

# EP09.54 - AI-driven point-of-care ultrasound: redefining training and expanding access to antenatal care in LMICs

Nidhi Leekha · Zoya Lalani · Hanika Patel · Sarah Kedenge · Jonathan Sutton · Marleen Temmerman

## THE CHALLENGE

Conventional antenatal ultrasound depends on skilled image acquisition and interpretation. In LMICs, workforce and training constraints can limit access at primary healthcare level.

### OBJECTIVE

Explore how AI-integrated POCUS can transform training for nurses and midwives, improve access to antenatal care and strengthen healthcare delivery in LMICs.

## APPROACH

A synthesis of emerging evidence, technological advances and policy perspectives on AI-enabled ultrasound for frontline providers.

**GLOBAL HEALTH** Access & equity

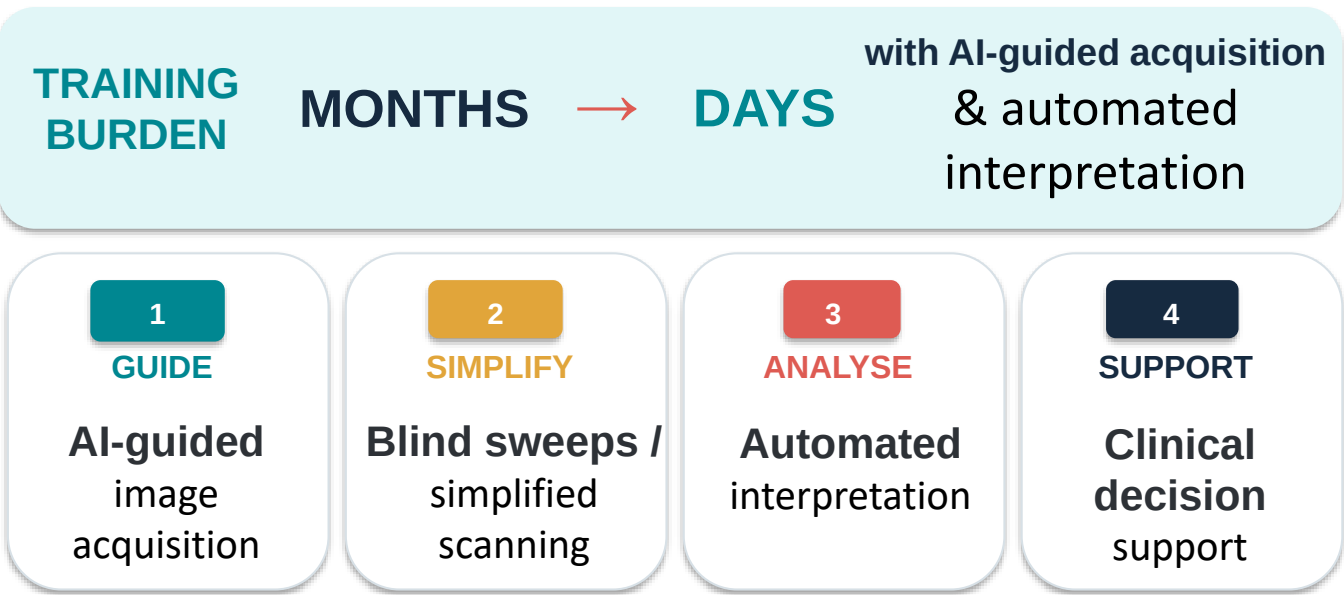
**PRODUCT DEVELOPMENT** AI-enabled acquisition

**IMPLEMENTATION SCIENCE** Scale & governance

## CORE PROPOSITION

AI can lower the expertise barrier to ultrasound and enable safe task-sharing closer to the point of antenatal care.

## HOW AI CAN TRANSFORM ANTENATAL POCUS



## WHAT THE EVIDENCE SUGGESTS

### TRAINING

AI-assisted scanning can enhance trainee performance & reduce training time and burden.

### ACQUISITION

Simplified approaches such as blind sweeps can produce clinically reliable outputs.

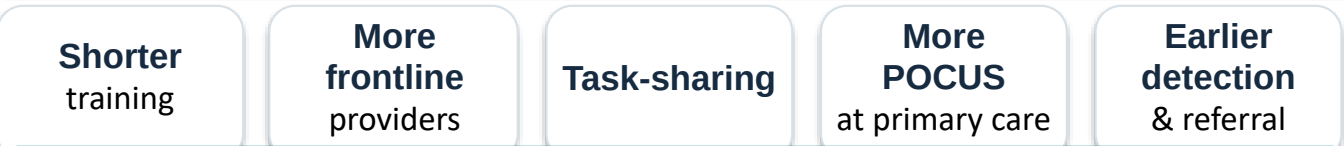
### ACCESS

Guidance and automated interpretation can lower barriers for non-specialist providers.

### ANTENATAL CARE

Expanded POCUS can improve detection of conditions such as breech presentation.

## POTENTIAL HEALTH-SYSTEM PATHWAY



Potential: broader access to antenatal ultrasound and more resilient maternal health services

## AI ALONE IS NOT ENOUGH

### STANDARDS

Defined scope, protocols and training requirements

### QUALITY ASSURANCE

Monitoring acquisition, interpretation and performance

### REFERRAL PATHWAYS

Clear escalation for abnormal or uncertain findings

### GOVERNANCE

Safe, equitable and responsible implementation

## CONCLUSION

AI-integrated POCUS offers a transformative opportunity to democratize access to ultrasound, optimize workforce capacity and support task-sharing in resource-limited settings.

Safe, equitable and sustainable scale-up requires clear policies, standardized guidelines, quality assurance and referral systems.

AI should augment the frontline provider — not replace them.