AI POCUS
Community of Practice

Terms of Reference

Community of Practice: AI-enabled Point-of-Care Ultrasound (AI-POCUS) in LMICs



Background

Communities of Practice (CoPs) are organized groups of individuals who collaborate regularly around a shared domain to build actionable knowledge and shared resources through coordination and exchange. They are particularly important in complex, adaptive fields where challenges cannot be solved in isolation.

AI-enabled point-of-care ultrasound (AI-POCUS) is emerging as a transformational diagnostic technology, especially for lung diseases, maternal health, emergency care, and primary care in resource-constrained settings. It has the potential to democratize access to imaging and empower clinicians and frontline health workers with real-time decision support.

However, the field faces key challenges, including fragmented knowledge, limited validation standards, uneven regulatory readiness, lack of training pathways, and duplication of efforts.

In response, this Community of Practice has been established to convene various types of stakeholders, align efforts, and accelerate the responsible, evidence-based, and equitable adoption of AI-POCUS in low- and middle-income countries (LMICs).

Purpose

The AI-POCUS CoP serves as a collaborative, international platform that brings together clinicians, researchers, developers, implementers, policymakers, and funders to advance the responsible development, validation, and deployment of AI-enabled ultrasound in low- and middle-income countries.

Its purpose is to:

- Strengthen coordination across the global AI-POCUS ecosystem

- Accelerate the translation of research into practice
- Promote safe, ethical, and equitable deployment of AI-enabled diagnostic tools
- Enable the co-development and dissemination of research resources (e.g., trial protocols, standard operating procedures for ultrasound image acquisition), evidence, tools (e.g., a cross-validation platform for AI algorithms), and standards

Objectives

The CoP pursues the following objectives:

- **Build understanding and trust** in AI-POCUS among diverse stakeholders
- **Support and coordinate independent validation and evaluation** of AI models, particularly in LMIC contexts
- **Promote safe, ethical, and equitable use,** including responsible data governance and protecting patient data privacy
- **Enable equitable, collaborative data sharing and stewardship,** where feasible and appropriate, to support model development and evaluation
- **Facilitate joint evaluation processes,** including creating shared benchmarks and collaborative validation approaches
- **Advance privacy-preserving collaboration** without compromising data sovereignty (e.g., federated learning and related approaches that do not require relinquishing ownership or moving data from the source)
- **Support the development and contextualization of AI models** to local settings, including adaptation to epidemiology, workflows, and resource constraints
- **Contribute to global standards and best practices,** including validation, implementation, and training frameworks for both AI-assisted and human-interpreted POCUS
- **Facilitate knowledge exchange and collaboration** across institutions, disciplines, and countries

Scope

The CoP focuses on advancing the development, validation, and implementation of AI-POCUS in LMICs, including:

- Clinical applications (e.g., obstetrics, respiratory diseases, TB, emergency care, primary care)
- AI model development, validation, and benchmarking in real-world settings
- Training and workforce development for frontline health providers
- Data governance, ethics, and responsible AI use

- Device interoperability, procurement, and deployment considerations
- Implementation science and scale-up pathways

Membership

Eligibility

Membership is open to individuals and institutions actively engaged or interested in AI-POCUS, including:

- Healthcare providers and institutions (e.g., hospitals, clinics, training centers)
- Academic and research institutions
- Non-governmental organizations and implementing partners
- Government stakeholders, regulators, and policymakers
- Technology developers and industry partners
- International organizations and funding agencies

Nature of Membership

The CoP is:

- An **open and flexible international network** of stakeholders
- A **voluntary collaboration platform**
- A **shared space for exchange of experiences, expertise, tools, and resources**

Participation does not constitute a legally binding commitment. Rather, it reflects a shared intention to contribute to the objectives and collective work of the community.

Participation

As a condition of participation, members agree to:

- Contribute to a culture of **open, constructive, and respectful collaboration**
- Share relevant knowledge, tools, and experiences where appropriate
- Engage in good faith and support collective learning
- Respect the governance structure and agreed principles of the CoP

Member Information and Website Display

To give visibility to the community and help members find and connect with one another, the CoP maintains a public member listing on the AI POCUS website.

By joining the CoP, members consent to the following information being displayed on the AI POCUS website and in related communication materials (e.g., newsletters, reports, and event materials):

- Name, professional title, and institutional affiliation
- Country and areas of expertise or interest
- Institutional logo (for institutional members)
- Photo and professional profile link (e.g., LinkedIn), where provided by the member

Contact details such as email addresses and phone numbers will not be published.

Members may update their information, opt out of being displayed on the website, or request removal of their information at any time by contacting the CoP coordination team. Requests will be actioned promptly, and opting out of website display does not affect membership.

Member information is used only for CoP purposes, is not sold or shared with third parties for commercial purposes, and is handled in line with applicable data protection laws.

Activities

The CoP will facilitate a range of activities to support its objectives, including:

- Regular webinars and knowledge-sharing sessions
- Thematic working groups and technical discussions
- Global roundtables and expert dialogues
- Annual or periodic convenings (virtual or in-person)
- Case-based learning sessions and technical deep dives

In addition, the CoP will:

- Maintain active communication channels (e.g., Slack, newsletters)
- Develop and curate shared resources, tools, and knowledge products
- Leverage existing events and platforms to promote collaboration
- Foster cross-sector dialogue and partnerships

Governance

A Steering Committee will be established to:

- Guide the strategic direction of the CoP
- Support coordination across initiatives
- Provide recommendations on priorities and growth

The Steering Committee may meet every 3 months to review progress and guide the evolution of the CoP. The duration of an individual's seat on the Committee is 4 months to enable diverse individuals and organizations to steer the CoP.

Outputs

The CoP is expected to generate:

- Shared tools, frameworks, and implementation resources
- Joint publications and consensus documents
- Curated datasets and knowledge repositories (where appropriate)
- Training materials and learning modules
- Collaborative research and implementation initiatives

Values

The CoP is guided by the following core values:

- **Openness** – equitable sharing of knowledge, tools, and experiences
- **Scientific Rigor** – commitment to high-quality, transparent research and evaluation
- **Equity** – inclusive participation and representation, particularly of LMIC stakeholders
- **Practicality** – focus on real-world applicability and implementation
- **Independence** – non-product-driven and committed to neutrality
- **Collegiality** – respectful, supportive, and collaborative engagement

Acceptance

By joining, members agree to these Terms of Reference, including the display of member information on the AI POCUS website as set out under Member Information and Website Display.