Estimation of National Coverage of Uterotonic in the Third Stage of Labor:

Report of the Meeting of the Expert Panel

MOZAMBIQUE

23 April 2013

BACKGROUND AND JUSTIFICATION

Globally, the number of maternal deaths has significantly declined, from an estimated 543,000 in 1990 to 287,000 in 2010, but the rate of decline is only about half that needed to achieve the Millennium Development Goal (MDG) 5 target (WHO 2012a). To accelerate the decline, Ministries of Health (MOHs) need to reinforce efforts to reduce postpartum hemorrhage (PPH), the leading cause of maternal death. The most effective intervention for preventing PPH is active management of the third stage of labor (AMTSL) (WHO 2012b), which includes provision of a uterotonic. Three uterotonic drugs are recommended for use for AMTSL, namely, oxytocin, misoprostol, or ergometrine.

The World Health Organization (WHO) recommendations in 2012 for the prevention and treatment of PPH included guidance that *"Monitoring the use of uterotonics after birth for the prevention of PPH is recommended."* However, currently, few countries report use of uterotonic in the third stage of labor (UUTSL) through their health management information system (HMIS). Other sources of information on UUTSL are scarce as well. In 2006, the Prevention of Postpartum Hemorrhage Initiative (POPPHI) conducted surveys that measured the practice of AMTSL and UUTSL in seven countries in Africa, Asia, and Latin America. Between 2009 and 2011, MCHIP also measured the practice of AMTSL and UUTSL during quality of care (QoC) observational studies carried out in seven countries in East and Southern Africa; however, the QoC studies were not always conducted on a nationally representative sample.

It must be noted that even this description of the scarcity of information on UUTSL coverage underestimates the true lack of information on this important indicator. Even where UUTSL has been estimated through HMIS or special assessments, these data sources usually say nothing about the coverage of uterotonic use outside the public system or use of misoprostol in home deliveries. Only by having all of these key pieces of information can a population-based coverage estimate be made for UUTSL. It is this information that would give the most accurate picture to MOHs as they formulate plans to accelerate progress in achieving MDG 5. A national population-based estimate of UUTSL was attempted in the 2011 Nepal Demographic and Health Survey (DHS); however, a study conducted in Mozambique in 2012 (Stanton, et al., 2013) called into question the accuracy of estimates obtained through maternal recall. This could mean that at this time there is not a single country that has an accurate estimate of where they stand on one of the most important interventions for maternal health. This exercise is meant to begin the work of remedying this lack of information.

To attempt to overcome the lack of national coverage data for the key intervention of UUTSL, in consultation with WHO, from April to June 2013 MCHIP piloted a rapid estimation exercise in three countries—Mozambique, Tanzania, and one state in India. After an initial desk review, MCHIP worked with the MOH and in-country technical organizations to convene a half-day, in-country expert panel discussion to make the estimate, using existing information and an algorithm developed by MCHIP. It is hoped that this pilot experience can spur the activity in other countries, highlight the need for better information, and, most important, spur action to improve coverage.

OBJECTIVE AND KEY QUESTIONS FOR THE EXPERT PANEL

The objective of the meeting of the expert panel at the Ministry of Health on April 23, 2013, quite simply was ***to reach a consensus on the estimate of the national coverage for use of uterotonic in the third stage of labor (UUTSL).*** This estimate is meant to be a population-based estimate, covering all possible birth locations—that is, community-based deliveries and all facility-based deliveries, whether in the public or private sector.

The expert panel was asked to make estimates for the following key data elements, which were fed into a simple algorithm used to construct the national UUTSL coverage estimate:

- Proportion of **facility-based births by sector**: public, private, nongovernmental organization (NGO). The panel was asked to consider further sub-divisions of these sectors if deemed relevant to the calculation (i.e., if UUTSL coverage is likely to be significantly different, say, in a public hospital as opposed to public health centers).
- Proportion of **community-based births**.
- **Initial estimates for the coverage with UUTSL** (using oxytocin, ergometrine, or misoprostol) in each birth location, taking into account reported skilled care coverage rates in facility births and any known community-based use of either misoprostol or other uterotonics.
- **Consideration of any needed adjustments** to initial estimates of UUTSL, taking into account additional information such as frequency of stock-outs, birth attendance by cadres not authorized to use uterotonics, etc.

METHODOLOGY

The core of the method is an algorithm that consists of splitting all births in categories of settings thought to have significant differences in UUTSL coverage; then using the best available data to arrive at a consensus opinion of the UUTSL coverage in each of the settings; and finally summing all these contributions to arrive at the final national UUTSL coverage estimate. In short, this is a method for calculating an average of the UUTSL coverage estimates in each relevant setting, weighted by the proportion of births in that setting. This is conceptually simple, but can be made difficult by the lack of data in some of the settings. To make the estimate most valid, MCHIP organizers gathered the best possible data and discussed the data with a widely representative group of knowledgeable experts.

First, a group of 18 experts was picked that would collectively have a wide range of knowledge and represent all sectors where births occur—community, public, private, NGO. Fourteen of the invitees participated. See Annex 1 for the participant list. MCHIP headquarters and Mozambique staff co-facilitated the expert meeting by carrying out the following steps:

1. A preparatory gathering of information before the meeting—desk review and survey of panelists regarding background information.
2. A three-phase process during the expert meeting:
    - Phase 1 – Discussion to come to consensus on contextual information (policies, norms, cadres authorized, etc.), referring to documents gathered. The facilitators focused on those pieces of information that had the least consensus, as demonstrated in the responses to the preparatory survey.
    - Phase 2 – Discussion to come to consensus on location of births, divided into the categories with significant UUTSL coverage differences.
    - Phase 3 – Discussion to come to a consensus on UUTSL coverage in each birth location, taking into account various estimates and their plausibility based on data on stock-outs and other known constraints.
3. A review of the calculation, to ensure consensus on the final result.
4. A discussion of any additional information needed to adjust or check the result, and an outline of a recommended action plan to increase national coverage of UUTSL.

Annex 2 shows an example of the use of the algorithm using a fictitious situation.

RESULTS OF THE MEETING

Preparation for Meeting

Desk Review

MCHIP Mozambique staff identified, gathered, and reviewed the following key documents:

- National Census, 2007
- National Needs Assessment, 2007
- Multiple Indicator Cluster Survey (MICS), 2008
- DHS, 2011
- Study of Quality and Humanization of Care in Model Maternities, 2011
- MOH Policies and Norms for Use of AMTSL, 2011
- Essential Drug List, 2012
- Analysis of data from HMIS—First Quarter, 2013
- MOH Plan for Community Distribution of Misoprostol in 35 Districts, 2013

Pre-Meeting Survey

The full results of the survey are shown in Annex 3, assembled from the three responses received.

Findings from Preparation for Meeting

The following is a summary of the key findings from the survey and document review:

- Oxytocin, ergometrine, and misoprostol are on the Essential Drug List.
- Norms call for use of AMTSL, with oxytocin as the preferred drug.
- All levels of doctors and nurses are authorized to use oxytocin.
- In public facilities, however, a significant fraction (perhaps 10-15%) of births are attended by non-health personnel, because of staff shortages.
- Currently there are no community births attended by qualified personnel, nor any community misoprostol program.
- Stock-outs are not a problem at central/provincial hospital level, but occur about 20% of the time in general hospitals and Type 1 and 2 health centers, and 40% of the time in Type 3 health centers (National Needs Assessment, 2007).

Meeting of the Expert Panel

Phase 1

After a review of the key findings on which there was consensus, the following questions were discussed during Phase 1 of the meeting because there were divergent answers or lack of information from the survey responses.

Question No. 3: Are there stock-outs of uterotonics in public health facilities? If yes, how often in each [type of facility]?
There was information in the 2007 National Needs Assessment. There is no more recent information, but the situation is likely to be similar now.

Question No. 5: Are there cadres of workers who attend births but who are not authorized to give a uterotonic for prevention of post-partum hemorrhage?

Even though non-medical personnel are known to attend a small but significant fraction of births, they are also using uterotonics at least some of the time.

Phase 2

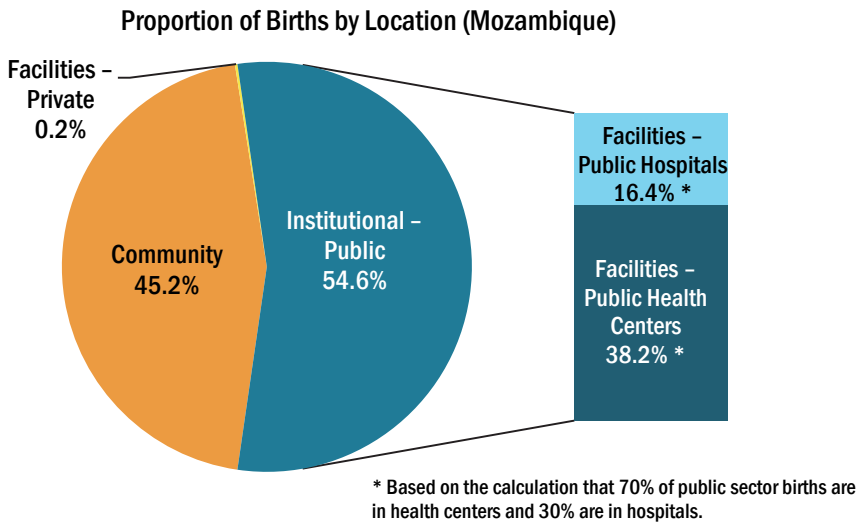
In general, the following discriminators have been considered potentially relevant for UUTSL coverage by birth setting:

- Community/facility
- Public/private facilities
- Public facility type
- Health worker cadre
- Public facilities by geographic area (urban/rural)

The distinctions relevant in the Mozambican context were deemed to be community/facility; public/private facilities; and public facility type (hospital/health center). These are shown in the diagram below.

The 2003 DHS showed that only 0.2% of births occur in the private sector. The consensus was that this number had not changed much in the intervening years and was at most double this number. In fact, after the meeting, the representative from UNFPA shared the full 2011 DHS report, which had just been released. It showed that the number had not changed at all and was still 0.2%. This finding is reflected in the diagram below.

Within the public sector, data were not immediately available on the size of the split in births between hospitals and health centers. The majority of births are known to occur in smaller facilities, and in the end the consensus was that it was probably close to a 70% health center to 30% hospital split. MCHIP staff verified this assumption after the meeting by examining all births reported in the last quarter in the Basic Module of the HMIS. Smaller facilities are known to have more difficulties, especially with stock-outs. However, the only data on stock-outs disaggregated by facility type available during the meeting was from the 2007 National Needs Assessment. Recent data on UUTSL coverage in public facilities comes from the HMIS, since AMTSL was added to maternity registers in 2012. Data from the latest (2012) nationally representative UNFPA estimates of stock-outs for oxytocin showed rates of less than 10% in all levels and types of facilities. Ultimately the distinction between hospitals and health centers was felt to not be relevant for the calculation because the data elements available lump them together.



Phase 3

The group turned its attention to the estimates of uterotonic coverage in each of the birth locations.

Community

There was a pilot of community misoprostol use by AMOG and VSI in Nampula in 2010. There has been no activity on a significant scale since then, but the MOH has a plan to implement community misoprostol use in 35 (of 128) districts in 2013. At this time, however, there is no appreciable coverage of community births with misoprostol (nor with skilled attendants using oxytocin).

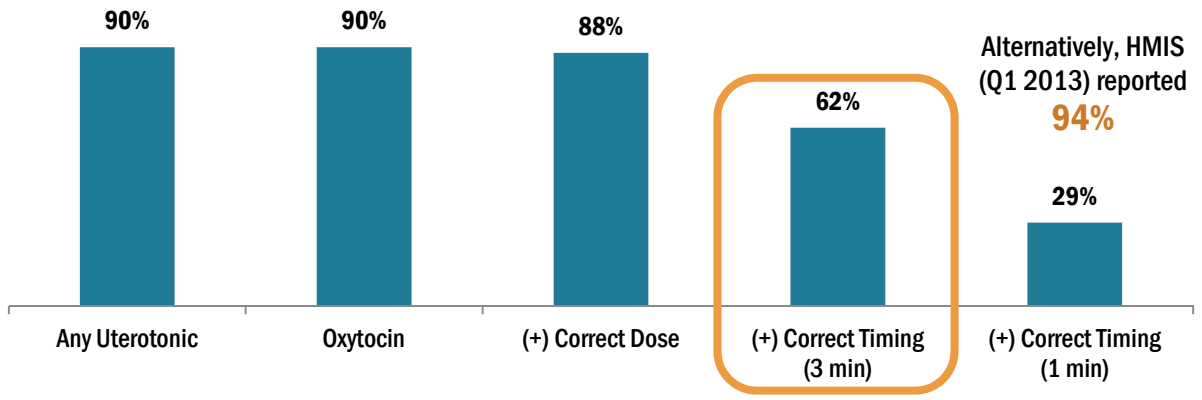
Facilities – Private

There was consensus that UUTSL coverage is universal among private facility births.

Facilities – Public

Coverage estimates in public facilities show a range. On the high end is the estimate derived from analysis of HMIS data from the last quarter (Quarter 1, 2013). This gives a self-reported coverage for AMTSL of 94%. On the low end are the results of the 2011 Study of Quality and Humanization of Care in Model Maternities, which reported only 62% AMTSL coverage. In that study, independent data collectors directly observed 525 births. Nineteen Model Maternities were in the sample, as well as 27 non-Model Maternities. Because the sample included both Model and non-Model, it was a relatively representative sample of all maternities, although skewed toward larger facilities.

Results of Uterotonic Use by Different Criteria
Observed in 2011 Study of Quality and Humanization of Care in Model Maternities



In terms of other information that would affect estimates of coverage in public facilities, in the 2007 National Needs Assessment, stock-outs were more severe in Type 3 health centers (40%) than in Type 1 and 2 health centers and district hospitals (20%); none of the central/provincial hospitals had a stock-out on the day of the assessment. However, more recent stock-out data from UNFPA showed rates less than 10% in all provinces, and at all levels/types of facilities. Also, both the Integrated Packages Study in 2012 (unpublished data) and the 2011 Study of Quality and Humanization of Care in Model Maternities showed that non-qualified personnel (e.g., cleaners) attended deliveries 10-15% of the time.

CONCLUSIONS AND NEXT STEPS

Calculation of National UUTSL Coverage

Putting all the evidence together, we can summarize the findings as follows:

- Evidence is solid for distribution of birth by location and comes from the 2011 DHS.
- There is certainty in the estimates for coverage of UUTSL in the community (0%) and in private facilities (100%).
- The only information with uncertainty is the coverage of UUTSL in public sector facilities:
  - Separate coverage estimates are not available for hospitals and health centers.
  - Overall coverage estimates for UUTSL in this context vary between 62% and 94%.
  - The group decided that it would take the HMIS coverage number (94%) but downgrade it because of evidence of some stock-outs and because of non-qualified personnel attending some births, although they nonetheless are probably still often using oxytocin. In the end, the group decided to use a coverage of 80% for UUTSL in public facilities of all types.

The following table puts all the data elements together, giving a final estimate of 44% national UUTSL coverage.

	Percent of Births	% UUTSL in Setting	Contribution to National Coverage
Community	45.2%	0%	0%
Private facilities	0.2%	100%	0.2%
Public facilities*—Hospitals and health centers	54.6%	80% **	43.7%
National coverage estimate—Uterotonic use in third stage			44% ***

* Because there are not separate coverage or stock-out data for hospitals and health centers, the two are reported together here.

** This is the only number in the table with appreciable uncertainty.

*** The panel believes this number is probably quite close to the true value; given the level of precision of the estimate, it is reported to the nearest whole number.

Steps Needed to Finalize Estimate and Follow-Up

Follow-up steps were taken after the meeting to finalize the estimate of national UUTSL coverage:

- Calculate the proportions of births in hospitals and health centers in the public sector, using most recent HMIS Basic Module data. (MCHIP, Matias do Anjos)
  - No significant differences were noted from the calculation made at the meeting. The data on uterotonic use from the Study of Quality and Humanization of Care in Model Maternities and the HMIS are on both hospitals and health centers, so this split is not so important for making the estimation.
- Send the reports of the Study of the Control of Quality of Medicines (2010, 2011, 2012). (UNFPA, Amir Modan)
  - Dr. Modan sent the 2012 UNFPA report: Second Survey of Availability of Modern Contraceptives and Essential Life Saving Maternal/Reproductive Health Medicines in Service Delivery Points.
  - Table 12 (page 56) of the report cited above is reproduced below. It shows the oxytocin availability is above 90% in all types of facilities and all provinces—except Maputo Province (87.9%). This is consistent with the estimation that the expert panel made.

Disaggregation	Maternal/RH Medicines								
	Amoxicillin	Azithromycine	Benzathine Penicillin	Cefexime	Clotrimazole	Iron/Folate	Magnesium Sulfate	Metronidazole	Oxytocin
Type of Health Facility									
Primary level	81.3	68.0	97.3	24.0	100.0	100.0	70.7	86.2	96.0
Secondary level	100.0	97.2	94.4	80.6	97.2	100.0	100.0	85.0	100.0
Tertiary level	100.0	100.0	100.0	85.7	100.0	100.0	100.0	100.0	100.0
Quaternary level	66.7	66.7	33.3	100.0	33.3	100.0	100.0	100.0	100.0
Provinces									
Niassa	100.0	63.6	100.0	45.5	100.0	100.0	72.7	100.0	100.0
Cabo Delgado	80.0	66.7	100.0	40.0	100.0	100.0	86.7	80.0	93.3
Nampula	58.8	70.6	76.5	64.7	94.1	100.0	76.5	70.6	100.0
Zambézia	100.0	60.0	100.0	60.0	100.0	100.0	86.7	100.0	93.3
Tete	100.0	100.0	100.0	50.0	100.0	100.0	58.3	100.0	100.0
Manica	100.0	100.0	100.0	60.0	100.0	100.0	100.0	100.0	100.0
Sofala	100.0	87.5	100.0	18.8	100.0	100.0	81.3	100.0	100.0
Inhambane	80.0	100.0	100.0	70.0	100.0	100.0	100.0	90.0	100.0
Gaza	100.0	88.9	100.0	55.6	100.0	100.0	88.9	100.0	100.0
Maputo Província	71.4	85.7	85.7	0.0	100.0	100.0	85.7	100.0	85.7
Maputo Cidade	75.0	50.0	75.0	25.0	50.0	100.0	75.0	100.0	100.0
Total	**87.6**	**78.5**	**95.0**	**46.3**	**97.5**	**100.0**	**81.8**	**92.6**	**97.5**
Area									
Urban	88.9	83.3	83.3	66.7	83.3	100.0	88.9	94.4	100.0
Rural	87.4	77.7	97.1	42.7	100.0	100.0	80.6	92.2	97.1
Management of Facility									
Government	87.4	79.0	95.0	46.2	97.5	100.0	81.5	92.4	95.7
NGO	100.0	50.0	100.0	50.0	100.0	100.0	100.0	100.0	100.0
Others									
Distance from Nearest Warehouse/Source of Supplies (in km)									
0–4	94.7	86.7	93.3	60.0	97.3	100.0	89.3	90.7	96.0
5–9	80.0	60.0	100.0	20.0	100.0	100.0	40.0	100.0	100.0
10–14	75.0	100.0	100.0	50.0	100.0	100.0	75.0	100.0	100.0
15–19	62.5	62.5	100.0	25.0	100.0	100.0	87.5	87.5	100.0
20–24	100.0	33.3	100.0	0.0	100.0	100.0	66.7	100.0	100.0
25–29	100.0	50.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
30–35	83.3	50.0	100.0	16.7	100.0	100.0	83.3	100.0	100.0
35–39	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
40–45	75.0	75.0	100.0	0.0	100.0	100.0	50.0	100.0	100.0
45–49	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>/=50	75.0	66.7	91.7	33.3	91.7	100.0	58.3	91.7	100.0
Total	**87.6**	**78.5**	**95.0**	**46.3**	**97.5**	**100.0**	**81.8**	**92.6**	**97.5**

Next Steps to Improve Uterotonic Use

The following measures should be taken immediately to improve coverage of UUTSL:

- Improve UUTSL coverage in the public sector through quality improvement measures. Especially important would be measures to improve the stock-out situation.
- Expand the use of misoprostol in the community. Just expanding to the 35 planned districts this year will already increase national UUTSL coverage by more than 10%.
- Emphasize in maternity norms that oxytocin should be given within one minute of birth. The birth attendant must prepare the dose **before** the birth.
- The MOH should authorize all cadres of workers who attend births to give oxytocin.
- Given its importance as a medicine, the need is urgent to investigate the potency of oxytocin. The routine MOH mechanism—the quality control study—could be used.
- MCHIP could make funds available to finance the purchase of equipment to strengthen the cold chain for oxytocin.

ANNEX 1: PARTICIPANT LIST FOR EXPERT PANEL

Título da Formação: Estimativa da cobertura de Uterótonicos no 3º período do trabalho de parto

Período/Datas da Formação: 23 de Abril

Componente: MCHIP/IMM

Local: Ministério da Saúde - 1º Andar

Data de preenchimento da lista:

Nr de Ordem	Nome	Local de proveniência (US) Província/Distrito/local de trabalho	Função no local de trabalho	Telemóvel/fixo e Email	Assinatura
1	Maria da luz Vaz	MCHIP	Diret. técnica	843233007; Maria.Vaz@jhpiego.org	[illegible]
2	Nazin Amade Ibrahimo	MISAU	DSMC-Chefe	823136000 namade62@gmail.com	
3	Mª Deolinda	MISAU	Dsic. clín	827768960	Deolinda
4	Otília Tualuto	APARMO	Fiscal	827729550	Tualuto
5	Matias dos Anjos	MCHIP	Ass. MEA	826581300	Anjos
6	Arsénia Nhencali	Pathfinder	oficial SSR-PF	8247295000	Arsénia
7	Cassimo Bique	HCM	Director Maternidade	823184260	[illegible]
8	Leonardo Chavane	MCHIP	Assessor	843023773	[illegible]
9	Amir Modan	UNFPA	NPO-SRH	82-7147231	[illegible]
10	Armando Jorge de Melo	Misau	DSMC-Distrito	823052780, lagrecy@yahoo.com.br	
11	Ernestina C. David	MCHIP	Coord. Área SMN	823069330	[illegible]
12	Nafisse Bique Osman	AMOG	Gin/Obst HCM	823102170	nafisse.osman@gmail.com
13	Verónica de Vas	UG Matemática	Gin/Obst	828722882	[illegible]
14	Lilia Jamissi	USATD	Chefe Direção CMJ/ATD	823065080	[illegible]
15					
16					
17					

ANNEX 2: ILLUSTRATIVE EXAMPLE OF CALCULATION OF UTEROTONIC USE IN THIRD STAGE OF LABOR USING ALGORITHM (DATA ARE FICTITIOUS)

Estimation of Proportion of Births in Different Locations

Institutional vs. Home Delivery

Births are first split between home birth and institutional delivery. A recent DHS found that 30% of births were at home and 70% were institutional.

Institutional—Public vs. Private

The last DHS also showed that 20% of all births take place in private facilities. The rest (50%) occur in public facilities.

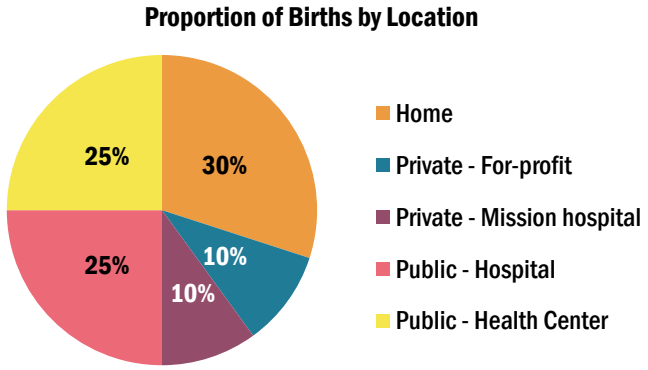
Public—By Facility Type

Of the 50% of deliveries that take place in public facilities, the expert panel agrees that there is variation by levels of public facility, as follows:

- District and provincial hospitals cover 50% of the public sector institutional births. That is, they cover 50% x 50% = 25% of all births in the country.
- Health centers also cover about 50% of all public sector institutional births.

Private—By Type of Provider

Of the 20% of births in private facilities, about half (10%) are with individual private providers and the other half (10%) are in faith-based (mission) hospitals.



ESTIMATION OF UTEROTONIC COVERAGE IN EACH LOCATION

	(% Births) x	(% Uterotonic Use) =	Contribution to National Coverage
HOME UTEROTONIC COVERAGE There are no skilled attendants who deliver at home, so injectable uterotonic use is near zero. On the other hand, there is an ongoing misoprostol pilot program in one of five provinces in the country. This province has about 10% of the country's population (and 30% are estimated to have home births). Documents obtained from this program showed that managers estimated that they are covering about 50% of home births in the province. That implies that 10% x 30% x 50% = 1.5% of all births in the country are covered with misoprostol by this program.	10% * 30%	50%	1.5%

	(% Births) x	(% Uterotonic Use) =	Contribution to National Coverage
PUBLIC HOSPITAL UTEROTONIC COVERAGE Uterotonic use is recorded in separate hospital registers. The last MOH quarterly report showed a rate of use of 85%. However, a recent independent assessment of uterotonic use by direct observation showed a rate of 70% in the same settings. The expert panel decided to use the estimate derived from the independent assessment – 70%.	25%	70%	17.5%
PUBLIC HEALTH CENTER UTEROTONIC COVERAGE There is no information from registers on uterotonic use in health centers and there has been no independent evaluation of facilities at this level. The expert panel is aware that personnel at this level are authorized and trained to use oxytocin, however there are problems with stock-outs. Their best estimate is that uterotonic use is about half as common here as in hospitals. That is, the coverage is about 35%.	25%	35%	8.8%
PRIVATE INDIVIDUAL PROVIDER UTEROTONIC COVERAGE There is no independent evaluation of private providers. The expert panel believes that private providers do not use uterotonics consistently, especially older providers, whereas more recently trained providers are more likely to use oxytocin. They estimate that uterotonics are used about half the time in deliveries in this setting.	10%	50%	5.0%
PRIVATE MISSION HOSPITAL UTEROTONIC COVERAGE The Christian Hospital Association has done a recent evaluation and found that uterotonic use is 95% in this setting.	10%	95%	9.5%
NATIONAL UTEROTONIC COVERAGE ESTIMATE			42.3%

ANNEX 3: SURVEY OF EXPERTS (CIRCULATED BEFORE MEETING)

Nº	Question	Response	Comments
1	What uterotonic(s) are included in the national guideline for **prevention** of postpartum hemorrhage?	Oxytocin only ..... 1 Misoprostol only ..... 2 Ergometrine only ..... 3 Any of the obove options ..... (4) Combination of Oxytocin and Ergometrine ..... 5 Other 6	Oxytocin, as well as Ergometrine and Misoprostol are included in the National Norms. From discussion at meeting: But, in the Health Facilities, Oxytocin is the first option
2	Please specify what level of public health facilities are authorized to give a uterotonic for **prevention** of post-partum hemorrhage?	All health facilities ..... (1) Only tertiary hospitals ..... 2 District hospitals ..... 3 Primary health care centers ..... 4 Others (specify) 5	
3	Are there stock-outs of uterotonics in public health facilities? If yes, how often in each (estimate the average number of days in a month or % of time).	Central hospitals – **No stockouts** Provincial hospitals – **No stockouts** General Hospitals - **19% não tinha disponível no dia da visita** District/rural hospitals – **22% não tinha disponível no dia da visita** Health Centers Type 1 - **21% não tinha disponível no dia da visita** Health Posts - **43% não tinha disponível**	According to the Report on the Naitonal Needs Assesment 2008 (MOH, unpublished data). From discussion at meeting: The situation is probably quite similar now.
4	Which of the following health workers or community agents are authorized to provide a uterotonic for **prevention** of post-partum hemorrhage.	Doctor ..... A Nurse ..... B Maternal Child Health Nurse ..... C Auxiliary Nurse ..... D Auxiliary Birth Attendant ..... E Nursing Assistant ..... F Other (specify) _____	All the listed cadres are authorized to use a uterotonic in the third stage. There was further discussion at the meeting to clarify that all ofthes cadres are in fact authorized.
5	Are there cadres of workers who attend births but who are not authorized to give a uterotonic for **prevention** of post-partum hemorrhage?	Yes **No** If Yes, specify:	From discussion at the meeting: However, unfortunately, sometimes non-health personnel like cleaners attend births.
6	What proportion of births occur at home versus in a facility? What proportion in private/ NGO facilities?	**Preliminary data from the 2011 DHS shows an Institutional Birth coverage of 54.3%.** **According to the 2003 andd 2011 DHS, 0.2% births are in private institutions.**	
7	Are there any data on the proportion of facility births that are given a uterotonic for **prevention** of PPH? If yes, see 7B If no/don't know, see 7C What proportion of births in facilities are given a uterotonic for **prevention** of PPH?	**Yes, from the HMIS, the coverage is reported as 89.3%**	The Study on Quality and Humainzation of Care in the Model Matenities showed 62% got oxytocin within 3 minutes of birth

Nº	Question	Response	Comments
	If no data exists, in your OPINION, what proportion of births are given a uterotonic for **prevention** of PPH?		
8	Are women who give birth at home provided with any uterotonic for **prevention** of post-partum hemorrhage?	Yes, when attended by SBA ..... 1 Yes, when attended by CHW or TBA ..... 2 Yes, when self-adminstered by women or administered by family member ..... 3 No, not authorized outside a health facility 4	The Strategy for the Prevention of Post-Partum Hemorrhage at the community level is now being developed.
9	Is there a program for use of uterotonics at homebirth for **prevention** of post-partum hemorrhage?	Yes **No**	The Community PPH prevention strategy will cover 35 of Mozambique's 128 districts.
10	Which health workers or other cadres are authorized to provide uterotonic for home births for **prevention** of post-partum hemorrhage?	Doctor Birth Attendant Nurse Other (specifiy): _____	Home births are covered by Traditional Birth Attendants. According the Community PPH prevention strategy, they will offer msoprostol for PPH prevention.
11	What percentage of the population is covered by the program of use of misoprostol at home births for **prevention** of PPH?	**This program will start in 35 districts and will cover 90% of home births in these districts. The coverage is zero now but will cover (35/128)*90%*46% = 11.3% of all births nationally.**	

REFERENCES

Mozambique National Statistics Institute and ICF International. 2011. *Mozambique Demographic and Health Survey*. Calverton, MD, USA.

Mozambique Ministry of Health and MCHIP. 2011. *Quality and Humanization of Care Assessment: A Study of the Quality of Maternal and Newborn Care Delivered in Mozambique's Model Maternities*. Accessed April 2013: http://www.mchip.net/node/1847.

Stanton CK, Rawlins B, Drake M, dos Anjos M, Cantor D, Vaz M, Chavane L, Chongo L, Ricca J. 2013. Measuring coverage in MNCH: Testing the validity of women's self-report of key maternal and newborn health interventions during the peripartum period in Mozambique. *PLOS ONE* 8(5): e60694.

World Health Organization (WHO). 2012a. World health statistics 2012. Accessed April 2013: http://www.who.int/gho/publications/world_health_statistics/2012/en/.

World Health Organization (WHO). 2012b. WHO recommendations for the prevention and treatment of postpartum hemorrhage. Accessed April 2013: http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/9789241548502/en/index.html.