



Audience and use of this document

This toolkit is designed to support decision-makers and policymakers at the county, regional, or state level who are considering the implementation of a certification system for obstetric point-of-care ultrasound. It provides clear parameters, actionable guidance, and a flexible framework to help introduce and scale this essential diagnostic tool in maternal care. While the toolkit offers best practices and foundational recommendations, it is intended to serve as a resource that can be adapted to local contexts and priorities.

Ultimately, the responsibility for applying these guidelines rests with the decision-makers, who can tailor the approach to meet the unique needs and resources of their communities. This tool is meant to empower officials with the knowledge and flexibility to make informed decisions that will improve maternal health outcomes in their regions.

Who benefits from Certified Application of Basic Obstetric Ultrasound?

- **Beneficiaries of healthcare services:** benefit with improved care and improved individual health outcomes.
- **Health care providers:** benefit from improved skills through independent validation of skills, strengthened competency and global recognition.
- **Health systems:** benefit from improved quality of care, patient satisfaction, and revenue.
- **Education systems:** benefit from increased availability of training curricula, increased employment opportunities for students, and external validation of training.
- **Manufacturers:** benefit from increased demand and market penetration.
- **Economy:** better health of citizens leads to increase in jobs and entrepreneurial skills to benefit the community and economy



Source: [Examining Usage of Ultrasound in Maternal Care Facilities and Within Maternal Caregivers in Kenya](#)



Why Invest Obstetric Point of Care Ultrasound

By investing in enhancing the scope of medical officers, nurses, midwives and clinical officers on rapid perinatal screening through point of care ultrasound, maternal and neonatal mortality can be reduced by 10% in five years.

In a [study](#) conducted in Kenya, health practitioners said 57% of maternal lives saved in emergencies was from the use of ultrasound equipment to detect complications.

Why Prioritize Standards and Certification?

Training and independently validating proficiency of primary health clinicians through certification is in direct alignment with several United Nations Sustainable Development Goals, including SDG 3 on health care, SDG 5 on gender equality, SDG 8 on economic growth, and SDG 17 on partnerships. Training and certification in healthcare enhances equity and access to care by upskilling primary clinicians and provides economic opportunity for both clinicians and health systems through local capacity building and partnerships. The National Institute of Standards and Technology (NIST) found that “eighty percent of global merchandise trade is influenced by testing and other measurement-related requirements of regulations and standards.” Standards through certification can also improve quality of care, productivity and efficiency, increase economic competitiveness, and catalyze innovation.

Process and Timeline



Simultaneously, four work streams work toward independent targets:

- 1) **Financing**: Follow ministry guidance and identify how to ensure point of care ultrasound devices, trainings, and certification are built into existing and ongoing budgets
- 2) **Training**: Identify how to incorporate pre-service, in service, and ongoing point of care ultrasound trainings into existing training curricula and programs
- 3) **Regulation**: Determine who is in charge of managing regulation and certification, and ensure that is resourced and in place
- 4) **Procurement**: Develop plan to equip facilities with point of care ultrasound devices



5

6

Choose 3-4 high burden states/ counties, representative of a significant portion of national maternal mortality, in which to validate the approach works and generate data around efficacy and cost savings. By focusing in high burden areas with a sizeable mortality burden, there is increased opportunity to show impact and deliver value quickly

7

Scale to the remainder of the country

8

At one year mark, assess progress based on monitoring and evaluation data and document lessons learned



Throughout this document, Kenya will be used as an example to demonstrate this process in practice. Please note case studies from Kenya where relevant.

Key Stakeholders

Developing and implementing a policy effectively requires the inclusion of diverse stakeholders and perspectives to address the complexity of cross-sectoral tasks. Engaging a wide range of actors ensures that the policy is informed by multiple viewpoints, reflecting the realities and needs of all affected sectors. The below stakeholders are a starting point and should be refined per country interest groups and needs.

Stakeholder	Relevant Role and Objective
Ministry of Health	Improving population health • Setting and regulating health policy Managing human resources for health standards
Health Insurance	Financing health services • Collecting finances for health services Pooling risk for health investments
County and Local Governments	Administration of local resources and policies • Implementing policies
Funders and Investors	Accelerating health progress • Supporting government objectives Funding • Support adoption of global guidelines
Education System	Oversee education, including midwifery programs • Ensure quality of education Approve educational courses • Contribute to active work force
Professional Associations	Represent the collective interests of health workers • Ensure jobs for health workers Ensure adequate pay for health workers • Ensure satisfaction of health workers Ensure resources and tools for health workers • Continuing professional development
Manufacturers	Produce devices • Device sales • Improvement in health • Data availability
Accreditors and Standards Setting Organizations	Establish guidelines and competency requirements Certify clinicians and ensure adherence to quality standards Develop and update accreditation frameworks • Ensure quality of service provision

The Role of the Private Sector

This toolkit is primarily designed to support health systems within publicly administered programs. However, many of the resources included may also be highly beneficial to private health system administrators and hospital management. A private hospital or network of hospitals operating vertically could leverage the tools in this kit to rapidly upskill their workforce, deliver high-quality obstetric point of care ultrasound services, enhance patient care, improve maternal health outcomes, and simultaneously increase revenue and patient satisfaction with the health service.

The private sector is well-positioned to adopt these tools and processes more swiftly. Given the overlap of health providers working across public and private sectors, such an effort could create significant spillover benefits for public health systems. The private sector's inclusion in implementing a certification program for obstetric point of care ultrasound—whether as a simultaneous adopter, a front-runner, or as part of a broader national rollout—could accelerate the availability and standardization of obstetric point of care ultrasound services across the country.



Kenyan Example: Stakeholders

In Kenya, identified stakeholders included:

Government:

- **Ministry of Health (MOH):** A government ministry responsible for health policy, regulation, and coordination of health services in Kenya.
- **Council of Governors (CoG):** A representative body of Kenya's 47 county governments, coordinating inter-county collaboration and engagement with the national government.
- **Office of the President (OP):** The executive office responsible for national leadership, governance, and policy oversight in Kenya.

Non-profit sector:

- **Amref International University (AMIU):** A Pan-African university committed to improving health in Africa through training and research.
- **Amref Health Africa:** An international non-governmental organization focused on improving health and healthcare in Africa.
- **Ushariki Wema:** A community-based organization in Kenya dedicated to improving health outcomes through various programs and initiatives.



Manufacturers:

- **Butterfly Network:** A health technology company known for its portable ultrasound devices used in healthcare.
- **General Electric (GE) Healthcare:** A leading provider of medical imaging, monitoring, biomanufacturing, and cell therapy technologies.
- **Mindray:** A global medical instrumentation manufacturer offering imaging devices, patient monitoring systems, and in-vitro diagnostics.
- **Philips Healthcare:** A division of Philips focused on medical imaging, patient monitoring, and healthcare informatics solutions.
- **U-Image:** A medical imaging company providing ultrasound and radiology equipment in Kenya.



Multilaterals:

- **World Health Organization (WHO):** A specialized agency of the United Nations responsible for international public health.

Regulators and Certifiers:

- **Clinical Officers Council (CO Council):** A statutory body that regulates the training, registration, and licensing of clinical officers in Kenya.
- **Inteleos:** A global non-profit certification organization that develops assessments and certifications for healthcare professionals, specializing in medical imaging, ultrasound, and other diagnostic disciplines, to improve global healthcare standards.
- **Kenya Accreditation Service (KENAS):** The national accreditation body mandated to provide accreditation services to conformity assessment bodies.
- **International Organization for Standardization (ISO):** An independent, international organization that develops and publishes standards to ensure quality, safety, and efficiency in various industries, including healthcare.



Provider Groups:

- **International Federation of Gynecology and Obstetrics (FIGO):**
A global organization representing obstetricians and gynecologists, dedicated to improving women's health and rights.
- **Kenya Healthcare Federation (KHF):** The health sector board of the Kenya Private Sector Alliance, representing the private health sector in Kenya.
- **Kenya Medical Association (KMA):**
A national association of doctors and dentists advocating for quality healthcare and professional standards.
- **Kenya Obstetrical and Gynaecological Society (KOGS):** A professional association of obstetricians and gynecologists in Kenya, focusing on women's reproductive health.
- **Nursing Council of Kenya (NCK):** A regulatory body responsible for the training, registration, and licensing of nurses and midwives in Kenya.
- **Society of Radiography in Kenya (SORK):** A professional body representing radiographers and promoting radiography practice in Kenya.



Please review the acknowledgements in the [OPOCUS Policy](#) for a full list of stakeholders and contributors.



Kick Off Meeting

Meeting Goals

- 1. Align Stakeholders:** Establish a shared understanding of the importance of obstetric point of care ultrasound certification and its potential impact on healthcare sectors and national health outcomes.
- 2. Share collated and peer-reviewed research:** Highlight the potential impact of this opportunity and connect stakeholders with existing best practices and research (see [Annex](#))
- 3. Policy Development:** Outline a strategic plan to develop and implement a policy and associated protocols for obstetric point of care ultrasound.
- 4. Working Group Formation:** Define leads and working groups for key focus areas:
 - Procurement
 - Financing
 - Training
 - Regulation and Certification

Stakeholder Identification

Invite decision-makers, influencers, and stakeholders who can contribute to the rollout of obstetric point of care ultrasound across the domains of people, products, and processes. Suggested participants:

- Government representatives (e.g., Ministry of Health, policy makers)
- Financial decision-makers and funders (e.g., banks, insurers)
- Health workers and professional associations
- Regulators and certifiers
- Representatives from academia and training institutions
- Manufacturers of medical equipment

Review potential [stakeholders](#) earlier in this document.

Meeting Cost

The meeting can be incorporated into an existing activity or hosted on its own. It could potentially include cost for venue, per diems, and travel. Additionally, the work of working groups following the meeting may warrant support for time or for someone to lead the organizational process. This could be subsumed under an existing activity or partner, or it could be hosted separately. Review the [Financing Considerations](#) for options to fund the initial start-up cost of developing and implementing a policy.



Agenda Outline

1. Welcome and Introductions

- Opening remarks by key leaders (e.g., Ministry of Health, professional associations).
- Background and relevant research on the importance of obstetric point of care ultrasound for maternal and fetal health.

2. Keynote Address

- Highlight the global and local impact of obstetric point of care ultrasound, aligning with sustainable development goals. Suggested speaker from the Ministry of Health.

3. Breakout Discussions

- **Policy Development:** Draft initial frameworks for POCUS in obstetric care, identify policy gaps, and align with existing national health strategies and goals.
- **Financing:** Follow ministry guidance to identify sustainable funding mechanisms, ensuring POCUS devices, training programs, and certification processes are integrated into existing and ongoing health budgets.
- **Training:** Develop strategies to incorporate POCUS training into pre-service, in-service, and ongoing education programs within existing curricula and training structures.
- **Regulation and Certification:** Define responsibilities for managing POCUS regulation and certification, ensuring adequate resources and systems are in place to uphold safety and quality standards.

- **Procurement:** Develop a comprehensive plan to equip healthcare facilities with POCUS devices, leveraging bulk purchasing, partnerships, and efficient supply chain management.

- **Monitoring and Evaluation:** Establish metrics and systems to measure the impact of obstetric point of care ultrasound implementation, including device utilization, training outcomes, and alignment with established clinical guidelines.

4. Panel Discussions

- Explore barriers and enablers for obstetric point of care ultrasound adoption.
- Discuss innovative solutions in technology, financing, and training.
- Hear from neighboring countries and early adopters of obstetric point of care ultrasound about their experience

5. Action Planning

- Develop a roadmap with timelines, responsibilities, and milestones.
- Identify working group leads for the four streams identified above and timeline for developing terms of reference.

Post-Meeting Follow-Up

Governance Structure

- Form a steering committee for oversight and progress tracking.
- Keep the group small but representative, using an odd number for efficient decision-making. Five is a good target.
- Assign clear ownership roles for:
 - Policy-making representatives
 - Financial leads
 - Health professionals and associations
 - Regulators and certifiers

Post-Event Survey

- Design a survey to collect feedback on:
 - Effectiveness of the meeting.
 - Clarity of goals and next steps.
 - Stakeholders' alignment with the proposed action plan.
- Use feedback to refine ongoing engagement and improve future meetings.

Post-Event Notes

- Compile a comprehensive report summarizing:
 - Key discussions and decisions.
 - Action items, timelines, and assigned responsibilities.
 - If terms of reference have been developed by working groups, include them, or follow up with them in a future note.
- Distribute the report to all attendees, ensuring clarity and alignment on next steps.

Ongoing Expectations

- Each working group should:
 - Convene regularly to advance their specific focus area (e.g., procurement, financing, training, regulation).
 - Provide periodic updates to the steering committee.
 - Collaborate with other groups to ensure cohesion and avoid silos.

Kenya Case Study

Review the notes from the Kenya kick off meeting [here](#).



Financing Considerations

Implementing an obstetric point of care ultrasound policy requires careful consideration of funding mechanisms, as it involves distinct stages with unique financial needs. The funding can be broadly divided into **initial start-up costs** and **ongoing operational costs**, each addressing specific aspects of the policy's roll-out and sustainability.

Initial start-up costs represent a one-time investment needed to establish the foundation for the policy. This includes funding for critical activities such as organizing planning meetings, including the kick off meeting and associated follow up, engaging stakeholders, and developing initial resources like guidelines and training materials. These expenses can often be met through donor funding, integration into existing health initiatives, or direct government allocations.

Ongoing operational costs involve sustained investment to ensure the long-term success of the **"OPOCUS" policy**. This includes expenses related to training healthcare providers, maintaining regulatory frameworks, implementing certification programs, and monitoring and evaluating the policy's impact. To optimize these costs, opportunities exist to integrate the roll-out into existing financing mechanisms, tailored to the specific context of each country. Select opportunities are below:

Stakeholder	Means to Fund Obstetric POCUS	Rationale/Incentive	Kenya Specifically
Health Care systems and Facilities	• Insurance • Increased fees for care • Corporate social responsibility or private improvements • Structure a results-based deal with the MOH or health insurance on a rewarded basis - improved care or increase use of obstetric POCUS results in bonus funding or additional staff	Improved reputation + improved service + improved satisfaction = improved revenue	Partner with accredited hospitals to provide obstetric POCUS there, improving their quality/reputation and building cost into SHIA
Local/County Government	• Local budget • National budget contributions • Social impact bond Corporate social responsibility or private investment	• Helps deliver on national health goals • Creates jobs in the community for midwives and providers	Healthcare is decentralized, so in Kenya working at this level is very logical. Present a business plan as to what they are purchasing

The term "OPOCUS" is the specific term that is used in Kenya.

Stakeholder	Means to Fund Obstetric POCUS	Rationale/Incentive	Kenya Specifically
Ministry of Health	• Social impact bond (perhaps with a manufacturing company as the up-front investor) • GFF Country Investment Case • Donor funded program • Tax dollars/annual budget • Existing health workforce budget	• Obstetric POCUS improves maternal health outcomes • Cost effective • Proven and cutting edge with an opportunity to be a global leader	Integrate OPOCUS into their GFF investment case
Health Insurance	• Pay hospitals on a service provided basis • Utilize participant buy in and/or national supplementation depending on patient	Including certification as part of the accreditation process greatly improves quality and demand for accredited hospitals, thereby improving reputation and the strength of the system	Partner with the Social Health Insurance Act to include obstetric POCUS in the benefit schedule for reimbursement, require accredited hospitals to have certified providers, and roll out obstetric POCUS in accredited hospitals
Manufacturers	• Build into cost of device • Governments negotiate start-up cost during bulk procurement	• Increases sales • Increases use • Increases demand for their specific tool	• Partner with manufacturers to include certification cost in bundle • Seek out similar arrangements with other manufacturers
Other National Government Sectors	• Education Ministry: include clinical training into existing midwifery curriculum at no additional cost, and/or vocational training budget • Workforce Development Agency: utilize vocational training funding	• Improves the quality of education • Improves the availability of training content • Increases employment opportunities	• Work on a course for midwifery schools • Provide a preservice course to be approved and rolled out into national midwifery curricula
Clinicians	• Include in pre-service training • Include in university curricula • Independent training with set associated cost per training	• Incentivize Ministry or hospital to pay more for those with more skills and certification • Incentivize hospitals to pay a small incentive for midwives with basic obstetric POCUS certification • Incentivize private sector to pay more, which would likely attract nurses serving public sector that work in the private sector on the side	Form independent training system targeting different cadre and price it accordingly



Training Considerations

Rolling out a policy for obstetric POCUS in healthcare settings requires a well-structured training program that targets multiple professional cadres and ensures sustainability of the practice. The following best practices and recommendations will guide the planning process:

1. Target Cadres and Rationale

The training should include multiple cadres, including midwives, sonographers, and physicians, as each plays a unique role in the obstetric care continuum. These groups may have varying levels of experience and technical skill, requiring tailored training pathways. For instance, midwives may require more foundational ultrasound education, while sonographers might need specialized training focused on obstetric applications.

Rationale for including multiple cadres:

- Facility-specific needs: Availability of trained professionals varies across regions, and each cadre may play a role depending on local workforce structures.
- Collaboration: Training a broad range of providers fosters collaboration and reduces intra-professional competition, creating a more integrated healthcare system with increased opportunities for mentoring.

2. Trainer Selection and Ideal Approach

The trainer of trainers (ToT) model should be utilized to scale the training effectively. Ideally, peers should serve as trainers, as they can better relate to the experiences and challenges of trainees. Midwives should train other midwives, leveraging their expertise and practical experience in obstetric care.

To ensure the quality and continuity of training, work with professional associations to identify respected leaders, such as senior midwives or emerging leaders, who can act as regional ToT facilitators. This approach not only ensures that the training is culturally and contextually relevant but also builds local capacity and leadership.





3. Training Opportunities

The working group focused on training should identify which training opportunities to pursue and then include them in relevant curricula/operations/etc.

- **Pre-Service Training:** Integrate obstetric POCUS training into the pre-service curricula for midwives, physicians, and sonographer. This provides foundational knowledge and ensures that new entrants to the workforce are equipped with the necessary skills from the outset, in addition to keeping costs low and minimizing administrative burden by using existing systems.

- **In-Service Training:** In-service training should focus on upskilling personnel to meet the evolving needs of obstetric care. This should be done as part of existing mentoring or in-service training programs rather than added additionally.

- **Refresher Training:** To ensure that skills remain current, and practitioners maintain proficiency, refresher training could be conducted every six months. These sessions will reinforce key concepts, introduce updates on new techniques and equipment, and provide hands-on practice to address any skill gaps. This training supports the ongoing certification process by maintaining proficiency and quality assurance. The specifics of maintenance of certification and quality assurance is defined by subject matter experts (SMEs) through the certification body, aligning with professional standards and practice. This ensures healthcare providers continue to deliver high quality obstetric ultrasound care.

- **Networks of practice:** Create WhatsApp (or similar technology) groups for peers to ask each other questions. Each leader or ToT will manage a WhatsApp group and serve as an expert.

4. Staged Rollout

To ensure the training program is manageable and impactful, a staged rollout could be adopted, organized by county or state. Prioritize high-burden areas or regions with limited access to skilled providers. Rollout should also be aligned with local healthcare priorities, focusing on areas where obstetric ultrasound can have the greatest impact on maternal and fetal outcomes.

As part of this approach, regional centers of excellence could be established to serve as hubs for expertise and training. These centers would focus on developing strong skill sets among healthcare providers, hosting specialized training sessions, and fostering innovation in the use of obstetric ultrasound. By acting as mentoring hubs, these centers can support nearby facilities and regions, ensuring knowledge transfer and sustained capacity building. This model promotes a cascading effect, where well-trained professionals at the centers of excellence can extend their expertise to surrounding areas, accelerating the overall rollout and improving care quality across the system.





Regulation and Certification Considerations

To support the successful rollout of an obstetric POCUS policy, the regulation and certification working group should consider the following:

1. Tracking Training and Certification:

- Develop a system to track who has been trained and certified.
- Ensure this information is securely managed and accessible to relevant stakeholders for workforce planning and policy implementation.

2. Standards for Certifier Selection:

- Define criteria for selecting certifiers, ensuring alignment with national and international standards.
- Designate a ministry-level body to manage relationships with certifying organizations.

3. Integration with Regulatory Frameworks:

- Ensure certification processes are incorporated into the broader regulatory framework for healthcare professionals.
- Align certification standards with the scope of practice guidelines established by regulators.

4. Quality Assurance and Evaluation:

- Ensure there is a plan in place for the national certifier, in partnership with regulators, to monitor certified practitioners to ensure ongoing compliance and competency, while also maintaining a comprehensive registry of certified practitioners.

Kenya Example:

Kenya has rolled out its OPOCUS policy, and pathways to certification were a key focus during the Certification Roundtable at the 2024 OPOCUS Certification Summit. Discussions highlighted the need for a structured certification framework guided by regulatory oversight and international standards like ISO 17024. The Ministry of Health, through the Division of Reproductive Health, could accredit training institutions to deliver standardized education programs. These institutions would work with certified master trainers to ensure practical assessments, clinical logbook reviews, and ongoing evaluations.

The national certifier would focus on certification by maintaining a comprehensive registry of certified practitioners and learner records, managing maintenance of certification process, and ensuring the quality and integrity of the certification process through audits and alignment with ISO 17024 standards. This system aims to equip healthcare providers with the skills needed to deliver high-quality maternal care using OPOCUS while maintaining confidence in the certification framework.



Why Inteleos?

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Procurement Considerations

Given the complexities of procuring medical technology, detailed processes are beyond the scope of this document. However, it is suggested to consult global experts such as the UNICEF Supply Division, reputable manufacturers, and biotechnology engineers. With the focus of this document on improving maternal health outcomes through widespread obstetric POCUS use, the following suggestions are offered to guide procurement planning:

1. Identify a Target Population:

- Prioritize underserved and high-need populations lacking access to quality antenatal care.
- Focus on geographic areas with the highest maternal and fetal health risks.

2. Determine Device Specifications:

- Create a list of essential features to streamline device selection, considering:
 - Portability, weight, and size for ease of use in resource-constrained settings.
 - Durability and compatibility with local infrastructure, including power availability.
 - Availability of maintenance and technical support locally or regionally.
- Engage healthcare workers to ensure devices meet practical clinical needs.

3. Develop a Distribution Plan:

- Align distribution with clinical training and the rollout of an obstetric point of care ultrasound policy.
- Ensure equitable allocation, prioritizing facilities that address the greatest needs and overlap with where clinical training has been prioritized.
- Include logistics for transport, storage, and on-site setup.





4. Integrate Procurement with Training and Support:

- Pair device deployment with planned comprehensive training for end users.
- Training on device use should align with clinical training and certification plans, as identified elsewhere in this document.
- Establish ongoing support systems to maintain device functionality and user competency.



5. Maximizing Purchasing Power

• Request Comprehensive Packages:

- Encourage manufacturers to include device-specific, clinical training, and certification as part of the procurement agreement.
- Negotiate for ongoing maintenance services to ensure long-term device functionality.

• Strategic Pricing for Bulk Purchases:

- Leverage pooled procurement or regional collaborations to secure favorable pricing for large orders.
- Explore volume discounts and extended warranties for bulk purchases.

• Engage with Multiple Vendors:

- Solicit competitive bids from multiple manufacturers to identify cost-effective solutions without compromising quality.



Relevant Literature

- [Task shifting for point of care ultrasound in primary healthcare in low- and middle-income countries: a systematic review](#)
Abrokwa et al., March 2022
- [Evaluation of antenatal Point-of-Care Ultrasound \(PoCUS\) training: a systematic review](#)
Bidner et al., April 2022
- [Examining Usage of Ultrasound in Maternal Care Facilities and Within Maternal Caregivers in Kenya](#)
Inteleos Foundation, August 2024
- [A training program for obstetrics point-of-care ultrasound to 514 rural healthcare providers in Kenya](#)
Wachira et al., December 2023

Additional Resources

- November 2022: Maternal health summit '[Improving Maternal-Fetal Outcomes Through Access to Ultrasound: Education, Training, Assessment and Continued Proficiency for Midwives and Nurses](#)' launched to address Ministry of Health's reproductive health strategy that highlights the need for innovative approaches to address SDG 3 targets and indicators: reducing maternal mortality.
- November 2024: [OPOCUS Certification Summit](#) and policy launch
- OPOCUS Policy: Kenya's [OPOCUS Policy](#) document