Toolkit for implementation of the WHO intrapartum care and immediate postnatal care recommendations in health-care facilities





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Abbreviations

AACTT	action, actor, context, target, time
BAT	Baseline Assessment Tool
COM-B Model	Capability (C), Opportunity (O) and Motivation (M) Model of Behaviour (B) Change
HRP	Human Reproduction Programme (UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research, Development and Research Training in Human Reproduction)
WHO LCG	WHO Labour Care Guide
NGOs	nongovernmental organizations
QoC	quality of care
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Introduction

In 2018, the World Health Organization (WHO) published the WHO recommendations on intrapartum care for a positive childbirth experience (1), providing a set of recommendations specifying evidence-based practices that should be implemented for optimal care throughout labour and childbirth, and discouraging ineffective and potentially harmful practices that should be avoided. More recently, in 2022, WHO published the WHO recommendations on maternal and newborn care for a positive postnatal experience, focusing on optimal care during the first six weeks following birth, including care during the immediate postnatal period - the first 24 hours after birth (2). All of these recommendations support quality of care (3,4) and are built on the premise that care should enable women to use their own capabilities during labour, childbirth and the postnatal period to achieve the desired physical, emotional and psychological outcomes for themselves, their babies and their families.

In response to the growing global demand for effective, evidence-based implementation strategies and tools for high-quality maternal and newborn care, WHO is developing a series of tools and guidance to facilitate effective implementation of recommendations at the health-care facility level. In 2016, WHO published the Standards for improving quality of maternal and newborn care in health facilities (3), including process and outcome measures for quality of care. In December 2020, WHO launched the WHO Labour Care Guide (LCG) (5) - a tool designed for use by skilled health personnel to monitor the well-being of women and babies during labour, stimulate shared decision-making, and promote women-centred evidence-based care - and its accompanying user's manual (6).

Implementation refers to action in response to a call for change (a call for people to do something new or different) (7) or an effort specifically designed to get best practice findings and related products into routine and sustained use through appropriate change or through adoption (also referred to as uptake) of recommended interventions (8).

Implementation strategies are methods or techniques used to enhance or support the implementation, adoption (also referred to as uptake) and sustainability of a programme or practice (8,9) (e.g. training, education, environmental restructuring).

Development and components of the toolkit

This toolkit was developed to provide detailed information and resources to support implementation of the WHO intrapartum and immediate postnatal care recommendations at the health-care facility level. The careful design of this toolkit is based on a rigorous evidence-based approach that includes implementation strategies of proven effectiveness to help close the gap between WHO's care recommendations and current policies and practices (10).



The toolkit includes:1

- this document, which acts as a user's manual, including the annex with definitions of terms;
- worksheets for implementation teams to complete at each step during the implementation process, to
 ensure that all key elements of implementation are addressed (Web Annex A);
- a baseline assessment tool (BAT) listing essential intrapartum and immediate postnatal care recommendations, to guide implementation teams through the process of prioritizing recommendations that are relevant and feasible to implement in your setting (Web Annexes B1 and B2); and
- implementation notes providing information about examples of possible barriers and enablers, implementation strategies and evaluation measures relevant to selected WHO recommendations (Web Annex C).

The toolkit was pilot tested to assess its usefulness, adherence to the proposed materials and any barriers to its use. Focus group discussions, indepth interviews and non-participant observations were conducted in four hospitals in two countries (Argentina and the United Republic of Tanzania) to learn about the experience of implementation teams that field-tested the toolkit.

Purpose of the toolkit

Too often we think that policy development or the existence of guidelines is sufficient for implementation, or that the key barrier to improving health-care practice is lack of awareness of the guideline or a deficit in knowledge or skills. Based on this assumption, many implementation activities only target knowledge or skills (e.g. lectures, workshops or training modules), and there is likely to be disappointment with outcomes later when there is no actual change in practice, or very limited improvement. In fact, there are often many barriers to the implementation of guidelines and recommendations that need to be addressed before practice change can be achieved (*11*).

The overall aim of the toolkit is to support healthcare facilities to take a systematic approach to implementation of selected WHO intrapartum and immediate postnatal care recommendations, considering a wide range of potential **barriers** and **enablers** at the facility level. The toolkit can assist the implementation team to match an appropriate implementation strategy to each of the identified barriers and enablers, to ensure that the recommendations are adopted – with the goal of improving maternal, fetal and newborn outcomes at national and local levels. The toolkit can also be used to implement other recommendations or to improve aspects of practice beyond intrapartum and postnatal care.

Barriers are influencing factors that restrict, impede or block behavioural change (e.g. limited resources or lack of support from the leadership) (12).

Enablers are influencing factors that facilitate practice change (e.g. leadership support, funding, staff, time, equipment) (13,14).

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Target audience

The primary target audience for the toolkit includes policy-makers, health-care facility managers, implementers and managers of maternal and child health programmes, nongovernmental organizations (NGOs) and professional societies involved in the planning and management of maternal and child health services.

¹ All tools/web annexes are available at: https://www.who.int/publications/i/item/9789240081314

How to use the toolkit

Implementing the WHO recommendations may require both country- and health-care facilitylevel activities. At the national level, this entails government support and identification of national and system-wide barriers and enablers to implementation (e.g. the existence or lack of up-to-date policies and regulations). At the facility level, this involves designing targeted strategies to address local barriers and capitalize on the enablers to implementation (e.g. organize private space at the health-care facility for women and their labour companions or train staff to prepare labour companions to provide effective support).

Once you have established that relevant national support is in place for implementation of the recommendations you have prioritized, you can move on to understand what it would take to implement these recommendations at your health-care facility, and design implementation strategies to support this. The health-care facility in question can be at any level of the health system, such as a community health centre or hospital, or a health-care facility within a network of care in a district or region – whether public or private. The step-by-step guidance described in this toolkit can be planned and executed at individual health-care facilities or at the level of a network of facilities.

Implementing evidence-based practices can involve adopting a recommendation that is new to current practice (e.g. allowing a companion into the labour ward), adopting a recommendation to increase implementation of a practice that is already in place (e.g. increasing routine use of uterotonics during the third stage of labour for the prevention of postpartum haemorrhage [PPH]), or adopting a recommendation to decrease or discontinue a practice altogether (e.g. stopping the use of early amniotomy with early oxytocin augmentation for prevention of delay in labour).

Designing implementation strategies to improve uptake of recommendations first requires understanding the factors that influence current and desired **behaviours** in the settings where they occur (11,15). The toolkit provides guidance and practical tools, based on implementation and behavioural science, for preparing an action plan, identifying enablers and barriers, and developing implementation strategies.

Behaviour: The actions performed by a person or group/team in response to internal or external events. Actions may be overt and directly measurable, or covert and indirectly measurable (10).

This toolkit describes the five steps in the implementation planning process, using as a case example the WHO recommendation on labour companionship: "A companion of choice is recommended for all women throughout labour and childbirth" (1). Information to complement the five steps and insights from the pilot testing phase are provided throughout this document, and key definitions are given in the **Annex**. See Box 1 for relevant WHO resources.

Relevant WHO resources

- WHO recommendations: intrapartum care for a positive childbirth experience (1)
- WHO recommendations on maternal and newborn care for a positive postnatal experience (2)
- WHO labour care guide (5) and its user's manual (6)
- Standards for improving quality of maternal and newborn care in health facilities (3)
- Quality of care for maternal and newborn health: a monitoring framework for network countries (16)



Planning for successful implementation at the health-care facility level

National-level adoption of WHO recommendations on intrapartum and immediate postnatal care is an important step towards evidence-based practice. However, this is usually not sufficient by itself to guarantee uptake of new evidence or change in practice at the health-care facility level.

A common implementation approach at the facility level follows the "it seemed like a good idea at the time" principle (10). This happens when there is a rush to implement a recommendation without first formulating a rationale for choosing an appropriate implementation strategy, such that the specific implementation strategy initially selected (e.g. education and/or training) may not work and can lead down a fruitless path. This is not a trivial issue, because there can be substantial waste of scarce resources for implementation and the uptake and sustainability of new practices is likely to be poor. In addition, the lack of a mechanism for documenting and learning from successes and failures, due to poorly planned implementation, will mean it may not be possible to refine and ultimately replicate or scale up the strategy more broadly. To maximize the effectiveness of your action plan, you first need to understand the problem in the health-care facility setting and then develop a tailored and strategic approach to implement a change in practice.

Successful implementation of the WHO recommendations requires health workers, women and their families, and/or members of their social networks to change their behaviour. For example, assisting women to give birth in different positions, supporting women to follow their own urge to push during the second stage of labour, supporting them to initiate skin-to-skin contact immediately after birth, and assisting with breastfeeding.

It is important to recognize that there is a wide range of barriers to and enablers that can support implementation, and that barriers are likely to vary across health-care facilities and stakeholder groups (e.g. different types of **health workers**). Education and training are commonly used as strategies to promote behaviour change and they can be an important part of the process, but they may not address certain types of barriers to implementation (e.g. lack of resources, lack of perceived priority, lack of peer support). Addressing these barriers will require other strategies, so it is important to first identify the key local barriers to implementation and then develop implementation strategies to address these.

Health workers are defined as health-care professionals, health associate professionals, personal care workers in health services, health management and support personnel, and other health-care service providers not elsewhere classified (*17,18*).

Five steps to maximize the likelihood of success

This toolkit describes a five-step process to implement the WHO recommendations on intrapartum and immediate postnatal care in healthcare facilities (see Fig. 1).

The five steps are:

- Step 1. Prepare for implementation;
- Step 2. Select the target recommendation(s) and define the behaviour(s) that need to change;
- Step 3. Understand the determinants of current practice and identify the barriers to and enablers for the desired change;
- Step 4. Identify potential solutions and implement strategies; and
- Step 5. Monitor and evaluate.

This process draws on theory, frameworks and evidence from the behavioural and implementation sciences (10,19). It involves systematically designing implementation strategies based on an understanding of the behaviours you wish to change in the local context, rather than making assumptions about how to bring about the desired change. The toolkit will help to guide thinking and decision-making at each step of the process, to enable you to choose and/or design strategies that are likely to work in your specific circumstances, and to learn from implementation successes and failures.



Fig. 1. Five-step process for developing a strategy for implementation of recommendations at the health-care facility level



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"We knew the WHO intrapartum care recommendations for a positive childbirth experience, but this toolkit was created so that you can internalize and choose what changes are feasible to carry out. It can help you prioritize, plan activities, and be able to carry them out."

- Comment from a member of an implementation team involved in field-testing the toolkit at a health-care facility in Argentina

It is important to recognize that this is not a linear process, and you may need to loop back and enter the process again somewhere along the continuum. For example, if addressing one barrier identifies another, or if circumstances in the maternity care setting change, you may need to go back a step or two and continue working through the process.

Over time, you will learn about what works and what doesn't in your setting, and you can use this information to adapt your implementation plan to more effectively address the barriers to change as they evolve. Following implementation, evaluation may reveal that the changes to practice that were achieved were not as extensive as planned, which will require you to revisit your plan and make adjustments where needed to address the barriers to change. Even if this happens, you will not be starting again from the beginning because you will have learned about what hasn't worked, you will have established relationships with key stakeholders and you will have developed resources that you can build upon as you move forwards. Which step you return to depends on the issues you have identified, what needs to change and how far you have already moved along the path.

"This toolkit was a good guide to organize our work and helped to make the work in order. We found it easy to use because it suits the way we work in our hospital. We followed the proposed steps and we were able to complete all the activities."

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- Comment from a member of an implementation team involved in field-testing the toolkit at a health-care facility in the United Republic of Tanzania

Step 1. Prepare for implementation



Planning and preparing for implementation of recommendations in your health-care facility (or network of facilities) involves creating the environment for success. This includes (i) establishing organizational support, (ii) engaging key stakeholders and establish an implementation team, (iii) building relationships with key stakeholders and (iv) developing an action plan to guide the process.

Establish organizational support

Organizational leadership and support are essential to ensure that the implementation plans are endorsed at the highest level in the health-care facility, the implementation of the WHO recommendations is recognized as an organizational priority and feasible to do, and adequate resources are available to attain and sustain practice change. For example, health-care facility managers would be involved in ensuring the availability of the necessary essential medicines (e.g. uterotonics, analgesics and anaesthetic), medical supplies and equipment (e.g. urine dipsticks, fetal stethoscope and sphygmomanometer), furniture (e.g. curtains, chairs for labour companions, cots) and human resources (e.g. number of health workers). In addition, their involvement might be needed to support and approve interdepartmental planning to address the implementation of some specific recommendations that require the involvement of other units/department, or additional information and support services (e.g. recommendations on pain relief, oral fluid and food intake, labour companion of choice, rooming-in).

Engage key stakeholders and establish an implementation team

An implementation team should be established or strengthened to guide the planning, implementation and evaluation processes. The team can help to identify which **health-care interventions** need to be addressed, the barriers to and enablers for practice change, and possible solutions and effective implementation strategies to address the barriers and leverage the enablers to effect sustainable change. The more key stakeholders are involved from the beginning of the planning process, the more likely they are to adopt or facilitate the adoption of a recommendation and sustain the practice change over the longer term.

Health-care interventions include any intentional health-care action performed to improve, maintain or assess the health of a person in a clinical situation (20).

The composition of the implementation team may vary over time and should be dynamic, with new members brought in as and when needed. Membership should be determined by each healthcare facility (or by all the facilities in one network under the oversight of the implementation team) and should include key individuals and representatives from different groups to drive implementation of best practices, provide leadership and expertise, include a range of perspectives, and support the broad alignment and dissemination of decisions. Consider including members from among the facility managers, front-line health workers (e.g. nurses, midwives or physicians), and consumers/community members (i.e. women, family members and community leaders). This ensures that managers are aware of issues from the perspective of health workers, women and communities, and that health workers understand the staffing and resource issues and how those can influence decision-making related to the change process (21,22). Wide representation on the implementation team also assists dissemination of findings within the community. Depending on the recommendation selected in Step 2, additional

stakeholders can be added to the team at that point as needed (e.g. pharmacists if the recommendation involves pharmacological pain relief). Table 1 illustrates a list of key stakeholders and the potential roles that they may have as members of the implementation team.

Build relationships with key stakeholders

Building relationships with key stakeholders is essential to ensure success. Leverage **champions** at various levels to facilitate practice change such as health-care facility managers, health workers, women, family members and community leaders. Ensure that roles and responsibilities are clear among members of the implementation team (see Table 1) and establish communications channels between them.

Champions are people who (i) are internal to an organization; (ii) generally have an intrinsic interest and commitment to implementing a change; (iii) work diligently and relentlessly to drive implementation forward even if those efforts receive no formal recognition or compensation; (iv) are enthusiastic, dynamic, energetic, personable and persistent; and (v) have the strength of conviction (23).

Consider what opportunities already exist for interaction with the clinical team members to collect information more broadly about health-care practice issues. How and when do members of the team interact (e.g. team rounds, ward meetings, managers meetings)? Is it possible to leverage time at these existing meetings for discussions, feedback, data collection and decision-making? What opportunities exist to interact with women, their families and other community members/leaders? How are women and their families, or social networks, currently involved in their care and related decisions, and what needs to change?

Recognizing how different groups (e.g. health workers, facility managers) within your organization function (i.e. roles and responsibilities) and interact, and how they might be involved in practice change is key to developing effective implementation strategies.

Table 1. Completed example of Worksheet 1a - Identify key stakeholders and their roles within the implementation team

(The template for Worksheet 1a is provided in Web Annex A.)

Roles within the implementation team	Implementation project leader/ champion	Health- care facility managers	Health workers	Women, family members and community leaders
 Participate in the identification of the WHO recommendations that need to be addressed 	\checkmark	\checkmark	\checkmark	\checkmark
 Participate in the identification of the barriers to and enablers for practice change, and the development of possible solutions and effective strategies to address the issues 	\checkmark	✓	\checkmark	~
 Support and approve the planning, implementation, and monitoring and evaluation process 		\checkmark		
 Facilitate interdepartmental involvement, assessment of barriers and selection of implementation strategies that best fit the health-care facility's needs 		~		
 Identify resources required for implementation – consider budget requirements, including training, equipment, human resources 	\checkmark	✓		
 Provide technical and clinical expertise to drive implementation of best practices 			\checkmark	
 Present the budget and sources of revenue to the appropriate manager(s) for approval 	\checkmark			
 Monitor the selected measures throughout implementation 	\checkmark			
 Conduct post-implementation evaluation, including review of the monitoring data 	\checkmark			
 Provide support and advice to health workers 	✓	\checkmark		
 Disseminate findings within the community 	\checkmark			\checkmark

Note: These are examples of potential roles for key stakeholders – this table is not meant to be prescriptive. Additional roles can be added as appropriate. Names of stakeholders can be recorded according to their roles.

Develop an action plan

Develop an action plan for your implementation project with realistic time frames and activities. The plan should include when you plan to start and finish, who will be involved, what will they do and when, and what the **deliverables** are. Ensure the implementation project lead has a clear mandate, sufficient resources and the time required to start the planning process. If all team members cannot attend every meeting, create a smaller working group to consult with key stakeholders and report to and seek leadership approval as needed. If there is a national/subnationallevel implementation project related to the healthcare practice issue you are interested in, engage with the people facilitating that project. The essential components of an action plan are listed in Box 2.

Deliverables are the outputs, main products or end results of the implementation project development process (e.g. implementation team created, meetings held, action plan or reports developed, timelines set).

As part of your planning process, it is also important to consider how to sustain practice change once the initial implementation project is complete. Sustaining practice change requires ongoing systematic planning and action to ensure that changes are integrated into the health-care facility organizational systems of care and health worker knowledge base.

An example of an action plan worksheet for implementation of the WHO recommendation on labour companionship² is provided in Table 2 (Worksheet 1b). The action plan is intended to evolve over time. It is used to guide discussions and monitor progress and is meant to be amended when needed as the implementation planning process evolves. The implementation process is iterative. Implementation teams are encouraged to initially fill out the rows and columns of the action plan as far as they can during Step 1, and then move on and complete it further or adapt the action plan accordingly as the implementation process progresses through the steps in this toolkit.

Box 2.

Essential components of an action plan

- Identify the key stakeholders who will participate in the identification, assessment and selection of the target recommendations and each phase of the implementation project.
- Involve a wider group of relevant stakeholders in the planning process, the assessment of barriers and enablers assessment, and the selection of effective and feasible implementation strategies.
- Consider the current roles of the health workers within your organization and whether they will need to change.
- Identify resources required for implementation.
- Consider budget requirements for training, medicines, equipment, supplies, staffing. Involve the implementation team and relevant stakeholders to ensure support for the completed budget.
- Consider ways to obtain the required resources for the implementation project through operational and non-operational sources.
- Present the resources required and sources of revenue to the appropriate level of management for approval.

2 "A companion of choice is recommended for all women throughout labour and childbirth" (1).

Step 1

Table 2. Completed example of Worksheet 1b - Action plan

(The template for Worksheet 1b is provided in Web Annex A.)

Activity	Target date	Person(s) responsible	Deliverables (end result of the implementation project activities)	Progress (not initiated; in progress; completed)
Step 1				
Identify members of the implementation team, including a project lead, champions and other members/stakeholders	16 January 2023	Health-care facility managers (heads of midwifery and nursing departments and facility directors)	 List of persons who will be part of the team (project lead, champions, and other stakeholders) Minutes of the meetings 	Completed
Identify additional stakeholders who will participate in the implementation project	23 January 2023	Project lead, champions, health-care facility managers	 List of stakeholders 	Completed
Establish roles and responsibilities of key stakeholders and the steps they will be involved in	6 February 2023	Project lead, health- care facility managers, health workers	List of stakeholders and their specific rolesWorksheet 1a completed	Completed
Step 2				
Complete a baseline assessment ³ to identify target recommendations to implement (to address practice issues)	20 February 2023	Champions, health workers	 Situational analysis report List of priority practice issues Meeting minutes BAT or Worksheet 2a completed 	Completed
Select the target recommendation(s) to be implemented	27 February 2023	Whole team	 WHO recommendations to be implemented (e.g. companionship during labour and childbirth) Meeting minutes 	Completed
Translate the target recommendation(s) into behavioural terms using AACTT (action, actor, context, target, time)	6 March 2023	Whole team	 Worksheet 2b, 2c, 2d completed 	In progress
Step 3				
Identify the barriers and enablers to practice change	3 April 2023	Whole team	 Worksheet 3a with barriers and enablers completed 	Not initiated

Activity	Target date	Person(s) responsible	Deliverables (end result of the implementation project activities)	Progress (not initiated; in progress; completed)
Step 4				
Identify and plan for specific implementation strategies known to be effective	17 April 2023	Whole team	 Worksheet 4a with implementation strategies 	Not initiated
Identify resources required for implementation	1 May 2023	Whole team	 List of required resources 	Not initiated
Step 5				
Develop a plan for monitoring and evaluation	1 June 2023	Project leader, champions, health workers	 List of indicators to be measured Worksheet 5a completed 	Not initiated
Plan for celebration, marking milestones	30 March 2023	Project leader, champions, health workers	 List of milestones with dates 	Not initiated

Table 2. (continued) Completed example of Worksheet 1b - Action plan

Source: Adapted from Registered Nurses' Association of Ontario, 2012 (21).

Suggestions from implementation teams that field-tested the toolkit –

STARTING OUT

- Obtain support from the health-care facility authorities.
- Allocate 3-4 hours per week to meet with the implementation team and complete the worksheets. This should allow finalization of the plan of action in about four months.
- Have an allocated working space and/or technological resources to communicate virtually (e.g. meeting software).
- Have printed copies or electronic versions of the toolkit available at every team meeting.
- Have storage space for printed materials or access to electronic files.

The worksheets for Step 1 are provided in Web Annex A

Worksheet 1a: Identify key stakeholders and their roles Worksheet 1b: Action plan

Step 2. Select the target recommendation(s) and define the behaviour(s) that need to change



Once your initial planning is completed, the next step is to (i) select the target recommendations, i.e. the practice issue(s) you are going to focus on from the full range of WHO recommendations, and (ii) define the behaviour(s) that need to change in order to implement the selected recommendation.

Select the target recommendation(s)

Consider what needs to be changed most urgently – what is the priority? This might be a recommended

practice that is not currently being performed frequently or at all, or one for which there is currently wide variability in practice, or one that - if consistently implemented - would have the most impact on women's and babies' outcomes and women's birth experiences. Selecting the priority recommendation(s) will involve: (i) understanding your local context, the current intrapartum and immediate postnatal care practices, and the extent of alignment with the relevant WHO recommendations, and (ii) determining where improvement is most needed and most feasible to achieve.

Note: If this process of selection of the recommendation(s) to be implemented has already been done at the national or subnational level, and your health-care facility is tasked with aligning with this decision, then consider moving directly to the later section within Step 2, titled "**Define the selected recommendation(s) in behavioural terms**".

Experiences of implementation teams that field-tested the toolkit -

SELECTING THE TARGET RECOMMENDATION

Implementation teams followed different pathways to select the WHO recommendations they wished to implement. Some teams chose the target recommendation by the end of Step 2, after completing all worksheets provided for this step. Other teams acknowledge that they had already selected the recommendation before carrying out Step 2 activities. However, even the teams that had already selected the recommendation(s) found the worksheets and additional practical resources proposed in Step 2 very useful for analysing factors they had not previously considered and reinforcing their decision to implement the selected recommendation(s).

Understanding your local context and current health-care practices

Behaviour (actions) and behaviour change depend on personal and systemic/contextual factors. It is therefore essential to thoroughly understand your setting and identify where health-care practice is not aligned with the WHO recommendations – and therefore needs to change.

Multiple sources of information will probably need to be consulted to understand your local environment and current intrapartum and immediate postnatal care practices (see Box 3). When multiple practice issues are identified, you will need to prioritize among them to determine which one(s) to address first. Resources and approaches that can be used to identify and explore practice issues that may need to be addressed

Box 3.

- Local consensus on the issue among key stakeholders (the key challenge is to ensure all relevant stakeholders are involved in the discussion)
- Results of audits of current care at the health-care facility (a helpful demonstration of a problem can often motivate health workers to change practice)
- Reports of frequency of adverse events

 (e.g. postpartum haemorrhage, postpartum sepsis, intrapartum stillbirth or maternal death)
- Existing activities/initiatives that can be leveraged to add value at the healthcare facility (e.g. implementation of other recommendations, quality improvement efforts, maternal and perinatal death surveillance and response)
- Existing/known issues with the most room for improvement (e.g. high rates of caesarean section or infrequent use of adequate pain relief measures for women in labour)
- Unexplained variation in current practice between different practitioners within the health-care facility (e.g. rate of episiotomy, length of stay at the health-care facility after uncomplicated vaginal birth)
- Patient and community engagement opportunities (e.g. meetings with patient groups to identify gaps in health services, unmet patient needs, and barriers to accessing health services or resources)

Determining where improvement is most needed and most feasible to achieve

There are many factors to consider when prioritizing recommendations for implementation. The questions in Box 4 may be helpful to guide discussions with the implementation team when selecting which recommendation(s) to focus on. Table 3 works through these questions for three intrapartum care recommendations, chosen as examples.

As part of the baseline assessment, a detailed review and prioritization process can be done by completing the Baseline Assessment Tool (BAT) (this tool is provided in Web Annex B)⁴ for all the recommendations included in the WHO recommendations on intrapartum care for a positive childbirth experience (1) and the recommendations related to immediate postnatal care included in the WHO recommendations on maternal and newborn care for a positive postnatal experience (2) – all of the relevant recommendations are listed in the BAT. The BAT is a resource intended to help implementation teams:

- assess the extent to which the current local practices align with the WHO recommendations on intrapartum care and immediate postnatal care; and
- ii. identify the high-priority recommendation(s) to implement in your health-care facility.

The BAT will provide a comprehensive mapping of the current level of use of the WHO intrapartum and immediate postnatal care recommendations, and can be used to guide assessment of local priorities. The BAT includes recommendations for health-care interventions women and their babies should receive as part of intrapartum and immediate postnatal care, including supportive care and care of the woman and baby throughout labour and childbirth, care during labour progress, care during the second and third stages of labour, care of the newborn and care of the woman immediately after childbirth.

Box 4.

Discussion questions to aid with prioritizing and selecting the target recommendation(s) (see also the example of Worksheet 2a, in Table 3)

- 1. **To what extent is the practice currently done?** Identifying these gaps, and which ones are the most significant, may help to identify which recommendation(s)/behaviour(s) to target with local action.
- 2. What would the likely impact be if a specific recommendation were adopted in practice? For example, if all women were offered the option to have a companion of choice throughout labour and childbirth (1), how much of an improvement could be expected in practice and outcomes?
- 3. How easy will it be to change the practice? Consider local priorities, available space/facilities, financial and human resources, acceptability and health workers' and women's preferences.
- 4. What might be the potential spillover effect or inadvertent consequences (positive or negative) if the recommendation were implemented? Would changing this aspect of practice likely lead to change in other aspects of practice or associated health-care interventions?
- 5. How easy will it be to measure practice change related to a recommendation? Are relevant data already routinely collected and available or would new data need to be collected?

Source: Michie et al., 2014 (10).

Step 2

⁴ Available at: Web Annex B1 - text document https://iris.who.int/handle/10665/373142 and Web Annex B2 - spreadsheet https://iris.who.int/handle/10665/373179

The final output of the BAT is a short list of highpriority intrapartum care and immediate postnatal care recommendations that require full consideration when selecting one or more target recommendations to implement, as a basis for proceeding to develop a local implementation strategy. The BAT (Web Annex B) is available in two versions: B1. text document and B2. spreadsheet.

The implementation team can also opt for directly using Worksheet 2a to prioritize the recommendations for implementation. If the team knows all the recommendations very well and there is already a consensus about a subset of recommendations that are of interest for prioritization and potential implementation in the health-care facility, then Worksheet 2a (in Web Annex A) is an option instead of the BAT (see an example in Table 3).

Experience of implementation teams that field-tested the toolkit -STEP 2 WORKSHEETS

AND THE BAT

The implementation teams found both tools - the BAT and the worksheets - to be useful to identify and prioritize the target recommendation(s). They reported that the exercise was "enriching". For some teams, the BAT was more practical to complete, although more time-consuming because it involved reviewing all of the WHO intrapartum care and immediate postnatal care recommendations. It helped them to make a diagnosis "of where the healthcare facility stood" concerning the WHO recommendations and which ones to select. Completing the BAT was unnecessary for hospitals that had already identified a shortlist of recommendations they were interested in.

Tips for selecting the target recommendation(s) to implement

- Don't be over-ambitious to begin with it may be best to first go after the low-hanging fruit, since early success will help the initiative to gain momentum.
- ✓ It is good to start by focusing on one recommendation at a time and build change incrementally, but also consider bundles of related recommendations to be implemented (i.e. implementation of the WHO recommendation on effective communication during labour (1), or the use of new definitions for "active first stage of labour" and "second stage of labour").
- ✓ Working through this process with the key stakeholders on the implementation team (using either the BAT or Worksheet 2a) provides the opportunity to get buy-in for the selected recommendation(s) – and this will facilitate adoption of the new recommendations.

"This toolkit widened our views. There are certain issues that we would not have thought about, but they were there. So, this toolkit helped us to see that we had this problem. I don't think we would have thought of them if we hadn't used this toolkit".

- Comment from a member of an implementation team involved in field-testing the toolkit at a health-care facility in the United Republic of Tanzania regarding the assessment of their local context

Table 3. Completed example of Worksheet 2a - Prioritize the recommendation(s) to focus on

(The template for Worksheet 2a is provided in Web Annex A.)

	Practice gap	Likely impact	Ease of change	Spillover effect	Ease of measurement
Recommendations	To what extent is this practice	Will changing this practice make a difference?	Will it be easy to change this practice?	Will changing this practice affect other practices?	Will it be easy to measure practice change?
	currently done?	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)
A companion	Companionship	Yes.	No.	Yes.	No.
of choice is recommended for all women throughout labour and childbirth	omen throughout	It is expected to reduce: unnecessary caesarean sections; the need for pain relief; and negative birth experiences.	not only targeting maternity health workers but also facility/	It is likely to positively influence the adoption of mobility and upright positions during labour and childbirth.	Routinely collected data from the WHO Labour Care Guide (LCG) can be used to measure coverage (whether the woman had a labour companion or not, or whether the offer of a companion
		It is expected to improve effective communication and help women feel safe, strong, confident, secure.			was declined). Women's and companions' experiences are not routinely collected – a survey will be needed.
For women at	Completely restricted (0%) - women are only allowed to moisten their lips	Yes.	Yes.	Yes.	Yes.
low risk, oral fluid and food intake during labour is		It is expected to reduce negative birth experience.	This could be changed by removing restrictions on	This recommendation is considered part of supportive care, which contributes to strengthening a woman-centred model, rather than a health worker-centred model.	Routinely collected data from the WHO LCG can be used to measure coverage.
recommended	with a wet cloth during labour.	It may positively influence respectful maternity care and mobility during labour.	women at low risk, ensuring that staff understand the change.		A survey will be needed to find out to what extent women's preferences were respected.
Application of It affects up to 25%	-	Yes.	No.	Yes.	No.
manual fundal pressure to facilitate childbirth during the second stage of labour is not recommended	of women giving birth.	Ending this practice is expected to reduce negative birth experience, and help women to feel respected.	A policy against this practice will be needed, ensuring that staff understand the change, and most barriers could be addressed by health workers encouraging women to adopt favourable birth positions.	It would have a positive influence on respectful maternity care, encouraging the adoption of the woman's choice of birth position, and supporting women to follow their own urge to push.	This practice is rarely documented. The team should check if there are guidelines and/or training materials advising against its use and should report it if they directly observe the practice being used.

Note: All three recommendations selected and entered into the first column are from the 2018 WHO recommendations on intrapartum care (1).

Define the selected recommendation(s) in behavioural terms

Guideline recommendations usually do not specify what changes are needed in the way people behave or act; this can make it difficult for health workers to know exactly what they need to do differently to address the issue (24). In health care, something that seems like a straightforward behaviour (action) - such as prescribing medication - can in fact be complex (25). For example, offering and administrating pharmacological pain relief according to a woman's preferences might require multiple actions to be performed by different individuals in different roles at different time points along the care pathway: offer counselling on alternatives for pain relief; prescribe the appropriate medicines; make decisions about dose, timing, duration and mode of administration; administer injections using aseptic technique; monitor and document side-effects/complications; and develop switching/stopping protocols.

Similar challenges might be faced targeting other recommendations, such as a companion of choice for all women throughout labour and childbirth. To plan appropriately to implement this recommendation, you need to think about who needs to do what differently, where and when, in order to ensure that women receive appropriate support from a companion of their choice. For example, health-care facility managers need to develop policies supporting companionship; health workers need to communicate with women to explore their preferences; and nurses, midwives or volunteers/birth assistants need to prepare to facilitate effective companionship and outline roles and allocate time/space/facilities for the individuals involved.

Although it may sometimes seem obvious who is to perform the action, and what they need to do to address a health-care practice issue, it may not always be clear to everyone on the clinical team. Role confusion among different health workers may be a barrier to implementation. Furthermore, different factors will influence different behaviours performed by different individuals – so it will be important to take the time to break down the relevant roles and responsibilities as precisely as possible. This will ultimately help with next steps of the implementation process. For example, the strategies chosen later in **Step 4** may differ considerably, depending on which behaviours/actions the implementation team chooses to focus on in this step.

To determine the specific behaviours (actions) that need to change, recommendations need to be translated into behavioural terms. An existing behavioural framework proposes five domains (action, actor, context, target, time - AACTT) to help do this by specifying who needs to do what differently, where, with/for whom and when (19). Table 4 provides definitions and some examples of each of the AACTT domains. Consider using the questions in the final column of the table as part of a discussion with the implementation team. Although the answers to these questions may differ across countries and health-care facilities, defining the recommendation(s) in behavioural terms is a crucial step in planning for implementation, towards ultimately changing the practice. Not all the questions will be relevant for all recommendations or behaviours, but it is important to consider each question.

Experience of implementation teams that field-tested the toolkit -STEP 2 WORKSHEETS

Teams that used the toolkit acknowledged that Step 2 worksheets involved a lot of paperwork. However, they enjoyed the brainstorming sessions and felt that the whole exercise was worth doing. Face-to-face meetings were especially beneficial to share opinions, discuss and make collective decisions.

AACTT domains	Definition	Examples	Discussion prompts
Action	A discrete observable behaviour/action	 Assessing cervical dilatation Facilitating skin-to-skin contact Screening for neonatal hyperbilirubinaemia 	What does the person (actor) need to do differently to achieve the desired change?
Actor	The individual or group of individuals who perform (or should/could perform) the action	 Nurse, midwife, physician Nurse, midwife, physician Nurse, midwife, physician 	Who (actor) needs to perform the behaviour (action)?
Context	The physical, emotional or social setting in which the actor performs (or should/ could perform) the action	 Labour ward Delivery room or postnatal ward Postnatal ward 	Where and under what circumstances will they (actor) perform the behaviour (action)?
Target	The individual or group of individuals for/with/on behalf of whom the actor performs the action in the context	 Pregnant women in active first stage of labour Mothers and their term healthy newborns Term healthy newborns 	With or for whom will they (actor) perform the behaviour (action)?
Time	The time period and duration that the actor performs the action in the context with/for the target	 On admission to labour ward, at intervals of 4 hours Initiated immediately and continued during the first hour after birth Prior to discharge from health-care facility after birth 	When and how often will they (actor) perform the behaviour (action)?

Table 4. AACTT framework - definitions, examples and discussion prompts

Source: Adapted from Presseau et al., 2019 (19). http://creativecommons.org/licenses/by/4.0

Table 5 provides an example using the WHO intrapartum care recommendation on companionship during labour and childbirth and lists potential behaviours that may be relevant for this health-care practice issue.

Table 5. Completed example of Worksheet 2b - Describe the selected recommendation in behavioural terms - for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 2b is provided in Web Annex A.)

Selected WHO recommendation	What behaviours (actions/activities) are involved in implementing this recommendation?	
A companion of choice is recommended for all women throughout labour	1. Antenatal care (ANC) providers counsel women and their families on the benefits of companionship during labour and childbirth, during ANC	
and childbirth	2. Nurses, midwives or volunteers/birth assistants talk to women in labour to explore their preferences regarding labour companionship, upon admission	
	3. Nurses, midwives or volunteers/birth assistants prepare the labour companions to provide effective companionship by explaining the companion's roles and those of health workers, immediately after admission	
	4. Nurses, midwives or volunteers/birth assistants inform the rest of the clinical team that the woman has a labour companion, immediately after admission	

Having defined the recommendation in behavioural terms, next it is time to select the target behaviour(s) to focus on to address the health-care practice issue. An example is provided in Table 6 of factors to consider when deciding which behaviours are feasible to change (using Worksheet 2c). In some cases, to fully implement a recommendation, all of the behaviours (actions) identified may need to be addressed; in the example provided in Table 5, all the actions would need to be addressed. Once the target behaviours are agreed, the team must specify exactly who will do each behaviour where, with/for whom and when (Worksheet 2d).

Focusing on one or a few behaviours to begin with is advisable. Introducing change gradually and

building on small successes can be more effective than trying to do too much too quickly. This is as true for organizational change as it is for individual change (10). Devoting time and effort to careful selection of the target behaviour(s) is a critical and often overlooked step in intervention design. The more accurate this initial analysis of the target behaviour(s), the more likely it is that the designed intervention will change the behaviour(s).

Table 7 provides a completed example of Worksheet 2d for the recommendation on companionship during labour and childbirth, specifying the target behaviours/actions where there are also multiple actors, contexts, targets and times.

Table 6. Completed example of Worksheet 2c - Prioritize behaviours (actions) to focus on for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 2c is provided in Web Annex A.)

Selected WHO recommendation: A companion of choice is recommended for all women throughout labour and childbirth				
Behaviour (action) (refer to Worksheet 2b)	Likely impact Will changing this behaviour make a difference? Yes/No (why?)	Ease of change Will it be easy to change this behaviour? Yes/No (why?)	Spillover effect Will changing this behaviour affect other practices? Yes/No (why?)	Ease of measurement Will it be easy to measure this behaviour? Yes/No (why?)
1. Antenatal care (ANC) providers counsel women and their families on the benefits of companionship during labour and childbirth, during ANC	Yes. ANC visits are relaxed encounters during which health workers can raise awareness about women's rights and advise on options.	No. Some health-care facilities that provide ANC and intrapartum care services have different governance; continuity of care is not always guaranteed.	Yes. It will improve informed shared decision-making and respectful maternity care.	No. This behaviour is not routinely recorded and its measurement would require surveys among women who received ANC in different locations.
2. Nurses, midwives or volunteers/birth assistants talk to women in labour to explore their preferences regarding labour companionship, upon admission	Yes. If the woman did not receive information about the option for companion support during the antenatal period, this is the last opportunity to offer it.	Yes. It will be easy if high-level enablers (policies and physical modifications) are in place.	Yes. Counselling will contribute to shared decision-making.	Yes. This behaviour is included in the WHO Labour Care Guide (LCG) and it can be monitored using this structured source of information.
3. Nurses, midwives and volunteers/birth assistants prepare the labour companions to provide effective companionship by explaining the companion's roles and those of health workers, immediately after admission	Yes. Orientation helps women and companions to prepare for effective companionship and avoid any disruption to the care provided by the health worker(s) during labour and childbirth.	Yes. Nurses, midwives and volunteers/birth assistants might require some training to have the resources to encourage effective companionship.	Yes. Companionship will positively influence women's emotional support, birth experience, mobility, pain management and communication with the health-care team.	No. This behaviour is not routinely recorded and its measurement would require surveys of labour companions periodically.
4. Nurses, midwives or volunteers/birth assistants inform the rest of the clinical team that the woman has a labour companion, immediately after admission	Yes. This facilitates team organization, and smoother flow of services across shifts.	Yes. This involves communicating with the rest of the team verbally or adding a sign.	Yes. This will contribute to consistent behaviour among health workers.	No. This behaviour is not routinely recorded and its measurement would require surveys of health workers.

Table 7. Completed example of Worksheet 2d - Specify behaviours using AACTT domains for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 2d is provided in Web Annex A.)

Selected WHO recom	mendation: A companio childbirth	on of choice is recomme	nded for all women thre	oughout labour and
	1.	2.	3.	4.
Action – Specify the behaviour that needs to change, in terms that can be observed or measured	Counsel the woman and her family about the benefits of labour companionship	Talk to the woman to explore her preferences regarding labour companionship	Prepare the labour companions to provide effective companionship by explaining their roles	Inform the rest of the team that the woman has a labour companion
Actor – Specify each person or group of people who does or could do each of the actions targeted	Nurses, midwives physicians	Nurses, midwives physicians, volunteers/birth assistants	Nurses, midwives, volunteers/birth assistants	Nurses, midwives, volunteers/birth assistants
Context – Specify the physical location, emotional context or social setting in which the action is performed	Antenatal care	Admission area, labour ward	Admission area, labour ward	Staff room, during shift-to-shift handovers
Target – Specify the person or people with or for whom the action is performed	Pregnant woman	Woman in labour	Chosen companion	Health workers
Time – Specify when the action is performed (the time, date and frequency)	During third trimester contacts	Upon admission, and hourly throughout active labour and childbirth	Right after admission	Right after admission, at shift changes

Source: Adapted from Presseau et al., 2019 (19). http://creativecommons.org/licenses/by/4.0/

The worksheets for Step 2 are provided in Web Annex A

Worksheet 2a: Prioritize recommendations Worksheet 2b: Describe recommendation in behavioural terms Worksheet 2c: Prioritize behaviours Worksheet 2d: Specify target behaviours using AACTT domains

Step 3. Understand the determinants of current practice and identify the barriers to and enablers for the desired change



Having selected the target recommendation(s) that you wish to implement at your health-care facility, and having defined which behaviours need to change in order to establish the desired new or improved practice, this step moves the process forwards using methods to better understand the issues faced in the facility setting. Specifically, this step involves (i) identifying barriers and enablers, (ii) assessing their importance, and (iii) selecting the barriers that are feasible to address and the enablers to build upon.

Identify barriers and enablers

There are a variety of tools available to help you identify barriers to and enablers for behaviour change. How you conduct the assessment depends on the time and resources available; various methods are suggested in Table 8, and each has advantages and disadvantages, as shown. For example, useful information can be obtained by brainstorming with stakeholders at the implementation team meetings. Depending on available resources, additional data itep 3

could be collected by using more formal methods such as interviews, focus group discussions or surveys. It is important to obtain input and feedback from a mix of individuals – those responsible for implementing the recommendations to deliver better care at health-care facilities and also those health workers whose behaviours are being targeted for change. Other stakeholders, previously identified in **Step 2**, might also need to be invited to participate in this step or be interviewed.

Method	Advantages	Disadvantages
Brainstorming team meeting	 Simple to organize Allows contributions by all involved (as long as you remember to listen to quieter or minority views) 	 Risk of "group think" and fixation on issues the group is comfortable discussing
Interviews with staff members and/or women	 Can be structured to ensure a good range of issues is covered Allows deeper exploration of views, especially more sensitive issues that people may be less inclined to share in a group 	 Value depends on interviewer skills and analysis Takes time to organize Challenging to ensure the right range of types of participants
Focus group discussion among staff members and/or women	 Allows detailed and structured exploration of issues, if facilitated well Multiple views can be explored at the same time 	 Requires good facilitation skills, e.g. to moderate the impact of dominant views Can be difficult to get the right range of people to participate
Observation	 Can allow understanding of "real world" rather than hypothetical situations (observed actions may speak louder than words) 	 Logistically difficult to organize Can require a lot of observation to pick out specific practice issues Intrusive, and people may change behaviour when observed
Survey	 Allows simultaneous assessment of a larger number of views and reported practices 	 Risk of low response rates because of "survey fatigue" What people say they believe and do may differ from actual beliefs and behaviours
Review of documents	 Can clarify policies, procedures, practice standards and professional guidelines that are in place (or not) at the health-care facility Can provide information about care documented in the women's records and different health workers' roles in providing care 	 Time-consuming Does not reflect actual practice, only what the organization/unit advocates in writing

Table 8. Examples of methods for exploring barriers and enablers

Sources: Canadian Institutes of Health Research (CIHR), 2012 (26); Foy et al., 2020 (27).

There is a rapidly growing body of evidence showing that there is a wide-ranging set of influences on health-care practice and implementation of health-care recommendations. These influences are summarized in the COM-B Model of Behaviour Change (10), presented here in brief (see Box 5). An understanding of the components of this model capability (C), opportunity (O) and motivation (M) will help to inform work on this step in the process of developing the action plan, combined with other tools and approaches. It will be important to complete an

assessment to identify barriers and enablers related to these three components; different strategies will be needed to change factors that influence each component. For example, if it is incorrectly assumed that individuals (e.g. health workers or pregnant women) do not follow a certain health-care practice because they lack knowledge, and thus education or communication strategies are used to increase knowledge, these are unlikely to work if the real reason for not following the recommended practice is lack of physical capability or resources (opportunity).

Box 5.

step 3

The COM-B Model of Behaviour Change

The COM-B Model focuses on individual (capability/C and motivation/M) and contextual (opportunity/O) components that need to be in place for any behaviour (B) to occur. The three components (C-O-M) interact so that, for example, increasing opportunity or capability can increase motivation and in turn improve the likelihood of a desired behaviour (B) occurring. Increased motivation can also lead people to do things that will increase their capability or bring about an opportunity to change behaviour (10,28). Conversely, behaviour influences all three components (10,29). The components and interactions are described below in both narrative and illustrated form (see Fig. 2).

Description of the three components of the COM-B Model (10,30):

- Capability involves the extent to which the person knows what they need to do and how to do it (e.g. knowledge and skills). This includes such things as remembering to do the behaviour (action), being able to pay attention and focus when doing the behaviour, and making decisions around when to do the behaviour (or not).
- Opportunity concerns how the physical and social environments facilitate or impede a behaviour.
 - Physical opportunity involves the extent to which individuals have the resources, equipment, time and staffing to carry out a behaviour and whether the physical layout of the health-care facility is set up to support a particular health-care practice.
 - Social opportunity concerns how others (peers, colleagues, managers, women, families) influence behaviour (actions). This includes: whether others are already doing the behaviour; whether performing the behaviour is the norm; whether colleagues are supportive or impose peer pressure to do or not do the behaviour; how well teams work together and communicate; the level of support and endorsement from facility managers; and relationships and communication among women, their families and health workers.
- Motivation concerns the extent to which individuals are motivated to perform the desired behaviour (action) above any other competing behaviours and priorities. Factors contributing to motivation include: whether target behaviour is viewed as a priority by the individuals who are responsible for performing it; how confident they feel in their ability to perform it; beliefs they hold about the consequences of performing it; any rewards or incentives for performing it; and the types of emotions experienced when performing it (e.g. stress, fear, concern, relief, pride, satisfaction).



Note: Although the "opportunity" component is divided into subdomains for "physical" and "social", it was decided not to use subcomponents for "capability" or "motivation" but to keep them unified (as presented in the lists per component in this figure). This decision was based on pilot testing for this toolkit, and also to align with the example of usage in the WHO's *TIP: tailoring immunization programmes guidance (29)*.

Sources: Michie et al., 2014 (10) and WHO Regional Office for Europe, 2019 (29).

Assess the importance of the barriers and enablers

Different barriers and enablers are likely to be more or less important when considering different recommendations; for example, skill may be essential for monitoring of labour progress, whereas physical capability may be important for labour companions. Barriers and enablers are also likely to vary across countries, districts and health-care facilities. It is important to complete an assessment of the relevant barriers and enablers to identify the issues specific to your health-care facility and the target recommendation, to ensure the implementation plan is designed to effectively address the issues in question rather than using a "one-size-fits-all" approach. Table 9 below lists some suggested questions that can be used to guide discussions with your team to identify barriers and enablers to practice change.

It is important to recognize that certain factors can function as both a barrier and an enabler to practice change. For example, staff attitudes towards change: some health workers may be resistant to change while other are champions for adopting a new practice. As another example, staff knowledge levels: some staff might lack knowledge while others do not.

Table 9. Assessment questions to guide discussion of barriers and enablers, for each COM-B common end (for Workshoot 20, con Table 10)

component (for Worksheet 3a, see Table 10)

COM-B components and subcomponents	Questions ("X" refers to the selected recommendation for implementation)	
Capability		
knowledge, memory, attention, decision processes, skills (physical, cognitive, interpersonal), physical fitness, willpower	Do key stakeholders know about X? Are they aware of evidence or guidelines supporting X or procedures for doing X? Is X something key stakeholders usually do? Do they have the necessary skills to do X? How difficult or easy is it for them to do X? How much effort, concentration, or attention do key stakeholders need to do X? How do they decide when and how to do X? Do they need to choose between alternatives or competing priorities to do X? Do they have systems that they could use to monitor whether X was done/carried out? Do they ever forget to do X? Is there anything that reminds or prompts them to do X?	
Opportunity		
Physical opportunity : environmental context, time, resources, access, affordability, convenience, regulations, availability of information	Are the necessary resources required to do X readily available in the facility? Is there enough time to do X? Is there enough staff (or access to specialist staff) available to do X? Are there financial resources available to do X? Is the layout/infrastructure of the facility sufficient for X?	
Social opportunity: sociocultural demands/ norms/values, peer pressure	To what extent do community/social influences facilitate or hinder X? How do peers, colleagues, managers, women, families influence whether or how key stakeholders do X? Are others around them already doing X? Is X considered routine behaviour among their professional group? Would colleagues/family/community be supportive or disapproving of them performing X? How well does the team work together and communicate? Is there support and endorsement from senior opinion leaders in the facility/community for X?	

COM-B components and subcomponents	Questions ("X" refers to the selected recommendation for implementation)
Motivation	
incentives, reinforcement, emotions, beliefs about capabilities and consequences, roles, identity, optimism, intentions, goals	Is doing X compatible or in conflict with their professional standards/identity?
	How confident are they that they can do X?
	How confident are they that the problem of implementing X will be solved?
	What do they think will happen if they do X?
	What are the benefits and downsides of doing X?
	How much do they want to do X relative to other competing priorities they might have?
	Are there incentives to do X (financial incentives or penalties; personal or social incentives/ encouragement)?
	How does the thought of doing X make them feel (i.e. positive emotions – relief, pride, satisfaction; negative emotions – stress, frustration, worry, concern)?

Table 9. (continued) Assessment questions to guide discussion of barriers and enablers, for each COM-B component

Table 10 provides examples of potential barriers and enablers for the WHO recommendation on companionship during labour and childbirth, and illustrates how to complete Worksheet 3a in Web Annex A.

Table 10. Completed example of Worksheet 3a - Analysis of barriers and enablers for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 3a is provided in Web Annex A.)

Selected WHO recommendation: A companion of choice is recommended for all women throughout labour and childbirth			
COM-B components and subcomponents	Barriers	Enablers	
Capability			
knowledge, memory, attention, decision processes, skills (physical, cognitive, interpersonal), physical fitness, willpower	Health workers		
	 Health workers do not have the skills to prepare companions to provide effective support tailored to women's specific needs. Health workers do not know the health benefits of companionship during labour and childbirth. 	 Some members of the clinical team have well developed interpersonal and communication skills which will enable them to treat every labouring woman and their companion with respect and courtesy, and integrate the companions into the care team. Health workers know about the WHO intrapartum and postnatal care recommendations and there are local protocols related to labour companionship. 	
	Women and companions		
	 Companions do not receive training about labour and childbirth support techniques. Pregnant women and companions are unaware that companionship is allowed during labour and childbirth. 	 Some women are aware companions are allowed to be present during labour, but not during childbirth. 	
COM-B components and subcomponents	Barriers	Enablers	
--	---	---	
Opportunity			
Physical opportunity:	Health workers, women and companions		
environmental context, time, resources, access, affordability, convenience, regulations, availability of information	 Nurses and midwives are overloaded due to a low ratio of health workers to women. There will be cost implications for planning and providing orientation sessions for women and companions to attend during the antenatal period. 	 Facility policies allow companionship and there is a clear pathway to integrate companions into care. Facility infrastructure is adequate to accommodate companions, including a chair space to change clothes and access to a toilet. 	
Social opportunity : sociocultural demands/	Health workers		
norms/values, peer pressure	 There is no clear support from the shift coordinator. Health workers feel that their peers do not support companionship. 	 There is support from the chair of the labour ward. 	
	Women and companions		
	 Male partners feel actively excluded from the labour ward. 	 Women prefer if someone from their family or social network takes the role of labour companion. Companions, when present, encourage women to communicate with health workers throughout labour. 	
Motivation			
incentives, reinforcement,	Health workers		
emotions, beliefs about capabilities and consequences, roles, identity, optimism, intentions, goals	 There is a misperception that this health-care facility is already aligned with current recommendations and does offer orientation and support to companions. Health workers prioritize clinical monitoring of the labouring woman over companion support. Health workers are concerned that labour companionship lacks purpose and boundaries, will increase health workers' workload, and may increase the risk of infection. 	 Some health workers report they are confident to orient and support companions during labour and childbirth. 	
	Women and companions		
	 Partners/companions may feel concerned about the challenge of providing labour support if they do not receive orientation and training. 	 Partners feel women will have a better birth experience if they are present to provide support. Companions are motivated to support women in labour. 	

Table 10. (continued) Completed example of Worksheet 3a - Analysis of barriers and enablers

Note: This example focuses mainly on health workers, women and companions. However, one should consider all stakeholders involved in the adoption of the target recommendation when identifying barriers and enablers.

Experience of implementation teams that field-tested the toolkit -

ASSESSING BARRIERS AND ENABLERS

Some implementation teams found it challenging to reflect on enablers and barriers using the COM-B Model. However, they completed the barriers and enablers assessment by using the COM-B components and questions as a guide, and adapting it to their needs.

Implementation teams that used this toolkit found that the components suggested by COM-B allowed them to explore barriers and enablers in a more precise and detailed way. In their own words: "*it guides you to make an assessment in a much more structured way*"; "*it allows you to see barriers and enablers from different angles*".

They mentioned that the effort invested in identifying barriers to behavioural change (Step 3) was essential to selecting potentially effective implementation strategies (**Step 4**).

Select the barriers and enablers to target

It won't always be possible to address all barriers and enablers identified, partially because some may not be modifiable or feasible to address with the resources available. For example, it would not be feasible to address the lack of preparation of labour companions during the antenatal period if ANC is provided at a different health-care facility or in the community, and it may not be possible to address the lack of information and educational materials for labour companions in low-resource settings. It is also difficult to design a strategy that will target all possible barriers and enablers, due to complexity and the amount of resources such a strategy would require. Instead, strategies to implement the recommendations should address key barriers, build on the key enablers and be tailored to target prioritized behaviours (actions) of the specific health workers (actors) involved in providing the relevant care. Use the questions in Box 6 to guide your discussions about which barriers and enablers to focus on.

Discussion questions to aid with prioritizing among the identified barriers and enablers

Box 6.

- Is this a challenge or barrier that has been reported by multiple staff members?
- Is this barrier a critical obstacle to practice change?
- How much of a priority is this barrier/ enabler compared with other barriers/ enablers?
- How easy might it be to change/address this barrier or to build on this enabler?
- Are there varying views among staff in a certain role about the identified barriers and enablers?

Experience of implementation teams that field-tested the toolkit – IDENTIFYING ENABLERS

For health workers unfamiliar with behavioural science, it was particularly challenging to differentiate enablers from strategies. The examples in the tables were helpful to these implementation teams to understand that enablers are those factors that already exist in their setting (e.g. leadership support), while strategies are evidence-based methods/ approaches to support implementation (e.g. training, environmental restructuring).

Worksheets for Step 3 are provided in Web Annex A

Worksheet 3a: Assessment questions to guide discussion on barriers and enablers

Step 4. Identify potential solutions and implementation strategies



This next step involves deciding which types of implementation strategies are most likely to address the barriers and build upon the enablers that the implementation team have identified during **Step 3**, to effectively improve implementation of the selected recommendation(s). This section will guide you through how to (i) link barriers/enablers to strategies, (ii) prioritize and select implementation strategies, (iii) implement and pilot test the strategies, and (iv) establish mechanisms to sustain evidence-based practice.

Link barriers/enablers to implementation strategies

The identified barriers and enablers must now be matched with effective implementation strategies. Different strategies will be more or less relevant for different barriers and enablers, depending on their expected effects on different behaviours. For example, education and training will be effective in increasing knowledge and skills (capability), but not in addressing barriers around physical or social opportunity. Assessment of barriers and enablers often reveals that behaviour is influenced by a complex set of interacting factors, including individual, social and environmental factors affecting capability, opportunity and motivation – well beyond knowledge or skills deficits alone. Therefore, it is unlikely that education or training will be the only intervention strategy needed.

In considering possible implementation strategies, it is important to begin by considering the broad range of potential options available to support implementation of the selected recommendation(s). This process can be supported by the Behaviour Change Wheel, which describes strategies that can be used to change behaviour and support implementation of the recommendation(s) (30). Implementation teams should keep in mind that strategies often have multiple functions. Examples using the WHO recommendation on companionship during labour and childbirth are provided in Table 11. Different types of implementation strategies are listed in the first column, followed by definitions and examples relevant to the recommendation in question.

Table 11. Evidence-based implementation strategies, definitions and examples - for the WHO recommendation on companionship during labour and childbirth

Implementation strategy type	Definition	Examples of implementation strategies
Education	Increasing knowledge or understanding	 Provide educational materials and orientation/briefing for women and their companions on the benefits of labour companionship and the roles that companions can perform, and to confirm that a companion of the woman's choice is permitted and encouraged in the health-care facility during labour and childbirth Provide education/training to health workers and hold discussions on the benefits of companionship as an evidence-based intervention that it is not less important than other aspects of intrapartum care Hold in-service refresher training sessions for health workers at least once every 12 months on the evidence for a positive impact of companionship
Persuasion	Using communication to induce positive or negative feelings or to stimulate action	 Share data demonstrating gaps in the practice of labour companionship to help increase coverage Share information in communities and at the health-care facility about the potential benefits of labour companionship Distribute information resources (posters, flyers) in maternity care services that state the benefits and roles of companions during labour and childbirth
Incentivization	Creating an expectation of reward for positive actions	 Establish a certificate for staff members to recognize their efforts to improve coverage of labour companionship during labour and childbirth
Training	Acquiring or increasing skills	 Train staff members to prepare companions to provide effective support during the antenatal period and/or after the pregnant woman has been admitted in labour Offer training sessions during the antenatal period for companions to obtain the necessary knowledge and skills in advance, i.e. to learn about the role including how to provide emotional and physical support, the need to facilitate communication between the woman and the clinical team and to ask for help when needed during labour Provide training for staff about how to use the WHO Labour Care Guide (LCG) as a reminder tool to offer labour companionship and also as a resource for documenting and monitoring the practice

WHO recommendation: A companion of choice is recommended for all women throughout labour and childbirth

Implementation strategy type	Definition	Examples of implementation strategies
Restriction	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in competing behaviours)	 Specify clear roles and expectations for companions – for their own empowerment, but also to prevent encroachment on health workers' roles
Environmental restructuring	Changing the physical or social context	 Organize the labour and childbirth areas in such way as to allow a private physical space for the woman and her companion Set up a labour companion service that provides orientation and training for companions and offers trained companions (volunteers/birth assistants) when needed
Modelling	Providing an example for people to aspire to or imitate	 Identify opinion leaders among the staff who have experience offering and providing labour companionship so they can role model support for labour companionship and lead the implementation on their own shift while supporting other teams/health workers to do the same
Enablement	Increasing means and/ or reducing barriers to increase capability (beyond education and training) or opportunity (beyond environmental restructuring)	 Ensure that the health-care facility has a written, up-to-date protocol, including information about the roles and expectations for labour companions, and that this information is explained to women and their families Share up-to-date guidance on labour companionship among antenatal care providers Implement use of the WHO LCG as a reminder tool to offer labour companionship Conduct audit and feedback sessions to monitor and discuss the coverage and trends of offering and uptake of labour companionship Reach agreement among health-care facility managers and clinical team about a goal - and benchmarks for progress towards that goal

Table 11. (continued) Evidence-based implementation strategies, definitions and examples

Experience of implementation teams that field-tested the toolkit –

SELECTING IMPLEMENTATION STRATEGIES

Step 4 worksheets helped implementation team members to develop an in-depth plan. They stressed that it was essential to prioritize the strategies and select only a few. Table 12 is a matrix that links the strategies that are likely to be effective in increasing capability, opportunity and/or motivation (the components of the COM-B Model; see **Box 5 in Step 3**) to bring about behaviour change or a change in the actions of individuals or teams. This matrix can help guide decision-making during the selection and development of your implementation strategy (or strategies) by assisting with matching up the most relevant types of strategies with the health-care practice behaviours targeted for change, to improve implementation of the selected recommendation(s). To start with, consider any strategy that could effectively address the barriers or enablers identified.

Table 12. Matrix of links between COM-B Model and implementation strategy types

COM-B components and subcomponents	Implementatio	n strategy types						
	Education	Persuasion	Incentivization	Training	Restriction	Environmental restructuring	Modelling	Enablement
Capability								
Physical capability (skills [physical, cognitive, interpersonal], physical fitness, willpower)				\checkmark				\checkmark
Psychological capability (knowledge, memory, attention, decision processes)	\checkmark			\checkmark				\checkmark
Opportunity								
Physical opportunity (environmental context, time, resources, access, affordability, convenience, regulations, availability of information)				~	√	~		✓
Social opportunity (sociocultural demands/ norms/values, peer pressure)					\checkmark	\checkmark	\checkmark	\checkmark
Motivation								
Automatic motivation (incentives, reinforcement, emotions)		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Reflective motivation (beliefs about capabilities and consequences, roles, identity, optimism, intentions, goals)	\checkmark	\checkmark	\checkmark					

Notes: An orange check mark indicates that type of implementation strategy is likely to be relevant and effective for addressing the type of influence specified in the subcomponent of the COM-B Model, while a white cell means that is less likely. For further information about the COM-B Model, refer to **Box 5**, in **Step 3**. *Source*: Michie et al., 2014 (10).

Prioritize and select implementation strategies

After using the matrix (Table 12) as a tool to help support discussion and guide decision-making, the implementation team will then need to base the final decision about which strategy (or strategies) to use on relevant information about the local context and available resources. Sometimes, teams may face time or budget restrictions, for example, which may immediately eliminate some strategies from consideration. The questions in Box 7 can help you think through the feasibility of the potential strategies in order to narrow the list down to the ones that are most acceptable and feasible to implement in your setting. Table 13 provides an example of Worksheet 4a completed to consider all relevant implementation strategies to address the barriers identified in **Step 3** for the WHO recommendation on companionship during labour and childbirth. Table 14 is a completed example of Worksheet 4b to work through a process to select implementation strategies that are feasible (based on the questions in Box 7), for the same recommendation.

Discussion questions to aid with selecting which of the relevant implementation strategies will be feasible

Consider each question for each relevant strategy:

- Are the infrastructure and resources (equipment, supplies, human resources) available to deliver the implementation strategy?
- Are there competing priorities?
- Is there sufficient time?
- Is it affordable?
- Is it likely to be acceptable to staff, women and their companions/family members?
- Is it safe, fair and ethical?
- What impact is it likely to have is it likely to work?

Box 7.

Table 13. Completed example of Worksheet 4a - Summarize the implementation strategies to address barriers - for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 4a is provided in Web Annex A.)

Selected WHO recommend	dation: A companion of choice i childbirth	is recommended fo	or all women throughout labour and					
Target behaviours (Steps 1-2)	 Nurses, midwives or volunteers/birth assistants: talk to each woman in labour at admission to explore her preferences prepare women's chosen companions upon admission for effective companionship, and explain companions' roles and those of health workers inform the rest of the clinical team that the woman is with her labour companion 							
COM-B components and subcomponents	Barriers identified (items from Worksheet 3a – see Table 10)	Proposed implementation strategy (to be further assessed in Worksheet 4b – see Table 14)						
Capability								
Physical and psychological capability: knowledge, memory, attention, decision processes, skills (physical, cognitive, interpersonal), physical	Health workers do not have the skills to prepare companions to provide effective support tailored to women's specific needs.	Training	1. Run training sessions for health workers to prepare companions to provide effective support during labour and childbirth.					
fitness, willpower			2. Hold information and discussion sessions and in-service refresher sessions for health workers on procedures required to offer and support labour companionship, and about its benefits as an evidence-based intervention.					
	Companions do not receive training about labour and childbirth support techniques.	Training	3. Run training sessions for companions (including role-modelling) to learn how to provide emotional and physical support during labour and childbirth.					
	Pregnant women and companions are unaware that companionship is allowed during labour and childbirth.	Education	4. Provide educational materials to women and their companions on the benefits of labour companionship and the roles that companions can perform.					

Table 13. (continued) Completed example of Worksheet 4a – Summarize the implementation strategies to address barriers

COM-B components and subcomponents	Barriers identified (items from Worksheet 3a – see Table 10)	Implementation strategy types (as defined in Table 11)	Proposed implementation strategy (to be further assessed in Worksheet 4b – see Table 14)
Opportunity			
Physical opportunity: environmental context, time, resources, access, affordability, convenience,	Nurses and midwives are overloaded due to a low ratio of health workers to women.	Environmental restructuring	5. Set up a labour companion service that offers trained companions (volunteers/birth assistants) when needed.
regulations, availability of information		Restriction	6. Specify clear roles and expectations for companions – for their own empowerment, and to prevent encroachment on health workers' roles.
	There will be costs to plan and provide orientation sessions for women and companions to attend during the antenatal period.	Enablement	7. Provide funding or resources for refreshments and transportation.
Social opportunity: sociocultural demands/	There is no clear support from the shift coordinator.	Enablement	8. Confirm support from the shift coordinator for labour companionship.
norms/values, peer pressure	Health workers feel that their peers do not support companionship.	Enablement	9. Develop and disseminate a written, up-to-date protocol, including information about the roles and expectations for labour companions.
		Modelling	10. Identify opinion leaders among the staff to role model support for labour companionship during their own shift while supporting other teams/health workers to do the same.
	Male partners feel actively excluded from the labour ward.	Enablement	11. Explain their options and choices to women and their families upon admission, including the facility policy on companionship during labour and childbirth.

Table 13. (continued) Completed example of Worksheet 4a - Summarize the implementation strategies to address barriers

COM-B components and subcomponents	Barriers identified (items from Worksheet 3a – see Table 10)	Implementation strategy types (as defined in Table 11)	Proposed implementation strategy (to be further assessed in Worksheet 4b – see Table 14)
Motivation			
Automatic and reflective motivation: incentives, reinforcement, emotions, beliefs about capabilities or consequences, roles, identity, optimism, intentiana, acade	There is a misperception that this health-care facility is already aligned with current recommendations and does offer orientation and support to companions.	Persuasion	12 . Provide information on the current coverage of labour companionship to illustrate that there is a practice gap.
intentions, goals	Health workers prioritize clinical monitoring of the labouring woman over companion support.	nitoring of the Persuasion labour cor voman over studies/ex	13. Provide evidence of the benefits of labour companionship through case studies/examples/testimonials from health workers and women.
		Incentivization	14. Establish an award for staff members to recognize their efforts to improve coverage of labour companionship during labour and childbirth.
	Health workers are concerned that labour companionship lacks purpose and boundaries, will increase health workers' workload, and may increase the risk of infection.	Enablement	15. Health-care facility managers and the clinical team agree on a goal – and benchmarks for progress towards that goal.
	Partners/companions may feel concerned about the challenge of providing labour support if they do not receive orientation and training.	Modelling/ Training	16. As part of training for the chosen companions, a nurse or midwife demonstrates to them how to provide physical and emotional support, and manual techniques for pain relief.

Table 14. Completed example of Worksheet 4b - Select implementation strategies that are feasible - for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 4b is provided in Web Annex A.)

Selected WHO recommen	elected WHO recommendation: A companion of choice is recommended for all women throughout labour and childbirth								
Proposed implementation strategy (type of strategy) (items from Worksheet 4a - see	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	Is it safe, fair and ethical?	What impact is it likely to have?		
Table 13)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)			
Capability									
1. Run training sessions for health workers to prepare companions to provide effective support during labour and childbirth. (Training)	Yes, there is a classroom available, and staff trained in simulations.	No, this is a priority in our health-care facility.	Yes, the training will take place at regular staff meetings.	Yes, no extra financial resources are needed.	Yes, but some health workers might not value this training.	Yes, no issues are anticipated.	Positive. All staff will b exposed to the training and will acquire the necessary skills.		
2. Hold information and discussion sessions and in-service refresher sessions for health workers on procedures required to offer and support labour companionship, and its benefits as an evidence- based intervention. (Education)	Yes, a classroom and knowledgeable staff are available to lead these education sessions.	Yes, health workers are enrolled in an education programme on managing puerperal sepsis.	Yes, the sessions will take place at regular staff meetings.	Yes, this strategy could be implemented by assigning an educator from among the existing staff and paying them for extra hours of work.	Yes, but some health workers prefer to participate in activities related to clinical interventions rather than non-clinical ones.	Yes, no issues are anticipated.	Positive. Health worke women and companio will enhance knowledg and awareness of this practice's relevance ar the required standard procedures.		

Proposed implementation strategy (type of strategy) (items from Worksheet 4a - see	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	Is it safe, fair and ethical?	What impact is it likely to have?
Table 13)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	
3. Run training sessions for companions (including role-modelling) to learn how to provide emotional and physical support during labour and childbirth. (Training)	No, no staff member is available to provide the orientation/briefing sessions.	Yes, all staff are assigned to clinical care tasks.	No, the staff are already overloaded.	No, funds are not available to pay midwives/nurses to work extra hours to organize, design and implement the activity.	Yes, the population is receptive to the information provided by the health-care facility.	Partially, but it would require clinical staff to stop doing other tasks.	Positive. Training chosen companions will enhance women's experiences, and communication with the clinical team during labour and childbirth.
4. Provide educational materials to women and their companions on the benefits of labour companionship and the roles that companions can perform. (<i>Education</i>)	Yes, midwives will produce the educational materials in different formats (audiovisual, leaflets) and languages. There are audiovisual devices already set up in waiting rooms.	No, it is a priority to inform pregnant women and companions about the importance and benefits of labour companions.	Yes, protected time will be allocated to develop the educational materials. Women and companions spend time in the waiting room.	Yes, no extra financial investment is required. We can find a donor to cover the costs of developing the education materials and printing the leaflets.	Yes, we anticipate that pregnant women and companions will accept it well.	Yes, no issues are anticipated.	Positive. Women and companions will be empowered through knowledge to provide support.

Proposed implementation strategy (type of strategy) (items from Worksheet 4a - see	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	ls it safe, fair and ethical?	What impact is it likely to have?
Table 13)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	
Opportunity							
5. Set up a labour companion service that offers trained companions (volunteers/birth assistants) when needed. (Environmental restructuring)	Yes, birth assistants and volunteers are available.	Yes, currently, birth assistants and volunteers help women and newborns during the postnatal period.	No, birth assistants and volunteers have limited time available and are not usually available at night.	Partially, but the health-care facility has limited resources to hire more birth assistants.	Yes, birth assistants and volunteers are well integrated non-professional staff members.	Yes, but supportive supervision by a midwife might be required.	The impact could potentially be negative, if birth assistants and volunteers become unavailable to help in the postnatal wards.
6. Specify clear roles and expectations for companions – for their own empowerment, and to prevent encroachment on health workers' roles. (<i>Restriction</i>)	Yes, this content may be incorporated into educational materials.	No, it is a priority to disseminate this information.	Yes, midwives will be working on educational materials.	Yes, no extra financial resources are needed.	Yes, health workers are receptive to role assignments and respect the specific tasks.	Yes.	Positive. Clear roles will help to harmonize the delivery of this practice. Women and companions will feel recognized and empowered.
7. Provide funding or resources for refreshments and transportation. (Enablement)	Yes, we can find a donor to cover the costs.	Yes, donors will also be needed to cover the costs for printed educational materials.	Partially. Looking for donors and arranging the reimbursement of transportation costs is complex and time- consuming, and staff members are overloaded.	Partially. Tea can be arranged with the facility-based food service. Transportation costs will depend on distance and mode of transport.	Yes, staff, women and companions will likely be receptive to this financial assistance.	Yes, it may contribute to facilitate access and thus reduce inequities.	Positive. Funding transportation and providing refreshments may improve attendance of women and companions to orientation sessions during antenatal care.

Proposed implementation strategy (type of strategy) (items from Worksheet 4a - see	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	Is it safe, fair and ethical?	What impact is it likely to have?
Table 13)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	
8. Confirm support from the shift coordinator for labour companionship. (Enablement)	Yes, two members of the implementation team will lead this strategy.	Yes, the focus is on providing clinical care and on reducing surgical infections.	Yes, there are weekly meetings among the shift coordinator and other staff.	Yes, no extra financial resources are needed.	Yes, the shift coordinator already supports the adoption of the WHO Labour Care Guide (LCG) and evidence-based practices.	Yes, no issues are anticipated.	Positive. Support from leadership will strengthen the implementation of this and other evidence- based practices.
9. Develop and disseminate a written, up-to-date protocol, including information about the roles and expectations for labour companions. (Enablement)	Yes, implementation team can review and adapt WHO recommendations.	No, the protocol for managing puerperal sepsis is finalized and disseminated.	Partially. Implementation teams will need protected time.	Yes, no extra financial resources are needed.	Yes, health-care facility managers and health workers are receptive to implementation of evidence-based protocols.	Yes, there is evidence to support this recommendation and it will reduce inequalities.	Positive. It will standardize procedures, improve quality of care and increase satisfaction among women and companions.
10. Identify opinion leaders among the staff to role model support for labour companionship during their own shift while supporting other teams/health workers to do the same. (Modelling)	Yes, some midwives and physicians can be the opinion leaders/ role models and are respected by managers and other health workers.	Yes, there are many other practice issues that need to be addressed at our health-care facility.	Partially. Sometimes staff members are overloaded with cases and tasks during shifts.	Yes, no extra financial resources are needed.	Yes, this health- care facility follows evidence-based practices, and champions are well recognized by colleagues.	Yes, no issues are anticipated.	Positive. This strategy will reduce peer stigmatization among health workers, and highlight the relevance of a person-centred model of care.
11. Explain their options and choices to women and their families upon admission, including the facility policy on companionship during labour and childbirth. (Enablement)	Yes, midwives and nurses can inform and share educational materials with women and companions during admission.	Yes, the labour ward staff focuses on providing clinical care and reducing surgical infections.	Yes, midwives and nurses can perform this task during the admission process, while collecting data for the medical records.	Yes, no extra financial resources are needed.	Yes, midwives and nurses in the labour ward support effective communications.	Yes, no issues are anticipated.	Positive. Transparency helps to enhance the relationships among women, companions and health workers.

Proposed implementation strategy (type of strategy) (items from Worksheet 4a - see Table 13)	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	Is it safe, fair and ethical?	What impact is it likely to have?
Motivation	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	
12. Provide information on the current coverage of labour companionship to illustrate that there is a practice gap. (Persuasion)	Yes, the implementation team can organize the sessions and extract data from completed WHO LCG forms. The auditorium, laptop computer and projector are available.	No, there is an urgent need for all health workers to become aware of the importance of labour companionship.	Yes, the implementation team has been allocated protected time to organize and deliver this strategy.	Yes, no extra financial resources are needed.	Yes, audit and feedback sessions are used in this health-care facility and are well accepted by health workers.	Yes, personal data will not be disseminated, only rates, and special care will be taken to protect confidentiality.	Positive. Health workers who have not adopted or implemented this recommendation will be aware that this non-compliance is evidenced in the objective data on service coverage.
13. Provide evidence of the benefits of labour companionship through case studies/examples/ testimonials from health workers and women. (Education/Persuasion)	Yes, the implementation team will collect data from medical records. During training sessions for companions and ANC visits, women and their companions can be invited to share their experiences later, after the birth has occurred.	No, there is an urgent need for all health workers to become aware of the importance of labour companionship.	Yes, the implementation team has been allocated protected time to organize and deliver this strategy.	Yes, no extra financial resources are needed. Testimonials from women and companions can be recorded.	Yes, health workers are receptive to positive feedback, but may be reluctant to accept negative evaluations.	Yes, personal data from clinical records will not be disseminated. Women and companions will provide informed consent to participate in giving testimonials.	Positive. Health workers who have not adopted this recommendation will be persuaded to reflect on its benefits. Health workers who have adopted it will strengthen their commitment.
14. Establish an award for staff members to recognize their efforts to improve coverage of labour companionship. (Incentivization)	Yes, the Ministry of Health recognizes health-care facilities that demonstrate consistent implementation of evidence-based practices with a certificate.	No, there is an urgent need for all health workers to become aware of the importance of labour companionship.	Yes, the application process is simple.	Yes, no extra financial resources are needed.	Yes, health workers are receptive to incentives. Facility managers and the chair of the labour ward support this initiative.	Yes, no issues are anticipated.	Positive. Recognition will strengthen health workers' and facility managers' commitment to implementing the recommendation and best practices.

Step 4

Proposed implementation strategy (type of strategy) (items from Worksheet 4a – see Table 13)	Are the resources available? (Equipment, supplies, human resources)	Are there competing priorities?	Is there sufficient time?	Is it affordable?	Is it likely to be acceptable?	Is it safe, fair and ethical?	What impact is it likely to have?
	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	Yes/No (why?)	
 15. Health-care facility managers and the clinical team agree on a goal and benchmarks for progress towards that goal. (Enablement) 	Yes, the implementation team can extract data from completed WHO LCG forms to monitor progress.	No, there is an urgent need for all health workers to become aware of the importance of labour companionship.	Yes, the implementation team has been allocated protected time to extract data from WHO LCG. Progress will be shared at regular staff meetings.	Yes, no extra financial resources are needed.	Yes, health workers in this facility are used to setting goals, and participating in audit and feedback sessions.	Yes, individual data will not be disseminated, only overall rates. Special care will be taken to protect confidentiality.	Positive. Agreeing on a goal and monitoring progress will enhance health workers' commitment to the plan, and it will also empower teams to take on other challenges.
16. As part of training for the chosen companions, a nurse or midwife demonstrates to them how to provide physical and emotional support, and manual techniques for pain relief. (Modelling/Training)	No, no staff member is available to provide this training for companions.	Yes, all staff members are assigned to clinical care tasks.	No, the staff are already overloaded.	No, funds are unavailable to pay midwives/nurses to work extra hours to organize, design and implement the activity.	Yes, the labour companions would likely be receptive to the training provided.	Partially. It would require clinical staff to stop doing other tasks.	Positive. Training chosen companions will enhance women's experiences, and communication with the clinical team.

Implement and pilot test the strategies

Once you have identified the implementation strategies that you will use, it is important to create a plan to deliver them. This will involve:

- i. identifying the implementation team members who will be involved in delivering the strategies;
- ii. clarifying their roles and confirming they have time allocated specifically to prepare and be involved;
- iii. developing or revising any required tools or materials; ensuring availability of the necessary resources (e.g. training and orientation resources, staff, funds, equipment, time);
- iv. communicating with the clinical teams and any other key stakeholders about the plan of action; and
- v. setting dates for roll-out.

Consider pilot testing the implementation strategies that you have identified on a small scale before fullscale implementation, to:

- monitor the delivery of the strategies to confirm feasibility and identify any unanticipated barriers to implementation or participant engagement;
- seek feedback from participants (e.g. health-care facility managers, health workers, women, families, community members), including what might help to increase their engagement with the initiative;
- use the above information and feedback to improve the resources and your plan before launching wider roll-out.

Depending on the resources and time available, having discussions among the participants in your pilot and other stakeholders involved – to ask them how they think the intervention is going, what they like and what needs to change – can provide valuable information to guide improvements where needed.

Establish mechanisms to sustain evidence-based practice

Sustainability of the practice change is very important. It should be considered from the start and it will require ongoing systematic planning and adjustment of implementation strategies to ensure that practice changes become embedded into the health-care facility's systems of care. In addition to the post-implementation evaluation (see **Step 5**), which will determine whether the implementation of the WHO recommendation(s) made a difference in how care was provided and experienced and the clinical outcomes, efforts to embed the practice and ongoing monitoring are also needed to sustain the new evidence-based practice (*21*).

Routine monitoring of service delivery, women's/ families' outcomes, experiences of care, and health system utilization indicators (i.e. referrals and length of stay) will provide data that will help identify practice erosion and refocus implementation plans.

Ongoing support from the facility leadership is

vital to sustain evidence-based practice. Since competing priorities are often a barrier to change at the facility level and require reallocation of resources, establishing ongoing support for the project – beyond the initial implementation period – is essential to sustain practice change.

Consistency and coordination of care across organizations is important for women, babies and their families, at the health-care facility and subnational level where broader roll-out of the WHO recommendations is planned – especially where referrals occur. Communities of practice with representation from different teams can work together to help sustain change.

Written, up-to-date protocols, and educational

tools may need to be developed for health workers, women and their families, to facilitate consistency and sustainability of practice in maternity care. Monitoring uptake, developing audit and feedback processes, and assessing women's/families' and health workers' experiences with using these tools and protocols is also useful.

Implementation of the same recommendation by multiple units at the same health-care facility can be advantageous. The maternity ward/department may not be the only unit where consultation and collaboration are essential (e.g. antenatal care, anaesthesiology, neonatology, dietary, pharmacy, information systems, security, environmental services), therefore it is helpful to look for opportunities for simultaneous implementation of the same recommendation.

Inter-professional collaboration and communication

is critical for sustainability of practice change and *should therefore be encouraged*; this will help to prevent and resolve conflicts and address barriers when they arise (*31*). It is also important to retain the champions responsible for maintaining the momentum of the implementation project, to ensure it stays on track and on the radar for the clinical teams involved. It can be helpful to develop a system of rewards and incentives that are meaningful for team members.

Worksheets for Step 4 are provided in Web Annex A

Worksheet 4a: Summarize implementation strategies Worksheet 4b: Prioritization of implementation strategies.



Step 5. Monitor and evaluate



As the final step in the planning and implementation process described in this toolkit, this section provides general guidance on what measures to monitor, how to monitor them, and how to evaluate progress during and after implementation.

Monitoring and evaluation (M&E) are key to determine whether the implementation strategies have been delivered as intended and achieved the desired outcomes. M&E can increase understanding about how the effect was achieved (e.g. the mechanism of action) and how implementation strategies might be improved or made more efficient (e.g. by removing components that were not feasible, not accepted or not effective). M&E should be an integral part of the action plan, rather than something that is planned and conducted only after a period of implementation.

Monitor

In 2016, WHO published Standards for improving quality of maternal and newborn care in health facilities (3) and in 2019 the Network for Improving Quality of Care for Maternal, Newborn and Child Health published an update of *Quality of care for maternal* and newborn health: a monitoring framework for network countries (16). These documents contain input, process and outcome measures related to the quality standards for intrapartum and immediate postnatal care. Implementation teams can use these resources to identify relevant measures to assess, monitor and later evaluate professional performance, the provision and experience of care, areas for improvement, and the impact of the implementation strategies or changes in practice that have been implemented in order to adopt the selected WHO recommendation(s).

Three types of measures used to assess health care are described in Box 8. If there is a national strategy relevant to one or more of the selected recommendations, consider tying your M&E plans to that initiative, including monitoring the same measures (often called "indicators") specified in that national strategy. If not, consider the measures listed in Table 15 under "What will you measure?" as a starting point, and decide how and how often you will assess/monitor the measures you have selected.

Evaluate

The evaluation helps to determine whether the implementation strategies made a difference in how care was provided and whether they led to the desired practice change related to the selected recommendation(s). In cases where implementation strategies have not achieved the intended outcomes, the evaluation can be very valuable to help identify whether the reason for the failure is due to specific components that were not implemented as planned, or whether the implementation strategy itself did not work. Evaluation provides the opportunity to learn from implementation successes and failures, and to support replication in new contexts/ settings, as well as larger-scale roll-out of the implementation strategy.

There are a number of ways to evaluate practice change. You can use data to monitor practice(s) related to the recommendation(s) at time points immediately before, during and after implementation, for comparison. Depending on the availability of resources, time and access to data, simple audits of whether or not the target behaviours (identified in **Step 2**) have improved will provide valuable information and can help to guide further planning and to refine implementation. Run-charts can be developed to visually display practice change (*33*). A run-chart is a line graph of individual data points collected and plotted in chronological order over time to reveal trends or patterns – importantly it begins

Box 8.

Types of measures used to assess health care

Input or structural measures focus on the essential environmental components necessary for desired care to be provided (e.g. facility infrastructure, equipment, human resources, organizational structure, policies, guidelines).

Process or output measures focus on the activities of care – how desired care is provided (e.g. preventive measures, diagnosis, treatment).

Outcome measures focus on the results of the care – whether a programme is achieving the expected effects (e.g. patient knowledge, patient behaviour, health status, patient satisfaction, health worker satisfaction).

Sources: WHO, 2016 (3) and Donabedian, 1988 (32).

with the baseline data points about the practice(s) before implementing the strategies to change the practice(s). These charts should be reviewed and discussed periodically with the implementation team as part of M&E, comparing pre-implementation measures to post-implementation measures at different time points.

Measuring different outcomes - among women, families and health workers, and at the level of the labour and postnatal wards, the health-care facility and the broader health system - provides the opportunity to explore what happens when the selected WHO recommendation(s) are implemented and to determine what difference this makes in health-care practice. In some cases, it may also be useful to evaluate women's and health workers' perceptions of the care they received or provided, respectively. These experiences are increasingly recognized as important for assessing quality of care (3). Evaluating whether the implementation of WHO recommendations intended to improve the experience of labour, childbirth or the immediate postnatal period actually led to a positive experience will help to

determine whether the implementation strategy was a success, whether the goals were achieved, and can also help to identify any unintended consequences or unanticipated issues that may need to be addressed.

Depending on what is feasible with respect to resources (e.g. staff and time), an exploration of women's and health workers' experiences with the new practice (e.g. through interviews, focus group discussions, surveys or informal discussions with stakeholders) may provide valuable information to help to guide further planning. The M&E team can elicit feedback from women and health workers about aspects of communication during the delivery of maternity care, such as the methods, clarity and quality of the communication, and whether the care was provided in a way that respected the woman's values, preferences and dignity. An exit survey at discharge, to seek feedback from women about their birth experience and the care they received, is a good place to start.

Table 15 presents a completed example of Worksheet 5 using input, output and outcome measures relevant to the WHO recommendation on companionship during labour and childbirth, which could be used to evaluate the implementation project for that recommendation. There is value in reporting examples where implementation of WHO intrapartum care and immediate postnatal care recommendations has been successful (see Box 9).

Box 9.

Documentation, reporting and case studies

By preparing case studies, for example, of the planning and implementation process when adopting different recommendations, describing the challenges and the elements of the success – this provides a model for others to follow or to adapt to different settings, including for policy-makers, health sector officials, health-care facility managers and health workers. Keeping detailed documentation from the start of the process will help you to prepare your reports and case studies later.

The worksheet for Step 5 is available in Web Annex A Worksheet 5: Identify measures for evaluation

Table 15. Completed example of Worksheet 5 - Identify measures for evaluation - for the WHO recommendation on companionship during labour and childbirth

(The template for Worksheet 5 is provided in Web Annex A.)

Selected WHO recommendation: A companion of choice is recommended for all women throughout labour and childbirth							
Type of measure	What will you measure?	How will you measure it?	When/how often will you measure it?				
Input measure							
Policy/protocol	The health-care facility has a written, up-to-date protocol, which is explained to women and their families, to encourage all women to have at least one person of their choice, as culturally appropriate, with them during labour, childbirth and the immediate postnatal period	Observation or facility survey	Quarterly				
Infrastructure	The labour and childbirth areas of the health-care facility are organized in such a way as to allow a private physical space for the woman and her companion at the time of childbirth	Observation or facility survey	Quarterly				
Human resources	Health workers at the health-care facility are oriented and receive in-service refresher training sessions at least once every 12 months on the evidence for and positive impact of the presence of a chosen companion during labour and childbirth	Staff interview	Quarterly				
Dissemination	Orientation sessions and information (written or pictorial) are available to orient the companion on his or her role in supporting the woman during labour and childbirth	Questionnaire for a sample of women and companions	Quarterly				
Process measure							
Adoption	The proportion of women who wanted and the proportion who had a companion supporting them during labour and/or childbirth in the health-care facility	Questionnaire for a sample of women (e.g. exit interview upon discharge)	Quarterly				
		Review of completed WHO Labour Care Guide (LCG) forms	Monthly				
Companions' satisfaction	The proportion of all companions who were satisfied with the orientation given on their role during labour and childbirth	Questionnaire for a sample of companions	Quarterly				
Outcome measur	'e						
Equity	Proportion of women who wanted and had a companion supporting them during labour and/or childbirth in the health-care facility, stratified by age, level of education and ethnicity	Questionnaire for a sample of women (e.g. exit interview upon discharge)	Quarterly				
Women's satisfaction	The proportion of all women who gave birth in the health-care facility who expressed satisfaction with the health services	Questionnaire for a sample of women (e.g. exit interview upon discharge)	Quarterly				

Source: Adapted from WHO, 2016 (3) and WHO, 2019 (16).

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Annex. Definitions of key terms

Barriers: In behavioural science, barriers are defined as influencing factors that restrict, impede or block progress or the achievement of an ultimate objective or behavioural change (1). In the toolkit, we refer to a barrier as a factor that impedes implementation and uptake of health-care practices (e.g. lack of user skills, limited resources, lack of leadership support). Some factors may be both a barrier and an **enabler** (defined below) to practice change (e.g. some health workers may be resistant to change while others are champions for change).

Behaviour: The actions performed by a person or group/team in response to internal or external events. Actions may be overt and directly measurable, or covert and indirectly measurable (2). Specifying actions can help to clarify evidence-practice gaps and who needs to do what differently, and also to identify barriers and enablers, design interventions and provide an indicator of what to measure in order to evaluate an intervention's effect on behaviour change (3).

Champion: An implementation-related role occupied by people who (i) are internal to an organization; (ii) generally have an intrinsic interest and commitment to implementing a change; (iii) work diligently and relentlessly to drive implementation forward even if those efforts receive no formal recognition or compensation; (iv) are enthusiastic, dynamic, energetic, personable and persistent; and (v) have the strength of conviction (4).

Deliverables: The outputs, main products or end results of the project development process (e.g. implementation team created, meetings held, action plan or reports developed, timelines set).

Enablers: In behavioural science, enablers are influencing factors that facilitate practice change (e.g. leadership support, funding, staff, time, equipment) (*5*,*6*). Enablers are factors that already exist in their setting. Enablers are different from **implementation strategies** (see definition).

Health-care intervention: any intentional healthcare action performed to improve, maintain or assess the health of a person in a clinical situation (7). Health workers (individually and in teams) perform health-care behaviours related to: (i) health promotion and illness prevention, (ii) assessing and diagnosing illnesses, (iii) providing treatments, (iv) managing health conditions, (v) health-care system management and (vi) building therapeutic alliances with patients and caregivers (8).

Health worker: health professionals, health associate professionals, personal care workers in health services, health management and support personnel, and other health-care service providers not elsewhere classified (9,10).

Implementation strategies: Methods or techniques used to enhance or support the implementation, adoption (also referred to as uptake) and sustainability of a programme or practice (*11,12*) (e.g. training, education, environmental restructuring). In general, implementation requires key agents to change their behaviours, and implementation strategies attempt to support behaviour change. Implementation strategies are different from **enablers** (see definition).

Implementation: Action in response to a call for change (a call for people to do something new or different) (13), or an effort specifically designed to get best practice findings and related products into routine and sustained use through appropriate change or through adoption (also referred to as uptake of recommended interventions) (12).

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