USAID
FROM THE AMERICAN PEOPLE

MCHIP
Maternal and Child Health Integrated Program

Guidelines for Estimating

National Coverage of Interventions for Maternal and Newborn Health

April 2014

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

www.mchip.net

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

Table of Contents

Background

UTEROTONIC FOR POSTPARTUM HEMORRHAGE

Postpartum hemorrhage (PPH) is the leading cause of maternal death around the world. Approximately 25% of all maternal deaths are from PPH, with the greatest burden of disease in the developing world.[1,2] Routine prophalytic uterotonic use immediately following birth–either in isolation or as part of active management of the third stage of labor (AMTSL)–causes the uterus to contract firmly, thereby decreasing the risk of postpartum bleeding. A recent multi-centered World Health Organization (WHO) clinical trial[3] concluded that administration of a uterotonic was the most important component of AMTSL. Thus, in 2012, WHO updated its recommendations to put greater emphasis on uterotonic use at every birth. However, currently, few countries report uterotonic use immediately following birth through their health information management system (HMIS). Other sources of information on uterotonic use are also scarce.

MAGNESIUM SULFATE FOR SEVERE PRE-ECLAMPSIA/ECLAMPSIA

Severe pre-eclampsia/eclampsia (SPE/E) is the second leading cause of maternal mortality globally. Untreated PE can lead to seizures, kidney and liver damage, and, in severe cases, death. As many as 1 in 12 pregnant women develop PE annually,[4] but in developing countries the risk of a pregnant woman dying from SPE/E is approximately 300 times higher than that for a pregnant woman in a developed country.[5] Global evidence clearly demonstrates that magnesium sulfate is a life-saving drug,[6,7,8,9] and in 2011, WHO's recommendations identified magnesium sulfate as the anticonvulsant of choice for women with SPE/E. Magnesium sulfate should be used at every level of the health care system where deliveries occur.

CHLORHEXIDINE FOR UMBILICAL CORD CARE

Each year 3 million newborns die globally, with approximately 13% of these deaths caused by infection.[10] The recently-cut umbilical cord is an entry point for bacteria that can cause newborn sepsis and death. Ensuring optimal cord care at birth and in the first week of life, especially in settings with poor hygiene, is a crucial strategy to avert preventable neonatal deaths. Chlorhexidine is an antiseptic that can safely and effectively prevent neonatal infection. Therefore, in 2014, WHO issued a new recommendation for umbilical cord care, recommending chlorhexidine for cord cleansing during the first week of life for newborns born at home in settings with high neonatal mortality.

DEXAMETHASONE FOR THREATENED PRETERM BIRTH

Preterm birth (babies born before 37 weeks gestation) is the biggest killer of babies worldwide, causing more than one million deaths per year. Of babies born preterm, survivors may experience lifelong health challenges such as impaired brain development, impaired learning ability, and compromised physical health.[11] The primary cause of newborn death and disability from preterm birth is respiratory distress syndrome (RDS), a condition in which the baby has difficulty breathing due to underdevelopment of the lungs. Corticosteroids are a class of medicine given to a mother who appears to have an increased likelihood of delivering her baby early. When this drug is given to the woman, it accelerates lung development of the fetus while the baby is still in the womb, reducing the risk of RDS by 35%.[12][12] As such, antenatal corticosteroids should be administered to every pregnant woman who is preterm and has a condition that increases the chance of delivery within seven days, with few exceptions.[11] [13]Dexamethasone is the preferred antenatal corticosteroid.

Purpose of the Exercise

MCHIP has developed a rapid estimation methodology that attempts to address the lack of national coverage data for key maternal and newborn health (MNH) interventions. At this time, the methodology has been tailored to measure the following interventions: use of uterotonic (oxytocin or misoprostol) for PPH, use of magnesium sulfate for SPE/E, application of chlorhexidine for umbilical cord care, and administration of antenatal corticosteroids (dexamethasone) for threatened preterm birth. The methodology involves gathering existing country-level data on these interventions from various sources which, independently, don't measure coverage for the whole population, and then convening a panel of country experts in MNH service delivery, program management, measurement, and commodities to review the information that does exist, use the Delphi method to approximate data that is limited or lacking, and apply an algorithm to generate an estimate of national coverage for each of the interventions. The goal of this exercise is to identify coverage gaps—where and why women and babies are not receiving these services—to help promote programs and policies that will achieve broader coverage for the country as a whole.

ALGORITHM FOR CALCULATING NATIONAL COVERAGE

When initiating this exercise, it's critical to recognize that the population requiring services will differ depending on which intervention is being measured. The use of uterotonics and chlorhexidine is recommended for all births, but magnesium sulfate and dexamethasone should be administered only in instances of SPE/E and threatened preterm birth, respectively. Maintaining awareness of the relevant population will be important as each intervention is addressed.

Although the algorithm used to guide the estimation exercise varies slightly depending on which intervention is being measured, in general it requires three categories of data:

- **Distribution by location - What proportion of cases requiring the intervention happen where?** It's necessary to determine where the opportunity for intervention exists. Since uterotonics and chlorhexidine are recommended for all deliveries, we need to know (or estimate) where all births take place within the country. For magnesium sulfate and dexamethasone, it's a matter of determining what proportion of cases of SPE/E and threatened preterm birth, respectively, happen where. To do so we must consider the following settings:
  - Home births
    - Attended by a skilled birth attendant (SBA)
    - Not attended by an SBA
  - Facility births
    - Public sector (possible further stratification by facility level [hospital, health center, health post, etc.] and if pertinent, by hospital level [national, regional, district, etc.])
    - Private sector
    - Faith-based organizations (FBO)
    - Non-governmental organizations (NGO)

  Although home births and facility births are broken down into sub-settings above, this is primarily for illustrative purposes. Stratification of settings is only necessary if the sub-settings have different levels of coverage for the intervention being measured. For example, if dexamethasone is never administered at home births regardless of whether an SBA is present, then it's unnecessary to disaggregate home births by SBA vs. no SBA.

- **Provider performance - What percent of the time would birth attendants deliver the intervention if there were no barriers to doing so?** ("Barriers" are further described below.) The goal here is to quantify the provider's knowledge, skills, and attitudes (KSA) related to delivering the intervention. Do they know when to administer the medication and how to diagnose the indication (if any)? Do they know what the proper regimen is? Have they been trained in how to administer the medication? Do they feel confident administering the medication, and if not, does this prevent them from delivering the intervention? Provider performance will vary by setting, and potentially by sub-setting as well. For home births not attended by an SBA, the "provider" could be whoever is present at the birth, or even the woman herself.
- **Adjusting factors - What percent of the time do barriers prevent birth attendants from effectively delivering the intervention?** This category factors into the algorithm any non-KSA influences that might impact intervention coverage. Examples include stock-outs, lack of authorization to administer the medication, and poor drug quality. (More details can be found under 'Conducting the Expert Panel Meeting'; 'Step 3'.) Adjusting factors may vary by setting or sub-setting.

Once consensus is reached on these three data categories, the algorithm generates a coverage estimate by summing the following equation over all settings (or sub-settings, if appropriate):

[**Distribution by location** in a specific setting] x [**Provider performance** in that setting] x [**Adjusting factors** in that setting]

METHODOLOGY FOR CONDUCTING THE EXERCISE

Detailed descriptions of each step involved in planning and conducting the expert panel meeting are found below. For a general outline of the process, including a recommended timeline for completing each step, please see Annex 1.

Preparation for Expert Panel Meeting

Select and Invite Expert Panel Members

Identify 35-40 experts with in-depth knowledge of maternal and/or newborn health service delivery, program management, measurement, and commodities. Taken as a whole, the panel should have knowledge of all relevant settings in which births take place in the country (public facilities, private facilities, NGO/FBO facilities, home). It is also important to include people used to working with data, such as representatives from local academic and/or research institutions. These experts should be chosen in a consultative process by MCHIP/Country and MCHIP/Washington staff, the USAID Mission, the Ministry of Health (MoH), and other stakeholders.

Representatives should be chosen from each of the following sectors:

- Senior officials from the MoH involved in MNH policy and decision-making;
- Representatives from professional/technical organizations (e.g. WHO and midwifery, obstetrical, and pediatric professional organizations) with knowledge of best practices on MNH issues;
- Representatives from private sector associations and hospitals with knowledge of best practices on MNH issues;
- Representatives from academia/local universities involved in MNH education;
- Experts in monitoring and evaluation, ideally familiar with MNH interventions;

- Experts in research with experience conducting research on MNH issues in the country, including commodity availability or commodity quality; and
- Representatives from relevant UN Commission on Life-Saving Commodities country working groups, if any.

Invite this group to a two-day expert panel meeting (see Annex 2).

Gather Background Documents and Extract Data

An MCHIP/Country focal person with knowledge of MNH practice and measurement—supported by an MCHIP/Washington focal person—should work with partners in the MoH to collect background information on location of births, policies, guidelines, and any studies or other information useful for making coverage estimates in each of the relevant settings. This includes information on who is sanctioned to provide uterotonics, magnesium sulfate, chlorhexidine, and dexamethasone in facilities or during home birth, what formulations are in use, and whether community-based misoprostol or chlorhexidine distribution for home births exists and the extent of coverage. Data should be drawn from MoH HMIS documents and reports, where available, the most recent Demographic and Health Survey (DHS) and/or Multiple Indicator Cluster Survey (MICS) reports, Service Provision Assessment (SPA) health facility assessments, MCHIP quality of care (QoC) observational surveys, Prevention of Postpartum Hemorrhage Initiative (POPPHI) surveys, and any other relevant documents (see Annex 3).

Depending on the country setting, there may not be many documents beyond policies, guidelines, and DHS reports, in which case this process should be relatively straight-forward. If the country has a variety of different studies on provision of services or commodity availability, however, the variability of data quality and representativeness must be taken into account, demanding additional time and effort (see Annex 9).

The MCHIP/Country focal person extracts and collates all relevant information from the data sources (see Annex 4), and then shares it with the MCHIP/Washington support person.

Send the Expert Panel the Pre-Meeting Questionnaires and Review Responses

Using information gathered from the background documents, an MCHIP/Country focal person customizes the Pre-Meeting Questionnaires (see Annexes 5-8) and sends them to the expert panel to complete and return prior to the meeting. The background documents should be shared with the expert panel at this time to ensure that every participant is familiar with all data sources before they arrive at the meeting. This will also hopefully encourage the experts to suggest additional data sources, if they know of any.

Once the Pre-Meeting Questionnaires have been returned, an MCHIP/Country focal person collates and analyzes the responses for presentation at the meeting. They should have a discussion with especially knowledgeable members of the expert panel before the meeting to review the data received from all the experts, provide input, and help prepare a summary of the information to be presented at the meeting.

If the background documents or expert panel questionnaires reveal that there are ongoing programs for community distribution of uterotonics or chlorhexidine in the country, the MCHIP/Country focal person should assemble the relevant data needed to estimate coverage of such programs. Examples include: number of districts in which program is being implemented; percent of population living in those districts; and coverage of the program in those districts. This information will be used during the expert panel meeting to estimate intervention coverage for home births.

Conducting the Expert Panel Meeting

The MCHIP/Country focal person and MCHIP/Washington support person co-facilitate the meeting of the expert panel. The meeting should begin with a discussion of the purpose of the exercise and a review of the methodology being used to generate a national coverage estimate for each intervention. See Annex 10 for an illustrative agenda for the expert panel meeting. Intervention coverage worksheets have been developed to help interactively apply the algorithm during the expert panel meeting. A non-interactive copy of the Uterotonics Worksheet can be found in Annex 11, but the facilitators should request the interactive Microsoft Excel versions of these worksheets (one for each intervention) for use during the meeting. It is strongly recommended that two people support the facilitator during the workshop: one to fill in the worksheets as the panel agrees on what percentages should be input, and one to take notes on any assumptions that are being made as the panel comes to consensus on these percentages. (For an example of the types of assumptions that need to be recorded during the workshop, please see the model summary report in Annex 13.)

Step 1: Reach Consensus on Distribution by Location

The facilitators present a synthesis of the information gathered from the background documents (Annexes 3-4) and from the answers the panel members provided in the Pre-Meeting Questionnaires (Annexes 5-8) regarding distribution by location. The goal of this step is to answer the question, "what proportion of cases requiring the intervention happen where?", or in other words, to construct the "sizes of the slices" of the pie chart in Annex 11. Areas of agreement should be noted. Where there is not consensus, further discussion should be elicited until a consensus is reached.

The expert panel members are asked to agree on any stratifications of setting that may have differing levels of coverage for the intervention, specifically the variation by type of health facility (hospital, health center, health post, etc.). Consideration should be given to which cadres of health worker are authorized to deliver the intervention, as this may impact the panel's assessment of whether or not to stratify by facility level. For instance, if public rural health facilities are not always staffed by health cadres authorized to administer the intervention, but public urban health facilities *are* always staffed by those cadres, then coverage levels are likely to differ between these two facility types and public sector facilities should therefore be stratified to account for these differing coverage levels. If there's disagreement on whether or not coverage levels differ between sub-settings (e.g. some panelists feel chlorhexidine use is more common at hospitals than at health centers or health posts, but other panelists feel chlorhexidine is administered at the same rate in all public sector facilities), the sub-setting stratifications should be included for this step. Intervention coverage levels for each setting and sub-setting will be discussed in depth in Steps 2 and 3, so any remaining disagreements will be addressed then. If it's determined during Steps 2 and 3 that the sub-setting stratification is unnecessary, it can be disregarded at that time.

If the panel is considering differing data from multiple sources, the facilitators should help them think critically about how to compare the relative accuracy of each source (see Annex 9).

Once the panelists have collectively reviewed the information and achieved consensus, the facilitators fill in the "Proportion of Deliveries"[1] column in the Worksheet, making note of which data sources were used for each row. Although there is an "Other/Missing" row in the Worksheet, this is only intended for use as a last resort if the panel doesn't feel that all cases

[1] This column is labeled "Proportion of Deliveries" in the Uterotonics Worksheet and the Chlorhexidine Worksheet, but is labeled "Proportion of Cases of SPE/E" and "Proportion of Cases of Preterm Birth" in the Magnesium Sulfate Worksheet and the Dexamethasone Worksheet, respectively.

requiring the intervention have been captured under the other settings and sub-settings. Most often, this row will be needed when the data source being used reports "unknown" data.

The facilitators should be sure to revisit this "Proportion of Deliveries"[i] column each time they move on to a new intervention, as the distribution by location may change from one intervention to the next. For instance, if lower level health facilities tend to refer women at risk of delivering preterm to higher level facilities, then the "Proportion of Cases of Preterm Birth" column in the Dexamethasone Worksheet will have a different distribution than the "Proportion of Deliveries" column in the Uterotonics Worksheet.

Worksheet Tip: A red cell will appear in the "Proportion of Deliveries"[i] column if the percentages in this column don't add up. The percentages from black rows must sum to 100%. In addition, the percentage listed for each setting (black row) must equal the sum of its sub-setting percentages (e.g. "Home/Community" = "Home birth: With SBA" + "Home birth: Without SBA").

Step 2: Reach Consensus on Provider Performance

The facilitators present a synthesis of the information gathered from relevant studies (if any) on provision of services and from the answers the panel members provided in the Pre-Meeting Questionnaires (Annexes 5-8) regarding delivery of the intervention. The goal of this step is to answer the question, "what percent of the time would birth attendants deliver the intervention if there were no barriers to doing so?" (See the previous section on 'Algorithm for Calculating National Coverage' for further details.) This question must be answered for each setting or sub-setting identified in Step 1. It's unlikely that much data will exist on this matter, so the panel should be encouraged to discuss their perspectives and develop approximate rates of service delivery for each setting or sub-setting. Areas of agreement should be noted. Where there is not consensus, further discussion should be elicited until a consensus is reached.

In recognition that these estimates will not be precise, the panelists may also propose a range for provider performance in each setting or sub-setting. These ranges will be incorporated into the algorithm to allow for sensitivity analysis of the final national coverage estimate. The panel may not *only* provide a range, however; a point estimate must also be supplied.

If the panel is struggling to choose a point estimate, it may be helpful to offer the following scale as a starting point: "never"=0%; "rarely"=20%; "sometimes"=40%; "often"=60%; "usually"=80%; "always"=100%.

If there are any ongoing programs for community distribution of uterotonics or chlorhexidine in the country, the facilitators should elicit discussion on these programs so that the panel considers what impact there may be on intervention coverage at home births. Share the data assembled by the MCHIP/Country focal person (see the previous section on 'Preparation for Expert Panel Meeting'; last paragraph) and work with the panel to calculate what percent of home births are impacted by the community distribution program. Then use a weighted average approach to determine what the overall provider performance rate should be in that setting. For instance, imagine that a country has rolled out a community distribution program for misoprostol in one of its five counties (assume population is evenly distributed across those five counties). If program penetration is 100% in that one district, and 90% of women who receive misoprostol through the community distribution program take it after they deliver, then provider performance for women delivering at home without an SBA is: [80% x 0%] + [20% x 100% x 90%] = 18%. This weighted average takes into account the 80% of women living in the four districts not affected by the community distribution program (who therefore received a uterotonic 0% of the time when delivering at home without an SBA), as well as the 20% of women who live in the one district where the program has been rolled out.

Worksheet Tip: The Uterotonics Worksheet and Chlorhexidine Worksheet contain a sub-worksheet that can be used to help calculate provider performance for "Home birth: Without SBA". The sub-worksheet is labeled "Community Distrib. Breakdown".

If the panel is considering differing data from multiple sources, the facilitators should help them think critically about how to compare the relative accuracy of each source (see Annex 9).

Once the panelists have collectively reviewed the information and achieved consensus on provider performance for each setting or sub-setting, the facilitators fill in the "Provider Performance" columns—both "Estimate" and "Range"—in the Worksheet, making note if any data sources were used.

Worksheet Tip: ***Always*** include a range in the "Provider Performance" column. This is necessary for the algorithm to produce an accurate sensitivity analysis.

Worksheet Tip: If the panel believes that provider performance varies between different health cadres within the same facility level, there is a sub-worksheet in the Uterotonics Worksheet, Magnesium Sulfate Worksheet, and Dexamethasone Worksheet that can be used to help calculate overall provider performance for the facility level as a whole. The sub-worksheet is labeled "Cadre Breakdown (Facilities)". This sub-worksheet also addresses the issue of authorized personnel, which is discussed below in 'Step 3'.

Step 3: Reach Consensus on Adjusting Factors

The facilitators present a synthesis of the information gathered from the background documents (Annexes 3-4) and from the answers the panel members provided in the Pre-Meeting Questionnaires (Annexes 5-8) regarding adjusting factors. The goal of this step is to answer the question, "what percent of the time do barriers prevent birth attendants from effectively delivering the intervention?" These estimates will be used to adjust the provider performance estimates from Step 2 so that the true rate of intervention delivery can be determined. Areas of agreement should be noted. Where there is not consensus, further discussion should be elicited until a consensus is reached.

Depending on the intervention being discussed, there are different types of barriers that should be considered:

- **Stock-In Rate**—What percent of the time is the commodity of interest (uterotonics, magnesium sulfate, chlorhexidine, dexamethasone) in stock in that setting? For instance, if birth attendants in NGO facilities possess the KSA to apply chlorhexidine to the umbilical cord at every birth (100% provider performance), but chlorhexidine is only in stock 75% of the time, then the service delivery rate for that intervention will be 75% instead of 100%. It's important to note that if HMIS data were used to estimate provider performance for the public sector, then stock-in rate will likely have already been accounted for in Step 2 for public sector settings and should not be factored in again here. If data is available on stock-in rates in the country and the panel feels comfortable deducing how much of an impact stock-outs likely had on the HMIS data, they can adjust the provider performance estimate from Step 2 so that it truly reflects *only* provider KSA, and then include a stock-in rate as an adjusting factor. For example, if HMIS data reports 60% uterotonic use in public health centers, but it is known that public health centers experience only an 80% stock-in rate for uterotonics, the provider performance estimate can be increased from 60% to 75% to extract the negative impact of stock-outs, and an 80% stock-in rate can be included as an adjusting factor (75% x 80% = 60%, the value recorded in HMIS). For uterotonics, the panel should consider whether misoprostol is ever used when oxytocin is out of stock.

- **Authorized Personnel**—What percent of the time are births attended by health personnel authorized to administer the medication? For instance, in public sector hospitals physicians may possess the KSA to administer magnesium sulfate in all cases of SPE/E (100% provider performance), but if 15% of SPE/E cases at hospitals are attended by nurses rather than physicians, and if nurses are not authorized to administer magnesium sulfate, then the service delivery rate for that intervention will be 85% instead of 100%. Consider not only what percent of cases are attended by unauthorized health personnel, but also what percent are not attended by health personnel at all.

  Worksheet Tip: The Uterotonics Worksheet, Magnesium Sulfate Worksheet, and Dexamethasone Worksheet contain a sub-worksheet that can be used to help calculate a value for authorized personnel. The sub-worksheet is labeled "Cadre Breakdown (Facilities)".

- **Drug Quality**—What percent of the time is the commodity being administered efficacious? For instance, birth attendants in the private sector may administer uterotonics immediately following every birth (100% provider performance), but if the country's cold chain is unsound and as a result 20% of oxytocin in the health system is not potent, then the service delivery rate for that intervention will be 80% instead of 100%.

When discussing adjusting factors, it's important that the panel consider whether any of these influences might already be factored into the provider performance estimate from Step 2. The facilitators should emphasize the importance of not double-counting the effects of these barriers.

Each Worksheet has been designed to address the barriers most likely to influence that intervention. If the background documents or Pre-Meeting Questionnaires reveal a different barrier than those included in the Worksheet, an additional "Adjusting Factors" column should be added to the Worksheet **prior to the meeting.**

If the panel is considering differing data from multiple sources, the facilitators should help them think critically about how to compare the relative accuracy of each source (see Annex 9).

Once the panelists have collectively reviewed the information and achieved consensus on what barriers to service delivery exist in each setting or sub-setting, the facilitators fill in the "Adjusting Factors" columns, making note if any data sources were used.

Worksheet Tip: All adjusting factors should be input into the Worksheet as positive factors (e.g. stock-in rate, not stock-out rate).

Worksheet Tip: If the panel determines that an adjusting factor has no influence on intervention coverage rates (e.g. there are never any stock-outs in the country), then that "Adjusting Factors" column should be populated with 100% for every setting. If the panel does not know whether or not an adjusting factor has an influence on intervention coverage rates (e.g. the oxytocin supply in the country has never been tested for potency), then that "Adjusting Factors" column should be left blank or marked as "unknown".

Final Calculation of National Coverage

Once Steps 1-3 have been completed, the Worksheet will display the national coverage estimate and range. The facilitators review and discuss this finding with the expert panel to make sure there is consensus for the estimate. Refer to the charts found in the Worksheet to provide a visual illustration of the findings from the exercise. The facilitators should also engage the group in a discussion of what research priorities might improve the accuracy of the estimate.

Gap Analysis

Now that a national coverage estimate has been reached and the panel can see how service delivery in each setting contributes to overall coverage, the facilitators should lead the panel through a process of considering what policy or program changes might increase the national coverage estimate.

Three types of gaps in intervention delivery should be considered:

- **Access** (corresponds to Distribution by Location/"Proportion of Deliveries" column) - Should programs be pursued to change where women deliver?
- **Provider Performance** - Should trainings be pursued to increase provider KSA? Should a platform for community-delivery of the intervention be considered?
- **Systems** (corresponds to Adjusting Factors) - Should programs be pursued to improve supply chain management? Should policies be considered that would expand which cadres are authorized to administer the medication? Should there be stricter regulations on drug manufacturers or more resources allocated to improve the country's cold chain?

Each Worksheet contains a sub-worksheet intended for this gap analysis. The sub-worksheet pulls all the inputs from the initial estimation exercise and includes additional columns that can be used to model changes in distribution by location, provider performance, or adjusting factors. Multiple scenarios should be tested so that comparisons can be made between the outcomes. The panel should consider both the impact and the feasibility of any proposed policy or program changes.

Worksheet Tip: The initial estimation exercise inputs are pulled into the gap analysis sub-worksheet twice: once in the "Original" column (in grey font), and once in the "Projected" column (in red font). To test out a scenario, change the value(s) in the "Projected" column that would be impacted by the policy or program change being proposed. These new values will be used to calculate a "Projected National Coverage Estimate" in the lower right hand corner of the worksheet. To test out a different scenario, simply return all the "Projected" cells to their original values (which will still be displayed in the "Original" columns) and start the process over.

Action Plan

The meeting concludes by developing an action plan with recommendations for increasing national coverage of each intervention (based on the impact and feasibility assessments made during the gap analysis) and improving the information for estimating national coverage of each intervention.

The following questions may be helpful to guide the recommendations from the panel:

- Is the intervention included in the national policy or strategy? Is there an advisory group or a coordination mechanism to support the roll-out of the intervention?
- Is provision of the intervention a strategy at facility-level, household/community-level, or both?
- Is there a costing for the intervention?
- How does the intervention propose to address equity in service delivery? Are there any gender issues that need to be considered while planning for the intervention, like training of male or female health workers or community health workers?
- Is the MoH procuring and distributing sufficient quantities of the needed commodities within its normal logistics system?

- Is there a training plan and supportive supervision plan for building capacity of health workers and/or community health workers for the intervention?
- Are the necessary indicators included in appropriate sources for improving data on national coverage of each intervention? What are some lower-level approaches to improve monitoring and use of data for increasing quality and coverage of the intervention?

Follow-Up after the Expert Panel Meeting

After the meeting, the MCHIP/Washington staff involved in facilitating the meeting—in conjunction with MCHIP/Country staff —write a brief report on the process and consensus values (see Annex 13). This report should be sent to the expert panel for their review and approval, and then shared with the MoH and USAID and disseminated to other relevant country stakeholders.

TIPS FOR PREPARING FOR AND CONDUCTING THE MEETING

- Involve the MoH early in the process to build a sense of ownership and buy-in.
- In the days leading up to the meeting, schedule time for the facilitators (both MCHIP/Country and MCHIP/Washington) to meet with the MoH and any other key stakeholders to review the data gathered and plan the expert panel meeting. This helps to ensure that all key players are on the same page in advance; it's undesirable for the first discussions with stakeholders to occur at the outset of the expert panel meeting.
- Adhere to the timeline laid out in Annex 1 as much as possible.
- Invitees should include both clinical people and "data" people who can bring knowledge not only of actual practices but also of the strengths and limitations of the data.
- Ensure that the data collection and synthesis activities outlined under 'Preparation for Expert Panel Meeting'—both the background documents and the Pre-Meeting Questionnaires—are completed. This greatly facilitates discussion during the meeting and the ability to reach a consensus more quickly.
- There are usually good data for birth location, often from the latest DHS and/or MICS. This part of the group discussion (Step 1) should not take long.
- It is important that everyone is comfortable that they have the latest guidelines and have discussed and come to consensus on who is authorized to give a uterotonic and who, in fact, attends deliveries (including ***non-health*** personnel in some instances).
- If the panel must consider differing data from multiple sources, provide guidance on how to weight the data (see Annex 9).
- When discussing the quantitative estimates of service delivery in Steps 2 and 3, one particularly vocal person should not be allowed to dominate. If needed, put people in separate small groups or use a nominal group technique (e.g. everyone gets one vote about the topic, using a sticker to be affixed to a chart listing the possibilities) in order to minimize the influence of a single person.

Annex 1. Process Overview

ACTIVITY	RESPONSIBLE PARTY	TIME REQUIRED
7-8 Weeks before Expert Panel Meeting		
Select expert panel for meeting	MCHIP/Country team *(MCHIP/DC will support)*	½ day
Identify & contact potential venues	MCHIP/Country team	½ day
5-6 Weeks before Expert Panel Meeting		
Send invites to expert panel	MCHIP/Country team	½ day
Schedule in-country stakeholder meetings for week of expert panel meeting	MCHIP/Country team *(MCHIP/DC will support)*	½ day
Gather, review & extract relevant information from background documents (send to MCHIP/DC for review)	MCHIP/Country team	4-6 days
Confirm venue & make arrangements for meeting	MCHIP/Country team	½ day
4 Weeks before Expert Panel Meeting		
Prepare meeting survey with information gathered from background documents	MCHIP/Country team	½ day
Send meeting survey to expert panel (request responses within 2-3 weeks)	MCHIP/Country team	½ day
1-2 Weeks before Expert Panel Meeting		
Review responses to survey & synthesize information for presentation at meeting	MCHIP/Country team	2 days
Finalize meeting details with venue	MCHIP/Country team	½ day
Week of Expert Panel Meeting		
Monday/Tuesday: In-country stakeholder meetings	MCHIP/DC MCHIP/Country team	2 days
Wednesday/Thursday: Facilitate meeting	MCHIP/DC MCHIP/Country team	2 days
Friday: Post-meeting follow up, including preparing summary of meeting findings	MCHIP/DC	1 day
Week after Expert Panel Meeting		
Draft summary of workshop findings (send to MCHIP/DC for review)	MCHIP/Country team	1 day

Total time commitment:	**16-18 days**

Annex 2. Expert Panel Invitation Template

[Date]

Dear Colleague,

The U.S. Agency for International Development's Maternal and Child Health Integrated Program (MCHIP) is pleased to invite you to the [Liberia] Expert Panel Meeting for Estimating National Coverage of Interventions for Maternal & Newborn Health, to be held [May 21-22, 2014]. In recognition of your leadership and extensive experience in maternal and newborn health (MNH) practice and measurement in [Liberia], we would be honored for you to join this select group of MNH professionals and contribute your expertise to help develop national coverage estimates for four life-saving interventions.

MCHIP has developed a rapid estimation methodology that attempts to address the lack of national coverage data for key MNH services. The methodology has been tailored to measure four interventions: use of uterotonic immediately following birth, use of magnesium sulfate for severe pre-eclampsia/eclampsia, application of chlorhexidine for umbilical cord care, and administration of dexamethasone for threatened preterm birth. The methodology involves gathering existing country-level data on these interventions from various sources which, independently, don't measure coverage for the whole population, and then convening a panel of country experts in MNH, measurement, and commodities to review the information that does exist, use the Delphi method to approximate data that is limited or lacking, and apply an algorithm to generate an estimate of national coverage for each of the interventions. The goal of this exercise is to identify coverage gaps—where and why [Liberian] women and babies are not receiving these services—to help promote programs and policies that will achieve broader coverage for the country as a whole.

To facilitate a more productive and rich conversation, we will compile and share a list of background documents and a questionnaire for you to complete prior to the meeting. Should you not be able to attend the meeting but are interested in participating in the process, please let us know so we can share the pre-meeting documents with you and include you in any post-meeting dialogues.

We sincerely hope you will be able to join us for this important activity. Please RSVP to [Contact]. Details regarding the meeting venue will be circulated soon. Thank you.

Best regards,

[Name]

Annex 3. National Background Documents

This is the list of documents that MCHIP/Country focal persons should solicit prior to the meeting of the expert panel in order to gather information on delivery settings, use of uterotonics, magnesium sulfate, chlorhexidine, and dexamethasone, and policies/guidelines related to the use of these commodities. The focal persons will synthesize the information found in these documents (see Annex 4 for a template) for presentation to the expert panel. It is recommended that this information be shared with the expert panel in advance of the meeting.

- ☐ National census, or international sources such as World Population Prospects or Population Reference Bureau
- ☐ Latest maternal/newborn health report from Ministry of Health (analyzing HMIS or other data)
- ☐ HMIS or community HIS
- ☐ Latest Demographic and Health Survey (DHS)
- ☐ Latest Multiple Indicator Cluster Survey (MICS)
- ☐ Other household survey reports, maternal/newborn/child health sections
- ☐ Maternal and newborn death audits
- ☐ National reproductive health (RH)/maternal and newborn health (MNH) clinical guidelines or standards
- ☐ National strategies for maternal/newborn/child health
- ☐ National essential medicines list
- ☐ National medical formulary
- ☐ Job descriptions and scopes of practice for different health worker cadres (physicians, clinical officers, midwives, nurses, etc.) from the Boards of Nursing/Midwifery/Medicine or from national regulations
- ☐ Service Provision Assessment (SPA)
- ☐ Service Availability and Readiness Assessment (SARA)
- ☐ Emergency obstetric and newborn care (EmONC) facility assessments
- ☐ Averting Maternal Death & Disability (AMDD) assessment
- ☐ Other health facility assessments with maternal/newborn health information
- ☐ Quality of care (QoC) studies conducted by MCHIP (if available), or other observational studies
- ☐ National program documents/reports on community-based interventions (only relevant for uterotonics and chlorhexidine)
- ☐ Any policy documents or country data available on the commodity (stock-outs, quality, etc.)
- ☐ Situation analysis reports on maternal/newborn/child health topics
- ☐ A Promise Renewed country-specific documents (only relevant for chlorhexidine)
- ☐ Any other relevant documents on maternal/newborn/child health services

Annex 4. Data from National Background Documents Review

Once all the national background documents have been collected (see Annex 3 for a list), MCHIP/Country focal persons should review the various data sources to answer the questions/parameters found below. If multiple data sources have information relating to the same question/parameter, please be sure to include responses from **all** data sources in that row. The comments column should be used for any remarks that may offer context to the data entered into the response column. For example, if there are concerns about the validity or generalizability of a data source (Annex 9 has more information on weighting data sources), please include that information in the comments column.

Please note: This should not be considered an exhaustive list of the information to be collected prior to the meeting of the expert panel. This template is simply intended to help structure the background documents review process to ensure that key information is located and extracted. The MCHIP/Country focal persons are encouraged to add rows or columns for any other data that might better inform the national coverage estimate.

The information collected via this background document review should be shared with the expert panel in advance of the meeting, ideally when the Pre-Meeting Questionnaires (Annexes 5-8) are sent out for completion.

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Demographics			
Population and birth rates ▪ *If a community-based program (misoprostol, chlorhexidine) exists in certain counties/districts, also gather population rates by county/district* ▪ *Suggested source(s):* - *National census* - *International sources such as World Population Prospects or Population Reference Bureau*			
Births, by location ▪ *Home, stratified by SBA vs. non-SBA* ▪ *Facility, stratified by facility type (public vs. private vs. FBO vs. NGO) and facility level (e.g. health center vs. hospital)* ▪ *Suggested source(s):* - *Latest maternal/newborn health report from Ministry of Health (analyzing HMIS or other data)* - *Latest DHS* - *Latest MICS* - *Other household survey reports, maternal/ newborn/child health sections*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Births, by health cadre attending birth ▪ *e.g. physicians, clinical officers, midwives, nurses, non-SBAs, etc.* ▪ *Stratified by facility type and facility level* ▪ *Suggested source(s):* - *Latest DHS* - *Latest MICS* - *Other household survey reports, maternal/ newborn/child health sections* - *Latest maternal/newborn health report from Ministry of Health (analyzing HMIS or other data)* - *HMIS or community HIS*			
Maternal deaths, by cause ▪ *Suggested source(s):* - *Death audits* - *HMIS*			
Newborn deaths, by cause ▪ *Still births (fresh & macerated)* ▪ *Live births* ▪ *Early neonatal deaths (within 7 days), by cause* ▪ *Newborn deaths (within 28 days), by cause* ▪ *Suggested source(s):* - *Death audits* - *HMIS*			
Uterotonic for Postpartum Hemorrhage (PPH)			
Policy on use of drug ▪ *Oxytocin and misoprostol* ▪ *Suggested source(s):* - *National RH/MNH clinical guidelines or standards* - *National strategies for maternal/newborn/child health*			
Prescribed use of uterotonics ▪ *Indications* ▪ *Regimen* ▪ *Part of AMTSL?* ▪ *First line drug for PPH prevention?* ▪ *Suggested source(s):* - *National essential medicines list* - *National medical formulary* - *National RH/MNH clinical guidelines or standards*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Level of cadre authorized to administer uterotonics ▪ *Oxytocin and misoprostol* ▪ *Different from level of cadre authorized to perform AMTSL (if applicable)?* ▪ *Are there any facility types and/or levels that are not staffed by cadres authorized to administer uterotonics? (Consider facility assignments specified in source(s) below, but also common practice)* ▪ *Suggested source(s):* - *Job descriptions and scopes of practice for physicians, clinical officers, midwives, nurses, etc.*			
Use of uterotonics ▪ *Frequency of administration for PPH prevention (i.e. immediately following birth, often as part of AMTSL), stratified by facility type and facility level* ▪ *Frequency of administration for PPH treatment (i.e. following PPH diagnosis), stratified by facility type and facility level* ▪ *Suggested source(s):* - *HMIS or community HIS* - *SPA, SARA, EmONC facility assessments, or other health facility assessments with maternal/ newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies*			
Community-based uterotonic provision ▪ *Which counties/districts* ▪ *Program coverage/penetration in those areas* ▪ *Distribution mechanism (e.g. given directly to woman by SBAs during ANC? or by CHWs? does it have to be administered by another provider, such as TBA or CHW?)* ▪ *Suggested source(s):* - *National program documents/reports on community-based interventions* - *HMIS or community HIS*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Data on commodity availability and quality ▪ *Stock-outs (oxytocin or misoprostol)* ▪ *Cold chain (oxytocin)* ▪ *Suggested source(s):* - *HMIS or community HIS* - *SPA, SARA, EmONC facility assessments, AMDD assessment, or other health facility assessments with maternal/newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies* - *Any policy documents or other country data available on the commodity (stock-outs, quality, etc.)*			
Other related information ▪ *Suggested source(s):* - *Situation analysis reports on maternal/newborn/ child health topics* - *Any other relevant documents on maternal/ newborn/child health services*			
Magnesium Sulfate for Severe Pre-Eclampsia/Eclampsia (SPE/E)			
Policy on use of drug ▪ *Suggested source(s):* - *National RH/MNH clinical guidelines or standards* - *National strategies for maternal/newborn/child health*			
Prescribed use of magnesium sulfate ▪ *Indications* ▪ *Regimen* ▪ *First line drug for treatment of SPE/E?* ▪ *Suggested source(s):* - *National essential medicines list* - *National medical formulary* - *National RH/MNH clinical guidelines or standards*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Level of cadre authorized to administer magnesium sulfate ▪ *Different from level of cadre authorized to diagnose SPE/E?* ▪ *Are there any facility types and/or levels that are not staffed by cadres authorized to administer magnesium sulfate? (Consider facility assignments specified in source(s) below, but also common practice)* ▪ *Suggested source(s):* - *Job descriptions and scopes of practice for physicians, clinical officers, midwives, nurses, etc.*			
Opportunities for administration of magnesium sulfate ▪ *Number of cases diagnosed with SPE/E* ▪ *Data on high blood pressure during ANC and L&D, including what proportion of time blood pressure is taken* ▪ *Suggested source(s):* - *Latest maternal/newborn health report from Ministry of Health (analyzing HMIS or other data)* - *HMIS* - *QoC studies conducted by MCHIP (if available), or other observational studies*			
Use of magnesium sulfate ▪ *Frequency of administration for SPE/E treatment, stratified by facility type and facility level* ▪ *Suggested source(s):* - *HMIS* - *SPA, SARA, EmONC facility assessments, or other health facility assessments with maternal/ newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies*			
Data on commodity availability ▪ *Stock-outs* ▪ *Suggested source(s):* - *HMIS* - *SPA, SARA, EmONC facility assessments, AMDD assessment, or other health facility assessments with maternal/newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies* - *Any policy documents or other country data available on the commodity (stock-outs, etc.)*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Other related information ▪ *Suggested source(s):* - *Situation analysis reports on maternal/newborn/ child health topics* - *Any other relevant documents on maternal/ newborn/child health services*			
Chlorhexidine for Umbilical Cord Care			
Policy on use of drug ▪ *Suggested source(s):* - *National RH/MNH clinical guidelines or standards* - *National strategies for maternal/newborn/child health*			
Prescribed use of chlorhexidine ▪ *Indications* ▪ *Regimen* ▪ *First line drug for umbilical cord care?* ▪ *Suggested source(s):* - *National essential medicines list* - *National medical formulary* - *National RH/MNH clinical guidelines or standards*			
Level of cadre authorized to administer chlorhexidine ▪ *Suggested source(s):* - *Job descriptions and scopes of practice for physicians, clinical officers, midwives, nurses, etc.*			
Use of chlorhexidine ▪ *Frequency of administration, stratified by facility type and facility level* ▪ *Suggested source(s):* - *HMIS or community HIS* - *SPA, SARA, or other health facility assessments with maternal/newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Community-based chlorhexidine provision ▪ *Which counties/districts* ▪ *Program coverage/penetration in those areas* ▪ *Distribution mechanism (e.g. given directly to woman by SBAs during ANC? or by CHWs?)* ▪ *Suggested source(s):* - *National program documents/reports on community-based interventions* - *HMIS or community HIS*			
Data on commodity availability ▪ *Stock-outs* ▪ *Suggested source(s):* - *HMIS or community HIS* - *Any policy documents or other country data available on the commodity (stock-outs, etc.)*			
Other related information ▪ *Suggested source(s):* - *Situation analysis reports on maternal/ newborn/child health topics* - *A Promise Renewed country-specific documents* - *Any other relevant documents on maternal/newborn/child health services*			
Dexamethasone for Threatened Preterm Birth			
Policy on use of drug ▪ *Dexamethasone or other antenatal corticosteroid (ACS)* ▪ *Suggested source(s):* - *National RH/MNH clinical guidelines or standards* - *National strategies for maternal/newborn/child health*			
Prescribed use of dexamethasone/ACS ▪ *Indications* ▪ *Regimen* ▪ *First line drug for threatened preterm birth (i.e. following diagnosis of preterm labor, preterm prelabor rupture of membranes, antepartum hemorrhage, or severe pre-eclampsia/eclampsia)?* ▪ *Suggested source(s):* - *National essential medicines list* - *National medical formulary* - *National RH/MNH clinical guidelines or standards*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Level of cadre authorized to administer dexamethasone/ACS ▪ Full regimen ▪ First dose prior to referral ▪ Different from level of cadre authorized to diagnose preterm labor, preterm prelabor rupture of membranes, antepartum hemorrhage, or severe pre-eclampsia/eclampsia? ▪ Are there any facility types and/or levels that are not staffed by cadres authorized to administer dexamethasone/ACS? (Consider facility assignments specified in source(s) below, but also common practice) ▪ *Suggested source(s):* - *Job descriptions and scopes of practice for physicians, clinical officers, midwives, nurses, etc.*			
Opportunities for administration of dexamethasone/ACS ▪ Number of cases diagnosed as preterm birth ▪ Data on cases of preterm labor, preterm prelabor rupture of membranes, antepartum hemorrhage, or severe pre-eclampsia/eclampsia ▪ Data on gestational age or birth weights ▪ *Suggested source(s):* - *Latest maternal/newborn health report from Ministry of Health (analyzing HMIS or other data)* - *HMIS*			
Use of dexamethasone/ACS ▪ Frequency of administration for threatened preterm birth, stratified by facility type and facility level ▪ *Suggested source(s):* - *HMIS* - *SPA, SARA, or other health facility assessments with maternal/newborn health information* - *QoC studies conducted by MCHIP (if available), or other observational studies*			

QUESTION/PARAMETER	RESPONSE	SOURCE(S) (include date, page number)	COMMENTS (e.g. information on validity/generalizability)
Data on commodity availability ▪ Stock-outs ▪ *Suggested source(s):* - *HMIS* - *SPA, SARA, EmONC facility assessments, or other health facility assessments with maternal/ newborn health information* - *Any policy documents or other country data available on the commodity (stock-outs, etc.)*			
Other related information ▪ *Suggested source(s):* - *Situation analysis reports on maternal/ newborn/child health topics* - *Any other relevant documents on maternal/newborn/child health services*			

Annex 5. Pre-Meeting Questionnaire: Uterotonics

This questionnaire is to be filled out by all experts on the panel prior to meeting.

The MCHIP/Country focal person should consider customizing this template based on the data collected from the background documents in Annex 3. It may be beneficial to complete the questionnaire using the background documents, and then send both a completed and blank questionnaire to the expert panel. This will allow the panel to review the data already collected and make their own judgments about whether those data are accurate, or if other data sources should be considered.

Once the expert panel has completed and returned this questionnaire, the MCHIP/Country focal person will review and synthesize the information for presentation at the meeting.

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
1A	What proportion of births occur at facilities vs. at home?	Facility..... _____% Home ..... _____%		
1B	Of those births that occur in a facility, what proportion occur in each type of facility?	Public facilities ..... _____% If known, please provide breakdown by public facility level: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers..... _____% Health posts ..... _____% Private facilities..... _____% Faith-based organization (FBO) facilities ..... _____% Non-governmental organization (NGO) facilities ..... _____% Other facilities (specify)..... _____%		
2	What uterotonic(s) are included in the national guidelines for prevention of postpartum hemorrhage (PPH)?	Select all that apply: Oxytocin ..... Yes☐ No☐ Misoprostol..... Yes☐ No☐ Ergometrine..... Yes☐ No☐ Syntometrin ..... Yes☐ No☐ Other (specify) ..... .Yes☐ No☐		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
3	What facilities are authorized to provide a uterotonic for prevention of PPH?	Select all that apply: All facilities ..... Yes☐ No☐ Public facilities National hospitals..... Yes☐ No☐ Regional/Referral hospitals ..... Yes☐ No☐ District hospitals ..... Yes☐ No☐ Health centers..... Yes☐ No☐ Health posts ..... Yes☐ No☐ Private facilities ..... Yes☐ No☐ FBO facilities..... Yes☐ No☐ NGO facilities..... Yes☐ No☐ Other facilities (specify)..... Yes☐ No☐		
4A	Which health workers are authorized to provide a uterotonic for prevention of PPH in a facility? (Please consider SBAs only.)	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ Auxiliary Nurse..... Yes☐ No☐ Auxiliary Nurse Midwife..... Yes☐ No☐ Nurse Assistant ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
4B	Are there cadres of workers who attend facility births but who are not authorized to provide a uterotonic for prevention of PPH?	Yes☐ No☐ If yes, please specify _____		
5A	Are there any data on the proportion of facility births that receive a uterotonic for prevention of PPH?	Yes☐ No☐ Don't know☐ If yes, see 5B If no/don't know, see 5C		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
5B	What proportion of facility births receive a uterotonic for prevention of PPH in each type of facility?	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers..... _____% Health posts ..... _____% Private facilities..... _____% FBO facilities..... _____% NGO facilities..... _____% Other facilities (specify)..... _____%		
5C	If no data exist, in your opinion, what proportion of facility births receive a uterotonic for prevention of PPH in each type of facility? (If a point estimate is not possible, please consider using the following categories: never - rarely - sometimes - often - usually - always.)	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers..... _____% Health posts ..... _____% Private facilities..... _____% FBO facilities..... _____% NGO facilities..... _____% Other facilities (specify)..... _____%		
6A	Is use of a uterotonic for prevention of PPH authorized for home births?	Yes☐ No☐ If yes, see 6B-6C If no, proceed to 7A		
6B	Which health workers or other cadres are authorized to administer a uterotonic for prevention of PPH at home births at home births?	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ CHW ..... Yes☐ No☐ TBA..... Yes☐ No☐ Relatives..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
6C	Which health workers or other cadres are authorized to distribute uterotonics for prevention of PPH at home births at home births?	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ CHW ..... Yes☐ No☐ TBA ..... Yes☐ No☐ Relatives ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
6D	Is there a program for use of a uterotonic for prevention of PPH at home births?	Yes☐ No☐ No, but women buy from market☐ If yes, see 6E-6F If no, proceed to 7A		
6E	What percentage of the population is covered by the program for use of a uterotonic for prevention of PPH at home births?	Indicate either: % of the population ..... _____% -or- # of districts..... _____ -or- Don't know..... ☐		
6F	What uterotonic(s) are included in the program for use of a uterotonic for prevention of PPH at home births?	Select all that apply: Oxytocin ..... Yes☐ No☐ Misoprostol..... Yes☐ No☐ Ergometrine ..... Yes☐ No☐ Syntometrin ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
7A	Are there any data on stock-outs of uterotonics in facilities?	Yes☐ No☐ Don't know☐ If yes, see 7B If no/don't know, see 7C		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
7B	How often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify)..... ____days/month -or- ____%		
7C	If no data exist, in your opinion, how often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify)..... ____days/month -or- ____%		
8A	Are there any data on stock-outs of uterotonics for home births?	Yes☐ No☐ Don't know☐ If yes, see 8B If no/don't know, see 8C		
8B	How often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
8C	If no data exist, in your opinion, how often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
9	Are there any known problems with the quality of uterotonics in the country?	Yes☐ No☐ Don't know☐ If yes, please specify _____		

Annex 6. Pre-Meeting Questionnaire: Magnesium Sulfate

This questionnaire is to be filled out by all experts on the panel prior to meeting.

The MCHIP/Country focal person should consider customizing this template based on the data collected from the background documents in Annex 3. It may be beneficial to complete the questionnaire using the background documents, and then send both a completed and blank questionnaire to the expert panel. This will allow the panel to review the data already collected and make their own judgments about whether those data are accurate, or if other data sources should be considered.

Once the expert panel has completed and returned this questionnaire, the MCHIP/Country focal person will review and synthesize the information for presentation at the meeting.

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
1A	What proportion of births occur at facilities vs. at home?	Facility..... _____% Home ..... _____%		
1B	Of those births that occur in a facility, what proportion occur in each type of facility?	Public facilities ..... _____% If known, please provide breakdown by public facility level: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers..... _____% Health posts ..... _____% Private facilities..... _____% Faith-based organization (FBO) facilities ..... _____% Non-governmental organization (NGO) facilities ..... _____% Other facilities (specify)..... _____%		
2	What anticonvulsant(s) are included in the national guidelines for treatment of severe pre-eclampsia/eclampsia (SPE/E)?	Select all that apply: Magnesium sulfate ..... Yes☐ No☐ Diazepam..... Yes☐ No☐ Other (specify) ..... .Yes☐ No☐		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
3	What facilities are authorized to provide an anticonvulsant for treatment of SPE/E?	Select all that apply: All facilities ..... Yes☐ No☐ Public facilities National hospitals..... Yes☐ No☐ Regional/Referral hospitals ..... Yes☐ No☐ District hospitals ..... Yes☐ No☐ Health centers..... Yes☐ No☐ Health posts ..... Yes☐ No☐ Private facilities ..... Yes☐ No☐ FBO facilities..... Yes☐ No☐ NGO facilities..... Yes☐ No☐ Other facilities (specify)..... Yes☐ No☐		
4A	Which health workers are authorized to provide magnesium sulfate ($MgSO_4$) for treatment of SPE/E in a facility? (Please consider SBAs only.)	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ Auxiliary Nurse..... Yes☐ No☐ Auxiliary Nurse Midwife..... Yes☐ No☐ Nurse Assistant ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
4B	Are there cadres of workers who attend facility births but who are not authorized to provide $MgSO_4$ for treatment of SPE/E?	Yes☐ No☐ If yes, please specify _____		
5	How many cases of SPE/E are reported in each type of facility? (If data are not available on the number of cases of SPE/E, please provide the number of reported deaths from SPE/E and indicate under "Comments" that the data are for deaths instead of cases.)	Public facilities ..... _____/year If known, please provide breakdown by public facility level: National hospitals..... _____/year Regional/Referral hospitals ..... _____/year District hospitals ..... _____/year Health centers..... _____/year Health posts ..... _____/year Private facilities ..... _____/year Faith-based organization (FBO) facilities ..... _____/year Non-governmental organization (NGO) facilities _____/year Other facilities (specify)..... _____/year		
6A	Are there any data on the proportion of cases of SPE/E in facilities that receive $MgSO_4$?	Yes☐ No☐ Don't know☐ If yes, see 6B If no/don't know, see 6C		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
6B	What proportion of cases of SPE/E in facilities receive $MgSO_4$ in each type of facility?	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals ..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers ..... _____% Health posts ..... _____% Private facilities ..... _____% FBO facilities ..... _____% NGO facilities ..... _____% Other facilities (specify) ..... _____%		
6C	If no data exist, in your opinion, what proportion of cases of SPE/E in facilities receive $MgSO_4$ in each type of facility? (If a point estimate is not possible, please consider using the following categories: never - rarely - sometimes - often - usually - always.)	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals ..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers ..... _____% Health posts ..... _____% Private facilities ..... _____% FBO facilities ..... _____% NGO facilities ..... _____% Other facilities (specify) ..... _____%		
7A	Is use of an anticonvulsant for treatment of SPE/E authorized for home births?	Yes☐ No☐ If yes, see 7B-7C If no, proceed to 8A		
7B	Which health workers or other cadres are authorized to administer an anticonvulsant for treatment of SPE/E at home births?	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ CHW ..... Yes☐ No☐ TBA ..... Yes☐ No☐ Relatives ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
7C	Is there a program for use of an anticonvulsant for treatment of SPE/E at home births?	Yes☐ No☐ If yes, see 7D-7E If no, proceed to 8A		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
7D	What percentage of the population is covered by the program for use of an anticonvulsant for treatment of SPE/E at home births?	Indicate either: % of the population ..... _____% -or- # of districts..... _____ -or- Don't know..... ☐		
7E	What anticonvulsant(s) are included in the program for use of an anticonvulsant for treatment of SPE/E at home births?	Select all that apply: Magnesium sulfate ..... Yes☐ No☐ Diazepam..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
8A	Are there any data on stock-outs of $MgSO_4$ in facilities?	Yes☐ No☐ Don't know☐ If yes, see 8B If no/don't know, see 8C		
8B	How often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify)..... ____days/month -or- ____%		
8C	If no data exist, in your opinion, how often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify)..... ____days/month -or- ____%		
9A	Are there any data on stock-outs of $MgSO_4$ for home births?	Yes☐ No☐ Don't know☐ If yes, see 9B If no/don't know, see 9C		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
9B	How often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
9C	If no data exist, in your opinion, how often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
10	Are there any known problems with the quality of $MgSO_4$ in the country?	Yes☐ No☐ Don't know☐ If yes, please specify _____		

Annex 7. Pre-Meeting Questionnaire: Chlorhexidine

This questionnaire is to be filled out by all experts on the panel prior to meeting.

The MCHIP/Country focal person should consider customizing this template based on the data collected from the background documents in Annex 3. It may be beneficial to complete the questionnaire using the background documents, and then send both a completed and blank questionnaire to the expert panel. This will allow the panel to review the data already collected and make their own judgments about whether those data are accurate, or if other data sources should be considered.

Once the expert panel has completed and returned this questionnaire, the MCHIP/Country focal person will review and synthesize the information for presentation at the meeting.

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
1A	What proportion of births occur at facilities vs. at home?	Facility..... _____% Home ..... _____%		
1B	Of those births that occur in a facility, what proportion occur in each type of facility?	Public facilities ..... _____% If known, please provide breakdown by public facility level: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals..... _____% Health centers..... _____% Health posts..... _____% Private facilities..... _____% Faith-based organization (FBO) facilities ..... _____% Non-governmental organization (NGO) facilities ..... _____% Other facilities (specify) ..... _____%		
2	Is chlorhexidine application to the stump of the umbilical cord included in the national guidelines for prevention of newborn sepsis?	Yes☐ No☐		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
3	What facilities are authorized to provide chlorhexidine for prevention of newborn sepsis?	Select all that apply: All facilities .....Yes☐ No☐ Public facilities National hospitals.....Yes☐ No☐ Regional/Referral hospitals .....Yes☐ No☐ District hospitals .....Yes☐ No☐ Health centers.....Yes☐ No☐ Health posts .....Yes☐ No☐ Private facilities.....Yes☐ No☐ FBO facilities .....Yes☐ No☐ NGO facilities.....Yes☐ No☐ Other facilities (specify) .....Yes☐ No☐		
4A	Which health workers are authorized to apply chlorhexidine to the umbilical cord for prevention of newborn sepsis in a facility?	Select all that apply: Doctor .....Yes☐ No☐ Midwife .....Yes☐ No☐ Nurse .....Yes☐ No☐ Auxiliary Nurse.....Yes☐ No☐ Auxiliary Nurse Midwife.....Yes☐ No☐ Nurse Assistant .....Yes☐ No☐ Other (specify) .....Yes☐ No☐		
4B	Are there cadres of workers who attend facility births but who are not authorized to provide chlorhexidine for prevention of newborn sepsis?	Yes☐ No☐ If yes, please specify _____		
5A	Are there any data on the proportion of facility births that receive chlorhexidine for prevention of newborn sepsis?	Yes☐ No☐ Don't know☐ If yes, see 5B If no/don't know, see 5C		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
5B	What proportion of facility births receive chlorhexidine for prevention of newborn sepsis in each type of facility?	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals..... _____% Health centers..... _____% Health posts..... _____% Private facilities..... _____% FBO facilities ..... _____% NGO facilities..... _____% Other facilities (specify) ..... _____%		
5C	If no data exist, in your opinion, what proportion of facility births receive chlorhexidine for prevention of newborn sepsis in each type of facility? (If a point estimate is not possible, please consider using the following categories: never - rarely - sometimes - often - usually - always.)	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals..... _____% Regional/Referral hospitals ..... _____% District hospitals..... _____% Health centers..... _____% Health posts..... _____% Private facilities..... _____% FBO facilities ..... _____% NGO facilities..... _____% Other facilities (specify) ..... _____%		
6A	Is use of chlorhexidine for prevention of newborn sepsis authorized for home births?	Yes☐ No☐ If yes, see 6B-6D If no, proceed to 7A		
6B	Which health workers or other cadres are authorized to administer chlorhexidine for prevention of newborn sepsis at home births?	Select all that apply: Doctor .....Yes☐ No☐ Midwife .....Yes☐ No☐ Nurse .....Yes☐ No☐ CHW .....Yes☐ No☐ TBA.....Yes☐ No☐ Relatives .....Yes☐ No☐ Other (specify) .....Yes☐ No☐		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
6C	Which health workers or other cadres are authorized to <u>distribute</u> chlorhexidine for prevention of newborn sepsis at home births?	Select all that apply: Doctor .....Yes☐ No☐ Midwife .....Yes☐ No☐ Nurse .....Yes☐ No☐ CHW .....Yes☐ No☐ TBA.....Yes☐ No☐ Relatives .....Yes☐ No☐ Other (specify) .....Yes☐ No☐		
6D	Is there a program for use of chlorhexidine for prevention of newborn sepsis at home births?	Yes☐ No☐ No, but women buy from market☐ If yes, see 6E If no, proceed to 7A		
6E	What percentage of the population is covered by the program for use of chlorhexidine for prevention of newborn sepsis at home births?	Indicate either: % of the population ..... _____% -or- # of districts ....._____ -or- Don't know ..... ☐		
7A	Are there any data on stock-outs of chlorhexidine in facilities?	Yes☐ No☐ Don't know☐ If yes, see 7B If no/don't know, see 7C		
7B	How often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities ..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify) ..... ____days/month -or- ____%		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
7C	If no data exist, in your opinion, how often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities ..... ____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals..... ____days/month -or- ____% Regional/Referral hospitals ____days/month -or- ____% District hospitals ..... ____days/month -or- ____% Health centers..... ____days/month -or- ____% Health posts ..... ____days/month -or- ____% Private facilities..... ____days/month -or- ____% FBO facilities ..... ____days/month -or- ____% NGO facilities..... ____days/month -or- ____% Other facilities (specify) ..... ____days/month -or- ____%		
8A	Are there any data on stock-outs of chlorhexidine for home births?	Yes☐ No☐ Don't know☐ If yes, see 8B If no/don't know, see 8C		
8B	How often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
8C	If no data exist, in your opinion, how often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
9	What kind of chlorhexidine is available in the country?	Formulation (gel/liquid) _____ Concentration _____ Source _____		

Annex 8. Pre-Meeting Questionnaire: Dexamethasone

This questionnaire is to be filled out by all experts on the panel prior to meeting.

The MCHIP/Country focal person should consider customizing this template based on the data collected from the background documents in Annex 3. It may be beneficial to complete the questionnaire using the background documents, and then send both a completed and blank questionnaire to the expert panel. This will allow the panel to review the data already collected and make their own judgments about whether those data are accurate, or if other data sources should be considered.

Once the expert panel has completed and returned this questionnaire, the MCHIP/Country focal person will review and synthesize the information for presentation at the meeting.

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
1A	What proportion of births occur at facilities vs. at home?	Facility ....._____% Home ....._____%		
1B	Of those births that occur in a facility, what proportion occur in each type of facility?	Public facilities ....._____% If known, please provide breakdown by public facility level: National hospitals ....._____% Regional/Referral hospitals ....._____% District hospitals....._____% Health centers ....._____% Health posts....._____% Private facilities ....._____% Faith-based organization (FBO) facilities....._____% Non-governmental organization (NGO) facilities....._____% Other facilities (specify)....._____%		
2A	What antenatal corticosteroid(s) (ACS) are included in the national guidelines for prevention of the complications of preterm birth (PTB)?	Select all that apply: Dexamethasone.....Yes☐ No☐ Betamethasone .....Yes☐ No☐ Other (specify).....Yes☐ No☐		
2B	What is the regimen for administration of the ACS included in the national guidelines?	Indicate either: No regimen in the national guidelines☐ -or- The regimen in the national guidelines is ____ mg [dose] of _____ [drug] given every ____ hours for a total of ____ doses.		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
3	What conditions are considered indications for the administration ACS?	Select all that apply: Preterm labor ..... Yes☐ No☐ Preterm prelabor rupture of membranes ..... Yes☐ No☐ Severe pre-eclampsia ..... Yes☐ No☐ Eclampsia ..... Yes☐ No☐ Antepartum hemorrhage ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
4	What facilities are authorized to administer ACS for prevention of the complications of PTB?	Select all that apply: All facilities ..... Yes☐ No☐ Public facilities National hospitals ..... Yes☐ No☐ Regional/Referral hospitals ..... Yes☐ No☐ District hospitals ..... Yes☐ No☐ Health centers ..... Yes☐ No☐ Health posts ..... Yes☐ No☐ Private facilities ..... Yes☐ No☐ FBO facilities ..... Yes☐ No☐ NGO facilities ..... Yes☐ No☐ Other facilities (specify) ..... Yes☐ No☐		
5A	Which health workers are authorized to administer ACS for prevention of the complications of PTB in a facility? (Please consider SBAs only.)	Select all that apply: Doctor ..... Yes☐ No☐ Midwife ..... Yes☐ No☐ Nurse ..... Yes☐ No☐ Auxiliary Nurse ..... Yes☐ No☐ Auxiliary Nurse Midwife ..... Yes☐ No☐ Nurse Assistant ..... Yes☐ No☐ Other (specify) ..... Yes☐ No☐		
5B	Are there cadres of workers who attend facility births but who are not authorized to administer ACS for prevention of the complications of PTB?	Yes☐ No☐ If yes, please specify _____		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
6	How many cases of threatened PTB (as defined by the conditions listed in Question 3) are reported in each type of facility? (If data are not available on the number of cases of threatened PTB, please provide the number of babies born preterm and indicate under "Comments" that the data are for PTB instead of threatened PTB.)	Public facilities ..... _____/year If known, please provide breakdown by public facility level: National hospitals ..... _____/year Regional/Referral hospitals ..... _____/year District hospitals ..... _____/year Health centers ..... _____/year Health posts ..... _____/year Private facilities ..... _____/year Faith-based organization (FBO) facilities ..... _____/year Non-governmental organization (NGO) facilities ..... _____/year Other facilities (specify) ..... _____/year		
7A	Are there any data on the proportion of cases of threatened PTB in facilities that receive ACS?	Yes☐ No☐ Don't know☐ If yes, see 7B If no/don't know, see 7C		
7B	What proportion of cases of threatened PTB in facilities receive ACS in each type of facility?	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals ..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers ..... _____% Health posts ..... _____% Private facilities ..... _____% FBO facilities ..... _____% NGO facilities ..... _____% Other facilities (specify) ..... _____%		
7C	If no data exist, in your opinion, what proportion of cases of threatened PTB in facilities receive ACS in each type of facility? (If a point estimate is not possible, please consider using the following categories: never - rarely - sometimes - often - usually - always.)	Public facilities ..... _____% Is coverage the same at every level of public facility? If not: National hospitals ..... _____% Regional/Referral hospitals ..... _____% District hospitals ..... _____% Health centers ..... _____% Health posts ..... _____% Private facilities ..... _____% FBO facilities ..... _____% NGO facilities ..... _____% Other facilities (specify) ..... _____%		
8A	Is administration of ACS for prevention of the complications of PTB authorized for home births?	Yes☐ No☐ If yes, see 8B-8C If no, proceed to 9A		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
8B	Which health workers or other cadres are authorized to administer ACS for prevention of the complications of PTB at home births?	Select all that apply: Doctor.....Yes☐ No☐ Midwife.....Yes☐ No☐ Nurse.....Yes☐ No☐ CHW.....Yes☐ No☐ TBA.....Yes☐ No☐ Relatives.....Yes☐ No☐ Other (specify).....Yes☐ No☐		
8C	Is there a program for use of ACS for prevention of the complications of PTB at home births?	Yes☐ No☐ If yes, see 8D-8E If no, proceed to 9A		
8D	What percentage of the population is covered by the program for use of ACS for prevention of the complications of PTB at home births?	Indicate either: % of the population....._____% -or- # of districts ....._____ -or- Don't know ..... ☐		
8E	What antenatal corticosteroid(s) are included in the program for use of ACS for prevention of the complications of PTB at home births?	Select all that apply: Dexamethasone.....Yes☐ No☐ Betamethasone .....Yes☐ No☐ Other (specify).....Yes☐ No☐		
9A	Are there any data on stock-outs of ACS in facilities?	Yes☐ No☐ Don't know☐ If yes, see 9B If no/don't know, see 9		
9B	How often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities.....____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals .....____days/month -or- ____% Regional/Referral hospitals____days/month -or- ____% District hospitals.....____days/month -or- ____% Health centers .....____days/month -or- ____% Health posts.....____days/month -or- ____% Private facilities .....____days/month -or- ____% FBO facilities .....____days/month -or- ____% NGO facilities .....____days/month -or- ____% Other facilities (specify).....____days/month -or- ____%		

NO.	QUESTION	RESPONSE	SOURCE (HMIS, DHS, OPINION, ETC.)	COMMENTS
9C	If no data exist, in your opinion, how often are there stock-outs in each type of facility?	Indicate either average # of days in a month or % of time: Public facilities.....____days/month -or- ____% If known, please provide breakdown by public facility level: National hospitals .....____days/month -or- ____% Regional/Referral hospitals____days/month -or- ____% District hospitals.....____days/month -or- ____% Health centers .....____days/month -or- ____% Health posts.....____days/month -or- ____% Private facilities .....____days/month -or- ____% FBO facilities .....____days/month -or- ____% NGO facilities .....____days/month -or- ____% Other facilities (specify).....____days/month -or- ____%		
10A	Are there any data on stock-outs of ACS for home births?	Yes☐ No☐ Don't know☐ If yes, see 10B If no/don't know, see 10C		
10B	How often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
10C	If no data exist, in your opinion, how often are there stock-outs for home births?	Indicate either average # of days in a month or % of time: ____days/month -or- ____%		
11	Are there any known problems with the quality of ACS in the country?	Yes☐ No☐ Don't know☐ If yes, please specify _____		

Annex 9. Weighting Data Sources

Situations may arise in which data for one or more coverage factors are measured in multiple data sources. If differing data exist, the best answer may not be a simple average. Some data are likely to be more accurate than others, and so should be given more weight. To determine the relative accuracy of different data sources, two factors should be considered: validity and generalizability.

VALIDITY

The relative validity of data sources depends on the methodology used to collect the data. The table below provides examples of different data collection methods, ranked for validity. (Please note that all of these methods either exclusively or mainly focus on facility-based deliveries and don't address interventions taking place in the community.)

VALIDITY →	RELATIVE VALIDITY OF DATA COLLECTION METHODS
1	Observational assessments of quality of care (most accurate information, but not common & may not be done on representative sample)
2	Facility readiness assessments (e.g. Service Provision Assessment) (need to extrapolate from availability of commodity/personnel to actual deliver of intervention)
3	Routine health information system data (only possible where data recorded in registers and reported to higher levels)
4	Data from sentinel surveillance sites (only possible where such sites are available; question of generalizability)
5	Extrapolation from service contact data (estimates based on use of skilled birth attendant and/or institutional birth)
6	Survey of key informants (interview individuals or group of informants, but may not have sufficient information)

GENERALIZABILITY

The relative generalizability of data sources depends on whether its findings can be applied to the whole population. Country-level data sources (e.g. HMIS, DHS, MICS, or other national or regional household surveys) should rank high in generalizability.

Choosing a data source

Ask the expert panel the following questions and complete the comparative table below to rank each data source:

- What are the various available data sources or evidence on [intervention]?
- What does each source report?
- What data collection methodology was used for each source?
- What is the strength of the methodology (validity) used for each source?
- What is the strength of generalizability for each source

DATA SOURCE	DATA REPORTED	METHODOLOGY	VALIDITY Low=1 / Medium=2 / High=3	GENERALIZABILITY Low=1 / Medium=2 / High=3
			Rating: Comments:	Rating: Comments:
			Rating: Comments:	Rating: Comments:
			Rating: Comments:	Rating: Comments:

Annex 10. Agenda Template for Meeting of the Expert Panel

Insert MoH logo here, if appropriate

WORKSHOP TO ESTIMATE COVERAGE OF KEY INTERVENTIONS FOR MATERNAL & NEWBORN SURVIVAL

Objectives

- To review current policies and guidelines for the provision of key interventions in MNH, including the use of:
  - Uterotonics for prevention of postpartum hemorrhage
  - Chlorhexidine for prevention of newborn sepsis
  - Magnesium sulfate for treatment of women with severe pre-eclampsia/eclampsia
  - Antenatal corticosteroids for the prevention of complications of preterm birth
- To review currently available data / data sources for the provision of these interventions
- To come to consensus on practices and limitations of provision of these interventions
- To scientifically estimate the coverage of these interventions
- To develop prioritized action items for addressing limitations to complete coverage

DAY 1	
8:30-9:00	Breakfast
9:00-10:00	Meeting opening - Greetings and introductions - Review of objectives, agenda, and norms - Causes of maternal and newborn death in [Liberia] - Review and discuss methodology
10:00-10:45	Uterotonics coverage estimation - Discussion of policies and existing data - Location of deliveries - Likelihood of uterotonic use in each location
10:45-11:00	Coffee break
11:00-1:00	Uterotonics coverage estimation (continued) - Other factors that affect effective coverage (stock-outs, unauthorized personnel, poor uterotonic quality) - Final calculation of national coverage for uterotonics - Policy and program implications
1:00-2:00	Lunch
2:00-3:45	Chlorhexidine coverage estimation

DAY 1	
	- Discussion of policies and existing data - Location of deliveries - Likelihood of chlorhexidine use in each location - Other factors that affect effective coverage (stock-outs) - Final calculation of national coverage for chlorhexidine - Policy and program implications
3:45-4:00	Summary of the day

DAY 2	
8:30-9:00	Breakfast
9:00-10:30	Magnesium sulfate coverage estimation - Discussion of policies and existing data - Location of cases of severe pre-eclampsia/eclampsia - Likelihood of magnesium sulfate use in each location - Other factors that affect effective coverage (stock-outs, unauthorized personnel)
10:30-10:45	Coffee break
10:45-12:00	Magnesium sulfate coverage estimation (continued) - Final calculation of national coverage for magnesium sulfate - Policy and program implications
12:00-1:00	Lunch
1:00-2:30	Dexamethasone coverage estimation - Discussion of policies and existing data - Location of cases of preterm birth - Likelihood of dexamethasone use in each location - Other factors that affect effective coverage (stock-outs, unauthorized personnel) - Final calculation of national coverage for dexamethasone - Policy and program implications
2:30-3:30	Action plan
3:30-4:00	Evaluation of meeting, feedback on methodology & closing

**See Annex 12 for a template evaluation form to use at the close of the meeting.*

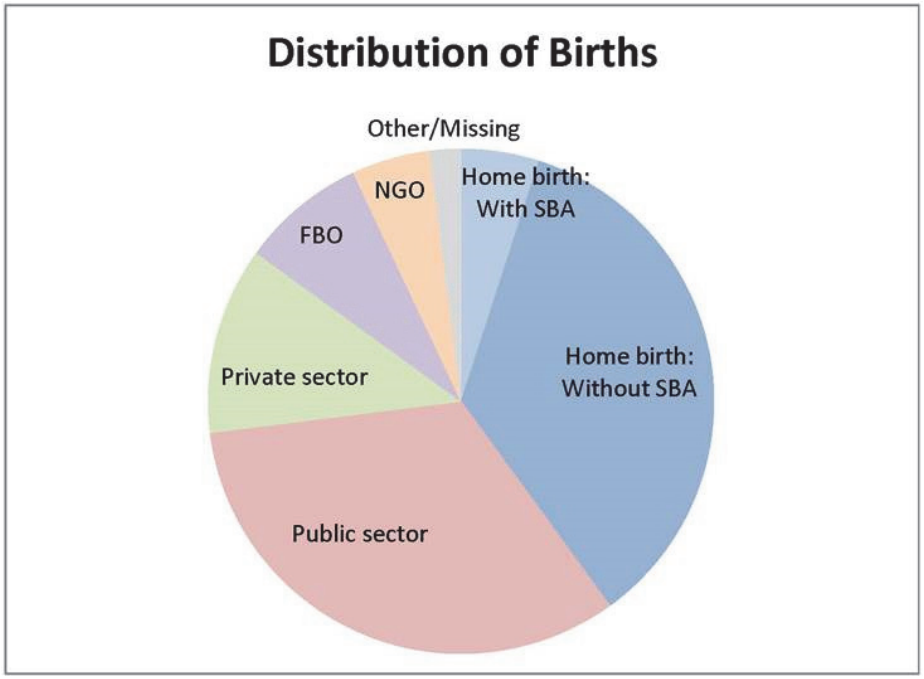
Annex 11. Worksheet

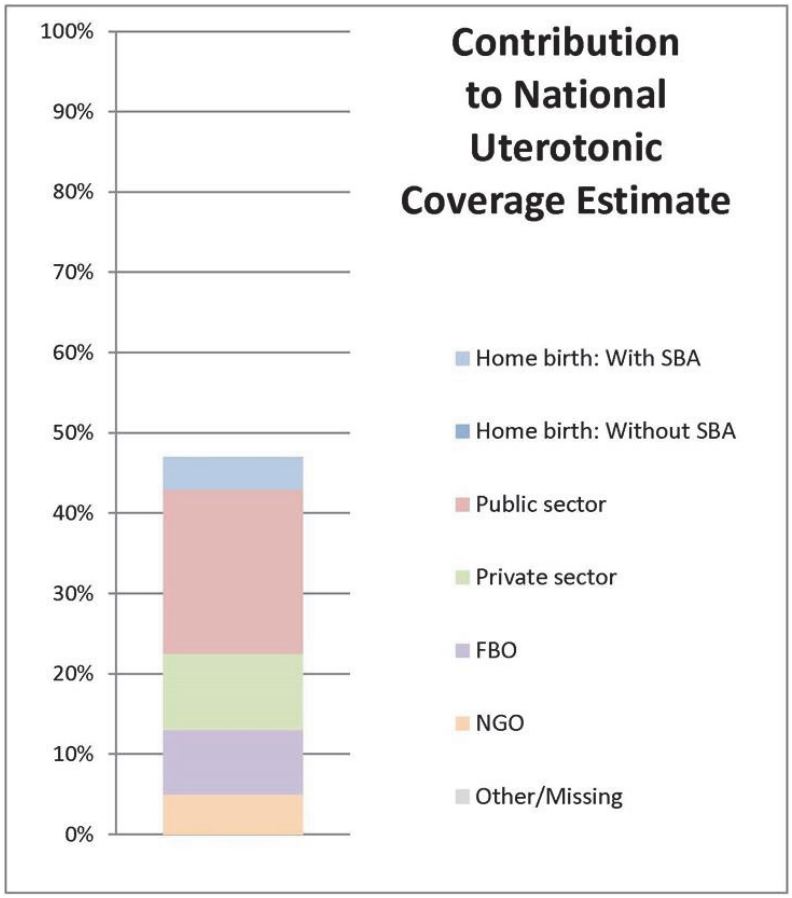
Facilitators should request the Microsoft Excel version of the worksheet pictured below (one for each intervention) for use during the meeting.

LOCATION OF DELIVERY	PROPORTION OF DELIVERIES	PROVIDER PERFORMANCE			ADJUSTING FACTORS			CONTRIBUTION TO NATIONAL COVERAGE		
		Estimate	Range		Stock-In Rate *(Consider: Already factored into Column C data source?)*	Authorized Personnel	Uterotonic Quality	Estimate	Range	
			Low	High					Low	High
Home/Community	40.0%									
Home birth: With SBA	5.0%	80.0%	[50.0%	100.0%]	100.0%	100.0%	Unknown	4.0%	[2.5%	5.0%]
Home birth: Without SBA	35.0%	0.0%	[0.0%	0.0%]	N/A	N/A	Unknown	0.0%	[0.0%	0.0%]
Facility	58.0%									
Public sector	33.0%									
Hospital - Referral	7.0%	95.0%	[90.0%	100.0%]	90.0%	100.0%	Unknown	6.0%	[5.7%	6.3%]
Hospital - District	9.0%	90.0%	[85.0%	95.0%]	80.0%	100.0%	Unknown	6.5%	[6.1%	6.8%]
Urban Health Center	11.0%	80.0%	[75.0%	85.0%]	70.0%	100.0%	Unknown	6.2%	[5.8%	6.5%]
Rural Health Center	4.0%	70.0%	[65.0%	75.0%]	60.0%	90.0%	Unknown	1.5%	[1.4%	1.6%]
Health Post	2.0%	50.0%	[45.0%	55.0%]	50.0%	70.0%	Unknown	0.4%	[0.3%	0.4%]
Private sector	12.0%									
Hospital	3.0%	100.0%	[100.0%	100.0%]	100.0%	100.0%	Unknown	3.0%	[3.0%	3.0%]
Urban Health Center	6.0%	90.0%	[80.0%	100.0%]	100.0%	100.0%	Unknown	5.4%	[4.8%	6.0%]
Rural Health Center	3.0%	50.0%	[40.0%	60.0%]	80.0%	90.0%	Unknown	1.1%	[0.9%	1.3%]
			[	]				0.0%	[0.0%	0.0%]
			[	]				0.0%	[0.0%	0.0%]
FBO	8.0%									
FBO - All	8.0%	100.0%	[100.0%	100.0%]	100.0%	100.0%	Unknown	8.0%	[8.0%	8.0%]
			[	]				0.0%	[0.0%	0.0%]
			[	]				0.0%	[0.0%	0.0%]
NGO	5.0%									
NGO - All	5.0%	100.0%	[100.0%	100.0%]	100.0%	100.0%	Unknown	5.0%	[5.0%	5.0%]
			[	]				0.0%	[0.0%	0.0%]
			[	]				0.0%	[0.0%	0.0%]
Other/Missing	2.0%	0.0%	[0.0%	0.0%]	N/A	N/A	Unknown	0.0%	[0.0%	0.0%]

Total Proportion of Deliveries	100.0%	NATIONAL COVERAGE ESTIMATE	47.0%	[43.4%	50.0%]

Each worksheet includes the two graphics below, which will be automatically generated based on the data entered into the worksheet.





Annex 12. End of Meeting Evaluation Form Template

WORKSHOP TO ESTIMATE COVERAGE OF KEY INTERVENTIONS FOR MATERNAL & NEWBORN SURVIVAL

Final Evaluation

Please score each workshop component by indicating the number that best reflects your opinion about the workshop, with 1 being the minimum score (worst), and 5 the maximum (best). Please comment as to why the score was chosen.

WORKSHOP COMPONENT	SCORE					COMMENTS
	1	2	3	4	5	
General organization of the workshop (please include comments on pre-workshop survey)						
Objectives of the workshop						
Topics/content of the workshop:						
▪ *Methodology for estimating coverage*						
▪ *Uterotonics coverage*						
▪ *Magnesium sulfate coverage*						
▪ *Chlorhexidine coverage*						
▪ *Dexamethasone coverage*						
▪ *Action planning*						
Sequence of topics/content and activities						
Presentations/facilitations						
Time dedicated to each subject						
Relevance to your work						
Group participation						
Were your expectations met?						

What would you suggest to improve this workshop/exercise?

_____

_____

_____

_____

_____

Additional comments:

_____

_____

_____

_____

_____

Thank you!

References

[1] World Health Organization. 2011. "Why do so many women still die in pregnancy or childbirth?" www.who.int/features/qa/12/en/index.html.

[2] Khan KS, Wojdyla D, Gulmezoglu M, Van Look P. 2006. WHO analysis of causes of maternal death: A systematic review. Lancet 367: 1066–1074.

[3] Gulmezoglu AM et al. Active management of the third stage of labour with and without controlled cord traction; a randomized, controlled, non-inferiority trial. Lancet 2012; March 6, 2012. DOI:10.1016/SO140-6736(12)60206-2.

[4] Steegers EA, von Dadelszen P, Duvekot JJ, Pijnenborg R: Pre-eclampsia. Lancet 2010, 376:631–44.

[5] EngenderHealth. Balancing the Scales: Expanding Treatment for Pregnant Women with Life-Threatening Hypertensive Conditions in Developing Countries; A Report on Barriers and Solutions to Treat Pre-eclampsia&Eclampsia. Engender Health, 2007.

[6] Altman D, Carroli G, Duley L, Farrell B, Moodley J, Neilson J, Smith D; Magpie Trial Collaboration Group. Do women with preeclampsia, and their babies, benefit from magnesium sulphate? The Magpie Trial: a randomised placebo-controlled trial. Lancet, 2002, 359(9321):1877–1890.

[7] The Collaborative Eclampsia Trial Group. Which anticonvulsant for women with eclampsia? Evidence from the Collaborative Eclampsia Trial.Lancet 1995; 345: 1455–1463.

[8] Duley L, Gülmezoglu AM, Henderson-Smart DJ, Chou D. Magnesium sulfate and other anticonvulsants for women with preeclampsia. Cochrane Database of Systematic Reviews, 2010, (11):CD000025.

[9] Duley L, Henderson-Smart DJ, Walker GJ, Chou D. Magnesium sulphate versus diazepam for eclampsia. Cochrane Database of Systematic Reviews, 2010, (12):CD000127.

[10] Liu L, Johnson HL, Cousens S, et al. Child Health Epidemiology Reference Group of WHO and UNICEF. Global, regional, and national causes of child mortality: An updated systematic analysis for 2010 with time trends since 2000. Lancet. 2012;379(9832):2151–2161.

[11] Born Too Soon: The Global Action Report on Preterm Birth, 2012. World Health Organization.

[12] Roberts, D., Dalziel, S. Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. Cochrane Database of Systematic Reviews 2006, Issue 3. Art. No.:CD004454. DOI: 10.1002/14651858.CD004454.pub2.

[13] Born Too Soon: The Global Action Report on Preterm Birth, 2012. World Health Organization.