to sexual, reproductive, and maternal health and/or artificial intelligence/digital health and/or health systems strengthening
- Be affiliated with an academic institution, university, ministry of health, research-oriented think-tank, non-governmental organization (NGO) or any other for profit or not for profit organization with a track record in SRMH or development of AI solutions
- Be submitting on behalf of a team of co-investigators whose expertise cover both health systems strengthening or SMRH and digital health with a focus on AI

BUDGET

A total of **$300,000** is allocated for the **GHAIN MENA** sub-grants, which will be awarded to selected projects, with a maximum of **$50,000 per grant.** Applicants are expected to fill a **budget template** available on our webpage, in the Application Form section.

PROPOSAL NARRATIVE

In order for the application form to be reviewed, applicants are expected to fill out all the sections outlined in the **Proposal Narrative Template** available on our webpage under the **Proposal Narrative** part. For more details on how to fill the proposal narrative template, download our **Instructions Guide.**

The sections under the proposal narrative template cover:

- Project Abstract
- Research/project Problem(s) and Justification
- General Objective
- Specific Objectives
- AI Solution
- Responsible AI
- Methodology
- Sustainability Plan
- Policy Relevance, Uptake and Scale
- Integration of Gender, Human Rights, Social, and Contextual
- Ethical Consideration
- Results and Dissemination
- Challenges

HOW TO APPLY

To apply to the **GHAIN MENA** call for proposals, please fill the **Application Form** available on our webpage.

Selected grantees will be contacted via email by the **GHAIN MENA** team to initiate the sub-granting process in **September, 2023.**

Deadline to Apply: July 14, 2023 at 11:59 pm (Beirut time; GMT+3:00).

For more information about this call, you may reach the team by email to **ghain-mena.ghi@aub.edu.lb** or by phone to +9611350000 ext. 4948.

SCORING CRITERIA

GHAIN MENA Scoring Criteria	Weight	Score
• Soundness of the Methodological Approach	**30%**	**30**
• Relevance to SRMH	**15%**	**15**
• Novelty of the Proposed AI Solution	**15%**	**15**
• Feasibility of the Project Timeline and Budget	**10%**	**10**
• Integration of Gender, Human Rights, Social, and Contextual Factors	**10%**	**10**
• Potential for Scalability	**5%**	**5**
• Institutional and Team Capacity	**5%**	**5**
• Monitoring and Evaluation Plan	**5%**	**5**
• Theory of Change	**5%**	**5**
Total Score	100%	100