EVALUATION OF EMONC EQUIPMENT
PROCUREMENT AND DISTRIBUTION PROCESS

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ABBREVIATIONS

ANC	Antenatal Clinic	**INCOTERM**	International Commercial Terms
AID	Agency for International Development	**JSI**	John Snow Inc
BEMONC	Basic Emergency Obstetric and Neonatal Care	**KAMTEC**	Kagera Medical Technical Services
CEMONC	Comprehensive Emergency Obstetric and Neonatal Care	**KCMC**	Kilimanjaro Christian Medical Centre
CHF	Community Health Fund	**MCH**	Maternal and Child Health
CHMT	Council Health Management Team	**MDG**	Millennium Development Goals
CO	Clinical Officer	**MMR**	Maternal Mortality Rate
DDH	Designated District Hospital	**MMRI**	Maternal Mortality Reduction Initiative
DH	District Hospital	**MOHSW**	Ministry of Health and Social Welfare
DMO	District Medical Officer	**MSD**	Medical Stores Department
DRCHco	District Reproductive and Child Health coordinator	**PMU**	Program Management Unit
D&C	Dilatation and Curettage	**PPM**	Planned Preventive Maintenance
ELCT	Evangelical Lutheran Church of Tanzania	**PRPm**	Prior Review Procurement model
EMONC	Emergency Obstetric and Neonatal Care	**RHMT**	Regional Health Management Team
ERP	Enterprise Resource Planning	**OC**	Other Charges
FANC	Focused Antenatal Care	**SHEHOMA**	Southern Highland Equipment for Hospital Maintenance
FP	Family Planning	**SRH**	Sexual Reproductive Health
GOT	Government of Tanzania	**TBA**	Traditional Birth Attendants
GRN	Good Received Note	**TWG**	Technical Working Group
HC	Health Centre	**UNICEF**	United Nations Children's Fund
HPSS	Health Promotion System Strengthening	**WHO**	World Health Organization
HTSD	Health Technical Services Department	**ZTC**	Zonal Training Centre
IMR	Infant Mortality Rate		

GLOSSARY OF TERMS

The definitions below are from the World Health Organization (WHO) Statistical Information Systems (WHOSIS) www.who.int/whosis/en/index.html

Neonatal Mortality:

Number of deaths during the first 28 completed days of life per 1000 live births in a given year or period.

IMR: Infant Mortality Rate:

Infant Mortality Rate is the probability of a child born in a specific year or period dying before reaching the age of one, if subject to age specific mortality rates of that period. It is expressed as a rate per 1000 live births.

MMR: Maternal Mortality Rate:

Number of maternal deaths per 100,000 live births during a specified time period, usually one year. A maternal death is the death of a woman while pregnant or within 42 days after termination of pregnancy irrespective of the duration and site of the pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

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The evaluation team received important assistance and needed cooperation from Ministry of Health and Social Welfare (MOHSW) and its institutions (procurement unit, reproductive and child health unit, health care technical services and the finance department), development partners representatives as well as the Regional and Council Health Management teams (R/CHMT) of the four regions visited.

In particular, the Swiss Development Cooperation for providing guidance on how to conduct this evaluation; staff from the World Bank Tanzania, Reproductive and Child Health (RCH) unit for providing information and arranging access as well as in assisting the evaluation team with logistical arrangement. Similarly, the Medical Stores Department (MSD) was very resourceful to the team.

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While all the groups and individuals have contributed to the evaluation, any errors or omission remain the responsibility of the evaluation team.

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EXECUTIVE SUMMARY

Swiss Development Corporation commissioned the team to conduct an evaluation to assess the process of the procurement, storage and distribution of EmONC equipment and document the lessons learned.. The evaluation of EMONC equipment procurement, storage and distribution was conducted between January 21st and March 31st 2013.

The exercise involved consultation with different stakeholders who were involved in one way or the other in the equipment procurement, storage, and distribution process. In addition, health facilities were visited to assess the status of the distributed equipment as well as evaluating the health facility capacity in utilizing the equipment. The equipment were procured in 2010 through support from World Bank, Swiss Development Cooperation and Australian AID.

To ascertain the availability of the equipment distributed by MSD in the health facilities; the consultants visited four selected regions and in each region, four districts were selected in collaboration with Regional Medical Officers (RMO) of the respective regions. In each district, one district hospital, two health centres and one dispensary were visited; a total number of health facilities visited in Kagera, Dodoma, Tanga and Njombe regions were 53 out f 64 that were planned.

In 2010 the MOHSW's Procurement Management Unit (PMU) under supervision of World Bank Tanzania deployed an international competitive bidding procurement system for EMONC equipment. Forty-two different types of equipment were procured from two suppliers; SINO AFRICA LIMITED of Uganda and ANUDHA LIMITED of Dar-es-Salaam. The equipment were cleared, stored and distributed by MSD. The procurement was well conducted abiding to the good procurement practices and all procured equipments were of very good quality and they all arrived as per the contract.

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There was a very good coordination between the TWG and the procurement unit, which enabled the specification setting and equipment selection for procurement very successful. MSD responded in clearance and distribution of these equipment where at the time of the evaluation, the team found that 73% of the equipment have been distributed to different facilities, as per the distribution list of EmONC equipment that was made available to MSD. This distribution achieves coverage of 87% for hospitals; 35% for health centers and 18% for dispensaries of the earmarked facilities all over the country. These equipment have brought a remarkable change in the delivery of Emergency Obstetric Care (EMONC) in Tanzania.

It was observed that there was an irrational distribution of the equipment where some facilities that needed the equipment were not supplied; others were not sufficiently supplied while others were over supplied. Typical examples of over supplied facilities include those facilities that received items that could not be used at their level of service.

In addition, involvement of crucial players was not adequate where the clearing agents (MSD) was not informed in advance leading to delays in clearance thus some demurrage charges were incurred.

Furthermore, the distribution of these equipments was delayed due to hard to use distribution list prepared without considering the fact that the packing list and actual packaging was mixed up hence leading to delays in entering into MSD's ERP system.

Despite all these challenges the equipment procured were of good quality and most health facilities appreciated the support given and are already using them; however some commented that they are still in need of more equipments as shown in table 18 – 40.

Likewise, the MOHSW's health care technical services unit, responsible for equipments installation, Maintenance and user training, was not involved during the procurement planning process to ensure timely deployment of technician teams to install and provide user training of the equipment hence, in some facilities, some of the equipment could not be used due to lack of knowledge on its use.

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No uniform equipment maintenance plan was found in place on the facilities visited. Two different approaches were found in the field, which includes planning preventive maintenance (PPM) as well as unplanned preventive maintenance. Faith based hospitals such as Kilimanjaro Christian Medical Centre (KCMC), (KAMUTEC) and (SHEHOMA) through different (ELCT) technical services unit provide scheduled PPM. In Dodoma region, PPM was also found to be implemented through Health Promotion and Systems Strengthening (HPSS) this is SDC project in Dodoma. Some facilities use their own technicians, or procure maintenance services through Government other charges (OC) while the lower health facilities, depend on the District Medical Officers (DMO) for maintenance of their equipments. However, for those without PPM, most of the EMONC equipment were found in stores waiting for installation and user training.

An assessment needs to be conducted by the MoHSW and RCH to establish where the equipment has been sent and is not used and redistribute them accordingly. In addition, support from other partners should be coordinated to ensure that it is directed where there is needs as it was found that many supported equipment are stored and not in use particularly in lower health facilities. John Snow Inc. (JSI), an implementing partner, has designed an inventory tool that can be a huge opportunity to collect and store equipment inventory information and this will ensure that facilities are equipped to the required levels as well as identifying and responding to needs as they arise. Another opportunity to enrich the quality of inventory data is the health care technical services unit, which at the moment, is partially funded by UNDPA to install and train the users. They could also take an inventory and recommend redistribution of the unused equipments.

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PREFACE

Tanzania is among the ten countries in Africa with highest number of maternal and neonatal deaths. The current maternal mortality rate is 454/100,000 live births (DHS 2010) and neonatal mortality rate is approximately 32/1000 live births. According to Tanzania road map strategic plan, the critical challenges in reducing maternal and newborn and child mortality and morbidity are clustered in two categories:

(i) Health system factors, including inadequate implementation of policies, weak health infrastructure, limited access to quality health services, weak referral systems, and lack of equipment and supplies.

(ii) Non-health systems factors including inadequate community involvement and participation in planning of health services, existence of social cultural beliefs and practices, gender inequality and poor health seeking behavior.

By 2015, the Government of Tanzania has committed to reduce maternal mortality by 75%. Among the interventions, which are earmarked in order to achieve this is the improvement of the availability of essential maternal obstetric and neonatal child (EmONC) equipment in 100% of hospitals and 70% of health centers and dispensaries to provide basic EmONC care.

In 2010, World Bank set up a trust fund to support purchase of EmONC equipment. Three development partners contributed funds to the procurement of this equipment; World Bank contributed USD 6.5Million, Australian AID USD 1.6Million, and Switzerland through Swiss Development Cooperation USD 1.86million. UNICEF provided technical assistance and capacity building in EmONC services to the MOHSW.

The Ministry of Health in collaboration with the World Bank initiated the procurement process in April 2010, and by August 2011, some equipment started to arrive at the MSD and by May 2012, the commodities had entered MSD's ERP system.

In August 2011, the MOHSW assigned Muhimbili University College of Health Sciences (MUHAS) to conduct an assessment in all health facilities in Tanzania to establish the needs for EmONC equipment to inform the distribution of the procured equipment. In April 2012, MSD started the distribution of the equipment to the referral, regional and district hospitals and few health centers, the process is ongoing to reach the remaining health centers and dispensaries.

23 out of 53 visited health facilities have so far received the equipment and are very appreciative of the support as which they attribute to have made a great improvement in service delivery to pregnant mothers and their newborns.

2 EVALUATION APPROACH AND METHODOLOGY

2.1 Background and rationale of the evaluation

As part of MOHSW to fulfill its objectives and implement the health sector strategic plan II to reduce maternal, newborn and child deaths, MOHSW through World Bank IDA – Health Sector Development project (HSDPII), set aside funds for the procurement of EmONC equipment. This was co- financed by the Australian government and the Swiss Government.

Apart from the equipment, capacity-building initiatives have already been implemented through RCH and its partners including UNICEF, JHPIEGO, ICAP and zonal training centres. RCH managed to conduct supportive supervision and mentoring through funding from UNICEF.

Given the significant potential impact of the system, and investments made, an evaluation of the procurement, storage and distribution process was carried out to identify bottlenecks in the process of implementing the activity as well as assessing needs for other supporting intervention. This evaluation was commissioned by (SDC) with collaboration from World Bank, Australian AID and other development partners.

Two consultants were contacted to undertake this evaluation in the four regions of Tanzania namely Dodoma, Tanga, Kagera and Njombe. The period for the evaluation was from January 21 to March 31 2013.

2.2 Terms of References:

The contracting party was to carry out an evaluation of distribution of EmONC equipment to health facilities including district hospitals, health centers and dispensaries. The evaluation included a combination of desk reviews, data evaluation, key stakeholders interviews and field visits in selected regions.

The evaluation addressed three key issues:

1) Process of delivery of equipment to health facilities
2) Status and availability of EmONC equipment at different health facilities
3) Capacity building for EmONC equipment utilization (training of health workers)

Primary outcome

Document the lessons learned in procurement**,** delivery and utilization of EmONC equipment to district hospitals and primary health facilities

Secondary outcomes

Lessons learned in the process of logistic implementation with regard to defining the gaps/needs, ordering, procuring, clearing from port of entry and storage.

Lessons learned through the process of implementation with regard to delivery of equipment to health facilities (regional hospitals, district hospitals, health centres and dispensaries).

Verify the availability of essential support for effective utilization of EmONC equipment at different levels of health facilities with regard to: (1) the training package for health workers (2) maintenance system for the EmONC equipment.

The contracting party carried out an evaluation of distribution of EmONC equipment to health facilities including district hospitals, health centers, and dispensaries. The evaluation included a combination of desk reviews, data evaluation, key stakeholders interviews, and field visits in selected regions.

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2.3 Selection of sample facilities

The sample of four regions was already selected and the team was asked to visit these facilities as part of their fieldwork. The consultants conducted field visit in four regions (Dodoma, Kagera, Njombe, and Tanga). In each region, they were required to visit four districts and assess status and utilization of EmONC equipment at the district hospital, in two health centers and one dispensary.

In each of the four regions were the consultants visited, RMOs were visited, and districts to be visited were primarily discussed with the RMO.

2.4 Methodologies

A combination of desk review and interview was used to collect data for this evaluation. Questionnaires were developed to guide the interview process for different categories of stakeholders.

2.4.1 Interviews

Three categories of questionnaires were developed and used to cater for the specificity of the nature of activity handled by different stakeholders; this includes questionnaires for procurement, storage and distribution, RCH and other central level stakeholders and for health facilities.

Different stakeholders were then contacted and responded to the interviews. The questionnaires are attached as annexes in this report.

In the four visited regions, semi structured interviews we carried out with District Medical Officers (DMO), medical officer in charge of health facilities together with other health workers of the health facilities who were responsible for maternal and newborn health.

Table 1: Measurement tools for data collection

Main Data	Detailed data collected	Responsible organization/Person
1. Procurement, storage and distribution		
Procurement process and management	• Procurement system deployed • Evaluation • Contract performance	• MOHSW • WORLD BANK Tanzania
Clearing and Storage	• Clearing procedures, timing and • Storage and entering into MSD system	MSD
Distribution	• Distribution process	MSD, Health Facilities
2. EmONC Facility and training needs		
Demographic information	• Catchment area • No. of HCW on the facility	District medical Officers, Medical Officer in charge of health facilities
Service information	• No. of staff trained on life saving skills and BEmONC/ CEmONC. • Training needs	Medical Officer in charge of health facilities; Nurses at Labour wards
Availability of medicines and supplies for EmONC	• Availability of essential medicines and supplies for EMONC in last 3 months • Availability of blood transfusion services • Functional system for replenishment of supplies	Medical Officer in charge of health facilities; Pharmacists
Availability of equipment for EmONC	• Availability of EmONC equipment • Status and availability of EmONC equipment received from MSD through support of WB, SDC, and Aus AID. • Other means of sustainability for EmONC equipment needs. • Maintenance of equipment in health facilities	

Table 2: Measurement tools for data collection (continued)

3. Reproductive and child Health, Ministry of Health and Social Welfare, stakeholders		
Efforts to address Maternal and newborn challenges	• Training needs • Medicines and supplies • Equipment • Advocacy • Supervisions	RCH, Document-Road map
Logistics issues	• Processes in getting funds for procurement • Methodologies for determining the quantities to be procured • System in place for ensuring availability of supplies for EMONC • Annual requirement budget for equipment and supplies for EMONC	RCH, MSD
Maintenance of the equipment	Availability of System for Installation, user orientation and maintenance for equipment	RCH, JSI/Deliver Project

2.4.2 Document Review

Dossier review was a key component of the evaluation process to establish the prevailing situation. The evaluation team systematically reviewed the following documentation:

- Tender evaluation report for the procurement of the EmONC equipment (2010)
- Contracts and addendums for both suppliers of EmONC equipment
- Tanzania road map strategic plan to accelerate reduction of maternal newborn and child deaths (2008-2015)
- Receiving and distribution list of EMONC equipment as provided by MSD as of 6 March 2013.

Furthermore, the team reviewed the public procurement regulation, 2005 to understand the procurement process.

2.4.3 Challenges and Limitations

The time set aside (28 days) for the field visit was not sufficient for the team to cover all 64 designated facilities due to geographical challenges as the facilities were quite dispersed, however 53 health facilities were visited. The team also found it difficult to align the actual distribution conducted versus the prepared distribution list for all EmONC commodities due to the complexity of the list hence only a sample of the visited facilities was verified if what was distributed was as per the distribution list allocation.

3 FINDINGS OF THE EVALUATION

3.1 Central level (MOHSW (RCH, PMU & HTSD) AND MSD)

REPRODUCTIVE AND CHILD HEALTH UNIT

The MOHSW in collaboration with different stakeholders developed, "The National Road Map Strategic Plan to accelerate reduction of maternal, newborn and child deaths in Tanzania" (2008-2015). The document stipulates various strategies to guide implementation of maternal, newborn and child health (MNCH). This document is addressed to stakeholders involved in MNCH including Government of Tanzania, development partners, non-governmental organizations, civil society organizations, private health sector, faith-based organizations and communities that work together towards attainment of the Millennium Development Goals (MDGs) as well as other regional and national commitments and targets related to MNCH interventions.

MOHSW developed the initial training materials for Basic Emergency Obstetric and Neonatal Care (BEMONC) and Comprehensive Emergency Obstetric and Neonatal Care (CEMONC) 2003; these tools were later reviewed in 2008; a 2013 revision of the tools is currently ongoing. The RCH has also developed training materials and conducted trainings to all health facilities providing MNCH services in the country. Such materials include; Focused Antenatal Care, Training on Post Natal Care and, Integrated Maternity Community Package. These materials are targeted for different groups.

Development partners including ICAP and JHPIEGO, conduct most of the trainings for EMONC i.e. BEMONC and CEMONC, national trainers who follow a prepared curriculum facilitate these trainings. Furthermore, MOHSW allocate some funds to zonal training centers for trainings health care workers on BEMONC and CEMONC. Approximately seven hundred (700) health care workers were trained on BEMONC in the 2012 by the RCH unit through the Zonal Training Centres.

UNICEF has been supporting the RCH with funds for implementation of different activities, last November 2012, UNICEF supported RCH with Tsh. 391,781,700 for finalization of CEMONC training package, supporting zones to conduct supportive supervision and mentoring and finalization of perinatal and maternal mortality audit form among other planned activities. UNICEF supported further the RCH with another funding amounting to Tsh. 112,000,000 for implementation of the planned activities for RCH.

In the financial year 2012/2013, MOHSW released funds to MSD for procurement of delivery kits approximated to cost Tsh. 2.5Billion. These kits are to be procured by MSD; the process is yet to be initiated. Furthermore, the MOHSW has allocated Tsh. 1billion for procurement of delivery packs for the financial year 2013/2014.

JSI in collaboration with MOHSW have designed, piloted and currently rolling out the "ILS gateway," a system designed to track availability of essential medicines for EMONC including Oxytocin. The roll out plans in place is to reach an approximate twelve regions by March 2013.

Furthermore, JSI in collaboration with MOHSW have developed a database to track equipment location. The EMONC equipment database is earmarked to have two features:

1. Tracking of the equipment allocation in all health facilities to establish if the facility is overstocked or under stocked with this equipment to better inform the allocation process.
2. Tracking the equipment status in all health facilities, to establish whether the equipment is functional or not.

The database currently has information of the allocation of the equipment up to the level of the regional hospital. The database is yet to be installed at RCH; JSI is still working with MOHSW in finalizing the equipment list before uploading into the database.

3.2 Procurement and clearance for the equipments

3.2.1 Introduction

The procurement of the EMONC equipment involved the beneficiaries of the equipments that are the Maternal Neonatal and Child Health (MNCH) through technical working group, which has members from MoHSW, Development Partners (UNFPA, USAID, SDC, WB, and others), and NGOs/CSOs. This team was responsible for providing the needs and the specifications of the equipment.

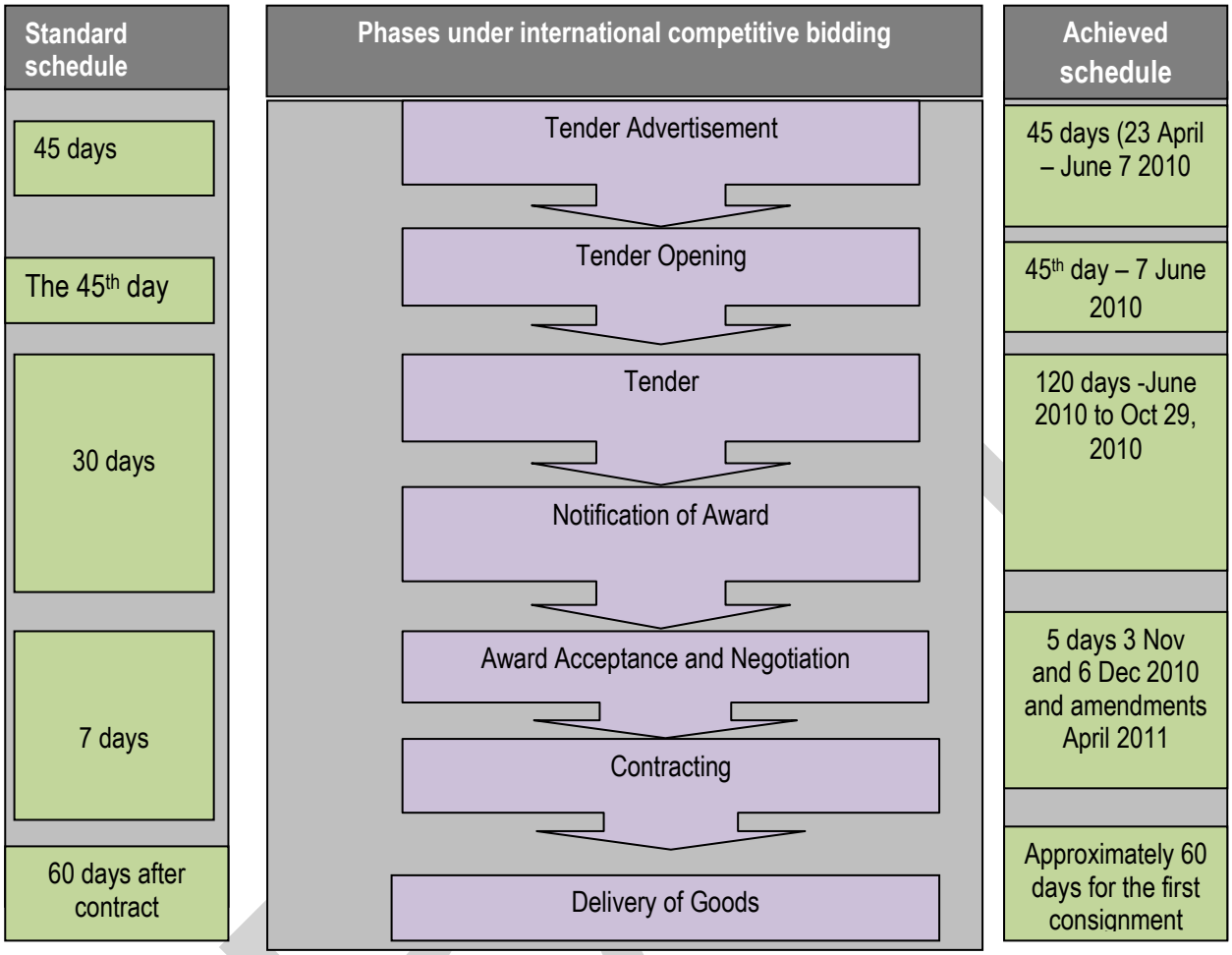
3.2.2 Procurement procedures

The procurement method used was a direct procurement through international competitive bidding where MOHSW's PMU and WB closely worked together through a Prior Review Procurement Model (PRPm). WB was required to approve/no objection before every step could progress to another.

Ministerial Tender Board (MTB) through its secretariat, the PMU, prepared all the bidding documentation. Following approval from the WB office in Tanzania, the bids were publicly made available in the local East African newspapers as well as the United Nations Development Business website starting from the April 23, 2010. The WB office in Tanzania guided the entire procurement processes through the prior review procurement (PRP) approach.

The tender advertisement lasted for 45 days. MOHSW's RCH unit provided the specifications of the equipment. Figure one below shows a comparison of the different steps involved during the actual procurement vis-à-vis the set timeframes.

Figure 1: Procurement stages and timeline for international competitive bidding



Initially funded by World Bank as a soft loan to the GOT through the Phase II Health sector development project; this project had the initial closure date of December 2010, which was later extended to December 2011 for the purpose of procurement of EmONC equipment only following a request from the GOT. In the later procurement stages, Swiss Development Cooperation and Australian AID supported the Government of Tanzania by injecting additional funds into the project through the World Bank to procure additional EMONC equipment.

Twenty-one bidders procured the bidding documents; eleven of whom submitted bidding documents to the Ministerial tender board. The bidders were:

1. Messrs. Golden Fareast Limited (Hong Kong).
2. Messrs. Jilichem (T) Limited (Tanzania).
3. Messrs. KAS Medics Limited (Tanzania)

4. Messrs. AuroAvenida Exports Pvt. Limited (India)
5. Messrs. Faram EastAfrica Limited (Kenya).
6. Messrs. Quayle Dental (UK).
7. Messrs. Siora International Limited (India).
8. Messrs. Bethel Enterprises Limited (Tanzania).
9. Messrs. Sino Africa Medicines and Health Limited (Uganda)
10. Messrs. Mokasi Medics Systems and Electronics (Tanzania)
11. Messrs. Anudha Limited (Tanzania).

Bid submission deadline was set to Monday 7, June 2010. The bid opening date was on the same day. Records of bid opening were sent to the World Bank on June 17, 2010. Eleven tenders were submitted and the tender validity date was 120 days.

3.2.3 Tender evaluation

A team of four comprising a gynecologist, biomedical engineer, procurement officer and a state attorney selected and endorsed by the MoHSW's permanent secretary evaluated the tenders for procurement of EMONC equipment. The evaluation of bids was conducted right after tender opening. During the evaluation, results from the preliminary examination for commercial responsiveness was conducted indicated that six bidders had to be rejected due to several reasons ranging from not having power of attorney, not having bid security, not conforming to the specified delivery schedules and not having bank guarantees valid up to the date specified in the bidding documents.

Five bidders successfully crossed to the second stage for examination on compliance to the required technical specifications. Additional commercial and technical criteria for selection include the bidder must have the necessary organizational capacity to comply with the terms and conditions of the contract and to complete it. These were further examined and two bidders were successful and were awarded the tenders.

The evaluation report was submitted to the WB for review and identified weakness were highlighted and corrected before the award notification and negotiations phase. During the end

of the process, new funding from Australia and Switzerland were disbursed and they were also through the WB. Due to this realization of the new funding which was within the value for contract extension instead of going through the new tender, it was agreed that the selected suppliers should receive an amendment and extension to carter for this increase. The table below shows the time for different events:

Table 3: Different events and time conducted

Event or terms	**Anudha**	**Sino Africa**
Notification of Award	29th October 2010	29th October 2010
Contract signing	6th Dec 2010	3rd Nov 2010
Contract extension signing	18th Jan 2011	14th Jan 2011
Amendment	4th April 2011	4th April 2011
Delivery of Goods	60 days after contract signing	Shipping on receipt of LC
Payments terms	Upon delivery	Trigger shipping
Inco term used	DDP	CIP Mabibo MSD

Originally, the project was scheduled to end on December 31 2010 with a No Cost Period (NCP) of four months; it was extended to 30 June 2011 with a NCP of four month meaning by 30 October 2011 the project would have come to end. This was revised to accommodate the Australian and Swiss funding where the closing date was changed to 31 Dec 2011 with a one month NCP to allow completion of all payments by 31 Jan 2012. The MOHSW prepared addendum with a no objection from WB who has the administration role for this grant.

The tender had forty-four (44) items to be procured as will be seen in the following tables. Of the 44 items that were to be procured according to the bid document, 42 items were awarded to the two suppliers, who were Bidder no 9-Messrs. Sino Africa Medicines and Health Limited P.O. Box 7321, Kampala Uganda and bidder no 11. Messrs. Anudha Limited, P.O. Box 5982, Dar-es-Salaam, Tanzania.

Table 4: Item for SINO AFRICA MEDICINES AND HEALTH Limited

SN	Description of goods	Quantity	Unit Price in USD	Total price in USD
1	Examination table 2 section with pad	170	148	25,160.00
2	Bed Labour and delivery with two piece mattress	200	396	79,200.00
3	Trolley cart dressing/dispensing - ward use	160	216	34,560.00
4	Scale adult metric 200kgx100g standing type	130	186	24,180.00
5	Scale infant clinic metric 15.5kgx 5g	130	58	7,540.00
6	Drip stand double hook adjustable to 2.5m height	100	29	2,900.00
7	Screen folding with curtains	300	83	24,900:00
8	Wheel chair invalid folding adult	180	115	20,700.00
9	Stethoscope	350	3.6	1,260.00
10	Stethoscope foetal pinardmonoaurel	250	1.6	375.00
11	Oxygen concentrator dual model 2 flow meters for pediatric and neonatal ward	200	1,580	316,000
12	Suction pump foot hand operated	130	116	15,080.00
13	Sheeting rubber Macintosh	100	76	7,600.00
14	Operating light	130	1,580	316,000.00
15	Sphygmomanometer (BP machine) giant type wall model	250	28	7,000.00
16	Sphygmomanometer aneroid	330	12	3,960.00
17	Operating table/bed	150	2,860	429,000.00
18	Portable Pressure Autoclave 20 liters	120	420	50,400.00
19	Boyles Anesthetic machine	100	10,100	1,010,000.00
20	Autoclave	110	5760	633,600.00
21	Neonatal resuscitation table	120	3,280	393,600.00
22	Nebulizer	120	94	11,280.00
23	Doppler fetal heart detector	120	1680	201,600.00
	Total amount			**3,505,295.00**

The total amount of items on award to SINO Africa, was later adjusted and the contract signed between MOHSW and SINO Africa amounted to USD 4,031,089 as per the agreement signed on

November 3, 2010. A second contract was signed between MOHSW and **ANUDHA Limited** had the following items:

Table 5: Item for ANUDHA Limited

SN	Description of goods	Quantity	Unit Price in USD	Total price in USD
1	Drum dressing medium 24cmx24cm	300	55.00	16,500.00
2.	Drum dressing small 16.5cmx16.5cm	300	49.00	14,700.00
3	Resuscitation bag with mask (adult)	200	43.00	8,600.00
4	Resuscitator bag with mask (child)	180	43.00	7,740.00
5	Suction pump electric 100mls capacity	120	369.00	44,280.00
6	Tube suction yankeur 270mm/10 3/4	130	4.0	520.00
7	Apron theatre plastic 115x90	100	4.0	400.00
8.	Speculum vaginal cursor large	750	8.50	6,375.00
9	Speculum vaginal cursor medium	750	8.50	6,375.00
10.	Dilatation and curettage Kit	120	1,081.00	129,720.00
11.	Delivery Kits	500	630.00	315,000.00
12.	Caesarian section	150	883.00	132,450.00
13.	Laparotomy set	150	2,500.00	375,000.00
14.	Manual Vacuum Aspiration (MVA Kit)	280	65.00	18,200.00
15	Haemoglobinometer	130	820.00	106,600
16.	Glucometer	115	69.00	7935.00
17	Paediatric infusion pumps	130	1290.00	167,700.00
18	Pulse Oxymeters	30	1,037.00	31,110.00
19	Diathermy machines	25	7,900.00	197,500.00
	Total USD			**1,586,705.00**

The original contract for procurement of these items was signed between MOHSW and ANUDHA Limited on December 6, 2010. This contract had a value of USD 1,824,711; an amendment of the contract was done on April 6, 2011 a contract price of USD 1,553, 260.00 were signed. Under addendum the following item were added for each supplier as indicated in table 5 below.

Table 6: Total Items per suppliers:

SN	Description of goods	Supplier	Quantity under HPSP II (WB)	Added Quantities AusAId &Swiss funds	Total Quantities
1	Examination table 2 section with pad	Sino	170	-	170
2	Bed Labour and delivery with two piece mattress	Sino	200	1000	1200
3	Trolley cart dressing/dispensing - ward use	Sino	160	500	660
4	Scale adult metric 200kgx100g standing type	Sino	130	1000	1130
5	Scale infant clinic metric 15.5kgx 5g	Sino	130	1000	1130
6	Drip stand double hook adjustable to 2.5m height	Sino	100	-	100
7	Screen folding with curtains	Sino	300	-	300
8	Wheel chair invalid folding adult	Sino	180	1000	1180
9	Stethoscope	Sino	350	-	350
10	Stethoscope foetal pinardmonoaurel	Sino	250	-	250
11	Oxygen concentrator dual model 2 flow meters for pediatric and neonatal ward	Sino	200	50	250
12	Suction pump foot hand operated	Sino	130	-	130
13	Sheeting rubber Macintosh	Sino	100	-	100
14	Operating light	Sino	130	50	180
15	Sphygmomanometer (BP machine) giant type wall model	Sino	250	-	250
16	Sphygmomanometer aneroid	Sino	330	2000	2330
17	Operating table/bed	Sino	150	-	150
18	Portable Pressure Autoclave 20 liters and Kerosene stove	Sino	120	-	120
19	Fabius Anaesthetic machine	Sino	100	50	150
20	Autoclave	Sino	110	50	160
21	Neonatal resuscitation table	Sino	120	100	220
22	Nebulizer	Sino	120	0	120
23	Doppler fetal heart detector	Sino	120	200	320

Table 7: Total Items per suppliers:

SN	Description of goods	Supplier	Quantity under HPSP II (WB)	Added Quantities AusAId &Swiss funds	Total Quantities
24	Drum dressing medium 24cmx24cm	Anudha	300	-	300
25	Drum dressing small 16.5cmx16.5cm	Anudha	300	-	300
26	Resuscitation bag with mask (adult)	Anudha	200	-	200
27	Resuscitator bag with mask (child)-	Anudha	180	-	180
28	Suction pump electric 100mls capacity	Anudha	120	-	120
29	Tube suction yankeur 270mm/10 3/4	Anudha	130	-	130
30	Apron theatre plastic 115x90	Anudha	100	-	100
31	Speculum vaginal cursor large	Anudha	750	-	750
32	Speculum vaginal cursor medium	Anudha	750	-	750
33	Dilatation and curettage Kit	Anudha	120	20	140
34	Delivery Kits	Anudha	500	500	1000
35	Caesarian section	Anudha	150	100	250
36	Laparotomy set	Anudha	150	50	200
37	Manual Vacuum Aspiration (MVA Kit)	Anudha	280	2000	2280
38	Haemoglobinometer	Anudha	130	800	930
39	Glucometer	Anudha	115	300	415
40	Paediatric infusion pumps	Anudha	130	20	150
41	Pulse Oxymeters	Anudha	30	20	50
42	Diathermy machines	Anudha	25	19	44

Two items did not meet the specifications and therefore no supplier was awarded; these were:

1. Stretcher folding type – no clear specifications
2. EMO machine – the machine was found to be unfriendly and unsafe

Following the additional funding made available from the two development partners; an adjustment of the quantities to be delivered was made to the two suppliers. The suppliers were then required to supply the following items and quantities as shown below:

Table 8: Items delivered by SINO AFRICA MEDICINES AND HEALTH Limited

SN	Description of goods	Quantity	Unit Price in USD	Total price in USD
1.	Examination table 2 section with pad	196	148.00	25,160.00
2	Bed Labour and delivery with two piece mattress	1230	396.00	79,200.00
3	Trolley cart dressing/dispensing - ward use	684	216.00	34,560.00
4	Scale adult metric 200kgx100g standing type	1150	186.00	24,180.00
5	Scale infant clinic metric 15.5kgx 5g	1150	58.00	7,540.00
6	Drip stand double hook adjustable to 2.5m height	115	29.00	2,900.00
7	Screen folding with curtains	345	83.00	24,900.00
8	Wheel chair invalid folding adult	1207	115.00	20,700.00
9	Stethoscope	403	3.6	1,260.00
10.	Stethoscope foetal pinardmonoaurel	288	1.6	375.00
11.	Oxygen concentrator dual model 2 flow meters for pediatric and neonatal ward	280	1,580.0	316,000.00
12	Suction pump foot hand operated	150	116.00	15,080.00
13	Sheeting rubber Macintosh	115	76.00	7,600.00
14	Operating light	200	1,580.00	316,000.00
15	Sphygmomanometer (BP machine) giant type wall model	288	28.00	7000.00
16	Sphygmomanometer aneroid	2,380	12.00	3960.00
17	Operating table/bed	223	2,860.00	429,000.00
18	Portable Pressure Autoclave 20 liters	188	420.00	50,400.00
19	Fabius Anaesthetic machine	165	10,100.00	1,010,000.00
20	Autoclave	127	5760.00	633,600.00
21	Neonatal resuscitation table	138	3,280.00	393,600.00
22	Nebulizer	138	94.00	11,280.00
23	Doppler fetal heart detector	338	1680.00	201,600.00
	Total amount			**4,031,089.00**

These items were delivered and entered into MSD's system between 26 October 2011 and 22 May 2012.

Table 9: Item delivered by ANUDHA Limited

SN	Description of goods	Quantity	Unit Price in USD	Total price in USD
1	Drum dressing medium 24cmx24cm	345	55.00	16,500.00
2.	Drum dressing small 16.5cmx16.5cm	345	49.00	14,700.00
3	Resuscitation bag with mask (adult)	230	43.00	8,600.00
4	Resuscitator bag with mask (child)-	180	43.00	7,740.00
5	Suction pump electric 100mls capacity	138	369.00	44,280.00
6	Tube suction yankeur 270mm/10 3/4	130	4.0	520.00
7	Apron theatre plastic 115x90	115	4.0	400.00
8.	Speculum vaginal cursor large	750	8.50	6,375.00
9	Speculum vaginal cursor medium	863	8.50	6,375.00
10.	Dilatation and curettage Kit	158	1,081.00	129,720.00
11.	Delivery Kits	1075	630.00	315,000.00
12.	Caesarian section	273	883.00	132,450.00
13.	Laparotomy set	223	2,500.00	375,000.00
14.	Manual Vacuum Aspiration (MVA Kit)	2322	65.00	18,200.00
15	Haemoglobinometer	950	820.00	106,600
16.	Glucometer	432	69.00	7935.00
17	Paediatric infusion pumps	150	1290.00	167,700.00
18	Pulse Oxymeters	30	1,037.00	31,110.00
19	Diathermy machines	48	7,900.00	197,500.00
	Total USD			**1,586,705.00**

These items were delivered to MSD between 1 September and 21 November 2011.

3.3 Lessons learned on the procurement, storage and distribution of EmONC equipment in Tanzania

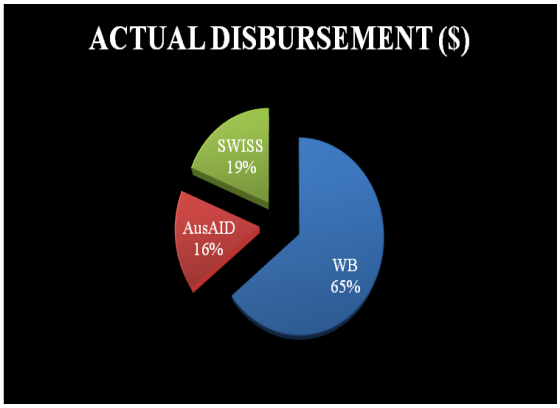
3.3.1 Key finding on the EmONC procurement

The procurement of the EmONC equipment from the initiation of the tender to the delivery of the equipment in the country took about one year and four months; April 2010 to August 2011, first delivery by ANUDHA LIMITED. The reason for the lengthy procurement period has been attributed by the extension needed to accommodate the realized new funding from the two donors. Otherwise, under normal circumstance it would have taken 5 – 6 months. WB played a big role in this procurement in the whole process from advertisement of the tender as well as to the stage of payment of the Suppliers. All the payments were effected from the MOHSW and the WB made approval and payments.

Table 10: Utilization of EmONC Funds provided by IDA, AusAID AND SWISS TRUST FUNDS

CREDIT/TF	ORIGINAL FINANCING FOR EmONC ($)	ACTUAL DISBURSEMENT ($)	%OF DISBURSEMENT FOR EmONC	SUPPLIER
Credit 46770 - TA	6,500,000	6,315,955.55	96.9%	Sino Africa
TF 99966 (AusAID)	1,609,604	1,609,640.00	100%	Sino Africa
TF 99967 (SWISS)	1,864,976	1,864,976	100%	Anudha =1,714,827 Sino Africa = 150,149

*** Source: MoHSW Accounts section*



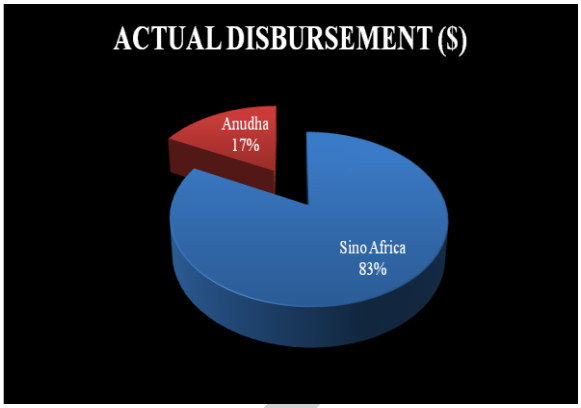


Figure 2: Actual funds disbursed per donor and per supplier

In this procurement, two different International Commercial Terms (incoterms) were used, where Anudha was supposed to deliver the consignment to MSD through Delivered Duty Paid (DDP) incoterm while Sino Africa was carriage and insurance paid CIP Ubungo MSD. These means that for DDP, the supplier will handle shipping, clearance and pay all duties and deliver the goods at MSD while for CIP; the supplier will ship then clearance will be handled by other agents there after the supplier will collect the cleared goods and deliver to MSD Ubungo.

ANUDHA Limited delivered the equipment as per the contract signed to MSD Ubungo. For Sino Africa consignment MSD had the role of clearing the equipment and the work of clearing was diligently executed. All the equipment procured by Sino Africa were cleared and stored by MSD, majority of the cleared equipment have already been distributed to the health facilities.

However, there was a communication break down and minimal involvement between the procurement agent and the clearance unit. Original documents that were required for clearing of the consignment arrived at the MSD two months after the consignment arrived at the Dar-es-Salaam port. The reason for his delay was attributed by the fact that, MOHSW, which was the procuring agent for these items, did not timely communicate the arrival of these equipments to MSD for them to prepare for the clearance, storage and distribution.

The addressee for the bill of Loading where original documents were sent was a Chinese firm Palm Commercial Limited and a second addressee was MOHSW, this caused further delays in receiving the documentation for the process of clearance to start early in advance.

Furthermore, there were some weighing scales, which attracted Tax by the Tanzania Revenue Authority (TRA) according to the Law, had these documents arrived early, total amount of Tsh 388,974,474.00, which was paid by MOHSW/ MSD as a tax for weighing scales could have been saved through exemption requests; and used for other health services.

The first consignment arrived at the port on 12 July 2011 and the documents for clearance arrived at MSD on 7 September 2011. The consignment was cleared by 12 October 2011.

The second consignment arrived at the port in August 2011 and the letter for MSD to start clearing the consignment arrived on 20 October 2011. Consignment was cleared on 26 October 2011.This delay in clearance of the consignment lead to demurrage charges to the MOHSW.

Inspection was also a challenge due to mixing of the items in containers where for some containers the indicated item did not match packed items. This mostly applied for items that had accessories where the packing list indicated that the machine and the accessories are in the same container while in reality they were not. MSD cleared a total of 37 containers from this Chinese firm. Improper documentation made MSD work complex and tedious in respect to inspection, entering into their systems and storage, lower involvement of this agent lead to omission of a key component of budgeting for clearance therefore MSD was tasked to use their own funds for the clearance and therefore hampering their routine business.

MSD did not have sufficient space to store the procured equipment, as a result the 37 containers used for shipping purposes were used as a storage area by MSD; this forced MSD to incur additional expenses for the containers since they did not belong to the organization.

MSD commenced the equipment distribution in March 2012 which is 5 month later from the entry of the first consignment where majority of the equipment have been distributed to health facilities countrywide by March 2013. Distribution of these equipment is done centrally i.e. from central MSD. Distribution list sent to MSD, was obtained from MOHSW following an assessment, which was conducted countrywide to determine the availability of the equipment for EMONC in different health facilities.

Table 11: Total Health Facilities covered by region categorized by type of the HF

NAME OF REGION	Total Facility covered	Hospitals	HEALTH CENTRES	DISPENSARIES
Kilimanjaro	38	14	23	1
Mtwara	33	6	25	2
Mwanza	31	12	18	1
Iringa	30	7	12	11
Kigoma	24	6	17	1
Tabora	23	7	12	4
Arusha	22	5	16	1
Lindi	20	7	12	1
Ruvuma	17	10	6	1
Dodoma	16	6	5	5
Kagera	12	12	0	0
Manyara	12	8	3	1
Tanga	10	10	0	0
Morogoro	9	9	0	0
Mara	8	8	0	0
Shinyanga	8	7	1	0
Mbeya	8	8	0	0
Pwani	7	6	1	0
Dar-Es-Salaam	6	6	0	0
Rukwa	4	4	0	0
Singida	1	1	0	0
Total	**339**	**159**	**151**	**29**

Despite the achieved distribution, there were delays in the distribution due to the challenges on the distribution list shared. The shared proposed list of distribution was in PDF format and the distribution was based on equipment type and not facility leading to appearance of one facility in different pages for different equipments. Due to this; it was found to be complex for MSD to initiate and implement smoothly the distribution of these equipment, as a result, it is taking longer time for MSD to finalize the distribution.

As indicated in the roadmap, RCH aims at providing EmONC equipments to 100% of Hospitals and health centers, and 70% dispensaries.

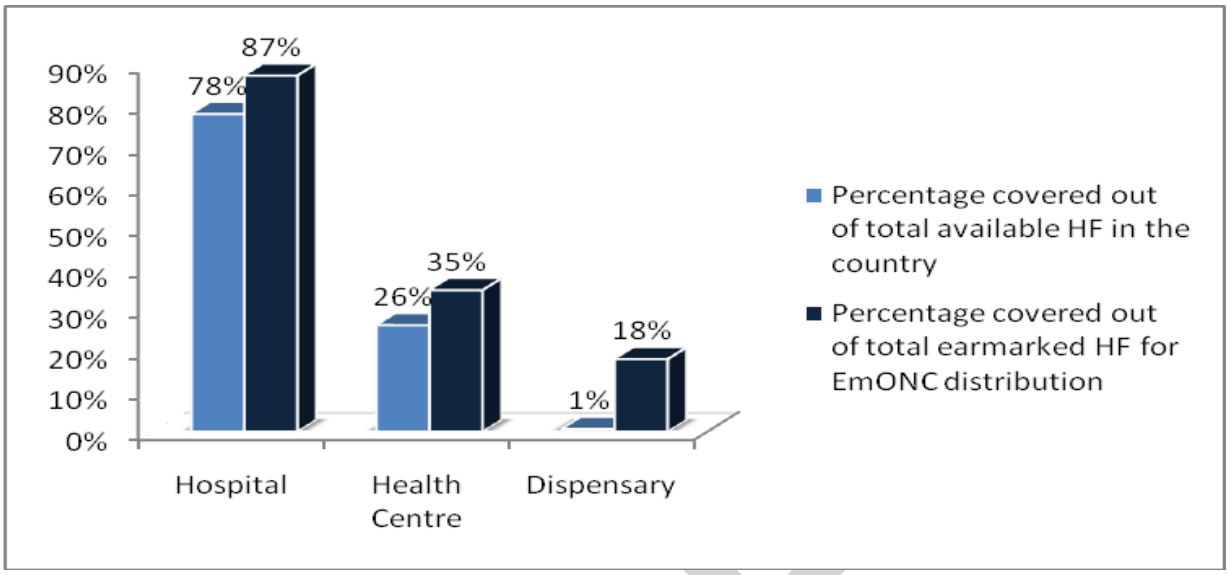
According to the RCH submitted distribution list (To MSD) of EmONC equipment; 159 (87%) hospitals, 151 (35%) health centers and 29 (18%) dispensaries have received equipments from MSD as per table 9 and figure 4.

Table 12: Distribution of EmONC equipments categorized by health Facility type (HF)

Health Facility level	All facilities in the country by category	Facilities earmarked for EmONC equipment distribution	HF covered by the distribution by 1st of March 2013	% Covered out of total available HF in the country	% Covered out of total earmarked HF for EmONC distribution
Hospital	204	182	159	78%	87%
Health Centre	578	435	151	26%	35%
Dispensary	4682	163	29	1%	18%

Source: List of health Facilities by PSS - MOHSW, Distribution lists for EmONC equipment – November 2011 and MSD list of facilities distributed with EmONC equipments

Figure 3: Percentage of HF distributed with EmONC equipments out of Earmarked HF and Total HF in the country



The figure below shows that Kilimanjaro region has the highest coverage of health facilities supplied with equipments while Singida has the lowest. Data from TDHS shows that Mara, Shinyanga and Rukwa regions have the lowest number of women delivering in the health facilities, thus these regions were expected to be prioritized in the distribution of EmONC equipment to improve service delivery.

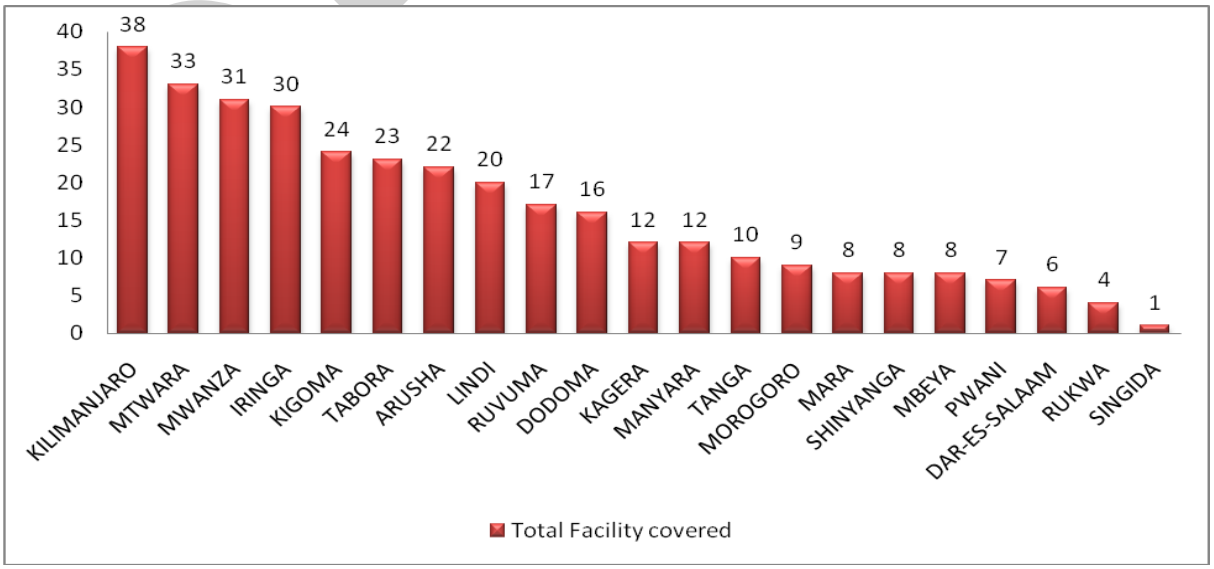


Figure 4: Facilities covered by regions

By March 1st 2013; an average of 73% of all the EmONC equipment procured has been distributed to a total of 339 health facilities country wide out of the 780 health facilities earmarked for distribution.

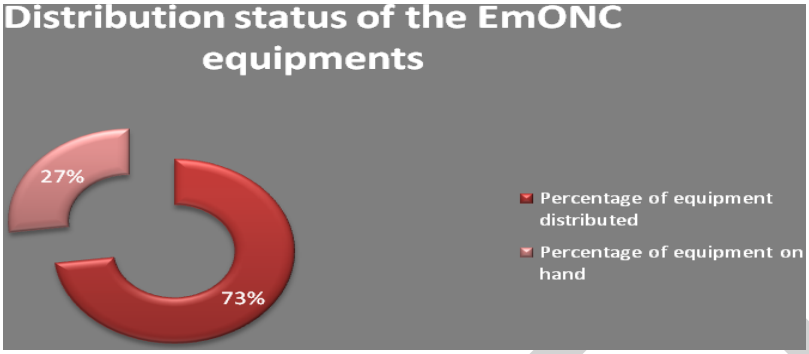


Figure 5: Distribution status of the EmONC equipment

The distribution was done based on the distribution list provided by the MOHSW. There was urgent need for distribution of equipment immediately after receipt of the list before MSD had entered the consignments in their inventory management system (ERP); this caused MSD to start distributing them manually prior to entering in to the system. The exercise made tracking of these items difficult for the team. MSD started the distribution of the equipment in March 2012 while the equipment was entered into the MSD system on 22nd May 2012.

The initial distribution of the equipment was made to the hospital levels, some health centers, and some dispensaries all over the country. Currently the distribution is still on going to the health centers and dispensaries. By the 1st March 2013, MSD reported to have distributed approximately 73% of the equipment leaving an average of 27% balance stock, NB: (this % stock does not represent all types of EmONC equipment). Some of the items that were found by the team to be in MSD store; and not yet distributed were delivery beds; examination beds, fetal pinard, stethoscopes; small autoclaves, screen folding with curtains and haemoglobinometer. However the team was not able to get the information from MSD on the total number of equipment that were distributed on year 2012 as the MSD ERP system could not retrieve the data of the last year issues.

Table 13: Procurement data

			PROCUREMENT DATA			
SN	**Description of goods**	**Supplier**	**Quantity under HPSP II (WB)(A)**	**dded Quantities AusAId &Swiss funds (B)**	**Total Quantities C=(A+B)**	**Quantity (As per the GRN) (D)**
1	Examination table 2 section with pad	Sino	170	-	170	196
2	Bed Labour and delivery with two piece mattress	Sino	200	1000	1200	1230
3	Trolley cart dressing/ dispensing - ward use	Sino	160	500	660	684
4	Scale adult metric 200kgx100g standing type	Sino	130	1000	1130	1150
5	Scale infant clinic metric 15.5kgx 5g	Sino	130	1000	1130	1150
6	Drip stand double hook adjustable to 2.5m height	Sino	100	-	100	115
7	Screen folding with curtains	Sino	300	-	300	345
8	Wheel chair invalid folding adult	Sino	180	1000	1180	1207
9	Stethoscope	Sino	350	-	350	403
10	Stethoscope foetal pinardmonoaurel	Sino	250	-	250	288
11	Oxygen concentrator dual model 2 flow meters for pediatric and neonatal ward	Sino	200	50	250	280
12	Suction pump foot hand operated	Sino	130	-	130	150
13	Sheeting rubber Macintosh	Sino	100	-	100	115
14	Operating light	Sino	130	50	180	200

			PROCUREMENT DATA			
SN	**Description of goods**	**Supplier**	**Quantity under HPSP II (WB)(A)**	**Added Quantities Aus AId &Swiss funds (B)**	**Total Quantities (C=(A+B)**	**Quantity (As per the GRN) (D)**
15	Sphygmomanometer (BP machine) giant type wall model	Sino	250	0	250	288
16	Sphygmomanometer aneroid	Sino	330	2000	2330	2,380
17	Operating table/bed	Sino	150	0	150	223
18	Portable Pressure Autoclave 20 liters and Kerosene stove	Sino	120	0	120	188
19	Fabius Anaesthetic machine	Sino	100	50	150	165
20	Autoclave	Sino	110	50	160	127
21	Neonatal resuscitation table	Sino	120	100	220	138
22	Nebulizer	Sino	120	0	120	138
23	Doppler fetal heart detector	Sino	120	200	320	338
24	Drum dressing medium 24cmx24cm	Anudha	300	0	300	345
25	Drum dressing small 16.5cmx16.5cm	Anudha	300	0	300	345
26	Resuscitation bag with mask	Anudha	200	0	200	230

	(adult)					
27	Resuscitator bag with mask (child)-	Anudha	180	0	180	180
28	Suction pump electric 100mls capacity	Anudha	120	0	120	138
29	Tube suction yankeur 270mm/10 ¾	Anudha	130	0	130	130
30	Apron theatre plastic 115x90	Anudha	100	0	100	115
31	Speculum vaginal cursor large	Anudha	750	0	750	750
32	Speculum vaginal cursor medium	Anudha	750	0	750	863
33	Dilatation and curettage Kit	Anudha	120	20	140	158

Table 14: Procurement data

			PROCUREMENT DATA			
34	Delivery Kits	Anudha	500	500	1000	1075
35	Caesarian section	Anudha	150	100	250	273
36	Laparotomy set	Anudha	150	50	200	223
37	Manual Vacuum Aspiration (MVA Kit)	Anudha	280	2000	2280	2322
38	Haemoglobinometer	Anudha	130	800	930	950
39	Glucometer	Anudha	115	300	415	432
40	Paediatric infusion pumps	Anudha	130	20	150	150
41	Pulse Oxymeters	Anudha	30	20	50	30
42	Diathermy machines	Anudha	25	19	44	48

The team evaluated different levels of the procurement and distribution data where the two supplier lists were added to obtain comprehensive list of equipment procured. The team then looked at what MSD Good Received Note (GRN) indicated on quantities that was received; table 10 above shows the summary of the analysis.

The team found from the GRN document that the quantities of equipments received from the suppliers to be in excessive of what was indicated in the contracts. The quantities of 19 of the equipment delivered by SINO were found to be 15% higher than the quantities under contract. GRN also showed that Sino delivered 82 pieces less neonatal resuscitation tables and 33 pieces less for autoclaves. On the other hand; ANUDHA Limited delivered four items as per the signed contract, 14 items with more than 15% more than the contract quantities and 20 pieces less of Oxymeter. Also the brand for the anaesthetic equipment that was specified in the tender document is different to what was delivered by SINO.

3.6 Health Care Technical Services

During the planning phase, there was no involvement of the technical service department of the MoHSW who are responsible for installing, users training and maintenance of the equipment. However, during receiving, the department had a presentation in the receiving inspection committee and this is when the department started the initiative by mobilizing resources for this exercise.

UNFPA, WHO and UNICEF are among partners that the department requested funding for the installation and user trainer purpose. UNFPA granted the department a total of TSH 82 Million to cover Shinyanga, Kagera, and Mwanza and if funds permit, add Kigoma and Tabora.

The department managed to install equipment in Dar-Es-Salaam and they are now in Pwani region.

Being part of the receiving committee there were issues around the expiry date of the glucometer reagents, which delay in distribution, could have led into expiry before use. In addition, there were concerns on where to obtain these reagents once this stock come to an end.

3.7 Conclusion

The planning and involvement of the procurement of these equipment was mainly revolving around the PMU, RCH and its Technical Working Group (TWG). The RCH and its TWG played

a very critical role in developing the specification of the items for procurement; while the PMU ensured that all procurement procedures were adhered to and different teams were formed and performed their assigned tasks. However, this activity had more players which were not involved and lead to delays in other processes of supply chains such as MSD responsible for clearance, storage and distribution, HCTS responsible for installation and users training and the RMO/DMO who were key for accepting and confirming the planned distribution.

The developed distribution list through the assessment done by MoHSW through MUHAS where 780 facilities were visited was a very important initiative to determine what needs to be sent and where, if the timing was earlier i.e. before procurement the same could have been used as a tool to decide the quantities to be procured from the comprehensive list that was prepared.

The procurement for the EmONC under the PMU of MoHSW was done as per the procurement regulations of the PPRA in combination with the PPRm of the World Bank. The procured equipment were of a very good quality with exception to the folding screen. In addition, the procurement team considered different country settings hence mixed manual and electrical equipment to cater for all.

The procurement documentation were well kept making it easier for the team to trace all the needed information.

The supplier performance was closely monitored through a close communication with the supplier and all needed documentation on extension and amendments were found at the PMU - MoHSW. The supplier performance was found to be satisfactory. Despite this SINO Africa still has not been fully paid, there is still a balance of around $200, 000 that are yet to be paid and PMU could not explain how this will be handled.

MSD did a good job of ensuring clearance is done despite the fact that no funds were set aside for clearance plus delays in communication and in arrival of the clearance documents, which were critical to facilitate timely clearance. Inconsistence between the packaging documentation

with the actual packaging in containers of consignment by SINO, lead to delays in verification and entry into the MSD ERP system which eventually negatively impacted the distribution.

The distribution started prior to entry into the inventory system, which is not a good inventory management practice. There was a very long delay in entry into the system for about 8 - 10 months attributed by the packing list being mixed up, lack of MSD ERP product coding preparation prior the arrival of the consignment as well as bulkiness of the consignment itself.

Even after entry into the system distribution has been delayed due to; first the distributions list is too complex to refer to and the equipment were bulky therefore needed more vehicles for transportation and lack of funds set aside for the distribution exercise.

The distribution exercise started in March 2012 whereby 159 (87%) hospital, 151 (35%) health centers and 29 (28%) dispensaries of the earmarked facilities for distribution have been covered/ reached by 1st March 2013. The distribution of these equipment did not reach all the intended facilities in Tanzania, there are regions e.g. Singida which the equipment where only sent to one Health facility i.e. the regional hospital the rest of the facilities in the region were yet to receive the equipment. This indicates the distribution of the equipment in the country has been carried in unequal manner.

There was significant discrepancy on the inventory data provided by MSD where data from different reports did not tally. These reports include the GRNs and the daily movement reports. This was due to the fact that MSD was not in a position to retrieve the information on what was issued in the year 2011/June 2012, the fact attributed by change of their inventory system i.e. Orion to ERP.

There a number of ongoing initiatives and opportunities that were found in the field such as the RCH database for monitoring the EmONC equipment developed through JSI, which is a very good tool when properly utilized to provide the visibility on the availability of EmONC equipments in the field. Another opportunity was the health care technical services section of the MoHSW which is responsible for maintenance of MOHSW equipment in the health facilities countrywide; on this procurement, the staff of this section were not involved during the planning stage of this procurement leading to lack of their inputs on what extra accessories are needed

during installation. Regardless these challenges, the section had started the installation upon request and they have received funds from the UNDPA to cover 6 regions.

3.8 Recommendations:

The planning phase of any activity is very important, hence it is highly recommended that for future procurements to undergo an intensive planning phase and to ensure that all key partners have been involved and their inputs have been incorporated in the procurement to avoid wastage of resources.

Communication between different institutions needs to be strengthened and made timely. Good communications ensures that each part understands their role and timely plan their schedules; in this case the procurement clearing, storage and distribution agents, the installation unit and end users.

Preparation of the storage space and products MSD code numbers for expected products beforehand is key in order to facilitate efficient performance of clearing and storage of the equipment in the desired destination at both MSD and in the health facilities.

Timely Identification of the equipment which need tax exemption need to be effected and exemption requested by the procurement agent so as to save the money which can be used to provide other health service in the country.

All documentation for clearance coming via sea should reach the clearance agent no later than three weeks prior the arrival of the consignment and the required clearance funding should be in place otherwise it is recommended to use Direct Delivery systems- (INCORTEMS) and transfer most risk to the suppliers.

Due to the challenge noted on distribution of equipment in the places where equipments are not needed, it is recommended that end users through the regional and district levels be trained to

generate their needs. Furthermore, the distribution list should be made in a user-friendly format to ease the distribution process.

Moreover, it is recommended that the existing database be used and updated to provide information on the status of EmONC equipments in the field. This could be done through requesting information from the District Reproductive and Child Health Coordinators (DRCHco) as well as using the Health Technical Care Services staff when conducting the exercise of installation and services in the field.

The inventory data need to be further reviewed and aligned to provide a clear picture on what was actually received, Issued (through both manual and electronic system) and what is on stock. MSD should make sure that they have entered all items that were issued manually and prepare a report to show and clear this discrepancy.

The MOHSW/RCH need to prior communicate with beneficiaries (End users) on what and when will be distributed as per their needs for planning purpose.

4 FINDINGS OF THE EVALUATION AT THE HEALTH FACILITY LEVEL

4.1 General findings

The team visited a total of 53 out of 64 facilities in the four regions that were selected.

Among the visited health facilities; 23 out of 53 had received EmONC equipment from MSD representing 43%. The equipment were already in use by majority (75%) of the health facilities-hospital levels while some (few) lower level facilities were having some equipment which were stocked for future use or when facilities are upgraded to become health centres or district hospitals. Such findings for which some equipment were found kept for future was observed at Bahi – Dodoma, Wanging'ombe-Njombe and Lushoto – Tanga regions.

The majority of the health facilities visited had good plans for maintenance of their equipment, but best lessons learned on proper maintenance of equipment were expressed by faith based/DDH facilities which use designated centers/ institutions which are located in different zones of the country. Staff in almost all of the facilities had attended trainings on BEMONC and CEMONC, lower level facilities had at least one person who had attended training on BemONC while hospitals had at least two people who had attended BeMONC/CeMONC training.

Generally; there was unequal distribution of the equipment in the facilities that were visited, while Dodoma and Njombe received large number and types of equipment, Kagera and Tanga facilities received few number of equipment as well as the facilities that received the equipment were few in number.

4.1.1 Receipt of the distributed Equipments

The team was given a sample of health facilities to visit as illustrated earlier; four regions namely; Tanga, Dodoma, Njombe and Kagera were selected. The team visited 53 health facilities in the sampled regions. In most of the facilities visited, the team could not find MSD invoices due to poor documentation practices nevertheless, the facilities were able to show the items delivered with exception to some of facilities in Dodoma (Kongwa and Bahi) districts. Otherwise, all distributed items were received to the destination (Table 18 – 40 provide the list of items delivered).

There is great disparity in terms of types and number of equipment distributed to the four regions. While the two regions of Dodoma and Njombe have received large numbers and different types of equipment, the two regions of Tanga and Kagera have received very few types and number of equipment from MSD.

Some of the equipment distributed are not earmarked for a certain level of service delivery, for example some health centers that do not provide surgical operations were given operating lights, infusion pumps; these facilities are (Ipelele and Lupila Health centers both in Njombe region). A similar observation was made in Bahi and Soni health centre in Dodoma region; these facilities do not have theatres and therefore no operations conducted in these facilities. Some facilities had more delivery kits than their actual needs, this was observed in Wang'ing'ombe health center whereby the facility was found to have 11 delivery kits, some of them being procured through the DMO; the situation warranting redistribution of some of the equipment in these regions.

Overall, the table below shows the distributed equipment vis-à-vis those received in all visited facilities, as shown in the table below about 98% has been received and only 2 % were not received.

Table 15: Quantities Issued per item Vs received in the visited facilities

ITEM	Sum of QTY ISSUED	Sum of quantity received	Percentage
Ambu bag adult	70	66	94%
Ambu bag infant	87	85	98%
Anaesthetic	19	18	95%
Autoclave (large)	16	16	100%
Autoclave (small)	40	38	95%
Bed side exam	60	59	98%
BP-machine	122	119	98%
Cesarean section	40	40	100%
D&C kit	11	11	100%
Delivery bed	55	54	98%
Delivery kit	101	101	100%
Diathermy	12	12	100%
Doppler fetal heart	42	41	98%
Drip Stand	12	11	92%
Drum dress	76	76	100%
Examination Bed	47	44	94%
Fetoscope (Pinard)	80	80	100%
Folding screen	66	65	98%
Glucometer	80	79	99%
Hemoglobinometer	48	47	98%
Infusion pump	112	110	98%
Laparotomy set	27	27	100%
MVA kit	147	147	100%
Nebulizer	27	26	96%
Neonatal	36	34	94%
Operating table	32	32	100%
PVC apron	110	110	100%
Spare parts for	11	11	100%
Stethoscope	39	37	95%
Suction machine	42	41	98%
Suction machine	41	41	100%
Vaginal speculum	225	220	98%

Table 16: Quantities Issued per item Vs received in the visited facilities

ITEM	Sum of QTY	Sum of quantity	Percentage
Weigh scale (adult)	56	56	100%
Weighing Scale infant	26	25	96%
Wheel chair	149	147	99%
Oxygen	68	64	94%
Grand Total	**2232**	**2190**	**98%**

Installation and use status of the EmONC equipment

The facilities that received this equipment made plans for the installation of the equipment according to the prior plans that exist in a particular hospital. Generally most of the equipment have been installed and in use.

Among the visited Faith based facilities, trainings have been conducted on the equipment and users are therefore aware of how to use the equipment. This has been so through the facility-contracted technician who provides the Planned Preventive Maintenance (PPM) as well as the repairing of the broken equipment. Other public health facilities used partners and district technicians to install and oriented the health care workers on how to use some of the equipments. In some of the lower level facilities; there were some equipment that remained stored due to lack of skills on how to operate them, examples are the in Bahi Health center where health care workers need orientation on the use of Doppler foetal heart machines, In Ipelele Health center where there is a need to orient health care workers on the use of electrical Suction machine, and nebulizers.

Mpwapwa district hospital in Dodoma, experience difficulty operating some of the equipment namely; Doppler machine, Nebulizer, infusion pumps, Suction pumps, because it was their first encounter with these types of equipment.

In addition, most facilities where over stock with delivery beds, operation lights, infant warmers, and other equipment due to high number provided from other donor support such as UNICEF in Dodoma.

Some regions like Kagera had very few item distributed to them leading to most of DDH not receiving any support while they have needs and they are serving a huge population, such facilities are Mugana and Biharamulo DDH. Tables 10– 11 highlighted the status of different visited facilities showing needs as well as overstocking.

4.1.2 Maintenance system

There is a good system for maintenance of equipment exhibited in the District Designated Hospitals more than the public health facilities. This is so due to the facts that faith based organizations have instituted centers in the zones which provide the technical services. The facilities instituted are Moshi Health and Technical Services Centre which serves the Northern zones, KAMUTES –Kagera Medical and Technical Services which serves the Lake Zone and SHEHOMA which serves the Southern Highland zones. The technicians of this facilities/center provide timely technical support and repair. These centers do accept to provide the technical support even to the public facilities.

4.1.3 Observed challenges

The DMO's in the visited districts with facilities that received these equipment indicated to have no prior information from the MOHSW on the arrival of these equipment; as a result, decision on where to send them was made randomly. Some equipment was sent to health centers and dispensaries, and some DMO's did not document in their inventories the receipt of this equipment in their districts, such districts are Lushoto and Biharamulo. However, in Lushoto the equipment could be located in the theatre and labour ward.

4.2 Specific findings by Regions:

4.2.1 Tanga Region

In Tanga four district were visited namely; Lushoto, Handeni, Korongwe and Mombo. In these districts four Hospitals, eight health centres and four dispensaries were visited as shown in the table below. In summary, the observation was as illustrated above and summarized in the table below.

Table 17: Summary of availability and status of EMONC equipment at District hospitals in Tanga Region and the current needs of EMONC equipment in facilities visited.

Facility	EMONC equipment received	Status of the equipment	Additional needs for Equipment	Remarks
Handeni Hosp	1. Examination bed – 2 2. Delivery bed – 6 3. Neonatal resuscitation table – 3 4. Autoclave (large) – 1 5. Oxygen concentrator with accessories – 6 6. Wheelchair – 1 7. Operating table – 2	Most of the equipment have been Installed and in use	1. Suction pumps for pediatrics	1. Two Oxygen concentrators were redistributed to lower level health facilities. The equipment was then found stored in the dispensaries. 2. Two delivery beds were sent to Health centers and Dispensary.
Bumbuli CDH	1.Delivery beds-3 2. Examination Beds-5 3. Folding screen-3 4. Neonatal resuscitation-3 5. Operating table-2 6. Weigh scale (adult)-2 7. Wheel chair-4 8. Oxygen Concentrator with accessories-5	1. The equipment have been installed and in use in the hospital. 2. One delivery bed and examination bed were stored for future use.	1. Autoclave, the available autoclave dates back to 1964. 2. Suction machine	1. The facility has a very good maintenance system for equipment.

Facility	EMONC equipment received	Status of the equipment	Additional needs for Equipment	Remarks
Lushoto district hospital	1.Autoclave (small)-1 2. Delivery bed-4 3. Examination Bed-6 4. Neonatal resuscitation/ Infant warmer-6 5. Operating table-1 6. Weigh scale (adult)-1 7. Wheel chair-5 8. Oxygen Concentrator with accessories-5	1. The autoclave was found kept and not used as there was no stove sent with the equipment. 2. Two Examination beds were found; -- operating table could not be located. 3. Oxygen concentrator, installed and in use.	1. Fetoscope, 2. Infant scale, 3. BP machines, 4. Suction tubes 5. Ambur bag with mask for infants	Poor documentation of the received items
Korogwe Hospital	1.Autoclave (large) -1 2.Delivery bed-4 3.Neonal resuscitation/ Infant warmer-3 4. Operating table-2 5. Weigh scale (adult)-2	1. All the equipment was installed with the exception of the autoclave, which was found not working due to not having a stove.	1. Suction pumps for pediatrics 2. BP machines 3. Infant scale 4. Oxygen Concentrator with accessories	

Table 18: Equipment Received at the health centres and dispensaries visited at Tanga Region

Name of health center	**EMONC equipment received**	**Status of the equipment**	**Additional needs for equipment**	**Remarks**
Kideleko HC-Handeni	One Delivery Bed from DMO office	Installed and on use	1.Ambur Bag 2.Suction pump 3.Resuscitation mask and bed 4.Drum dressing for sterilization	
Mkata HC-Handeni	One delivery bed from DMO	On use	1.Ambur Bag 2.Suction pump 3.Resuscitation mask and bed 4.Drum dressing for sterilization 5.Delivery kits	
Kwachagga dispensary-Handeni	None	-	1. Delivery bed 2.Delivery kits 3.Resusictaion masks	
Soni HC-Lushoto	Neonatal resuscitation/	On use-	1.Delivery bed	The equipment was brought from DMO

	Infant warmer-1 Oxygen Concentrator-1			office and a nurse was assigned to assist the facility on how to use them.
Mlalo HC-Lushoto	Oxygen Concentrator-1 from DMO	On use.	1.Delivery bed 2. Neonatal resuscitation/ Infant warmer-1	The equipment was brought from DMO office and a nurse was assigned to assist the facility on how to use it
Kangagai dispensary-Lushoto	Neonatal resuscitation/ Infant warmer-1	Not used by facility		The facility need some training on how to use this machine

Name of health center	EMONC equipment received	Status of the equipment	Additional needs for equipment	Remarks
Bungu HC-Korogwe	None		1. Ambur Bag 2.Suction pump 3.Resuscitation mask and bed 4.Drum dressing for sterilization 5.Delivery kits	The facility is yet to receive the equipment from MSD as of date of visit,
Magoma HC	None		1. Resuscitation mask and bed 2.Drum dressing for sterilization 3.Delivery kits and beds	
Gemai	None			
Tamota HC-Bumbuli	None			
Mgwashi HC-Bumbuli TC	None			
Tewe dispensary	None			

4.2.2 Kagera Region

In Kagera four districts were visited namely: Biharamulo, Kagera rural, Misenyi and Muleba. The region had more of Faith Based Hospitals, which are the DDH and are responsible for providing services at the districts. In this region, very few items were sent with Most of the DDH not covered. The Kagera RMO reported to have received a distribution list from MoHSW and shared with all districts indicating what should be distributed to each facility. Unfortunately the team could not access the letter. Mugana and Biharamulo DDH which serve as districts hospitals for Misenyi and Biharamulo districts respectively did not to receive any EmONC equipment from MSD.

Table 19: Summary of availability and status of EmONC equipment at district hospitals in Kagera region and the current needs of EmONC equipment in facilities visited.

Facility	EMONC equipment received	Status of the equipment	Additional needs for Equipment	Remarks
Biharamulo DDH	NONE	On use	1. Oxygen Concentrator-1 2. Resuscitation kits 3. Infant warmers	1. The facility did not receive equipment from MSD. 2. The facility is receiving support of equipment and technical, such as trainings to health care workers from Bugando Medical Centre (Maternal Mortality Reduction Initiative-MMRI).
Kagondo Hospital	1. Anesthetic equipment-1 2. Delivery bed-1 3. Wheel chair-5	Installed and used	1.Oxygen Concentrator-1 2.Suction machines-3 3.Delivery beds-4 4.Infant warmers-1 5.BP Machines 6. Resuscitation kits 7.Foetal scopes 8. Delivery kits 9.Weighing scales, 10. Trolleys 11. Autoclaves	

Table 20: Summary of availability and status of EmONC equipment at district hospitals in Kagera region and the current needs of EmONC equipment in facilities visited (continued)

Facility	EMONC equipment received	Status of the equipment	Additional needs for Equipment	Remarks
Izimbya DDH	1. Anaesthetic equipment-1 2. Autoclave (small)-1 3. Delivery bed-2 4. Operating table-2 5. Wheel chair-5	The equipment have installed in the new building, which will be used as a theater.	1. Delivery Kits 2. Resuscitation kits 3. Suction pumps 4.Infant warmers 5. Delivery beds 6.BP machines 7.Infant weighing scales	The hospital is not yet providing surgical services, as they did not have proper theater, but theater on final completion now.

Table 21: Summary of availability and status of EmONC equipment at district hospitals in Kagera region and the current needs of EmONC equipment in facilities visited (continued)

Facility	EMONC equipment received	Status of the equipment	Additional needs for Equipment	Remarks
Mugana DDH	None	No equipment was sent to this hospital which acts as district hospital for Misenyi District	1.Oxygen concentrator-2 2.Doppler Fetal Heart detector-2 3. Infant warmers 4.Delivery Beds 5.Anaesthetic equipment 6.Delivery Kits-2 7.Autoclave machine 8. Weighing scales for adults and children 9. Suction machines. 10. Resuscitation kits/ ambur bags 11. Disposable female catheters 12.Operation table and lights 13. BP machines 14. HB and blood sugar machines	The hospital has some EmONC equipment which has been on use for as long as 30 years, some are broken. Due to large number of clients, some equipment are needed as indicated on the table.

Table 22: Equipment Received at the health centres and dispensaries visited at Kagera Region.

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Rukaragata HC-Biharamulo District	None	-	1. Resuscitation kits 2. Anaesthetic equipment 3. Delivery kits 4. Suction tubes, machine is available 5. Macintosh 6. Infant warmers	• Promoted from dispensary to health center • Space for deliveries is inadequate • No training on BEMONC conducted to any staff • No maintenance structure for equipment
Nyakanazi HC-Biharamulo district	None	-	1. Delivery Kits-2 2. Autoclave machine 3. Weighing scales for adults and children 4. Suction machines 5. Resuscitation kits/ ambur bags	• No training on BEMONC conducted to any staff • No maintenance structure for equipment • Some of the times medicines are in low stock

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Nyamshanga dispensary-Biharamulo district	None	-	1. Delivery beds 2. Delivery Kits	• Planned to receive equipment from DMO office
Kaigara HC-Muleba district	None	-	1.Delivery beds-3 2.Suction pumps-2 3.Ambu bags 4.Infant warmers 5.Oxygen concentrator 6.Operation table 7. Anesthetic machine 8. Autoclaves 9.Resuscitation kits 10.MVA Kits-2 11.Delivery kits-2	• The facility has got few EmONC equipment, some of them are not properly functioning e.g. ambu bags, resuscitation kits. • Only one person trained on BemONC • No System for maintenance of equipment

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Kagondo HC-Muleba District	None	None	1.Delivery beds- 2.Suction pumps- 3.Ambu bags 4.Infant warmers 5. Autoclaves 6.Resuscitation kits	
Kagoma Dispensary-Muleba District	None	None	1.Delivery beds 2.Delivery kits- 3.Mcintosh 4. Wheel chairs 5. Autoclaves	
Kanazi Health Center-Bukoba DC	None	-	1.Delivery Kits 2. Suction pumps 3.Resuscitation kits 4.Ambu bags 5.Autoclave 6. Infant warmers	

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Katoma dispensary-Bukoba DC	None	-	1. Autoclave 2.Delivery kits	
Bunazi HC-Misenyi District	None	-	1.Delivery Kits 2. Suction pumps 3.Resuscitation kits 4.Ambu bags 5.Autoclave 6. Infant warmers	
Kashanga Dispensary-Misenyi District	None	-		

4.2.3 Njombe region

The team visited Njombe region, which is a new established region, originally Njombe district, was a part of Iringa region. Njombe region has four districts, which are:

1. Makete
2. Njombe with District and Town council
3. Wanging'ombe
4. Ludewa

Njombe district has two administrative councils with two District Medical Officers. The two councils are Njombe District and Njombe Town council. Njombe town council has Kibena hospital as its district hospital, and this hospital is being earmarked to become a regional hospital for Njombe region. The requirement for EMONC equipment for this facility is listed in the table below. Most of the lower level facilities in Njombe region have received some equipment for which the use of those equipment is not known to the health care workers-there is a need for orientation on the use of the equipment by the technicians. In addition, some equipment like Manual autoclave lack stove needed for operation, hence leading to not being put into use until the stove is sourced locally.

Table 23: Summary of availability and status of EMONC equipment at District hospitals in Njombe region and the current needs of EMONC equipment in facilities visited

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Ilembula Hospital	1.Ambu bag infant-2 2.Bed side exam light source/ operating light-1 3. BP-machine-8 4. Cesarean section set-4 5. D&C kit-2 6. Delivery kit-2 7. Diathermy-1 8. Doppler fetal heart detector 9. Fetoscope (Pinard)-5 10. Glucometer-4 11. Hemoglobinometer-1 12. Infusion pump (paed)-5 13. MVA kit-3 14. Suction machine (manual) 15. Vaginal speculum (Cusco)-2 16. Weighing Scale infant-1	Machines found not installed: 1. Operating light 2. Diathermy machine 3.Doppler Fetal heart detector	1. Resuscitation kits 2. Anesthetic equipment	The hospital receives the services of SHIHOMA-Church based technical services unit based in Peramiho-Ruvuma region which does installation and repair of the facility equipments.

Table 24: Summary of availability and status of EMONC equipment at District hospitals in Njombe region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Kibena district hospital	None	-	1. Operating table and lights 2. Caesarian section kits 3.Delivery Kits 4. Oxygen Concentrator 5. Resuscitation table for infants 6. Anesthetic equipment 7.Infant warmers 8.Autoclave (big) 9. Doppler fetal heart detector 10.BP machines 11. Suction machines. 12. Aprons 13.MVA kits 14.Glucometer 15. Infusion pump 16. Laparotomy kits 17.D&C kits 18. Nebulizer	Kibena hospital has been operating as district hospital for Njombe district. -It is earmarked to be a regional hospital for Njombe region -It has about 450-500 deliveries in a month. -MSD was supposed to distribute EMONC equipment to this facility on year 2012.

Table 25: Summary of availability and status of EMONC equipment at District hospitals in Njombe region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Makete District Hospital	1.Ambu bag adult-3 2. Ambu bag infant-4 3. Bed side exam light source/ operating light-2 4. BP-machine-9 5. Cesarean section set-4 6. Delivery kit-3 7. Diathermy-1 8. Doppler fetal heart detector-2 9. Drum dress-3 10. Glucometer-4 11. Hemoglobinometer-1 12. Infusion pump (paed)-6 13. MVA kit-5 14. Nebulizer-1 15. PVC apron-7 16. Stethoscope-3 17. Suction machine (electric)-4 18. Suction machine (manual)-1 19. Vaginal speculum (Cusco)-11 20. Weighing Scale infant-1	Majority of the equipment were found stored in the facility waiting for their theatre to be completed as it was on the process of renovation to be upgraded.	-No need for equipment was highlighted	-The hospital has about 50 deliveries per month. -Most of the EmONC equipment used were from own hospital source and could be used by the health workers.

Table 26: Summary of availability and status of EMONC equipment at District hospitals in Njombe region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Wangingombe Health center-To be upgraded to DH for Wanging'ombe District	Ambu bag adult-2	Small autoclave does not have a stove so it is not used.	-Resuscitation table	The facility received the equipment in excess of their needs**.**
	Ambu bag infant-1	Items stored and not in use: -Bed side operating light		
	Autoclave (small)-1	-Doppler -Suction pump		
	Bed side exam light source/ operating light-1	-11 Delivery kits were found as they had bought their own.		
	BP-machine-3	-Infusion pump		
	Delivery kit-4	-MVA kits		
	Doppler fetal heart detector-1	-Haemoglobinometer		

Table 27: Summary of availability and status of EMONC equipment at District hospitals in Njombe region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
	Drum dress-1 Fetoscope (Pinard)-1 Folding screen-2 Glucometer-1 Hemoglobinometer-1 Infusion pump -(paed)-2 MVA kit-3 Nebulizer-1 PVC apron-6 Stethoscope-2 Suction machine (electric)-1 Suction machine (manual)-1 Weigh scale (adult)-1 Weighing Scale infant-1 Wheel chair-1			

Figure 6: Received delivery kits

Table 28: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Njombe region and the current needs

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Njombe HC-Njombe Town Council	None	-	1.Delivery beds 2.Delivery kits 3.Macintosh 4. Wheel chairs 5. Autoclaves 6. Infant warmers 7. Suction pumps 8.Doppler fetal heart detector	
Idundilaga Dispensary	None	-	1.Delivery kits- 2.Macintosh 3. Wheel chairs 4. Autoclaves 5. Infant warmers	
Makoga Health centre	Received	All the equipment was found in use. Some machines like -suction machine, -infusion pump , --Doppler fetal heart , -operating light was found in storage.	None	
Igongolo Dispensary-Njombe DC	None		1.Delivery beds 2.Delivery kits- 3.Mcintosh 4. Wheel chairs 5. Autoclaves	

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for Equipment	Remarks
Wambule dispensary-Wanging'ombe district	None		1.Delivery kits-2.Mcintosh 3. Wheel chairs 4. Autoclaves 5. Infant warmers	
Ipelele Health Centre-Makete	Received equipment	The equipment that were found in use: 1. Resuscitation kits 2. Delivery beds 3. Ambur bags 4. Aprons and 5. Delivery kits The facility did not know how to use the suction machine which was electrical one	-	The facility had been receiving support of equipment from UNCEF, these were delivery kits, aprons, ambur bags and resuscitation kits etc
Imiho Dispensary	None		1.Delivery beds 2.Delivery kits-3.Mcintosh 4. Wheel chairs 5. Autoclaves	

4.2.4 Dodoma Region

The team visited Dodoma region and had discussion with the Regional Medical Officer of Dodoma region who informed the team of the different NGO that are supporting the region on different health programs. Such organizations are Engender Health, which supports family planning interventions-Long term Family Planning, SDC who supports the four areas: Medical

equipment maintenance, financial system improvement through CHF, medicines, and research, and health promotion through the program of Health Promotion and System Strengthening (HPSS).

Other organizations are Aga Khan: Joining hands initiative-which supports maternal and new born care and Canadian International Development Agency which support three districts. The team agreed with the RMO that Mpwapwa, Bahi, Kongwa and Chamwino districts be visited. In Kongwa the team observed some discrepancies with the distribution of EmONC equipment in the district hospital. The team observed the entire Invoice as shown in the figure below was not delivered

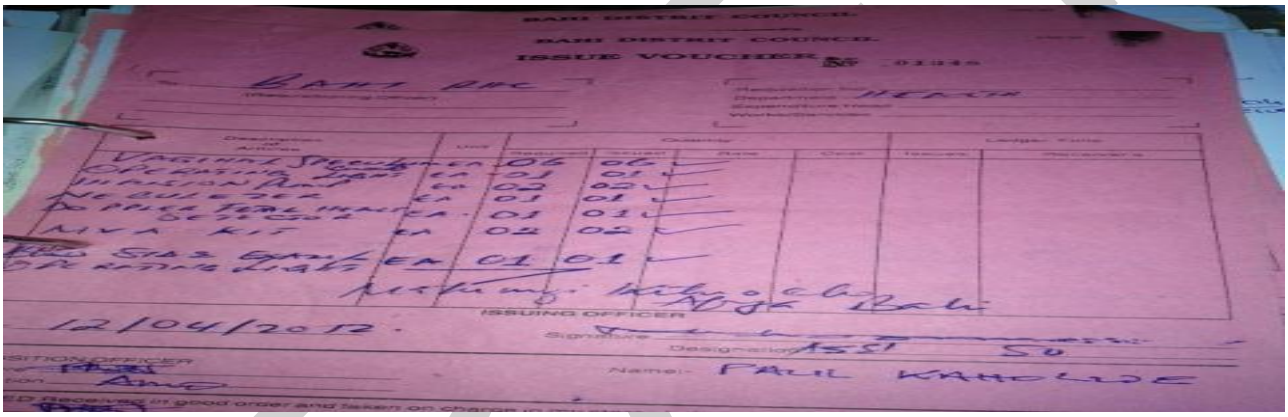


Figure 7: Issued equipment, which were not found

Kongwa district hospital received EmONC equipment; during the evaluation; the team found out some challenges with the documentation/what was delivered in the facility. From the documentation, the team found out that; the consignment for Kongwa district hospital and Ugogoni Health center were delivered to Kongwa district hospital on March 30 2012; however, the district consignment was less when compared with the distribution list that was collected from MSD; in district consignment the Anaesthetic equipment and Delivery kits were missing.

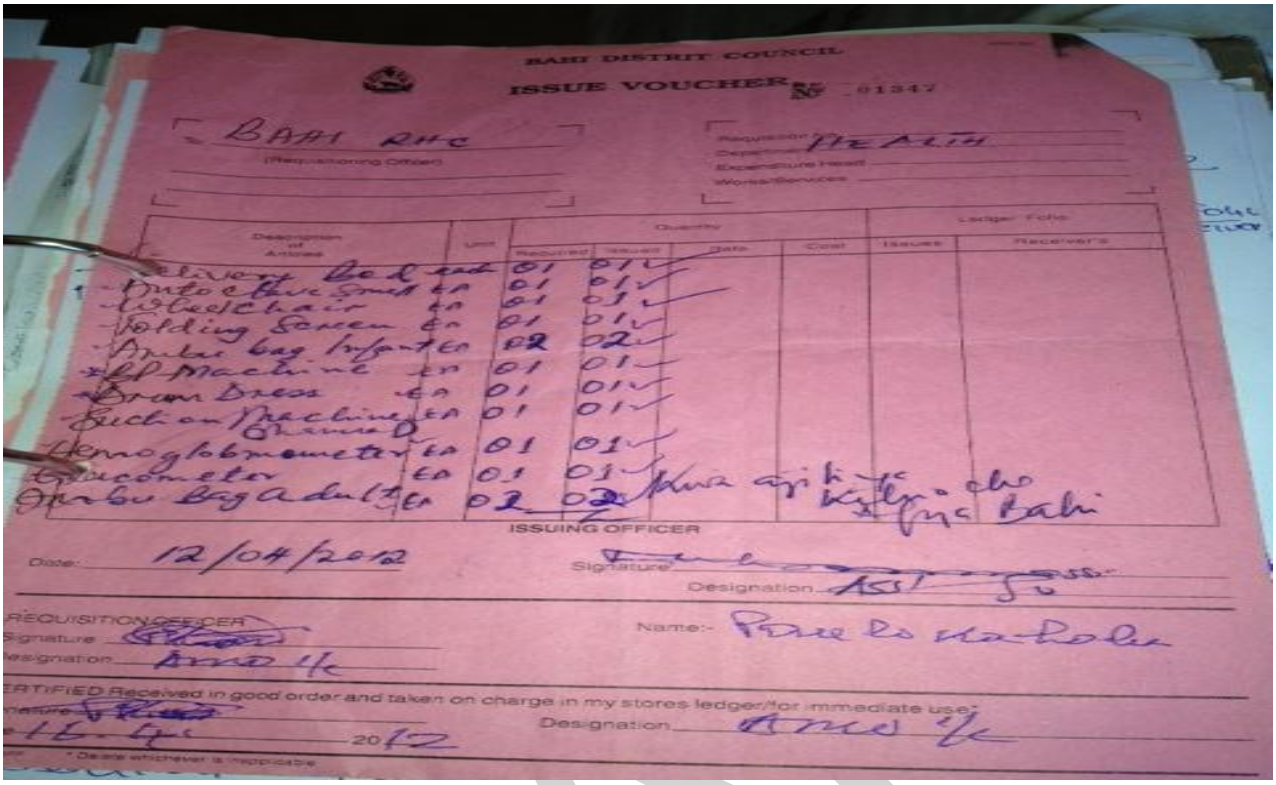


Figure 8: Invoice which did not tally with the given distribution list

In addition, the list of 17 products provided by MSD for Ugogoni Health centre had some items that were different to what was delivered by Kongwa district hospital. The items that were delivered were one small autoclave and five wheel chairs instead of two as per the list. Other items that were not delivered to Ugogoni included Infant warmer/infant resuscitation – 2, Oxygen concentrator 4, Drip stand -1 and folding screen. Other details on the needs and status of the EmONC are summarized in table 17.

Table 29: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited.

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for equipment	Remarks
Kongwa District hospital	1. Autoclave (small)-1 2. Delivery bed-1 3. Drip Stand-1 4. Examination Bed-3 5. Folding screen-3 6. Neonatal resuscitation/ Infant warmer-2 7. Wheel chair-5 8. Oxygen Concentrator with accessories-4 9. Ambu bag infant-2 10. Anaesthetic equipment-1 11. Bed side exam light source/ operating light-3 12. BP-machine-5 13. D&C kit-1 14. Delivery kit-1 15. Suction machine (manual)-3 16. Vaginal speculum (Cusco)-8 17. Diathermy -1 18. Doppler fetal heart detector-2 19. Fetoscope (Pinard)-10	Machines found not installed/used: 1. Operating light 2. Diathermy machine 3.Doppler Fetal heart detector 4. Examination bed-1 5. MVA kits-4 6.Oxygen concentrator-	None	The hospital receives the services of Health Promotion and System Strengthening, which sends technician on occasions to do installation and repair of the facility equipment. Anesthetic equipment could not be located in this premise.

Table 30: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for equipment	Remarks
	20. Glucometer-4 21. Hemoglobinometer-2 22. Infusion pump (paed)-7 23. Laparotomy set-1 24. MVA kit-7 25. Nebulizer-1 26. Stethoscope-1			
Mpwapwa district hospital	1. Autoclave (large)-1 2. Examination Bed-2 3. Neonatal resuscitation/ Infant warmer-1 4. Oxygen Concentrator with accessories-3 5. Ambu bag infant-4 6.Bed side exam light source/ operating light-3 7. Ambu bag adult-2 8. Diathermy-1 9. Delivery kit-5 10. Suction machine (manual)-2 11. Vaginal speculum (Cusco)-8	Machine not used/ kept waiting for technical expertise: 1.Doppler machine- 2.Nebulizer 3. Infusion pump 4. Suction pump was found broken; a replacement was to be obtained from the store.	None	The facility receives support of equipment from UNICEF so some of this donation was found still stored in one of the stores.

Table 31: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for equipment	Remarks
	12. Caesarean section kit -2 13. Doppler fetal heart detector-2 14. Laparotomy set-3 15. Nebulizer-1 16. Drum dress -1 17. Glucometer-4 18. Hemoglobinometer-1 19. Infusion pump (paed)-7 20. MVA kit-3 21. Fetoscope (Pinard -3			

Table 32: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for equipment	Remarks
Bahi Health Centre	1.Ambu bag adult-2 2. Ambu bag infant-2 3. Bed side exam light source/ operating light-5 4. BP-machine-1 **5.** Delivery bed-1 6. Delivery kit-1 7. Doppler fetal heart detector-1 8. Drum dress-1 9. Glucometer-1 10. Hemoglobinometer-1	Some of the equipment was found stored in the facility waiting for their theatre to be built in the next FY. Such equipment are Operating light. MVA kits were also found stored. Other equipment which needed technical	-No need for equipment was highlighted	The facility was found with five operating lights, which were stored in unfavorable conditions as the storage place is not big enough.

	11. Infusion pump (paed)-2 13. MVA kit-2 14. Nebulizer-1 15. Folding screen-2 18. Suction machine (manual)-1 19. Vaginal speculum (Cusco)-6 20. Wheel chair-1	expertise are: Doppler fetal heart The rest of the equipment were used.		

Table 33: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	**EMONC equipment received from MSD-2012**	**Status of the equipment**	**Additional needs for equipment**	**Remarks**
Mvumi DDH	1.Autoclave (small)-1 2. Drip Stand-2 3. Examination Bed-4 4. Neonatal resuscitation/ Infant warmer-2 5. Operating table-1 6. Weigh scale (adult)-1 7. Wheel chair-4 8. Oxygen Concentrator with accessories-6 9. Ambu bag adult-2 10. Ambu bag infant-3 11. BP-machine-10 12. Cesarean section set-2 13. D&C kit-1 14. Delivery kit-4 15. Diathermy-1 16. Doppler fetal heart detector-2 17. Fetoscope (Pinard-4 18. Glucometer-4 19. Hemoglobinomete-2	Most of the equipment were found installed and in use. Few were in store: MVA kits-5 Oxygen concentrator-1	None	Very good plans for maintenance of the equipment was observed at this hospital

Table 34: Summary of availability and status of EMONC equipment at District hospitals in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment	Additional needs for equipment	Remarks
	20. Infusion pump (paed)-7 21. Laparotomy set-3 22. MVA kit-7 23. Nebulizer-1 24. Stethoscope-1 25. Suction machine (electric)-3 26. Suction machine (manual)-1 27. Vaginal speculum (Cusco)-10			

Table 35: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Dodoma region and the current needs of EMONC equipment in facilities visited.

Facility	EMONC equipment received from MSD-2012	Status of the equipment.	Additional needs for Equipment	Remarks
Ugogoni Health Center-Kongwa district	1.Ambu bag adult-2 2.Ambu bag infant-1 3.Autoclave (small)-1 4.Bed side exam light source/ operating light-1 5.Delivery kit-1 6.Doppler fetal heart detector-1 7. Fetoscope (Pinard-3. 8. Glucometer-1 9. Hemoglobinometer-1 10. Infusion pump (paed)-2 11. MVA kit-3 12. Nebulizer-1 13. Suction machine (electric)-3	Equipment not used by the facility: 1. Operating lights- 2. 2.Infusion pumps 3.Nebulizer 4. MVA Kits- Only one could be located; the remaining could not be located. MVA 5. Wheel chairs-	-Screening -Resuscitation table -Small exam light	Two operating lights were found while MSD indicated to have delivered 1. These were kept in store. Kongwa hospital had documented to have sent a resuscitation table, but the team could not find it

	14. Vaginal speculum (Cusco)-8 15. Wheel chair-2	the facility cannot use them due to the nature of the facility.		

Table 36: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	**EMONC equipment received from MSD-2012**	**Status of the equipment.**	**Additional needs for Equipment**	**Remarks**
Sejeli Dispensary-Kongwa district	None	-	1.Delivery kits- 2.Mcintosh 3. Wheel chairs. 4. Autoclaves 5. Infant warmers	
Kibakwe Health Center	1.Ambu bag adult-2 2.Ambu bag infant-2 3.Autoclave (small)-1 4.Bed side exam light source/ operating light-1 5.Delivery kit-1 6.Doppler fetal heart detector-1 7. Drum dress-1. 8. Glucometer-1 9. Hemoglobinometer-1 10. Infusion pump (paed)-2 11. MVA kit-3 12. Nebulizer-1 13.Suction machine (electric)-2 14. Vaginal speculum (Cusco)-8 15. Wheel chair-2 16. Stethoscope-1	All the equipment was found in use. Some machines like 1.Suction machine, -2.infusion pump , 3.Doppler fetal heart , 4. Operating light was found stored.	None	

Table 37: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment.	Additional needs for Equipment	Remarks
Lukole Dispensary-Mpwapwa	None	-	1.Delivery beds 2.Delivery kits- 3.Macintosh 4. Wheel chairs. 5. Autoclaves	
Chipanga Health Centre	1.Ambu bag adult-2 2.Ambu bag infant-2 3.Autoclave (small)-1 4.Bed side exam light source/ operating light-1 5.BP Machine-1 6. Doppler fetal heart detector-1. 7. Glucometer-1 8. Hemoglobinometer-1 9. Infusion pump (paed)-2 10. Nebulizer-1 11. Suction machine (electric)-1 12. Weighing scale (infant)-1 13. Vaginal speculum (Cusco)-5 14. Wheel chair-1 15. Stethoscope-2	None	None	As per the data from MSD, The listed item were delivered to Chipanga HC The team could not find any of the items but the theatre at this facility was well equipped with equipment through other support.

Table 38: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment.	Additional needs for Equipment	Remarks
Ibihwa Dispensary-Bahi	None	-	1.Ambu bag adult 2.Ambu bag infant- 3.Autoclave (small)-1 4. Delivery beds 5.Delivery kits- 6.Mcintosh 7. Wheel chairs	
Haneti Health center-Chamwino	None	-	1.Delivery beds 2.Delivery kits 3.Macintosh 4. Wheel chairs 5. Autoclave 6. Glucometer-1 7. Hemoglobinometer 8.Wheel chair 9.Weighing scale	

Table 39: Summary of availability and status of EMONC equipment at the health centers and dispensaries in Dodoma region and the current needs of EMONC equipment in facilities visited (continued)

Facility	EMONC equipment received from MSD-2012	Status of the equipment.	Additional needs for Equipment	Remarks
Huzi dispensary-Chamwino district	None	-	Delivery beds 2.Delivery kits 3.Mcintosh 4. Weighing scales 5.BP Machines 6. Autoclaves 7. Stethoscopes	

4.1 Other supporting intervention in relation to EmONC observed

4.1.1 Trainings

Different partners for various timeframes have conducted different types of BEmONC training. However, all facilities indicated the need for more BEmONC training for more staff. Training of the BEMONC and resuscitation has been conducted to few health care workers in most of the visited facilities. The duration of the trainings conducted ranges from five days for BEMONC to ten days, this is because different organizers were conducting these trainings. In Kagera region where facilities like Biharamulo DDH and Kagondo DDH, these facilities receive support of the Bugando Medical Center -Maternal Mortality Reduction Initiative for which the training provided is for five days, while the MOHSW is implementing a 10 day training curriculum, this therefore calls for a standardization of trainings on this particular intervention.

Most of the facilities visited indicated the need for trainings. There still exists a gap for the trainings particularly to all the nurse midwives. Number of personnel trained per facility ranges from one (in dispensaries) to two and above in health centers and hospitals.

The health care providers in the visited facilities indicated to have great commitment in the provision of the emergency obstetric care and care for the newborn by ensuring that no mothers or newborn will die during labor and deliveries.

4.1.2 Medicines and supplies

Most of the medicines for EmONC were reported to be available by 95% of the time and facilities indicated that these medicines are in their priority list even with the little fund that will be available at the MSD for a particular facility. When facilities experience stock out they use their own cost sharing money to procure medicines particularly for the emergency care to ensure women get these services. Occasionally, pregnant mother are required to bring oxytocin; this was reported in Lushoto hospital.

4.1.3 Maintenance system

There is a good system for maintenance of equipment exhibited in the District Designated Hospitals more than the public health facilities. This is so due to the facts that faith based

organizations have instituted centers in the zones, which provide the technical services. The facilities instituted are Moshi Health and Technical Services Centre, which serves the Northern zones, KAMTES –Kagera Medical and Technical Services which serves the Lake Zone and SHEHOMA which serves the Southern Highland zones. The technicians of this facilities/center provide timely technical support and repair. These centers do accept to provide the technical support even to the public facilities.

4.1.4 Essential EmONC drugs

Management of complications related to EmONC signal functions require several different types of medicines that include antibiotics, anticonvulsants, anti hypertensive, uterotonics, prostaglandins and medicines for use in emergencies. Gaps were present in availability of several essential EmONC medicines at the time of evaluation.

Oxytocin-an effective and WHO recommended prophylactic uterotonic to prevent atopic PPH was available in all the facilities that were visited. About 10% of the facilities visited did not have Magnesium Sulphate. Misoprostol was found to be out of stock in 20% of the visited facilities, this was attributed by the MSD not supplying Misoprostol following recommendation from TFDA of withdrawing it from the market due to some quality issues.

However, antibiotics were found to be available in 95% of the facilities that were visited and therefore indicating that there is a good control of infections.

4.1.5 Availability of Contraceptives

Maternal and neonatal rates in the country are relatively high. Little can be done to improve this indicator without universal access to birth spacing/ family planning, quality EmONC and SRH care. Birth spacing improves family wellbeing by ensuring reduced maternal and childbirths.
Supplies of contraceptives were found to be of acceptable levels in most of the health facilities. All the visited facilities had one or more kind of the contraceptives in their premises.

4.1.6 Availability of communication and transport for referral services

Different levels of health facilities had communication channels for referral of the patients to other level of health facilities. The Hospitals have vehicles, which are either used to refer patients to the regional hospital, and at times, these vehicles are used to carry patients from the health centers to their hospitals. Most of the health centers and hospitals received motorcycles from MOHSW to transport pregnant mothers from the health centers to the hospitals for emergency care. However, these motorcycles are not functioning in 98% of the visited health facilities due to the infrastructure of the country and the distance the pregnant women would travel, some facilities are as far as 120km from the district hospital so the use of the motorcycles is not plausible.

Figure 9: Rural Ambulances

4.1.7 Laboratory and Blood Bank

Most of the health facilities had laboratory services provided by lab personnel with levels of laboratory assistant to laboratory technicians.

Blood bank services were found to be more dependent on the zonal blood transfusion centres such as those located in Mbeya, Kilimanjaro and Dodoma.

Most of the hospitals, which offer blood transfusion services, highlighted the challenge they have with the timely availability of blood; this was more evident in Ilembula DDH, Lushoto district hospital and Handeni district Hospital

4.1.8 Protocol and Evidence based guidelines in Maternity ward

Evidence based technical and clinical guidelines can be an important tool and source of information for service provider to support high quality service delivery. The evaluation team could not find guidelines in most of the facilities however, in majority of the maternity wards, in some facilities; nurses have prepared on their own initiative some job aids and posted on their walls to assist each other particularly on different dosages for treatment of different EmONC signal functions.

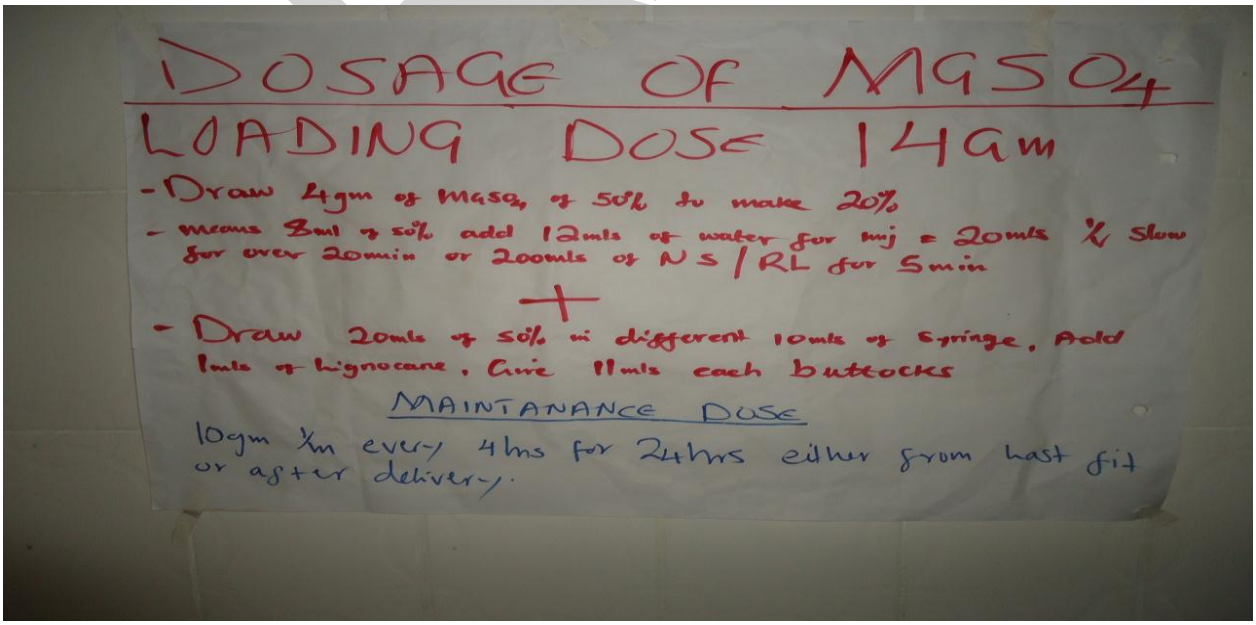


Figure 10: Job aids at service delivery points

4.3 Conclusion

43% of the visited facilities received equipment of which the covered facilities were mostly hospitals and health centers while few dispensaries were reached. Out of all equipments that were indicated to be distributed in the four regions visited 98% reached the designated destination and all needed equipment at hospital level were installed and in use. The quality of these equipments was still very good and more than 99% were functional.

FBOs had well set PPM that was also used for the installation and user training for the EmONC equipment. Their technical service centers support these hospitals to install, train on trouble shooting as well as how to use the equipment. Most of their equipments were found in good working condition as a result of existence of these technical assistance.

In most of the public hospitals where the EmoNC equipment were sent, no arrangement for training/orientation of these equipment was made to the health care workers. The medical officer in-charge of the health facilities sought for the assistance on the use of the equipment from the technicians who are working in the hospitals or from the contracted technicians through the office of the DMO.

Majority of the equipment could be used in these facilities; some exception was on the use of Doppler fetal heart machines, Nebulizers, Suction machines (electrical) in Dodoma facilities (Mpwapwa, Bahi), and in Njombe regions where some equipments were found not installed e.g. in Makoga and Ipelele health centers. This therefore calls for the need of the Zonal Equipment technicians to visit these health facilities particularly the lower levels and support with the installation of the EmONC equipments. Despite the amount of equipments distributed in these regions, still more needs have not been addressed. In other areas excessive equipments such as operating lights, MVA kits has been delivered resulting in them being stored for future use. Unfortunately, there was also distribution that was made to area with no capacity to utilize

certain equipment hence just been left in facility storerooms. Such facilities are example Ipelele Health center where electrical suction machine was delivered by MSD.

Most hospitals were found to have received other equipments from other partners some of which were in use while others in storage. These include delivery and examination beds, mattress, operation and examination lights and few delivery kits. As a result, when they received these items they added them into their stored stock instead of using them. There was also an observation of missing items and miss matching between the shared distribution list and what was actually delivered.

Generally, installation and users training on some of the distributed EmONC equipment was a component that was a challenge in most of public health facilities due to lack of preventive planning Maintenance (PPM) for maintaining these equipments while this was not observed in the FBO hospital due to the existence of PPM

4.4 Recommendations

There is a need to establish a monitoring system to enhance proper distribution management of the equipment. DMOs should report to RCH on quantities delivered. The DMO with missing items should be supplied accordingly. On the same note there is a need to follow up with the DMO for Bahi District, where it was indicated that equipment was sent by MSD to Chipanga health center but the equipment could not be located.

Plans for maintenance of the equipment particularly in the lower level facilities need to be institutionalized to ensure that the huge investment made in the equipment will be realized for many years. The equipment unit of the MOHSW needs to have capacity to perform the functions of maintenance and repair of equipment in the public health facilities. There is an opportunity for outsourcing the services from the existing technical services units to ensure zonal coordination and equipment servicing.

The database that has been developed should be used as a tool to ensure that equipment status in the health facilities are well known to the zonal equipment centres for action to be taken as well as for the RCH unit.

The RCH and partners need to collaboratively establish what equipment was sent where by requesting DMOs to acknowledge receipt plus what they have and what they are capable of using. The equipment in excess or not required at that particular level of care and services should be redistributed to a facility where there is need. Other partners support on the same should be coordinated by the RCH and this will be possible if the developed database is updated and implemented.

There are different partners supporting different interventions of EMONC in the regions. Such partners are UNICEF, CIDA, ICAP, WAMA etc. These partners need to inform the RCH on a regular basis of any support that they have/are intending to provide to a particular region so that there is no overlapping of the support in the regions and lack of support in some other regions where there is no donor support.

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4. Tanzania Demographic and Health Survey 2010, National Bureau of Statistics Dar es Salaam, Tanzania
5. EMONC -Tender Evaluation report June 2010.
6. MSD Good Receiving Notes
7. Copies of MSD invoices at health facilities
8. Health facilities store ledgers
9. MSD reports of the stock status of equipment at MSD HQ as of March 6th 2013.

Annex I: QUESTIONNAIRE FOR STAKEHOLDERS ON EmONC: RCH And TWG

1. Please provide a brief back ground of maternal health and statistics in Tanzania, by 2011/2012; what is the current status?
2. What are the annual targets for reducing maternal and newborn deaths?
3. What are efforts which in place to attend to the challenges of maternal and new born in Tanzania?
4. Are there any assessments which have been conducted for EMONC in Tanzania, and who did them?
5. Are there training materials for EMONC? When were they developed?
6. Have there any trainings which have been conducted for BEmONC and CEMONC, when were the trainings conducted, which facilities and how many? What is the duration of training?
7. Have supervisions been conducted? How many and which facilities?
8. What are the findings generally? Challenges? How have the challenges been addressed??
9. What are the financial annual requirements in country for maternal and child health interventions?
10. To what extent has the Government able to secure the funding in cash and in kind to address the problems of Maternal and newborn in Tanzania? What is the contribution of GOT?
11. Which process did you use to secure the funding…proposal write up? Any?
12. Has there any proposal which has been written up to any organization internationally to secure funding for maternal health?
13. Which organizations and what was the outcome?
14. In the year 2010, WB Tanzania, Australian AID, and SDC supported the Ministry of Health with funding for procurement of EMONC equipments. The equipment have arrived and distributed to health facilities. Are these equipments caters for the needs of all the health facilities in the country? If not, what are the needs and what coverage has been done with the support of the WB, SDC and Australian AID?

15. And what are the annual requirements for maternal and child health equipments and supplies if all the facilities will be providing the EmONC services?
13. Is there an opportunity of getting future support for these funding for these equipments in future from the same organizations?
14. Is the Maintenance plan in place? Central? District?
15. Is there a sustainability plan for replenishment of these equipments?
16. As a beneficiary of this support what is your recommendation on current and future support for this equipments

ANNEX II: QUESTIONNAIRE ON LOGISTICS ISSUES

1. What processes did you use to get funds for procurement of EMONC equipment?
2. How did you determine the quantities of the equipment for EMONC?

a. Quantification by RCH team

b. Any technical support from the organization

3. What was the methodology used for the determination of the quantities of the equipments….

   Morbidity.
4. Do you have a system in place for ordering of the commodities and medicines for EMONC?
5. Has the system started to be used? When did it start? Who is supervising the system?
6. How is the system working? Quarterly ordering…or do they use the system of ordering medicines, which is already in place?
7. Do you have annual requirements budget for the equipments and supplies for EMONC? Are there funds for fulfillment of the requirements for this year?
8. What are your views with the process of procurement, storage and distribution of EMONC equipment that was done in 2010?
9. Did you participate in any stage in the process of the procurement or evaluation of the equipment for EMONC that was done through MOHSW? Did you submit the quantification/requirements /specification to MOHSW for them to procure the equipments?
10. What was the content list of the items for EMONC equipment that was procured by MOHSW using WB, Australian AID and Swiss Devpt Corporation?
11. Did you prepare the distribution list for the procured equipments?
12. Did you follow up with the distribution of the said equipments if they reached the facilities planned for?

ANNEX III: QUESTIONNAIRE FOR THE PROCUREMENT AGENCY

1. When was the process of procurement of EMONC equipment started:
    - Funding availability-were all the funds available at the same time and which account were they deposited?
    - Were all equipments procured after all the funds from the three organizations (WB, Australian AID and Swiss Devpt agency) made available or different tenders were to be initiated?
    - How long did it take to start the process from funding availability to –Getting specification for the equipments, who sent them and when exactly were specification sent to you?
    - When was the tender document prepared? Who prepared it?
    - How long did it take from tender preparation to advertising?
    - How long did it take for the advertisement?
    - Was it an international competitive tender or restricted tender? How did you decide for either of the method for tendering?
2. When was the tender opening happened? Date……
3. How many potential suppliers bid for this equipment? Did the bids meet the technical specifications?
4. When was the evaluation conducted? How many days did take for the evaluation of these equipments? Generally, what are the standards numbers of days for evaluation?
5. Who participated in the evaluation, what are the qualification of the people who participated in the evaluation?
6. When was the award of this tender? Date…. And who won the tender?
7. When was the contract for this tender signed?
8. How was the delivery of these equipments planned to happen? The date for the first delivery or did they all come together in one consignment?
9. Did the delivery of the consignment happen as per the planned date of ETA?
10. How long did it take from initiation of the procurement process to the delivery at Medical Stores Department?

ANNEX III: QUESTIONNAIRE FOR THE PROCUREMENT AGENCY

CLEARING OF THE CONSIGNMENT FOR EMONC, ENTRERING INTO MSD SYSTEM AND STORAGE.

11. When was the information sent to MSD for them to prepare for the clearing of the consignment?
12. Who was the consignee? MOHSW/MSD…
13. Where did the consignment come from? Country of origin??
14. Did the documents for clearing arrived in time in Tanzania?
15. How long did it take from the arrival of the EMONC equipments to the clearing and sending to MSD?
16. Kindly provide the list of items that were in the EMONC equipments procured in this tender?
17. Were all the equipment/items as specified in the documents available in the containers?
18. Did MSD prepare the space enough for the storage of these equipments?
19. Were there any challenges in the clearing of the consignment? What were the challenges?
20. Where did the equipment stored? At Keko or Ubungo? Was there enough space for the storage of the equipments?
21. Were all the equipments stored in the same place at MSD?
22. When the equipments were were entered into MSD system? How long did it take from delivery to MSD to the time equipments entered into the system?
23. Were there any challenges in the entering to the electronic system…this was a new item…preparing code numbers etc

ANNEX IV: DISTRIBUTION OF THE EQUIPMENT TO THE HEALTH FACILITIES

1. When did the distribution of these equipments commence? Date…
2. How was the distribution decisions in terms of quantities and place reached?
3. How long were the equipment distributed to the health facilities?
4. How were the equipment distributed to the health facilities? Using MSD vehicles or hired vehicles?
5. How much was the cost incurred for distribution of the equipment and who paid?
6. How many facilities have received the equipment as of today…get the distribution list (facilities and equipment distributed)
7. When did each facility receive the (equipment by date)
8. Did RCH and MSD work hand in hand in ensuring smooth distribution…i.e. communication to the health facilities on the delivery/distribution of the equipment to the health facilities so facilities get prepared etc?
9. What were the challenges in the distribution of the equipment in general?

ANNEX V: EmONC FACILITY AND TRAINING INFORMATION

1. What is the catchment population for this facility?
2. Total number of health care providers working in this facility?
3. Are maternity/delivery services open 24 hours a day/ 7 days a week in this facility?
4. How many of the current staff was trained in Life saving skills or Emergency Obstetric care training in the past year?
5. How many of the current staff was trained in newborn care/neonate resuscitation in the past year?
6. What was the duration of training? Days…
7. Was the duration of training enough for you?....Yes/No
8. Did you need practical sessions? Where they provided during training? Were they enough for you?
9. What are other training needs as per EmONC is concerned?

AVAILABILITY OF MEDICINES AND SUPPLIES FOR EMONC

10. In the past three months, were the following medicines available in you facility?
    I. Injectable antibiotics: Penicilins, Metronidazole, Gentamycin, Cephalosporins, others…..
    II. Uterotonic medicines: Oxytocin, Ergometrine, Misoprostol, others……..
    III. Anticonvulsants and antihypertensive: Magnesium Sulphate, Diazepam, Calcium Gluconate, Hydralazine, Nifedipine, Methyldopa.
    IV. Equipment: Do you normally have equipment for EmONC in your facility? What are they? Can we see them?
    V. Do you have bag and mask for neonatal resuscitation in labour ward? Can we see them….is there a space for newborn resuscitation in the labour ward?.....
    VI. Is blood transfusion service available? Fridge for storing blood? Ask to see it
    VII. Is there an operating theatre for emergency obstetric surgery?

11. Did your facility receive equipment for EmONC from MSD in the past three months? Where are they? Do you have a list of these equipments…to verify if they are WB support….
12. When did the equipment arrive in your facility?
13. Have the equipment been installed and in use? Can we see where they are installed?
14. Do you know how to use each of the equipment? Confidently?

ORDERING OF MEDICINES AND SUPPLIES FOR EMONC

15. How do you order your medicines and supplies for EMONC?
    Do you order using a normal ILS system or differently?
16. In the past three months, have you placed an order to MSD for medicines and supplies for EMONC? Which ones?
17. Of the medicines you ordered, which ones did you receive?

18. If you missed medicines/supplies from MSD, what did you do?
    - Procured from another health facility?
    - Borrowed from another facility?
    - Did nothing
19. Does the facility have the funds to procure the missed medicines for EMONC in case they are missed from MSD?
20. For the past three months, how much money has the facility used to procure medicines and supplies for EMONC? Which source of fund was used? CHF? OC? Any other?
21. Where are these medicines stored in a health facility? Pharmacy and some at labor ward?
22. Are the medicines available readily when the clients with complications come to the health facility?
23. Do you have commodities for family planning? Have you ever experienced stock out of any of the contraceptives?
24. Do you have guidelines or any documents to assist you in delivery of quality services?

MAINTENANCE OF EMONC EQUIPMENT AT THE HEALTH FACILITY

25. Has there any time the equipment was out of order/broken?
26. When was it?
27. What measure did the facility do to attend to the problem?
28. What was the outcome of the intervention?
29. Was there any hampering of the services due to the broken equipment?
30. What are the systems in place for the maintenance of the equipment in your facility?
31. Any recommendations?