

## 2. Methods

This document was developed using the standard operating procedures described in the *WHO handbook for guideline development (19)*. In summary, the development process included: (i) identifying priority questions and outcomes; (ii) retrieval of the evidence; (iii) assessment and synthesis of the evidence; (iv) formulation of the recommendations, and (v) planning for the dissemination, implementation, impact evaluation and updating of the guideline.

### 2.1 Contributors to the guideline

The different groups involved in the development of the guideline are described below. The members of these groups are listed in Annex 1.

#### 2.1.1 WHO Steering Group

The guideline development process was supervised by the WHO Steering Group, comprising staff members from the Departments of Maternal, Newborn, Child and Adolescent Health and Ageing (MCA), Mental Health and Substance Use (MSD), Nutrition and Food Safety (NFS) and Sexual and Reproductive Health and Research (SRH). The group drafted the initial scope of the guideline, identified priority questions and outcomes, prepared the guideline planning proposal, and identified systematic review teams, guideline methodologists and members of the Guideline Development Group (GDG). Additionally, the Steering Group supervised the evidence retrieval, assessment and synthesis, organized the GDG meetings, prepared draft recommendations for the GDG and the final document, and managed the guideline publication and dissemination.

#### 2.1.2 Guideline Development Group

The WHO Steering Group identified 21 external experts and stakeholders from the six WHO regions to form the GDG. This was a diverse group of individuals with expertise in research, clinical practice, policy and programmes, guideline development methods relating to postnatal care practices and service delivery, and patient/consumer representatives. The members were identified in a way that ensured geographic representation and gender balance with no important conflicts of interest.

Selected members of this group participated in a scoping meeting held in April 2019 and provided input into the priority questions and outcomes that guided the evidence reviews. The GDG examined and interpreted the evidence and formulated the final recommendations at nine virtual meetings between September 2020 and June 2021. The group also reviewed and approved the final guideline document.

#### 2.1.3 External Review Group

This group included six technical experts and stakeholders with an interest in the provision and experience of evidence-based postnatal care. The group was geographically balanced and gender-representative, and had no important conflicts of interest. The External Review Group (ERG) peer-reviewed the final document to identify any errors of fact and comment on clarity of language, contextual issues and implications for implementation. The group ensured that the guideline decision-making processes considered and incorporated the contextual values and preferences of persons affected by the recommendations, including postpartum women, partners, newborns, parents, caregivers and families, health workers and managers, and policy-makers. It was not within the remit of this group to change recommendations that were formulated by the GDG.

#### 2.1.4 Technical Working Group

The Technical Working Group (TWG) comprised guideline methodologists and systematic review teams. Independent consultants and technical experts from Centro Rosarino de Estudios Perinatales (CREP), Argentina, served as guideline methodologists. In relation to quantitative evidence on the effects of different prioritized interventions, the Cochrane Pregnancy and Childbirth Group (PCG), provided input on the scoping of the guideline priority questions and supervised the updating of relevant systematic reviews related to maternal health clinical guidance, following the standard processes of Cochrane. Where there were no suitable systematic reviews (Cochrane or non-Cochrane) for priority questions, new systematic reviews of quantitative studies were commissioned by WHO from external experts. Additional systematic reviews were conducted for priority questions and other

considerations relevant to the domains of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) evidence-to-decision (EtD) frameworks, including quantitative and qualitative reviews. The WHO Steering Group worked closely with members of the TWG to develop or update review protocols, review and appraise the evidence and prepare the GRADE EtD frameworks.

### 2.1.5 External partners and observers

Representatives of the Bill & Melinda Gates Foundation, International Federation of Gynecology and Obstetrics (FIGO), International Confederation of Midwives (ICM), International Pediatric Association (IPA), United Nations Children’s Fund (UNICEF), United Nations Population Fund (UNFPA) and United States Agency for International Development (USAID) were invited to the guideline development meetings as observers. These organizations are potential implementers of the guideline with a history of collaboration with WHO in guideline dissemination and implementation. Observers were allowed to make comments during technical discussions at selected times during the GDG meetings. Observers were, however, asked to refrain from participation in discussions on the final recommendations.

## 2.2 Identifying priority questions and outcomes

The WHO Steering Group, in consultation with the systematic review teams, guideline methodologists and selected members of the GDG, drafted the priority questions for this guideline (see Web Annex 1 for detailed methods and the final list). From the priority questions identified, the associated interventions were then classified according to the WHO quality of care framework (20) and the nurturing care framework (5) to ensure the recommendations would respond to a maximum of domains, including: quality of care (provision and experience of care); nurturing care (health, nutrition, security and safety, responsive caregiving and early learning); and strengthening health systems. Changes from the approved scope of this guideline and the reasons for such changes are described in Web Annex 2.

Discussion of the key thematic areas for essential, routine postnatal care took account of interventions that are already covered in existing WHO guidelines. Considering available resources, the group agreed to limit the scope of prioritized questions to those

not addressed by existing WHO guidelines or those identified for update, with the caveat that existing recommendations (that were developed according to WHO standard procedures) would be integrated into the final guideline document (see section 2.3).

In determining the guideline focus, the scoping process highlighted the need to identify person-centred interventions and outcomes for postnatal care. To this end, a qualitative evidence synthesis was conducted to understand what women want, need and value during the postnatal period (21). The findings of this review suggest that the postnatal phase is a period of significant transition characterized by changes in self-identity, the redefinition of relationships, opportunities for personal growth, and alterations to sexual behaviour as women adjust to their new normal, both as parents and as individuals within their own cultural context. For many women, it is also marked by feelings of intense joy, happiness and love for the new baby. The definition of a positive postnatal experience has therefore been adapted to also consider the experience of newborns, parents and the family more broadly (Box 2.1).

### Box 2.1 Positive postnatal experience

A positive postnatal experience is defined as one in which women, partners, parents, caregivers and families receive information and reassurance in a consistent manner from motivated health workers. Both the women’s and babies’ health, social and developmental needs are recognized, within a resourced and flexible health system that respects their cultural context.

Adapted from Finlayson et al. (21) and Harvey et al. (22)

Based on the prioritization exercise described above, a set of outcomes that were considered as critical or as important to women and newborns was prioritized for the postnatal period (Web Annex 1). Furthermore, due to important differences between the types of prioritized interventions and the range of potential outcomes, and with due consideration of what matters to women, parents and caregivers in the postnatal period, the outcomes were prioritized separately for individual guideline questions. Informed initially by the qualitative review of women’s views, the list of outcomes was complemented by outcomes related to maternal and family functioning, well-being and experience of postnatal care; it

therefore reflects perceptions of the quality of care for all interventions prioritized.

## 2.3 Integration of recommendations from published WHO guidelines

In order to harmonize and consolidate all recommendations that are relevant to the care of healthy women and babies during the postnatal period into a single document, existing WHO recommendations that were within the scope of essential, routine postnatal care, and which were previously approved by the Guideline Review Committee, were identified, presented to the GDG and integrated into this guideline. These include recommendations relevant to maternal and neonatal assessments, preventive measures, and health systems and health promotion interventions. In most instances, the recommendations were taken from the associated guideline without modification or revalidation, as these recommendations were considered to be current (see Web Annex 3). Such recommendations are indicated in the guideline text by specifying that the recommendation has

been “integrated from” the specific guideline. Some recommendations required adaptation for the purposes of the postnatal care guideline; relevant WHO departments that produced the specific guidance were consulted to confirm that adaptations were feasible given the evidence base. Such recommendations are indicated in the guideline text by specifying that the recommendation has been “adapted and integrated from” the specific guideline.

## 2.4 Focus and approach

The focus of this guideline is on essential postnatal care, which all women and adolescents after birth and their newborns should receive to facilitate a positive postnatal experience. To help decision-makers consider a range of relevant criteria – including the benefits, harms, values, resources, equity, acceptability and feasibility, of each intervention – the GRADE EtD framework tool (23) was used. The preparatory work for the guideline was organized into the work streams outlined in Table 2.1, to synthesize and examine evidence across the domains of this framework.

**Table 2.1** WHO postnatal care guideline work streams

Work streams	Methodology	Assessment of evidence
Individual interventions for clinical, health system-level and health promotion interventions	Systematic reviews of effectiveness or observational studies	GRADE
Woman-, partner-, parent-, caregiver-, family-, and health worker-centred domains for values, acceptability and feasibility of implementing interventions related to postnatal care	Qualitative evidence synthesis, and review of studies and references included in effectiveness reviews	GRADE-CERQual, as applicable
Equity issues related to postnatal care	Literature searches of systematic reviews or single studies, review of studies and references included in effectiveness reviews, and 2015 WHO State of Inequality report (24)	Not applicable
Resource implications for individual interventions	Literature searches of systematic reviews of cost-effectiveness or single-study economic evaluations on resource use/cost or cost-effectiveness, and review of studies and references included in effectiveness reviews; additional internet searches where required to complete the “Main resource requirements” tables	CHEC, as applicable

GRADE: Grading of Recommendations Assessment, Development and Evaluation (25); CERQual: Confidence in the Evidence from Reviews of Qualitative research (26); CHEC: Consensus Health Economic Criteria (27).

## 2.5 Evidence identification and retrieval

Evidence on effects for maternal clinical practices was derived mainly from Cochrane systematic reviews of randomized controlled trials (RCTs). The WHO Steering Group, in collaboration with the Cochrane PCG and methodologists from CREP, first identified all relevant Cochrane systematic reviews that addressed the prioritized maternal clinical practice questions. The Cochrane systematic reviews were based on studies identified from searches of the Cochrane PCG Trials Register.<sup>25</sup> In instances where the Cochrane reviews identified were found to be out-of-date, review authors were invited to update their Cochrane reviews in accordance with the standard process of the Cochrane PCG and with the support of Cochrane PCG staff.

Where new systematic reviews were commissioned from external experts, experts were asked to prepare a standard protocol with a clear PICO (population, intervention, comparator, outcome) question, criteria for identification of studies including search strategies for different bibliographic databases, methods for assessing risk of bias, and a data analysis plan before embarking on the review. The protocols were reviewed and approved by members of the WHO Steering Group.

Qualitative reviews were commissioned from external experts on what women want from postnatal care and how the outcomes impacted by an intervention are valued by women (21); women's views, attitudes and experiences of attending postnatal care (28); health workers' views, attitudes and experiences on provision of postnatal care (29); women's, men's and health workers' perspectives on the involvement of men in maternal and newborn health (30); and women's, men's and health workers' perspectives on discharge preparation and readiness from health facilities after birth (22). In each case, the external experts were asked to prepare a standard protocol with a clear research question, criteria for identification of studies (including search strategies for different bibliographic

25 The Cochrane PCG Trials Register is maintained by the PCG's Trial Search Coordinator and contains trials identified from: monthly searches of the Cochrane Central Register of Controlled Trials (CENTRAL); weekly searches of MEDLINE; weekly searches of Embase; hand-searches of 30 journals and the proceedings of major conferences; weekly "current awareness" alerts for a further 44 journals; and monthly BioMed Central email alerts. For further information, see: <http://pregnancy.cochrane.org/pregnancy-and-childbirth-groups-trials-register>.

databases), methods for assessing quality, and a data analysis plan, before embarking on the review. The protocols were reviewed and approved by members of the WHO Steering Group.

Structured searches were carried out to identify evidence around cost-effectiveness and health equity related to the maternal and newborn health interventions. Intervention search terms were taken from the corresponding effectiveness reviews where supplied, or else were developed ad hoc. Cost-effectiveness search terms were adapted from the National Health Service Economic Evaluation Database filters made available by the InterTASC Information Specialists' Sub-Group Search Filter Resource.<sup>26</sup> Health equity search terms were developed with reference to published guidance (31). Searches were carried out across Embase and Medline for publication dates from 2010 onwards, limited to human studies. In addition, the NHS EED database was searched for relevant economic evaluations. Where evidence on cost-effectiveness was synthesized as part of the effectiveness reviews used for specific interventions, additional structured searches were not conducted. To retrieve evidence on cost-effectiveness and health equity implications of the mental health and health systems and health promotion interventions, broad searches were performed on Google Scholar using key terms, such as "costs", "cost-effectiveness", "cost-benefit analysis", and "equity", combined with terms related to the PICO elements of the specific guideline questions (e.g. postpartum depression and screening). For all interventions, studies and references included in the systematic reviews of effectiveness, as well as qualitative evidence synthesis conducted for corresponding guideline questions (where available), were screened to identify further information on equity, resources and costs of the interventions, as well as references to relevant studies reporting on these implications.

## 2.6 Quality assessment and grading of the evidence

### 2.6.1 Quality assessment of primary studies included in the reviews

The assessment of the quality of individual studies included in Cochrane systematic reviews follows

26 The InterTASC Information Specialists' Sub-Group Search Filter Resource is available at: <https://sites.google.com/a/york.ac.uk/issg-search-filters-resource/home>.

a specific and explicit method of risk of bias assessment using six standard criteria outlined in the *Cochrane handbook for systematic reviews of interventions* (32). Each included study is assessed and rated by reviewers to be at low, high or unclear risk of bias for sequence generation, allocation concealment, blinding of study personnel and participants, attrition, selective reporting and other sources of bias such as publication bias. The assessment along these domains provides an overall risk of bias that indicates the likely magnitude and direction of the bias and how it is likely to impact on the review findings. In the case of the new systematic reviews on the effectiveness of interventions commissioned by the WHO Steering Group, each included study was assessed for risk of bias according to the Cochrane review methodology for randomized or non-randomized studies. One review used the CASP (Critical Appraisal Skills Programme).<sup>27</sup>

Studies identified for the qualitative reviews related to what women want from postnatal care and to women's experiences of postnatal care were subjected to a simple, quality appraisal system using a validated instrument that rated studies against 11 pre-defined criteria, and then allocated a score from A to D, with D indicating the presence of significant flaws that are very likely to affect the credibility, transferability, dependability and/or confirmability of the study (33). The other qualitative reviews used CASP or a modified CASP.

### 2.6.2 Grading of the review evidence

The GRADE approach to appraising the certainty of quantitative evidence (25) was used for all the critical outcomes identified in the PICO questions. For every priority question, a GRADE evidence profile was prepared for each quantitative outcome. Accordingly, the certainty of evidence for each outcome was rated as "high", "moderate", "low" or "very low" based on a set of criteria. As a baseline, RCTs provided "high-certainty" evidence, while non-randomized trials and observational studies provided "low-certainty" evidence. This baseline certainty rating was then downgraded based on consideration of study design limitations (risk of bias), inconsistency, imprecision, indirectness and publication bias. For observational studies, other considerations, such as magnitude of effect, could lead to upgrading of the rating if there were no limitations that indicated a need for

downgrading. The systematic review teams and methodologists from CREP performed grading of quantitative review evidence, in accordance with standard operating procedures approved by the WHO Steering Group.

The findings of the qualitative reviews was appraised using the GRADE-CERQual (Confidence in the Evidence from Reviews of Qualitative research) tool (26). The GRADE-CERQual tool, which uses a similar approach conceptually to other GRADE tools, provides a transparent method for assessing and assigning the level of confidence that can be placed in evidence from reviews of qualitative research. The confidence in qualitative review findings were assigned to evidence domains on values, acceptability and feasibility according to four components: methodological limitations of the individual studies, adequacy of data, coherence, and relevance to the review question of the individual studies contributing to a review finding.

Findings from individual cost-effectiveness studies were reported narratively for each comparison of interest, and evidence was assessed using the CHEC checklist (27).

## 2.7 Formulation of the recommendations

The WHO Steering Group supervised and finalized the preparation of evidence profiles and evidence summaries in collaboration with the TWG using the GRADE DECIDE (Developing and Evaluating Communication Strategies to Support Informed Decisions and Practice Based on Evidence) EtD framework. This EtD tool includes explicit and systematic consideration of evidence on prioritized interventions in terms of specified domains: effects, values, resources, equity, acceptability and feasibility. For each priority question, judgements were made on the impact of the intervention on each domain (or criterion) to inform and guide the decision-making process. Using the EtD framework template, the WHO Steering Group and TWG created summary documents for each priority question covering evidence on each of these domains as described below.

- **Effects:** The evidence on the prioritized outcomes was summarized in this domain to answer the questions, "What are the desirable and undesirable

<sup>27</sup> CASP critical appraisal tools are available at: <https://casp-uk.net/casp-tools-checklists/>.

*effects of the intervention/option?*" and *"What is the certainty of the evidence on effects?"*. Where benefits clearly outweighed harms for outcomes that are highly valued by pregnant women, or vice versa, there was a greater likelihood of a clear judgement in favour of or against the intervention, respectively. Uncertainty about the net benefits or harms, and small net benefits, most likely led to a judgement that neither favoured the intervention nor the comparator. The higher the certainty of evidence on benefits across outcomes, the higher the likelihood of a judgement in favour of the intervention. In the absence of evidence of benefits, evidence of potential harm led to a recommendation against the option. Where evidence of potential harm was found for interventions that were also found to have evidence of important benefits, depending on the level of certainty and likely impact of the harm, such evidence of potential harm was more likely to result to a context-specific recommendation for the intervention (and the context is explicitly stated within the recommendation).

- **Values:** This relates to the relative importance assigned to the outcomes of the intervention by those affected by them, how such importance varies within and across settings, and whether this importance is surrounded by any uncertainty. The question asked was, *"Is there important uncertainty or variability in how much women, parents and caregivers value the main outcomes associated with the intervention/option?"* Qualitative evidence from the different systematic reviews on women, men and health workers' views and experience across postnatal care informed the judgements for this domain. Interventions that resulted in outcomes that most women, parents and caregivers consistently value regardless of settings were more likely to lead to a judgement in favour of the intervention. This domain, together with the "effects" domain, informed the "balance of effects" judgement.
- **Resources required:** This domain addressed the questions, *"What are the resources associated with the intervention/option?"* and *"Is the intervention/option cost-effective?"*. Most resource requirements, in the context of implementing the reviewed postnatal care interventions, are the costs of providing supplies, training, equipment and skilled human resources. A judgement in favour or against the intervention was likely where the

resource implications were clearly advantageous or disadvantageous, respectively. Cost evaluation relied on reported estimates obtained during the evidence retrieval process, a 2013 treatment assumption report (34), the WHO compendium of innovative health technologies for low-resource settings (35), and specific literature searches, as well as experiences and opinions of the GDG members. Where available, direct evidence from systematic reviews of cost-effectiveness informed this domain.

- **Acceptability:** This domain addressed the question, *"Is the intervention/option acceptable to key stakeholders?"*. Qualitative evidence from the different systematic reviews on women, men and health workers' views and experience across postnatal care informed the judgements for this domain. Relevant evidence yielded from the included trials and from the database searches pertaining to health equity and/or cost-effectiveness was considered where appropriate. The lower the acceptability, the lower the likelihood of a judgement in favour of the intervention. If it was deemed necessary to recommend an intervention that was associated with low acceptability, the recommendation is accompanied by a strategy to address concerns about acceptability during implementation.
- **Feasibility:** The feasibility of implementing an intervention depends on factors such as the resources available, infrastructure, and training requirements. This domain addressed the question, *"Is it feasible to implement the intervention/option by the relevant stakeholders?"*. Qualitative evidence from the systematic reviews on women, parents, caregivers and health workers' views and experiences across postnatal care was used to inform judgements for this domain. Again, relevant evidence yielded from the included trials and from the database searches pertaining to health equity and/or cost-effectiveness was considered where appropriate. Where barriers were identified, it was less likely that a judgement would be made in favour of the intervention.
- **Equity:** This domain included evidence or considerations as to whether or not an intervention would reduce health inequities and therefore addressed the question, *"What is the anticipated impact of the intervention/option on equity?"*. The domain was informed by the findings of qualitative

## Box 2.2 Health equity – general considerations

The 2015 World WHO state of inequality report (24) indicates that women who are poor, least educated and who reside in rural areas have lower coverage of health interventions and worse health outcomes than more advantaged women. A systematic review and meta-analysis on inequities in postnatal care in low- and middle-income countries reported significant variation, by socioeconomic status and geographical determinants, in the use of postnatal care (36).

evidence syntheses of women, parents and health workers' views and experiences, the 2015 WHO report on inequalities in reproductive, maternal, newborn and child health (24), a systematic review and meta-analysis on inequities in postnatal care in low- and middle-income countries (LMICs) (36) (Box 2.2), and specific literature searches, as well as the experiences and opinions of the GDG members. An intervention was likely to be recommended if its proven (or anticipated) effects reduce (or could reduce) health inequalities among different groups of women, parents and families.

For each of the above domains, additional evidence of potential benefits, harms or unintended consequences was described in the subsection Additional considerations. Such considerations were derived from studies that might not have directly addressed the priority question but provided pertinent information in addition to the direct evidence. These were extracted from single studies, systematic reviews, or other relevant sources.

Given that virtual meetings were held over an extended period of time, the WHO Steering Group provided the EtD frameworks, including evidence summaries, GRADE evidence profiles, and other documents related to each recommendation, to GDG members in batches as soon as the documents were drafted, and in advance of the virtual GDG meetings. The GDG was asked to review and provide comments on the documents electronically before the GDG meetings, where possible. At the virtual meetings, under the leadership of the respective GDG chairs, GDG members collectively reviewed the EtD frameworks, the draft recommendations and any comments received through preliminary feedback. The purpose of the meeting was to reach consensus on each recommendation, including its

direction and context, based on explicit consideration of all the domains within the EtD frameworks. In line with other recently published WHO guidelines using EtD frameworks (16, 17), the GDG classified each recommendation into one of the categories defined below.

- *Recommended:* This category indicates that the intervention or option should be implemented.
- *Not recommended:* This category indicates that the intervention or option should not be implemented.
- *Recommended only in specific contexts:* This category indicates that the intervention or option is applicable only to the condition, setting or population specified in the recommendation, and should only be implemented in these contexts.
- *Recommended only in the context of rigorous research:* This category indicates that there are important uncertainties about the intervention or option. In such instances, implementation can still be undertaken on a large scale, provided that it takes the form of research that is able to address unanswered questions and uncertainties related both to the effectiveness of the intervention or option, and its acceptability and feasibility.
- *Recommended with targeted monitoring and evaluation:* This category indicates that there are important uncertainties about the intervention being applicable to all contexts or about the net impact of the evidence across all the domains, including acceptability or feasibility. In such instances, implementation can still be undertaken on a large scale, provided it is accompanied by monitoring and evaluation.

For recommendations integrated from existing guidelines, the strength and certainty of the evidence, if specified in the source document, has been presented in the accompanying remarks. For consistency, integrated recommendations were also categorized according to the typology described above.

During the formulation of recommendations, the GDG identified important research gaps. Where the certainty of available evidence was rated as “low” or “very low”, the GDG considered whether further research should be prioritized, based on whether such research would contribute to improvements in

postnatal care of women and newborns, be likely to promote equity, and be feasible to implement. The prioritized research gaps are listed in Web Annex 4.

## 2.8 Decision-making during the GDG meetings

The GDG meetings were designed to allow participants to discuss the supporting evidence in all the domains of the EtD, and to agree on each of the recommendations drafted by the WHO Steering Group. As needed, each of these recommendations was revised through a process of group discussion. The final adoption of each recommendation was made by consensus – defined as the agreement by three quarters or more of the participants – provided that those who disagreed did not feel strongly about their position. All disagreements were resolved during the meetings and subsequent exchanges with the GDG members. No strong disagreements were recorded. If participants had been unable to reach a consensus, the disputed recommendation, or any other decision, would have been put to a vote in accordance with the procedures described in the *WHO handbook for guideline development* (19). Where required, the GDG determined the context of recommendations by the same process of consensus, based on discussions around the balance of evidence on the benefits and disadvantages of the interventions across different contexts, in the context of rigorous research or targeted monitoring and evaluation.

## 2.9 Declaration of interests by external contributors

In accordance with WHO procedures for declaration of interests (DOIs) (37), all GDG, TWG and ERG members and other external collaborators were asked to declare in writing any competing interests (whether academic, financial or other) using the standard WHO form, before engaging in the guideline development process. All experts were instructed to notify the responsible technical officer of any change in relevant interests during the course of the process, in order to update and review conflicts of interest accordingly. In addition, experts were requested to submit an electronic copy of their curriculum vitae.

The WHO Steering Group reviewed all DOI forms and curriculum vitae, and determined whether a conflict

of interest existed. All findings from the received DOI forms were managed in accordance with the WHO DOI guidelines on a case-by-case basis. To ensure consistency, the WHO Steering Group applied the criteria for assessing the severity of a conflict of interest in the *WHO handbook for guideline development* (19).

No declared conflicts of interest were considered serious enough to pose any risk to the guideline development process or reduce its credibility, and therefore all experts were only required to declare such conflicts at the first GDG meeting. At each subsequent virtual GDG meeting, members were required to share any new conflict of interest with the group. Prior to the final virtual GDG meeting, all GDG and TWG members, and observers, were again asked to complete their DOI forms and declare any conflict at the meeting, to ensure information was up-to-date as the formulation of recommendations concluded. Conflicts of interest that warranted action by WHO staff arose where experts had performed primary research or a systematic review related to any guideline recommendations; in such cases, the experts were restricted from participating in discussions and/or formulating any recommendation related to the area of their conflict of interest. A summary of DOIs from the GDG and information on how conflicts of interest were managed are included in Annex 2.

The names and short biographies of the GDG members were published on the WHO website for public review and comment two weeks prior to the first GDG meeting.

## 2.10 Document preparation and peer review

Following the final GDG meeting, an independent consultant and the WHO responsible technical officers prepared a draft of the full guideline document to accurately reflect the deliberations and decisions of the GDG. Other members of the WHO Steering Group provided comments on the draft guideline document before it was sent electronically to the GDG members for further comments. The document was also sent to the ERG for peer review. The ERG members were asked to review the final draft guideline to identify errors of fact, comment on clarity of language, and express considerations related to implementation, adaptation



and contextual issues. The WHO Steering Group carefully evaluated the input of the GDG and peer reviewers for inclusion in the guideline document and made further revisions to the guideline draft as needed. After the GDG meetings and external peer review, further modifications to the guideline by the WHO Steering Group were limited to corrections of factual errors and improvements in language to address any lack of clarity.

## **2.11 Presentation of guideline content**

A summary of the recommendations is presented in the executive summary of this guideline. For each recommendation, a summary of the evidence on effects, values, resources, equity, acceptability,

feasibility, and other considerations reviewed at the virtual GDG meetings can be found in Chapter 3 (Evidence and recommendations). The language used to interpret the evidence on effects is consistent with the Cochrane Effective Practice and Organization of Care approach (38). Implementation of the postnatal care guideline and recommendations is discussed in Chapter 4, and implementation considerations related to each GDG recommendation can be found in Web Annex 5.

Integrated recommendations and their associated remarks are also presented throughout Chapter 3. References are provided in the remarks to indicate the source guideline. For all recommendations, the reader is referred to the specific WHO guidance for more details, including the evidence-base and implementation considerations.