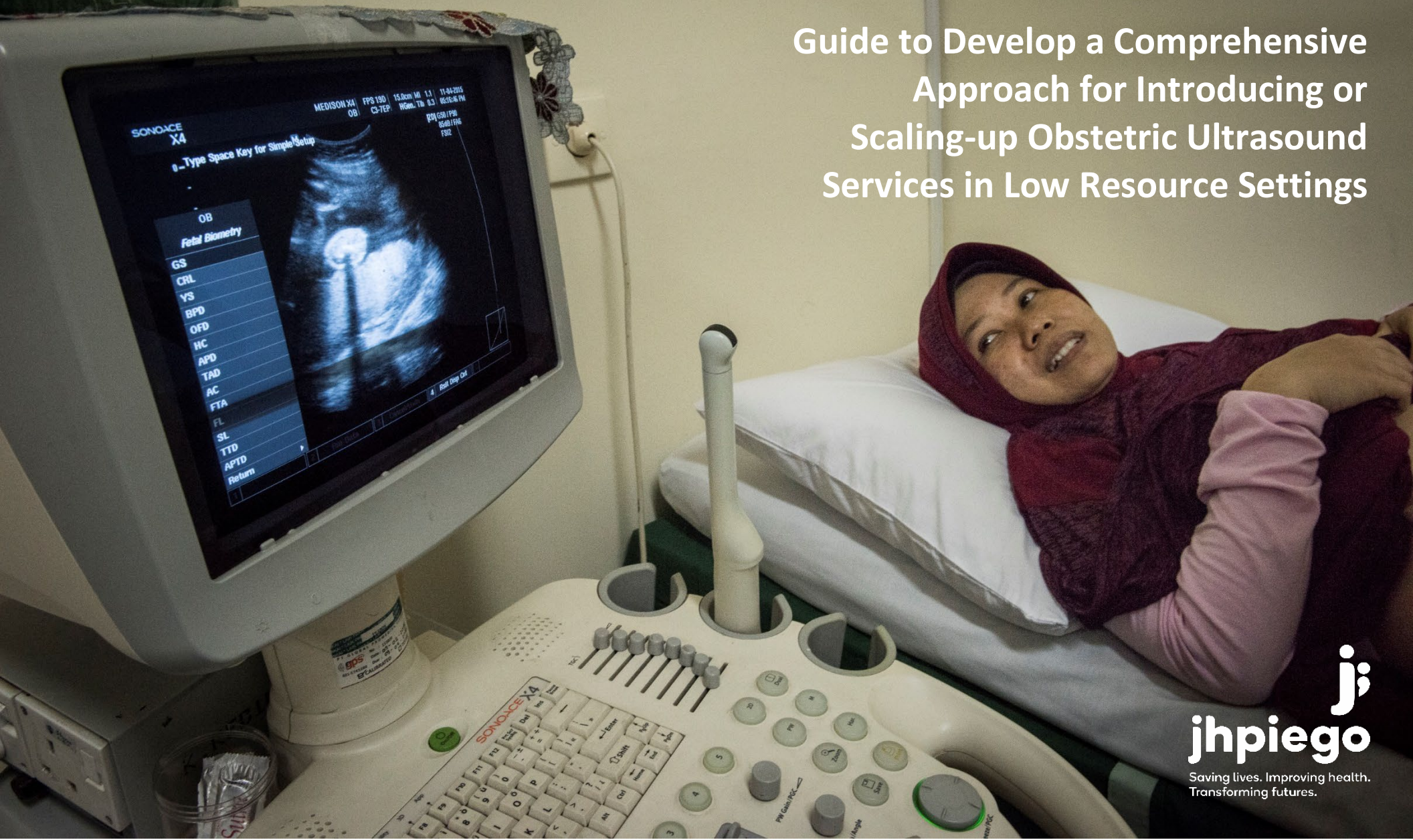


Guide to Develop a Comprehensive Approach for Introducing or Scaling-up Obstetric Ultrasound Services in Low Resource Settings



DESCRIPTION

This Guide is designed to assist country stakeholders with designing a package of OB ultrasound services that targets the needs of their maternal and newborn population. This guide can be used in countries where obstetric ultrasound use is prevalent and in countries where OB ultrasound is not widely available. The tool is designed with the WHO health system building blocks as a framework for creating a comprehensive OB ultrasound strategy and implementation plan that takes into account the required inputs across the health system. This guide is a starting point for developing a national strategy and should initially be used in discussions with key stakeholders including representatives from the Ministry of Health.

Guide to develop a comprehensive approach for introducing or scaling up obstetric ultrasound services in low resources settings

Content:

1. **Situational Analysis Tables: (pages 2–12)**
2. **Go/No Go Analysis Matrix (page 13)**
3. **Template for Action Plan (pages 14–16)**
4. **Sample Workplan (pages 17–27)**
5. **Workplan Blank Template (pages 28–30)**

Recommended use: To use this guide, schedule a stakeholder meeting that is at least 3 full days. Key stakeholder groups that should be represented at the meeting include: the Ministry of Health (MOH; Director of Maternal and Newborn Health [MNH]/Reproductive Health), professional associations for midwives, nurses, obstetrician/gynecologists (OB/GYNs), pediatricians, and radiologists, biomedical engineers, groups that represent the community/clients, and training institutions for nursing, midwifery, medicine and radiology. This meeting can be hosted and led by a body such as the Technical Working Group (TWG) on MNH.

Day 1: Complete all the analysis tables and make a decision about moving forward with introducing/scaling-up obstetric ultrasound (OB U/S) services.

Days 2–3: Complete the action plan and determine immediate next steps, draft a long-term workplan.

Instructions for using Analysis Tables

The following is intended to assist decision-makers in analyzing a country's current situation. This will assist in making a decision about whether to introduce/ scale up OB U/S services and ultimately in developing an implementation plan for introducing OB U/S.

Column 1 outlines factors that will need to be considered – Review the factors that are listed. As you review them, delete any that are not relevant to your country situation and add any factors you think need to be considered when introducing U/S into your country.

Column 2 provides checklists to guide a situational analysis as well as make decisions on how to introduce U/S – Review the items listed and check any boxes that apply to your country context. If necessary, add additional items to assist in developing an implementation plan.

Column 3 provides a space to outline action items/activities to introduction into the health system – Review the situational analysis/decisions made and then write action items/activities that will ensure a sustainable and efficient introduction.

1. LEADERSHIP AND GOVERNANCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
Evidence required before national deployment	<input type="checkbox"/> Adequate global evidence is available to begin national introduction <input type="checkbox"/> Adequate local evidence is available to begin national introduction <input type="checkbox"/> Require in-country feasibility study prior to national introduction <input type="checkbox"/> Require in-country randomized control trial prior to national introduction	
Desired outcomes of introduction (The desired outcome of introduction should target a priority MNH challenge and fit within the national roadmap/strategy for improving MNH health)	<input type="checkbox"/> Reduction in maternal mortality and/or morbidity <input type="checkbox"/> Reduction in newborn mortality and/or morbidity <input type="checkbox"/> Improved dating of pregnancies <input type="checkbox"/> More precise gestational age estimates to help manage preterm labor/preterm birth so that survival of preterm infants is optimized <input type="checkbox"/> improved detection of fetal anomalies <input type="checkbox"/> Improved detection of multiple pregnancies <input type="checkbox"/> Reduced induction of labor for post-term pregnancy <input type="checkbox"/> Improved woman’s pregnancy experience <input type="checkbox"/> Increased uptake of services (antenatal care and facility-based birth) <input type="checkbox"/> Increased male involvement in maternal care services <input type="checkbox"/> Improved decision-making in cases of pregnancy-related complications/emergencies <input type="checkbox"/> Other (specify):	<p>Is there evidence to support OB U/S as a tool to achieve your desired outcome?</p> <p>If yes, what is the full package of interventions that are needed?</p>
New policy and its implementation are carefully costed and the comprehensive maternal health budget is adequate to make funds available for OB U/S services	<input type="checkbox"/> Yes, and costed plan fits within budget <input type="checkbox"/> Yes, and costed plan does not fit within budget (consider revising implementation plan and targets of U/S use to address budgetary constraints) <input type="checkbox"/> No	
Cadres to be authorized/authorized to conduct U/S examinations – Check all that apply	<input type="checkbox"/> OB/GYNs <input type="checkbox"/> Non-specialist physicians <input type="checkbox"/> Midwives <input type="checkbox"/> Nurses <input type="checkbox"/> Technicians <input type="checkbox"/> Radiologists <input type="checkbox"/> Other (specify):	

1. LEADERSHIP AND GOVERNANCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
Cadres to be authorized/authorized to interpret U/S examinations – Check all that apply	<input type="checkbox"/> OB/GYNs <input type="checkbox"/> Non-specialist physicians <input type="checkbox"/> Midwives <input type="checkbox"/> Nurses <input type="checkbox"/> Technicians <input type="checkbox"/> radiologists <input type="checkbox"/> Other (specify):	
A regulatory framework exists that defines OB U/S scope of practice for each cadre	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
Licensure, certification, and recertification requirements exist for cadres authorized to prescribe, perform, and interpret OB U/S examinations and cadres authorized to maintain and repair OB U/S machines	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
Criteria for choice of settings in which to introduce OB U/S exist, including geographic coverage to promote equity in OB U/S use and standards for the basic level of essential services that must be present at a facility before budgeting for OB U/S services	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
Staffing levels required to meet needs of conducting U/S exams exist	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Staffing levels required to ensure adequate maintenance and repair have been identified exist	<input type="checkbox"/> Yes <input type="checkbox"/> No	
National recommendations and guidelines for use of OB U/S for routine screening	<input type="checkbox"/> Do not recommend <input type="checkbox"/> Do not exist <input type="checkbox"/> Exist but are restrictive <input type="checkbox"/> Exist	

1. LEADERSHIP AND GOVERNANCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
National recommendations and guidelines for use of OB U/S to diagnosis antenatal complications/abnormalities	<input type="checkbox"/> Do not recommend <input type="checkbox"/> Do not exist <input type="checkbox"/> Exist but are restrictive <input type="checkbox"/> Exist	
A strategy for introducing/scaling-up of U/S exists	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
The strategy for introducing U/S includes:	Staffing levels required to meet needs of conducting U/S exams and ensuring adequate maintenance and repair <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Clinical pathway: where is U/S obtained? Is it a stand-alone service or integrated into routine care? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Referral system for complication management <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Designated cadre(s) to provide U/S and interpret U/S <input type="checkbox"/> Yes <input type="checkbox"/> No	
A policy exists for disclosure of fetal gender	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
A process/system exists for measuring outcomes/impact of introduction of OB U/S	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
A process/system exists for quality assurance (QA) of sonographers and U/S technique	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	
A process/system exists for quality control (QC) of U/S machines	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No	

2. HEALTH WORKFORCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
A workforce planning strategy is developed and includes:	An assessment of workforce needs (how many providers are needed, where and in what period of time?)	<input type="checkbox"/> Yes, and is up-to-date <input type="checkbox"/> Yes, but requires updating <input type="checkbox"/> No	
	An analysis of current workforce availability	<input type="checkbox"/> Yes, and is up-to-date <input type="checkbox"/> Yes, but requires updating <input type="checkbox"/> No	
	A plan for developing a workforce to implement OB U/S service	<input type="checkbox"/> Yes, and is up-to-date <input type="checkbox"/> Yes, but requires updating <input type="checkbox"/> No	
A set of essential OB U/S competencies have been determined based upon the desired outcome of introducing OB U/S (this includes a clear scope of practice for the provision of U/S)	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No		
A system exists to ensure ongoing licensure and certification for each cadre that conducts and interprets OB U/S results	<input type="checkbox"/> Yes, and reflect current decisions for introduction <input type="checkbox"/> Yes, but require updating to reflect current decisions for introduction <input type="checkbox"/> No		
A package of learning and performance tools have been developed to for providers to obtain OB U/S competencies	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No		
Training on OB U/S is integrated into pre-service education programs for:	OB/GYNs	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Non-specialist physicians	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Midwives	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	

2. HEALTH WORKFORCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
	Nurses	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Radiologist	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Other (specify):	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
In-service training on OB U/S is available for:	OB/GYNs	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Non-specialists physicians	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Midwives	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Nurses	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Radiologist	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Other (Specify):	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	

2. HEALTH WORKFORCE

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
A package of learning and performance tools have been developed for providers to maintain and repair U/S machines	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Pre-service training is available for providers who will maintain and repair U/S machines	<input type="checkbox"/> Yes <input type="checkbox"/> No	
In-service training is available for providers who will maintain and repair U/S machines	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Staffing levels are adequate to allow for U/S services (allowing 15–45 min/scan) without decreasing the delivery of other services	<input type="checkbox"/> Yes, at all points of care <input type="checkbox"/> Yes, in some points of care <input type="checkbox"/> No	

3. SERVICE DELIVERY

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
Settings for introduction of OB U/S are selected based upon the criteria established by the MOH:	<input type="checkbox"/> Facilities where there is a referral pathway to a higher level of care where identified complications can be addressed	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Facilities where the identified problem can be managed (presence of OB/GYN, operating theater)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Facilities where midwives provide maternal care services	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Other (specify):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Systems are in place to manage U/S in selected sites	<input type="checkbox"/> Yes, at all points of care <input type="checkbox"/> Yes, in some points of care <input type="checkbox"/> No	
Referral pathway includes sharing of U/S images to support consultation and continuity of care	<input type="checkbox"/> Yes, and a national tool has been developed/shared <input type="checkbox"/> Yes, in some facilities <input type="checkbox"/> No	
Standardized charts and formulas for interpreting U/S results are available either preset within the machine or as a separate document for reference.	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for content and performance of OB U/S examinations by trimester, including recommended exposure time and acoustic output levels	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for disclosure of fetal gender. Risks associated with gender disclosure have been reviewed and standards have been developed to prevent adverse outcomes.	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for minimum required content for OB U/S report of results	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	

3. SERVICE DELIVERY

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
Standards exist for reporting requirements – oral and written reports – for normal and abnormal/unexpected findings (this standard includes disclosure of results and written reports to clients and protection of privacy)	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for following up with clients when the interpretation of the U/S scan is not done by the person conducting the U/S	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Clinical protocols exist for prescribing, conducting, interpreting and responding to abnormal/unexpected results	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for measuring a woman’s experience of care when having an OB U/S (this includes her understanding of why U/S is being performed, satisfaction with the process, information provided/questions answered, any follow-up needed, and the U/S’s influence on care-seeking during pregnancy and birth)	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for assessing gestational age with U/S while taking into consideration other gestational age measurements such as last menstrual period (LMP), fundal height and quickening	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Clinical protocols exist for counseling clients on normal and abnormal findings	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for financing U/S services at the facility level to minimize out-of-pocket costs to clients and promote equity	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
Standards exist for the basic level of essential services that must be present at a facility before budgeting for OB U/S services	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	

3. SERVICE DELIVERY

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
The system for QA of sonographers' U/S technique and U/S machine maintenance and repair is systematically implemented	Periodic review of technique, interpretation and reports	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Mentorship	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Standards-based management and recognition	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
A system is in place to monitor utilization and availability of OB U/S	<input type="checkbox"/> Yes <input type="checkbox"/> No		
A system is in place to monitor staffing for OB U/S	<input type="checkbox"/> Yes <input type="checkbox"/> No		
A system is in place to monitor response and timeliness of repairs for U/S repairs	<input type="checkbox"/> Yes <input type="checkbox"/> No		

4. HEALTH FINANCING

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
Budgets for OB U/S services have been developed and are backed by funds	At national level	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	
	At regional level	<input type="checkbox"/> Yes, in all regions <input type="checkbox"/> Yes, in some regions <input type="checkbox"/> No	
	At district level	<input type="checkbox"/> Yes, in all districts <input type="checkbox"/> Yes, in some districts <input type="checkbox"/> No	
	At facility level	<input type="checkbox"/> Yes, in all facilities with OB U/S services <input type="checkbox"/> Yes, in some facilities with OB U/S services <input type="checkbox"/> No	
Lifesaving commodities are prioritized in the design of a budget to support OB U/S use	<input type="checkbox"/> Yes, and funding is sufficient for OB U/S <input type="checkbox"/> Yes, but funding is insufficient for OB U/S (consider revising target of U/S use to reduce cost) <input type="checkbox"/> No, budget needs to be redeveloped		
Financial resources have been invested for infrastructure updates to accommodate OB U/S machines	<input type="checkbox"/> Yes, at all points of care <input type="checkbox"/> Yes, in some points of care <input type="checkbox"/> No		
Financial resources are invested for	Purchase/replacement of OB U/S machines	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	
	Training and mentoring sonographers and technicians to maintain/repair OB machines	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	
	QA of sonographers	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	

4. HEALTH FINANCING

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
	QC of equipment	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	
	Routine maintenance, replacement of supplies and repair	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	
	Subsidization to reduce burden of cost on clients	<input type="checkbox"/> Yes, and funding is sufficient <input type="checkbox"/> Yes, but funding is insufficient <input type="checkbox"/> No	

5. MEDICAL TECHNOLOGIES

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
Target product profile exists for OB U/S equipment (including >1 transducer)	<input type="checkbox"/> Yes, and responds to OB U/S programs goals and objectives <input type="checkbox"/> Yes, but is either too sophisticated or not sophisticated enough to meet OB U/S programs goals and objectives <input type="checkbox"/> No		
A mechanism is in place for understanding inventory projections and tracking utilization	<input type="checkbox"/> Yes, at all points of care with OB U/S services <input type="checkbox"/> Yes, in some points of care with OB U/S services <input type="checkbox"/> No		
An established supply chain is in place for U/S equipment and supplies	<input type="checkbox"/> Yes, at all points of care with OB U/S services <input type="checkbox"/> Yes, in some points of care with OB U/S services <input type="checkbox"/> No		
Personnel are available to maintain and repair U/S machines	<input type="checkbox"/> Yes, at all points of care with OB U/S services <input type="checkbox"/> Yes, in some points of care with OB U/S services <input type="checkbox"/> No		
A reliable power supply with surge protection is available when needed for equipment use and/or charging	<input type="checkbox"/> Yes, at all points of care with OB U/S services <input type="checkbox"/> Yes, in some points of care with OB U/S services <input type="checkbox"/> No		
Secure storage is available that protects equipment from environmental damage and pests is available	<input type="checkbox"/> Yes, at all points of care with OB U/S services <input type="checkbox"/> Yes, in some points of care with OB U/S services <input type="checkbox"/> No		
A system exists for QC of equipment	Routine maintenance schedules	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Process for repair	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	
	Guidelines for storage and general care	<input type="checkbox"/> Yes, and are up-to-date <input type="checkbox"/> Yes, but require updating <input type="checkbox"/> No	

6. HEALTH INFORMATION AND RESEARCH

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points		Column 3- Action Items/Activities
Review of geographic coverage of essential MNH services has been conducted to identify coverage disparities and promote equity in OB U/S use	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Baseline assessment of OB U/S use in the country has been conducted, identifying cadres providing OB U/S, services provided and coverage of across facilities by level, geography and private/public designation	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Indicators exist to capture desired outcomes/impact of introduction of OB U/S	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Indicators are being used to evaluate use of OB U/S and for decision-making	Indicators for measuring access to OB U/S	<input type="checkbox"/> Yes, and linked to health management information system (HMIS) <input type="checkbox"/> Yes, but not linked to HMIS <input type="checkbox"/> No	
	Indicators for measuring MNH outcomes related to U/S use	<input type="checkbox"/> Yes, and linked to HMIS <input type="checkbox"/> Yes, but not linked to HMIS <input type="checkbox"/> No	
	Indicators for measuring cost to health care system	<input type="checkbox"/> Yes, and linked to HMIS <input type="checkbox"/> Yes, but not linked to HMIS <input type="checkbox"/> No	
	Indicators for assessing impact on service delivery	<input type="checkbox"/> Yes, and linked to HMIS <input type="checkbox"/> Yes, but not linked to HMIS <input type="checkbox"/> No	
	Indicators for assessing quality of U/S services	<input type="checkbox"/> Yes, and linked to HMIS <input type="checkbox"/> Yes, but not linked to HMIS <input type="checkbox"/> No	
A process has been identified for measuring outcomes/ impact of introduction of OB U/S	Baseline	<input type="checkbox"/> Yes <input type="checkbox"/> No	

6. HEALTH INFORMATION AND RESEARCH

Column 1 – Factor	Column 2 – Situational Analysis/Decision Points	Column 3- Action Items/Activities
	Data on OB U/S services are routinely collected in the HMIS	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Routine reports on data are available at facility, district, regional, and national levels	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Special studies	<input type="checkbox"/> Yes <input type="checkbox"/> No

Go/No Go Analysis Matrix

Use this table to list advantage and disadvantages of introducing/scaling-up or not introducing/scaling-up OB U/S services and make a decision on whether to move forward or not with introducing/scaling-up OB U/S services.

	GO	NO GO
ADVANTAGES		
DISADVANTAGES		

Template for Action Plan:

If a decision has been made to introduce/scale-up OB U/S services, use these tables to plan the activities that are developed based upon the analysis tables.

1. LEADERSHIP AND GOVERNANCE									
Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

2. HEALTH WORKFORCE									
Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

3. SERVICE DELIVERY									
Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

4. HEALTH FINANCING

Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

5. MEDICAL TECHNOLOGIES

Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

6. HEALTH INFORMATION AND RESEARCH

Target	Anticipated impact	Action/Steps/Tasks	Anticipated challenges	Owner	Partners	Timeline (Start/Completion)	Resources/Costs	Success criteria	Monitoring metrics/Communication of progress

Sample Workplan for Introduction of Obstetric Ultrasound

1. LEADERSHIP AND GOVERNANCE											
ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1.1	Secure national MOH buy-in for introduction of OB U/S and TWG for OB U/S	a) Provide evidence to key stakeholders and decision-makers to assist in shaping policy and to advocate for the introduction of OB U/S into maternal care services	X								<ul style="list-style-type: none"> National MOH buy-in secured for OB U/S introduction Buy-in for OB U/S introduction secured from global agencies, donors, educational institutions, professional associations, local NGOs and maternal health stakeholders Champions identified Plans made to address information gaps
		b) Conduct situational analysis									
		c) Conduct a go/no-go analysis									
		d) Make a decision to introduce OB U/S	X								
		e) Develop champions for OB U/S: Key government officials, members of professional associations, pre-service and in-service educational programs and influential clinicians can all be powerful champions	X								
		f) Get buy-in and generate support from government counterparts, global agencies, donors, educational institutions, professional associations, local nongovernmental organizations (NGOs) and maternal health stakeholders	X								
1.2	Establish national TWG to support and lead introduction of OB U/S	a) Consult with national MOH and key reproductive, maternal, newborn and child health (RMNCH) stakeholders to get buy-in on establishment of a national TWG to support and lead introduction of OB U/S	X								<ul style="list-style-type: none"> National MOH buy-in secured for secured establishment of a TWG to lead introduction National MOH and RMNCH stakeholder buy-in on members of the TWG TWG terms of reference drafted and validated Role and responsibilities of OB U/S TWG TWG members selected, oriented, updated, and providing support to national MOH for introduction of OB U/S
		b) Consult with national MOH and key RMNCH stakeholders to draft OB U/S TWG terms of reference									
		c) Consult with national MOH, including Secretary General's office, to gather names of potential members (individuals and organizations) for the TWG	X								
		d) Recruit TWG members, in close collaboration with MOH and other key RMNCH stakeholders	X								
		e) Determine and prioritize capacity building activities for TWG and counterpart MOH staff, with input from MOH and other key RMNCH stakeholders	X								
		g) Provide ongoing technical support to TWG members (share latest global evidence, best practices, and experiences)	X	X	X	X	X	X	X	X	
1.3	Establish desired outcomes of introduction of OB U/S	a) Collect comprehensive data pertinent to OB U/S-identifiable complications	X							<ul style="list-style-type: none"> Desired outcomes identified 	
		b) Establish desired outcomes of introduction	X								

1. LEADERSHIP AND GOVERNANCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.4	Establish pathways to achieve desired outcomes	a) Establish intended use/Indications	X	X						<ul style="list-style-type: none"> • Pathways to achieve outcomes established • Workplan developed for introduction
		b) Select cadres to be authorized to prescribe, perform, and interpret OB U/S examinations	X	X						
		c) Select cadres authorized to maintain and repair OB U/S machines	X	X						
		d) Select criteria for settings to introduce OB U/S, including standards for the basic level of essential services that must be present at a facility before budgeting for OB U/S services	X	X						
		e) Identify minimum infrastructure requirements for storage and use of OB U/S equipment	X	X						
		f) Develop alternatives to attain expected outcomes	X	X						
1.5	Develop a national strategy for introduction of OB U/S	a) Review geographic coverage of essential maternal newborn health services to identify coverage disparities and promote equity in OB U/S use	X	X						<ul style="list-style-type: none"> • National strategy developed
		b) Conduct a baseline assessment of OB U/S use in the country, identifying cadres providing OB U/S, services provided and coverage of across facilities by level, geography and private/public designation	X	X						
		c) Review geographic coverage of essential maternal newborn health services to identify coverage disparities and promote equity in OB U/S use	X	X						
		d) Select settings to introduce OB U/S	X	X						
		e) Conduct an assessment of workforce needs (how many providers are needed, where and in what period of time?) and current workforce availability	X	X						
		f) Establish how to integrate OB U/S (screening and/or diagnostic) into maternal care services	X	X						
		g) Review the comprehensive maternal health budget for adequacy of expenditures for other lifesaving commodities and services to determine budget available for OB U/S services	X	X						
		h) Develop a plan that prescribes strategies and alternatives to attain expected outcomes	X	X						
		i) Cost the new policy and its implementation, including possible subsidization of/sliding scale for payment of U/S examinations	X	X						
		j) Monitor implementation of the strategy			X	X	X	X	X	

1. LEADERSHIP AND GOVERNANCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.6	Develop national professional guidelines for OB U/S	a) Develop a regulatory framework for OB U/S scope of practice	X	X						<ul style="list-style-type: none"> Professional guidelines for OB U/S examination developed
		b) Develop/strengthen/revise competencies based upon the desired outcome of introducing OB U/S	X	X						
		c) Establish a process by which health professionals keep updated to meet the needs of patients, the health service, and their own professional development	X	X						
		d) Develop a code of professional practice for obstetric sonographers	X	X						
		e) Update/develop licensure and certification/recertification requirements for conducting and reading U/S results	X	X						
1.7		a) Develop guidelines with professional bodies and organizations that accurately describe the range of U/S examinations undertaken	X	X						<ul style="list-style-type: none"> National guidelines for OB U/S developed
		b) Develop guidelines for safeguarding patient confidentiality (acquisition, archiving and use of U/S data; use of mobile telephones and other electronic devices)	X	X						
		c) Develop guidelines for the scanning of persons for non-clinical purposes	X	X						
		d) Define policy for disclosure of fetal gender	X	X						
		e) Develop guidelines on need for and obtaining informed consent	X	X						
		f) Develop national guidelines for reporting results of OB U/S	X	X						
		g) Develop national practice guidelines for OB U/S (procedure, indications, timing, prevention and management of work-related musculoskeletal disorders)	X	X						
		h) Develop national examination-specific guidelines for OB U/S (minimum content of the examination)	X	X						
1.8	Establish processes to measure outcomes/impacts of introduction	a) Establish indicators to measure outcomes/impact of introduction								<ul style="list-style-type: none"> Indicators identified Process for measuring outcomes/impact identified Monitoring tools developed
		b) Establish a process to measure outcomes/impact of introduction	X	X						
		c) Develop tools for monitoring and evaluation	X	X						

1. LEADERSHIP AND GOVERNANCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1.9	Develop systems to assure quality of OB U/S services	a) Develop a framework through which organizations are accountable for continuously improving the quality of OB U/S services and safeguarding high standards of care	X	X						<ul style="list-style-type: none"> • QA tools • Strategy for ongoing QA • Supportive supervision tools • Supervision reports 	
		b) Develop/adapt QA tools	X	X							
		c) Develop supportive supervision tools	X	X							
		d) Monitor quality of care across sites/facilities			X	X	X	X	X		X
		e) Identify and address providers' barriers to OB U/S use			X	X	X	X	X		X
1.10	Develop systems to control quality of U/S machines	a) Develop a strategy for controlling quality of OB U/S machines, including frequency of preventive maintenance	X	X						<ul style="list-style-type: none"> • QC tools • Strategy for ongoing QC • Preventive maintenance reports 	
		b) Develop routine maintenance schedules	X	X							
		c) Develop process for repair	X	X							
		d) Develop guidelines for storage and general care	X	X							
		e) Develop/adapt QC tools	X	X							
		f) Monitor quality of care across sites/facilities			X	X	X	X	X		X
		g) Identify and address providers' barriers to OB U/S use			X	X	X	X	X		X

2. HEALTH WORKFORCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
2.1	Implement strategy to plan for workforce deployment	g) Develop a plan for developing a workforce to implement OB U/S services	X	X							<ul style="list-style-type: none"> Plan developed to assure deployment and training of workforce to implement OB U/S services Staffing levels are adequate to allow for U/S services (allowing 15–45 min/scan) without decreasing the delivery of other services
		h) Identify potential coaches and mentors to provide ongoing support		X	X						
		i) Identify potential candidates for training		X	X						
		j) Monitor adequacy of staffing for performing/interpreting OB U/S				X	X	X	X	X	
		k) Monitor adequacy of staffing for maintaining/repairing OB/US				X	X	X	X	X	
2.2	Update/adapt training curricula for sonographers	a) Define a set of essential OB U/S competencies for cadres that will prescribe, perform and interpret OB U/S exams	X	X							<ul style="list-style-type: none"> Updated clinical protocols Updated in-service training curricula OB U/S integrated into pre-service education programs Job aids developed to facilitate OB U/S use
		b) Define a set of essential competencies for cadres that will maintain and repair OB U/S machines	X	X							
		c) Develop/strengthen/revise national in-service courses and pre-service training curricula	X	X	X						
		d) Develop/strengthen/revise national in-service courses (Reference Manual, Facilitator’s Guide, Participant’s Guide)	X	X	X						
		e) Develop/strengthen/revise national pre-service training curricula and integrate into existing curricula	X	X	X						
		f) Develop and disseminate simple and adapted job aids	X	X	X	X	X	X	X	X	
2.3	Update/adapt training curricula for personnel responsible for preventive maintenance and repair of OB U/S machines	a) Develop/strengthen/revise competencies for technicians providing preventive maintenance of OB U/S	X	X	X						<ul style="list-style-type: none"> Updated standards for preventive maintenance Updated training curriculum on preventive maintenance Updated training curriculum on repair Job aids developed to facilitate OB U/S preventive maintenance and repair
		b) Develop/strengthen/revise national courses on preventive maintenance and repair of OB U/S machines (Reference Manual, Facilitator’s Guide, Participant’s Guide)	X	X	X						
		c) Develop and disseminate simple and adapted job aids	X	X	X		X	X	X	X	

2. HEALTH WORKFORCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
2.4	Train sonographers	a) Develop a training strategy	X	X						<ul style="list-style-type: none"> • Training strategy • Coaches/mentors trained • Providers trained as sonographers • Post-training support provided
		b) Develop a system for ongoing coaching and mentoring of newly trained sonographers	X	X						
		c) Train mentors/coaches		X	X					
		d) Train providers				X	X			
		e) Provide ongoing post-training support/mentorship				X	X	X	X	
2.5	Train personnel to perform preventive maintenance and repair of U/S machines	a) Develop a training strategy	X						<ul style="list-style-type: none"> • Training strategy • Personnel trained to repair and perform preventive maintenance • Coaches/mentors trained • Post-training support provided 	
		b) Train mentors/coaches		X	X					
		c) Train personnel to perform preventive maintenance/repair				X	X			
		d) Provide ongoing post-training support/mentorship				X	X	X		X
2.6	Maintain licensure/certification of sonographers and technicians repairing/maintaining OB U/S machines	a) Establish facility-based system for monitoring ongoing licensure/certification	X	X					<ul style="list-style-type: none"> • Strategy for keeping licensure/certification up-to-date • Sonographers/repair technicians up-to-date • Sonographers'/repair technicians' licenses/certificates up-to-date 	
		b) Provide opportunities for keeping licensure/certification up-to-date			X	X	X	X		X
		c) Provide ongoing funding for continuing education			X	X	X	X		X

3. SERVICE DELIVERY

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
3.1 Update/adapt standards for OB U/S use	a) Update/adapt standards for charts and formulas for interpreting U/S results	X	X							Standards updated/adapted for: <ul style="list-style-type: none"> charts and formulas for interpreting U/S results performing OB U/S examinations disclosure of fetal gender minimum required content for written report of OB U/S results oral reporting requirements oral reporting requirements
	b) Update/adapt standards for content and performance of OB U/S examinations by trimester, including recommended exposure time and acoustic output levels	X	X							
	c) Update/adapt standards for disclosure of fetal gender	X	X							
	d) Update/adapt standards for minimum required content for written report of OB U/S results and reporting forms	X	X							
	e) Update/adapt standards for reporting requirements – oral and written reports – for normal and abnormal/unexpected findings (this standard includes disclosure of results and written reports to clients and protection of privacy)	X	X							
	f) Update/adapt standards for following up with clients when the interpretation of the U/S scan is not done by the person conducting the U/S	X	X							
	g) Update/adapt clinical protocols exist for prescribing, conducting, interpreting, and responding to abnormal/unexpected results	X	X							
	h) Update/adapt standards for measuring a woman’s experience of care when having an OB U/S	X	X							
	i) Update/adapt standards for assessing gestational age with U/S while taking into consideration other gestational age measurements such as LMP, fundal height and quickening	X	X							
	j) Update/adapt standards for counseling clients on normal and abnormal findings	X	X							
	k) Update/adapt standards for financing U/S services at the facility level to minimize out of pocket costs to clients and promote equity	X	X							
l) Update/adapt standards for the basic level of essential services that must be present at a facility before budgeting for OB U/S services	X	X								
3.2 Establish systems to manage U/S services in selected sites	a) Work with facility staff to ensure integration into maternal care services	X	X							<ul style="list-style-type: none"> Systems in place to manage U/S services Logistics systems in place to ensure availability of commodities U/S services available Referral pathways effectively used
	b) Choose a “gatekeeper” for the U/S machine	X	X							
	c) Establish referral pathways that include sharing of U/S images to support consultation and continuity of care	X	X							
	d) Monitor use of referral pathways									

3. SERVICE DELIVERY

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	e) Strengthen logistics systems to plan and procure sufficient commodities to meet quality of care standards			X	X	X	X	X	X	<ul style="list-style-type: none"> • Patient satisfaction regularly monitored 	
	f) Monitor patient satisfaction with U/S services			X	X	X	X	X	X		
	g) Monitor utilization and availability of OB U/S			X	X	X	X	X	X		
	h) Monitor availability of commodities and state of functioning of U/S machines			X	X	X	X	X	X		
3.3	Implement the system of QA for sonographers and repair technicians	a) Develop QA teams				X	X			<ul style="list-style-type: none"> • QA teams established • QA activities implemented • U/S services are available when needed • U/S services are utilized appropriately 	
		b) Implement QA processes						X	X		X
		c) Provide ongoing QA reports						X	X		X
		d) Provide ongoing supportive supervision				X	X	X	X		X

4. HEALTH FINANCING

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
4.1 <u>Develop financial systems</u> for ongoing service delivery and QA	a) Develop national, regional, district and facility budgets and invest funding for commodities to support OB U/S use	X	X							<ul style="list-style-type: none"> • Lifesaving commodities are prioritized in the design of a budget to support OB U/S use • Financial resources are invested for QA of sonographers • Financial resources are invested for QC of equipment • Financial resources are invested for routine maintenance, replacement of supplies and repair
	b) Develop national, regional, district and facility budgets and invest funding for training of sonographers and repair technicians	X	X							
	c) Develop national, regional, district and facility budgets and invest funding for QA of sonographers and repair technicians	X	X							
	d) Develop national, regional, district and facility budgets and invest funding for QC of equipment	X	X							
	e) Develop national, regional, district and facility budgets and invest funding for routine maintenance, replacement of supplies and repair	X	X							
	f) Invest financial resources for infrastructure updates to accommodate OB U/S machines	X	X	X	X	X	X	X	X	
	g) Invest financial resources/seek funding for purchase/replacement of OB U/S machines	X	X	X	X	X	X	X	X	
	h) Invest financial resources/seek funding for training and mentoring sonographers and technicians to maintain/repair OB U/S machines	X	X	X	X	X	X	X	X	
	i) Invest financial resources/seek funding for QA of sonographers	X	X	X	X	X	X	X	X	
	j) Invest financial resources/seek funding for QC of equipment	X	X	X	X	X	X	X	X	
	k) Invest financial resources/seek funding for routine maintenance, replacement of supplies and repair	X	X	X	X	X	X	X	X	
	l) Develop systems/seek funding to reduce burden of cost on clients	X	X							
	m) Financial resources are available for OB U/S services	X	X	X	X	X	X	X	X	

5. MEDICAL TECHNOLOGIES

ACTIVITY		TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
5.1	Select and register an OB U/S based on target product profile (TPP)	a) Establish TPP for OB U/S based on selected indications	X								<ul style="list-style-type: none"> • TPP • OB U/S chosen • OB U/S registered
		b) Choose an OB U/S based on TPP	X								
		c) Register OB U/S if not yet registered	X	X							
5.2	Upgrade infrastructure to facilitate introduction of OB U/S	a) Upgrade/ensure availability of electricity or alternative energy sites at sites where OB U/S will be introduced	X	X							<ul style="list-style-type: none"> • Infrastructure upgraded • Secure and stable physical environment • Service or maintenance available on-site • Security system installed
		b) Purchase and install equipment to protect U/S equipment from unstable power supply and power surges	X	X							
		c) Purchase and install equipment to secure U/S machines	X	X							
5.3	Procure and deliver OB U/S to selected sites	a) Develop a mechanism for understanding inventory projections and tracking utilization	X	X							<ul style="list-style-type: none"> • OB U/S procured • Acceptance testing performed • OB U/S machines delivered to selected sites
		b) Establish a supply chain for U/S equipment and supplies	X	X							
		c) Procure OB U/S and commodities	X	X							
		d) Clear customs	X	X							
		e) Perform acceptance testing on all new OB U/S machines	X	X							
		f) Deliver OB U/S to selected sites	X	X							
	g) Ensure availability of equipment and supplies for U/S machines			X	X	X	X	X	X		
5.4	Conduct QC activities of machine	a) Monitor quality of machines across sites/facilities			X	X	X	X	X	X	<ul style="list-style-type: none"> • Measures regularly controlled for quality
		b) Ensure functionality of the system in place for routine maintenance and QC of equipment			X	X	X	X	X	X	

6. HEALTH INFORMATION SYSTEMS

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
6.1	Conduct a baseline of OB U/S services	a) Conduct a review of geographic coverage of essential MNH services to identify coverage disparities and promote equity in OB U/S use	X								<ul style="list-style-type: none"> • Baseline data available • Recommendations for introduction based on baseline study results
		b) Conduct a baseline assessment of OB U/S use in the country, identifying cadres providing OB U/S, services provided and coverage of across facilities by level, geography and private/public designation	X								
		c) Analyze results		X							
		d) Provide results to government bodies to inform development of national strategy		X							
6.2	Monitor results of OB U/S services	a) Integrate indicators for OB U/S into facility and district HMIS	X	X							<ul style="list-style-type: none"> • Monitoring data available • Implementation research results available
		b) Monitor results			X	X	X	X	X	X	
		c) Ensure data are used for decision-making			X	X	X	X	X	X	
		d) Gather information or make a plan to conduct implementation research to address knowledge gaps identified by the MOH	X	X							
6.3	Conduct national surveys of OB U/S services	a) Develop and implement a knowledge management (documentation) plan to capture program process, outputs and voices	X	X	X	X	X	X	X	X	<ul style="list-style-type: none"> • Knowledge management (documentation) plan • Study protocol • Study report • Article published in peer reviewed journal
		b) Choose topics to enhance learning on introduction of OB U/S	X	X							
		c) Receive country approval for special studies			X	X					
		d) Establish an in-country Technical Advisory Group to provide guidance on research design and other topics			X	X					
		e) Develop a research protocol and plan for implementation				X	X				
		f) Submit to and receive approval from all necessary institutional review boards for approval					X	X			
		g) Conduct study						X	X		
		h) Analyze data and write report						X	X		
		i) Disseminate results							X	X	
		j) Publish findings								X	

Workplan Template for Introduction of Obstetric Ultrasound

1. LEADERSHIP AND GOVERNANCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.1.										
1.2.										
1.3.										

2. HEALTH WORKFORCE

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
2.1.										
2.2.										
2.3.										

3. SERVICE DELIVERY

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
3.1.										
3.2										
3.3.										

4. MEDICAL TECHNOLOGIES

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
4.1.										
4.2										
4.3.										

5. HEALTH FINANCING

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
5.1.										
5.2										
5.3.										

6. HEALTH INFORMATION AND RESEARCH

ACTIVITY	TASK	PY1 TIMELINE				PY2 TIMELINE				OUTPUTS/DELIVERABLES
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
6.1.										
6.2										
6.3.										