

BMJ Open Can training non-physician clinicians/ associate clinicians (NPCs/ACs) in emergency obstetric, neonatal care and clinical leadership make a difference to practice and help towards reductions in maternal and neonatal mortality in rural Tanzania? The ETATMBA project

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ABSTRACT

Objectives: During late 2010, 36 trainees including 19 assistant medical officers (AMOs) 1 senior clinical officer (CO) and 16 nurse midwives/nurses were recruited from districts across rural Tanzania and invited to join the Enhancing Human Resources and Use of Appropriate Technologies for Maternal and Perinatal Survival in the sub-Saharan Africa (ETATMBA) training programme. The ETATMBA project was training associate clinicians (ACs) as advanced clinical leaders in emergency obstetric care. The trainees returned to health facilities across the country with the hope of being able to apply their new skills and knowledge. The main aim of this study was to explore the impact of the ETATMBA training on health outcomes including maternal and neonatal morbidity and mortality in their facilities. Secondly, to explore the challenges faced in working in these health facilities.

Design: The study is a pre-examination/postexamination of maternal and neonatal health indicators and a survey of health facilities in rural Tanzania. The facilities surveyed were those in which ETATMBA trainees were placed post-training. The maternal and neonatal indicators were collected for 2011 and 2013 and the survey of the facilities was in early 2014.

Results: 16 of 17 facilities were surveyed. Maternal deaths show a non-significant downward trend over the 2 years (282–232 cases/100 000 live births). There were no significant differences in maternal, neonatal and birth complication variables across the time-points. The survey of facilities revealed shortages in key areas and some are a serious concern.

Conclusions: This study represents a snapshot of rural health facilities providing maternal and neonatal care in Tanzania. Enhancing knowledge, practical skills, and clinical leadership of ACs may have a positive impact on

Strengths and limitations of this study

- This is one of the first studies taking an in-depth look at the impact on health outcomes in districts across rural Tanzania, of a programme of knowledge, skills and clinical leadership training for associate clinicians.
- This cadre is an important component in helping relieve the chronic shortages of trained medical professionals in sub-Saharan Africa and helping countries move towards realisation of millennium development goals.
- One of the primary outcomes (neonatal mortality) was found to be not recorded or poorly recorded at health facilities at the time, preventing us from reporting on this important outcome.
- This was a before and after design and there was no control group with which to draw comparisons.
- A number of facilities where trainees were returned to post-training were not upgraded, as planned, thus preventing them from putting into practice their new skills and knowledge.

health outcomes. However, any impact may be confounded by the significant challenges in delivering a service in terms of resources. Thus, training may be beneficial, but it requires an infrastructure that supports it.

BACKGROUND

In 2013, it was estimated that there was a global shortage of 7.2 million healthcare workers, and that by 2035 this is expected to

rise to 12.9 million.¹ A recent review of global surgery, obstetric and anaesthesia workforce literature highlights the crisis. Countries such as Tanzania have a physician density of only 1/100 000 people.² It is estimated that currently there is a shortage of 1 million healthcare workers in sub-Saharan Africa.³ This shortage is partly because not enough people are appropriately trained but is aggravated by meagre salaries, poor working conditions, low morale, inadequate remuneration, and few opportunities for continuous professional development.⁴ Even with a proliferation of new medical and nursing schools in recent years, the rise is not proportional to the existing large populations.⁵ For those working in rural areas, there is professional isolation, inadequate communication with peers and consultants in the cities, and a lack of appropriate equipment and technologies.³

In Tanzania, the lack of basic items in many health facilities has hindered timely and appropriate quality obstetric and neonatal care, particularly in rural and remote health facilities. A number of studies conducted in the country have also indicated that poor quality of care has been experienced at health facilities due to the lack of an enabling environment (drugs, equipment and supplies),⁶ poor skills of providers or hostile attitudes of providers, and a lack of trained staff.^{7–10} As part of the solution, many African countries have created a cadre of mid-level health workers called non physician clinicians (NPCs), now more usually referred to as associate clinicians (ACs). In Tanzania, this cadre is often referred to as clinical officers (COs) or assistant medical officers (AMOs) (COs who have received some additional training). These workers are trained by both government and non-government institutions and are often the most experienced health workers in hospitals and health centres across the country, particularly away from urban centres.¹¹ Moreover, all of these AMOs/COs are trained in emergency obstetric care (EmOC) and are in the front line providing care for mothers and babies.¹² In rural areas where medical doctors (MDs) are few in number, the use of AMOs/COs and nurse midwives (NMWs) has been identified as a viable solution, as these groups can be trained through short course programmes to provide effective comprehensive EmOC (CEmOC) services in remote health centres. The key benefits of using AMOs/COs in CEmOC services include: reducing training and employment costs, promoting task sharing/shifting and enhancing retention within local health systems. Studies have shown that unlike MDs, AMOs/COs remain in rural areas and continue working there.¹³

Major surveys consistently show that additional training and support can enhance task sharing/shifting and reduce maternal and neonatal mortality and morbidity in the areas where these schemes have been piloted.^{12 14 15} Training skilled attendants to prevent, detect and manage major obstetric complications including undertaking emergency caesarean surgery in complicated deliveries is arguably the single most important

factor in preventing maternal deaths and protecting the human rights of women.^{12 14–16} To be effective, AMOs/COs need appropriate knowledge, skills, equipment, drugs and technology essential for managing obstetric complications in rural or deprived communities.

The aim of the Enhancing Human Resources and Use of Appropriate Technologies for Maternal and Perinatal Survival in sub-Saharan Africa (ETATMBA) project was to develop, implement and evaluate a programme of locally based clinical service improvement including clinical guidelines and pathways, workforce development through structured education, and leadership training.^{17 18} This was linked to specialist on-site support and mentoring.

THE ETATMBA PROJECT IN TANZANIA

The ETATMBA project combined two main interventions: first, the training of ACs and nurses in CEmOC and anaesthesia. Second, post-training mentoring and supervision of participants at their working places. Within this project, the clinical service improvement involved implementing best existing practice, linked to training in clinical leadership, and providing the context for understanding the additional health gain from the use of appropriate available technologies designed to reduce morbidity-specific maternal case fatality rates and fresh stillbirth rates (intrapartum fetal mortality) across different African communities (Malawi and Tanzania).¹⁹ See also web supplementary material for additional information.

The main aim of this study was to explore the impact of the ETATMBA training on health outcomes including maternal and neonatal morbidity and mortality in the facilities where trainees were based. Secondly, surveying these health facilities and looking at their ability to support the trainees in terms of infrastructure, supplies and drugs. We were exploring the facilitators and barriers to good clinical practice and the day-to-day challenges faced by the health workers in these facilities. In addition, a qualitative study was undertaken time with the trainees and other stakeholders, but this will be reported elsewhere.²⁰

METHODS

Design

The study is a pre-examination and postexamination of maternal and neonatal health indicators and a survey of a sample of health facilities in rural Tanzania. The survey includes: infrastructure, availability of equipment, supplies and drugs. The facilities surveyed were those in which ETATMBA trainees were placed post-training. The health indicators were collected for the whole of 2011 (pre) and the whole of 2013 (post): the survey of the facilities was in early 2014.

Participants

During late 2010 and 2011, 36 trainees (AMOs and NMWs/nurses (anaesthesia)) were recruited from

districts across Tanzania and invited to undertake the ETATMBA training programme (see web appendix for more information).

Outcome measure

Maternal and neonatal health outcomes were collected from each health facility where a trainee was based (post-training) for the whole of 2011 (pre) and 2013 (post). This included early neonatal mortality (only including deaths that occur before discharge) and maternal mortality (case-specific) and other obstetric indicators including: numbers of birth events, stillbirths, postpartum haemorrhage, caesarean sections, obstructed labour and sepsis. It is important to note here that neonatal mortality rates were not reported in the baseline data, we believed they had been overlooked. We planned to rectify this by retrospectively collecting the data. However, after we visited the sites, it became clear that neonatal mortality rates had not been recorded, or at least were not available. These data were therefore unavailable for either baseline or follow-up.

The outcomes selected all relate to ETATMBA knowledge and skills training, and rely on data believed to be available in monthly/annual summary reports stored at each facility covering the project time period. A 10% sample of variables was cross-checked with the actual registers for accuracy at each facility.

A pre-designed instrument was used to capture the survey data (see online supplementary appendix 1). This captured the availability of resources including equipment, supplies and infrastructure, and recorded whether there was a sufficient supply/number of the listed items for the facility's daily caseload of deliveries, and whether the items had been available and functional, available but not functional, or not available (eg, infrastructure, equipment, supplies and drugs). Essential drugs: the availability and supply of drugs for each room (emergency room, labour/delivery room, maternity ward, operating theatre and pharmacy) were recorded. Checks were done to confirm whether the listed drug was available and if the supply was sufficient to last for <1 week, up to 1 week, up to 2 weeks, up to 3 weeks, or up to 4 or more weeks.

Research team

The primary data collection team consisted of two local research assistants based at the Ifakara Health Institute (IHI), Dar es Salaam, Tanzania. Both of the research assistants are experienced researchers. The principal investigator at the IHI gave local support, with management/oversight provided by DRE at Warwick.

Procedure

The research assistants identified the facilities in which trainees were working and extracted the 2011 study variables from data collected by colleagues at IHI for ETATMBA in 2012 (baseline data). The follow-up data were the same variables for the year 2013. The follow-up

data and the facility survey data were gathered during site visits to the facilities in early 2014.

DATA ANALYSIS

Descriptive and summary statistics were produced for the 2 years, change scores were produced, and Student *t* tests were used to look for differences. Significance was set at 5%. Data are presented in tables and graphs as appropriate. Survey data are presented as descriptive statistics. Data are grouped by facility type (ie, district hospitals and health centres) as they are different. In simple terms, we expected the hospitals to be larger than health centres and have more staff and better availability of essential infrastructure, supplies, equipment and drugs.

RESULTS

Post-training, ETATMBA trainees returned to 17 rural health facilities in Tanzania. Sixteen of these health facilities were included in this study. [Table 1](#) gives an overview of the facilities and the ETATMBA trainees who were based there after the training. Thirty-six received the ETATMBA training including 19 AMOs, 1 CO and 14 NMWs and 2 nurses (anaesthesia). During the project period, one AMO and one NMW left the programme to pursue other interests and one NMW died. Thus, attrition at the end of the training programme was around 8%. Fourteen trainees did not return to the facility from which they were recruited because the facilities had not received an expected facility upgrade.

[Box 1](#) provides a United Nations definition of basic and comprehensive emergency obstetric and newborn care (BEmOC and CEmOC).

[Table 2](#) summarises the key obstetric indicator figures from the 16 health facilities for 2011 and 2013.

No significant differences were found for any of the key obstetric variables across the lifetime of the project. The number of deliveries/births decreases slightly overall (−604), but the number of deliveries/birth in health centres rises (from 7326 to 7961). There is only a slight increase in overall fresh stillbirths (+16, an increase of 1 case/1000 births), while there is an increase in macerated stillbirths in health centres (from 8.3 to 13.9 cases/1000 live births). Maternal death ratios show a downward, improving trend over the 2 years (down from 282 to 232 cases/100 000 live births), but this is not statistically significant. There is a reduction in the caesarean section rate overall, down from 80.2 to 77.2 (cases per 1000 live births), with a large reduction in health centres where rates are down from 10.6 to 6.2 (cases per 1000 live births), while in the hospitals there is an increase in the rate from 108.2 to 111.1 (cases per 1000 live births). The birth complication variables collected all show a slight increase overall, but each shows a differing trend in where they were reported. The rates of postpartum haemorrhage change little over time. Obstructed labour rates increased in district hospitals

Table 1 Health facilities where the Tanzanian ETATMBA trainees were based in 2013

	District	Name of facility	Operating theatre	CEmOC or BEmOC	Number of trainees
1	Bukombe	Bukombe District Hospital	Yes	CEmOC	1 AMO
2	Bukombe	Uyovu Health Centre	No	BEmOC	1 AMO, 1 CO
3	Geita	Nzela Health Centre	Yes	CEmOC	1 NMW, 1 Nurse
4	Geita	Katoro Health Centre	No	BEmOC	1 AMO, 1 NMW
5	Inyonga	Mamba Health Centre	Yes	CEmOC	1 NMW
6	Karambo	Matai Health Centre	No	BEmOC	1 AMO, 1 NMW
7	Liwale	Liwale District Hospital	No	CEmOC	2 AMOs
8	Meatu	Mwandoya Health Centre	No	BEmOC	1 AMO, 1 NMW
9	Mpanda	Mpanda District Hospital	Yes	BEmOC	1 AMO, 1 Nurse
10	Nachingwea	Nachingwea District Hospital	Yes	CEmOC	2 AMOs
11	Nkasi	Kirando Health Centre	Yes	CEmOC	2 AMOs
12	Nyanghwale	Nyanghwale Health Centre	No	BEmOC	1 AMO, 1 NMW
13	Nyanghwale	Kharumwa District Hospital*	Yes	CEmOC	1 AMO, 1 NMW
14	Ruangwa	Ruangwa District Hospital	Yes	CEmOC	1 AMO, 1 NMW
15	Sumbawanga	Laela Health Centre	No	BEmOC	1 AMO, 1 NMW
16	Chato	Chato District Hospital	Yes	CEmOC	1 AMO, 1 NMW
17	Lindi	Nyangao Mission Hospital†	Unknown	CEmOC	2 NMWs

*Upgraded to a district hospital between 2011 and 2013.

†This hospital was not visited, so it is not included in the analysis.

AMO, assistant medical officer; BEmOC, basic emergency obstetric care; CEmOC, comprehensive emergency obstetric care; CO, clinical officer; ETATMBA, Enhancing Human Resources and Use of Appropriate Technologies for Maternal and Perinatal Survival in the sub-Saharan Africa; NMW, nurse midwife; Nurse, nurse/anaesthetics.

(6.4–9.5 cases/1000 live births), while in health centres there was a decrease (6.7–2.9 cases/1000 live births). Sepsis follows a similar trend with an increase in hospitals (1.7–3.1 cases/1000 live births) and a decrease in health centres (1.6–0.5 cases/1000 live births).

FACILITY SURVEY RESULTS

These results originate from the survey undertaken in early 2014 by IHI researchers. As noted in [table 1](#) above, there were 17 facilities across the country that housed

Box 1 Defining basic and comprehensive emergency obstetric and newborn care (BEmOC and CEmOC)

BEmOC is critical to reducing maternal and neonatal death. This care, which can be provided with skilled staff in health centres, large or small, includes the capabilities for

- ▶ Administering antibiotics, uterotonic drugs (oxytocin) and anticonvulsants (magnesium sulfate)
 - ▶ Manual removal of the placenta
 - ▶ Removal of retained products following miscarriage or abortion
 - ▶ Assisted vaginal delivery, preferably with a vacuum extractor
 - ▶ Basic neonatal resuscitation care
- CEmOC, typically delivered in hospitals, includes all the basic functions above, plus capabilities for
- ▶ Performing caesarean sections
 - ▶ Safe blood transfusion
 - ▶ Provision of care to sick and low birthweight newborns, including resuscitation

Adapted from the United Nations Population Fund material. For more information see: <http://www.unfpa.org/resources/setting-standards-emergency-obstetric-and-newborn-care#sthash.5rcjLhLA.dpuf>

ETATMBA trainees during this survey. One of these facilities (owing to its distance and remoteness) was not visited. All results are based on 16 facilities, 9 health centres and 7 district hospitals.

Facilities: overall capacity and infrastructure

Availability of running water and functioning toilets are a very significant problem with only one of nine health centres (11%) and four of seven (57%) district hospitals found to have the availability of running water and only just over half of the facilities a functioning toilet (56%). Most facilities had sufficient access to lighting to perform tasks at night (75%) but clearly there was still some struggle. Delivery beds were found to be available in 56% of the health centres and 86% of the district hospitals. Ambulance availability was poor at health centres with only one (11%) having availability, whereas five of the seven (71%) district hospitals had an ambulance available. Referrals from within the maternity area are problematic as only four health centres had a working (landline) phone in this area and none of the district hospitals had any. The availability of health-related registers/records is variable, varying from 100% for items such as the delivery register and monthly/annual reports to 6% or less for the gynaecology register, patient records and discharge registers ([table 3](#)).

Drugs and equipment for normal delivery and infection prevention

Generally, supplies and equipment availability were at an acceptable level but there are a number of exceptions. Only about 50% of facilities had needles and syringes available, and similarly availability of suction and

Table 2 Comparison of key maternal, neonatal and birth complication figures from baseline (2011) to follow-up (2013)

	2011			2013			Difference ^{b-a*}
	DH (n=7)	HC (n=9)	Total ^a	DH (n=7)	HC (n=9)	Total ^b	
Total deliveries	17 893	7326	25 219	16 654	7961	24 615	-604
FSB (n)	287	65	352	300	68	368	16.0
FSB rate (per 1000 births)	16.0	8.9	14.0	18.0	8.5	15.0	1.0
MSB (n)	312	61	373	305	111	416	43.0
MSB rate (per 1000 births)	17.4	8.3	14.8	18.3	13.9	16.9	2.1
Maternal deaths (n)	68	3	71	55	2	57	-14.0
MD ratio (per 100 000 births)	380	41	282	330	25	232	-50
CS deliveries (n)	1944	78	2022	1851	49	1900	-122
CS rate (per 1000 births)	108.6	10.6	80.2	111.1	6.2	77.2	-3.0
PPH (n)	200	77	277	225	86	311	34.0
PPH rate (per 1000 births)	11.2	10.5	11.0	13.5	10.8	12.6	1.7
Obstructed labour (n)	114	49	163	159	23	182	19.0
Obstructed labour rate (per 1000 births)	6.4	6.7	6.5	9.5	2.9	7.4	0.9
Sepsis (n)	31	12	43	51	4	55	12.0
Sepsis rate (per 1000 births)	1.7	1.6	1.7	3.1	0.5	2.2	0.5

*There are no significant differences here, so p values are not shown.

CS, caesarean section; DH, district hospitals; FSB, fresh stillbirth; HC, health centres; MD, medical doctor; MSB, macerated stillbirth; PPH, postpartum haemorrhage.

vacuum extraction equipment was low. The availability of drugs for normal delivery purposes was very variable with some drugs readily available (eg, lignocaine), while others had very low stocks (eg, injectable antibiotic and diazepam) (table 4).

Infection prevention services in labour delivery/operating theatres

Overall, only 75% or less of the facilities surveyed had the basics for infection prevention. None seemed to have regular availability of soap for hand washing,

Table 3 Survey findings from health facilities in Tanzania related to infrastructure

	Facilities with the items		
	Overall (%)	HC (%) n=9	DH (%) n=7
Health facility infrastructure availability of power and availability of water			
Sufficient light source to perform tasks at night	12 (75)	6 (67)	6 (86)
Means of ventilation	5 (31)	1 (11)	4 (57)
Running water	5 (31)	1 (11)	4 (57)
Functioning toilet	9 (56)	6 (67)	3 (43)
Functional fan/air conditioning	5 (31)	1 (11)	4 (57)
Curtains/means of providing patient privacy	14 (88)	9 (100)	5 (71)
Waiting area for visitors and family	6 (38)	4 (43)	2 (33)
Facility with electricity	14 (89)	8 (86)	6 (86)
Ambulance – available and functional	6 (38)	1 (11)	5 (71)
Available and functional landline telephone in the maternity area	4 (25)	4 (43)	0 (0)
Delivery bed/table	11 (69)	5 (56)	6 (86)
Availability of health-related registers			
General admission register	11 (69)	5 (56)	6 (86)
Delivery register	16 (100)	9 (100)	7 (100)
Maternity ward register	9 (56)	4 (44)	5 (71)
Female ward register	9 (56)	4 (44)	5 (71)
Operating theatre register	10 (63)	4 (44)	6 (86)
Gynaecology register	0 (0)	0	0
Postabortion register	9 (56)	4 (44)	5 (71)
Individual patient records	1 (6)	0	1 (14)
Discharge register	1 (6)	0	1 (14)
Death register	11 (69)	6 (67)	5 (71)
Mortuary register	7 (44)	2 (22)	5 (71)
Monthly/annual facility summary reports	16 (100)	9 (100)	7 (100)

DH, district hospitals; HC, health centres.

although antiseptics and bleach were available and may be used as alternatives (table 4).

Comprehensive services for provision of anaesthesia

Most of the district hospitals surveyed had good availability of equipment and supplies for anaesthesia, although Halothane is only available in 3/7 district hospitals and <40% overall. Health centres seemed to lack access to oxygen with only 2/9 having supplies when surveyed (table 5).

Items for management of birth complications and caesarean section

Overall, unsurprisingly, district hospitals had better availability of equipment, drugs and supplies for managing

birth complications and for performing caesarean sections (table 5).

DISCUSSION

The main objective of this study was to explore the impact of the ETATMBA training on health outcomes including maternal and neonatal morbidity and mortality in the facilities where trainees were based. Secondly, surveying these health facilities and looking at their ability to support the trainees in terms of infrastructure, supplies and drugs. We were looking for facilitators and barriers to good clinical practice and the day-to-day challenges faced by the health workers in these facilities. We were successful in collecting data

Table 4 Survey findings from health facilities in Tanzania related to the availability of equipment, supplies and drugs

	Facilities with the equipment		
	Overall (%) N=16	HC (%) N=9	DH (%) N=7
<i>Drugs and equipment: availability of items for normal delivery</i>			
Equipment and supplies			
Blood pressure cuff/machine	13 (81)	7 (78)	6 (86)
Stethoscope	15 (94)	8 (89)	7 (100)
Fetal stethoscope	16 (100)	9 (100)	7 (100)
Clinical thermometer	13 (81)	6 (67)	7 (100)
Sterile gloves	16 (100)	9 (100)	7 (100)
Non-sterile protective clothing/apron	15 (94)	8 (89)	7 (100)
Scissors or razor blade for cutting cord	15 (94)	9 (100)	6 (86)
Cord ties	10 (63)	5 (56)	5 (71)
Needles and syringes	8 (50)	4 (44)	4 (57)
Intravenous fluid set (giving set)	15 (94)	9 (100)	6 (86)
Suture needles and suture materials	10 (63)	5 (56)	5 (71)
Suction apparatus	8 (50)	3 (33)	5 (71)
Manual vacuum extractor	5 (31)	2 (33)	2 (29)
Obstetric forceps	11 (69)	8 (89)	3 (43)
Drugs			
Pitocin (oxytocin)	13 (81)	6 (67)	7 (100)
Ergometrine (injectable)	4 (25)	3 (33)	1 (14)
Normal saline	14 (88)	8 (89)	6 (86)
Ringer's lactate	7 (44)	2 (22)	5 (71)
Dextrose/glucose	9 (56)	3 (33)	6 (86)
Lignocaine 2% or 1%	15 (94)	8 (89)	7 (100)
Injectable antibiotic	5 (31)	3 (33)	2 (29)
Magnesium sulfate	14 (88)	8 (89)	6 (86)
Diazepam	6 (38)	3 (33)	3 (43)
Skin disinfectant	12 (75)	7 (78)	5 (71)
<i>Availability of infection prevention services in labour delivery/operating theatres</i>			
Decontamination container with prepared solution	11 (69)	5 (56)	6 (86)
Covered contaminated trash bin	11 (69)	6 (67)	5 (71)
Sharps disposal container	12 (75)	6 (67)	6 (86)
Soap	0	0	0
Antiseptics	10 (63)	5 (56)	5 (71)
Chlorine/bleach	6 (38)	2 (22)	4 (57)
Sterile gloves	12 (75)	6 (67)	6 (86)
Other items			
Regular trash bin	12 (75)	6 (67)	6 (86)
Non-sterile gloves	12 (75)	6 (67)	6 (86)
Non-sterile protective clothing	12 (75)	6 (67)	6 (86)

DH, district hospitals; HC, health centres.

Table 5 Survey findings from health facilities in Tanzania related to the availability of items for management of anaesthesia, birth complications and caesarean section

Equipment	Facilities with the items		
	Overall N=16 (%)	HC N=9 (%)	DH N=7 (%)
Items for provision of anaesthesia			
Suction machine	6 (38)	4 (44)	2 (29)
Filled oxygen cylinder with cylinder carrier and key to open valve	8 (50)	2 (22)	6 (86)
Intubating forceps (Magill)	6 (38)	4 (44)	2 (29)
Adult laryngoscope	11 (69)	6 (67)	5 (71)
Adult ventilator bag and mask	11 (69)	6 (67)	5 (71)
Intravenous fluid set (giving set)	10 (63)	5 (56)	5 (71)
Spinal needles (18–25 gauge)	3 (19)	1 (11)	2 (29)
Endotracheal tubes with cuffs (8–10 mm)	9 (56)	4 (44)	5 (71)
Halothane	6 (38)	3 (33)	3 (43)
Ketamine	11 (69)	5 (56)	6 (86)
Anaesthetic face masks	9 (56)	5 (56)	4 (57)
Items for management of pre-eclampsia/eclampsia			
Magnesium sulfate	7 (44)	4 (44)	3 (43)
Diazepam (injectable)	10 (63)	4 (44)	6 (86)
Nifedipine	1 (6)	0 (0)	1 (14)
Blood pressure cuff/machine	13 (81)	7 (78)	6 (86)
Stethoscope	15 (94)	8 (89)	7 (100)
Adult ventilator bag and mask	13 (81)	7 (78)	6 (86)
Needles and syringes	4 (25)	1 (11)	3 (43)
Urinary catheters (Foleys)	8 (50)	3 (33)	5 (71)
Uristix	4 (25)	1 (11)	3 (43)
Items for management of haemorrhage (parenteral uterotonics)			
Needles and syringes	8 (50)	4 (44)	4 (57)
Intravenous fluid set (giving set)	9 (56)	3 (33)	6 (86)
Items for caesarean section (not including anaesthesia)			
Operating table			
Light-adjustable, shadowless	11 (69)	6 (56)	5 (86)
Antiseptics	10 (63)	5 (56)	5 (71)
Sterile gloves	12 (75)	6 (67)	6 (86)
Cord ties	10 (63)	5 (56)	5 (71)
Needles and syringes	6 (38)	4 (44)	2 (29)
Benzyl penicillin	4 (25)	3 (33)	1 (14)
Metronidazole (intravenously)	2 (13)	1 (11)	1 (14)
Gentamycin (intravenously)	1 (6)	1 (11)	0 (0)
Caesarean section pack			
Needle holder	13 (81)	7 (78)	6 (86)
Scalpel handle with blade	10 (63)	5 (56)	5 (71)
Retractor	12 (75)	6 (67)	6 (86)
Surgical scissors	12 (75)	6 (67)	6 (86)
Suction apparatus/8*	6 (38)	4 (44)	2 (29)
Oxygen	8 (50)	2 (22)	6 (86)
Sutures	11 (69)	5 (56)	6 (86)
Ketamine	11 (69)	5 (56)	6 (86)
Lidocaine/5*	12 (75)	6 (67)	6 (86)

*The numbers against these items (8 and 5) are the units for this item to be classed as available (eg, there has to be 8 suction apparatus for it to be classed as available).

DH, district hospitals; HC, health centres.

for the pre and post comparisons and also the survey data.

Interestingly, our study shows that the number of actual births decreased overall in the 16 facilities measured between 2011 and 2013. The reduction was seen mostly at the district hospitals with numbers increasing

at health centres. There was a slight increase in fresh stillbirths, but again most of this is at the district hospitals rather than at the health centres. This may suggest that health centres are referring more women with this problem, but the number of macerated stillbirths increased both in district hospitals and health centres,

with the latter showing the bigger rise. This trend should be interpreted with caution, since distinction of the type of stillbirth is known to be variable in quality, and indeed it may just suggest that women are presenting late at the health facilities.

Maternal deaths decreased, which is encouraging as this was a goal of the ETATMBA training. However, it is not a statistically significant reduction, rather a downward trend. This could simply be a reflection of the reduction in maternal mortality reported in recent years across Tanzania.

Neonatal mortality was one of our key health indicators in this study. However, it was found that neonatal mortality was not recorded on the Ministry of Health monthly summary sheets in facilities and thus was not available to us. Reducing neonatal mortality is one of the WHO millennium development goals.²¹ While the number of stillbirths was routinely recorded, early neonatal deaths were not. This was a very disappointing outcome as a key component of the ETATMBA training was aimed at interventions to prevent neonatal deaths (ie, deaths at or around the time of birth and before discharge from hospital).¹⁹ Indeed, in Malawi, we have very positive indications that the ETATMBA training has helped to save neonate lives.²² Our study has acted as a 'wake-up call' to the Ministry of Health and Social Welfare (MoHSW) in Tanzania, who have now updated the current Health Management Information System (HIMS) to ensure that neonatal data are collected.

Looking at the birth complication data (postpartum haemorrhage, obstructed labour and sepsis), all are seen to rise from 2011 to 2013 both in district hospitals and health centres with one exception. Sepsis rates in health centres decreased, though great caution must be observed, since registration of morbidities is often incomplete and the facility survey showed centres lacking basic hygiene resources such as soap. It is a matter of some concern that the number of complications is increasing, but this could be a reflection of more women getting to a health facility where there are health staff who can deal with the problems. Despite the increase in the numbers of mothers with obstructed labour and postpartum haemorrhage, it is encouraging that maternal mortality ratios at these facilities appear to be falling. The observed incidence increase in these two registered morbidities in all probability implies an enhanced recognition and registration of them, rather than a higher incidence in the facility population under study. We do need to be cautious in our interpretation of these data with only before and after data, as there is no control to detect temporal trends that may be occurring across Tanzania.

While our focus in this study was on the facilities where ETATMBA trainees returned to after their training, it is important to draw attention to events that were outside the control of the ETATMBA team, events that may have influenced the outcomes. Prior to recruitment, the ETATMBA trainees were based in health

centres and district hospitals across rural Tanzania. The original MoHSW plan was to recruit trainees from health facilities that were due to be upgraded with a theatre and maternity ward including equipment and resources so that trainees could implement their new skills. However, the reality was that of the 33 trainees who completed the programme, only 19 returned to the place from where they were selected and 7 of these returned to facilities that had not been upgraded or where upgrading was still in process. Fourteen trainees did not return to the facility from which they were recruited because the facilities had not been upgraded. Of these, 10/14 were returned to district hospitals in the area they had originally come from. Often, these decisions were made by local District Medical Officers pragmatically responding to need and not to the strategic planning of the MoHSW. Upgrading of facilities was not part of the ETATMBA project but rather was ongoing work with the Tanzanian Government and other funding agencies. It is clear that in a number of cases trainees would have struggled to put their new-found skills into practice as facilities they returned to were not conducive to good clinical practice. For those who returned to a district hospital, it could have been a double-edged sword. On the one hand, a district hospital could give many more opportunities to put their new-found skills into practice, but on the other hand the current senior staff may have been reluctant to allow them to practise.

The survey reveals some alarming trends in the availability of resources in these facilities. A facility was designated as a CEmOC where there was no functioning operating theatre and a District hospital was designated as a BEmOC rather than a CEmOC when we conducted a survey. The latter clearly did not meet all the requirements for a CEmOC at the time of the survey. There are considerable shortages in basic infrastructure such as running water, electricity and toilet facilities. The Survey asks for a land line telephone to be available as standard most did not have this. However, mobile phones are being used more and more now in Africa and are more reliable in terms of service provision. Future surveys should take this into account.

Record keeping in the facilities is also very variable. Monthly/annual summary reports (containing the data we required) were available in all facilities and in most we were able to cross-check the data with register records, but some registers were missing and we have already noted the issues surrounding neonatal mortality rates.

The survey reveals shortages in equipment, supplies and drugs that could impact on patient care. The district hospitals are better supplied than the health centres. This may be due to the remoteness of the health centres, but there are disturbing shortages of the basics for infection/hygiene control and the provision of oxygen. Infection prevention services were extremely poor. Basic items like soap for hand washing were mostly

absent. However, sepsis rates, although rising slightly overall, were not significantly different to baseline (2011) levels, suggesting that despite enormous challenges and a lack of even basic supplies and equipment, these clinicians managed to contain sepsis in their facilities. Our survey findings are all the more alarming as they seem to mirror a more comprehensive survey performed back in 2005/2006, suggesting that things have not changed a great deal.⁶ Despite all of this, it does seem that in the face of all of these challenges things are not getting any worse but they could be better.

This study has a number of limitations, not least that one of the primary outcomes was not available to us. The sample is small and may not be representative of all facilities across Tanzania, with generally only two trainees in each facility with large throughputs of cases/births. We are not comparing our facilities to control districts, so it is difficult to attribute changes just to ETATMBA training. Another limiting factor is that ETATMBA had no control over where trainees returned to post-training, and a significant number returned to facilities where they could not practise their new-found skills. This, however, did mean that our sample was more random (not chosen by us). Finally, this project needs to be seen in the context of the vast distances between facilities and how the terrain and weather impacts on the health service provision in rural Tanzania. Indeed, in 2009, Evjen-Olsen *et al*²³ suggest the need for an integrated and comprehensive hospital-based/community-based approach to obstetric healthcare in rural Tanzania, but our experience here has not shown this being put into practice.

Earlier findings from this project suggested that the training had an impact, at the local level, on maternal mortality.²⁴ Sadly, in this larger current study, we cannot be certain of this conclusion although our qualitative findings provide some corroboration to our positive findings.²⁰ It is acknowledged that maternal mortality is still a significant problem, particularly in rural Tanzania.²⁵ Nelissen *et al*²⁵ suggest that there is a great need for the upscaling and use of evidence-based interventions that could help to save lives. We can only hope that the ETATMBA training, which is grounded in evidence based medicine, and its trainees will be a stimulus to improved care. However, for a full impact, the implementation of the training needs to be linked to the provision of well-supplied healthcare facilities in the remote areas. We note that in one province the ETATMBA training has influenced the upgrade of more health centres at the district level in tandem with the MoHSW objective of upgrading at least 50% of all health centres in a particular province to provide CEmOC.²⁶

A number of papers still highlight that women are reluctant to attend rural health facilities as they believe the standard of care they will receive will be poor and many still give birth at home without skilled birth attendance.^{9 27} We can only hope that the upskilling of health providers in these rural areas cascades within the communities to encourage women to seek skilled help during birth.

While not a direct result of our work during the lifetime of this project, there has been a shift in acknowledging the importance of this cadre of health workers. The negative label NPC has been replaced with the more dignifying and respectful AC. ACs are now coming together across Africa starting their own professional association. Indeed, there is now a very active network called African Network of Associate Clinicians (ANAC) enabling the formation of a community of practice.

Comparing our results with those from Malawi in this project, we see an indication that the ETATMBA training can make a difference.²² There are similarities and differences between this study and that carried out in Malawi, but in both countries it seems that overall the outcomes have been very positive.

We know that the ETATMBA training was successfully implemented (we were able to train the ACs and we know we have improved their leadership, knowledge and clinical skills), but we are still unclear about the impact in Tanzania. We interpret our results here with caution, presenting just exactly what we found. There are trends in the data, which suggest an improving picture. However, it seems that the full impact of the training at a community level does not as yet show in the results. We believe that the dedication shown by the trainees, coupled with their new skills and knowledge, will have a positive impact over the coming years as more health centres are upgraded and adequately resourced.

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Contributors DRE, JPO'H, GM, SB and SP were involved in the conception and design of the study. DRE drafted the manuscript which was supported by all authors. JPO'H, GM, SB, SP and DD were responsible for the design of the training. GM, SB, SP, PK, AN, H-MM and DD were responsible for the

management and delivery of the training. AS and FM carried out the fieldwork and collated the results which were supervised by DRE.

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Supplementary appendix to go with: Can training non-physician clinicians/associate clinicians (NPCs/ACs) in emergency obstetric, neonatal care and clinical leadership make a difference to practice and help towards reductions in maternal and neonatal mortality in rural Tanzania? The ETATMBA Project.

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ETATMBA Training overview (Tanzania)* (Supplementary appendix 1)

TRAINING OF NPCS IN MATERNAL HEALTH AND LEADERSHIP IN TANZANIA

BACKGROUND

With a physician to population ratio of close to 1:25,000 and further challenged by 80-90% of medical doctors practicing in urban areas the majority of the Tanzania population has no access to care by a physician

However, there is potential of using the existing mid-level cadres in the system to provide essential services if their skills can be upgraded through targeted short courses or long courses

Assistant Medical officers (AMOs) and Nurse Midwives (NMW) for instance can effectively be upgraded to provide Comprehensive Emergency Obstetric Care CEmOC in rural areas where Medical doctors are not willing or ready to work.

THE ETATMBA PROJECT: TRAINING OF ADVANCED LEADERS IN MATERNAL HEALTH

To implement the ETATMBA Project, The Ifakara Health Institute (IHI) in collaboration with Tanzania Training centre for International Health (TTCIH) set out to train Non Physician Clinicians (NPCs) from disadvantaged Health Centres (HC) and District Hospitals in CEmOC, anaesthesia and leadership and thereafter assess its impact on Maternal and Perinatal Mortality in their respective areas.

It is important to note here that the ETATMBA training package, whilst delivered by National and International experts and based on evidenced based practice, was designed specifically for work in low resource settings.

SELECTION AND RECRUITMENT OF TRAINEES

Selection and recruitment was carried out by the Tanzanian ETATMBA Obstetricians in collaboration with the Ministry of Health and local District Medical Officers (who were made aware of the project and its requirements)

- To be able to show an impact, a pair (AMO, NMW) were recruited from one health centre
- The NPCs were selected from facilities that were remote and hardly accessible during rainy season.
- The Facilities given priority were Heath Centres (HCs) that were already upgraded with theatres or were in the process of being upgraded.
- However, in certain disadvantaged districts there were no such HCs and therefore the District hospital was selected.

DURATION OF TRAINING

- Duration of Training was 16 weeks undertaken at the Tanzanian Training Centre and St. Francis Referral Hospital in Ifakara.
- AMOs: 10 weeks on CEmOC, 2 weeks on Leadership and 4 weeks of internship.
- Nurses: 10 weeks on Anaesthesia, 2 weeks on leadership and 4weeks on internship
- The internship was done in their Regional Hospitals

DAILY TIME TABLE FOR NPC TRAINING

1. 7.45 am - 9.00 am: Review of Emergency cases managed by AMO within 24 hrs

2. 9.00 am-1.00 pm Major ward round
3. 3.00-5.00 pm: Lecture on EMOC topics including Neonatal Resuscitation.
4. 5.00 pm-7:30 am: Night Duty for one AMO daily including weekends and public holidays

WHAT TRAINING STRATEGY ARE WE USING?

- We are training the AMOs and NMWs using a competence based education approach
- Competence-based education is an approach that is related to on-the-job performance and has a close relationship between the knowledge or skill required and on-the-job application

TRAINING CURRICULUM

- Two competence based training curricula are used (one for AMOs in EmOC and another for Nurses in Anaesthesia)
- The actual training duration is three months (12 weeks) full time with an addition of one month (4weeks) for internship
- The implementation of the curriculum requires the use of training facilities at a training centre as well as opportunities to practice at the hospital
- Training materials addressing the various areas of CEMOC are prepared in advance and availed to trainees
- A schedule detailing the day to day topics is usually prepared to standardise the teaching/learning process
- A logbook to guide the training of skills is given to each trainee

All NPC (AMO and Nurses) underwent 10 day- Leadership course during which management and leadership skills were taught by experts in this area.

ADVANCED OBSTETRICS CARE COURSE

The training tools for the Advanced Obstetrics Care Course includes the following:

- Curriculum in Maternal and Leadership for Non Physician Clinicians
- Course Programme
- Modules and power Point presentations on:
 - MNH and Health Systems
 - ANC and Diseases in Pregnancy
 - Haemorrhage
 - Partograph
 - Prolonged Obstructed Labour
 - Abortion
 - Pre-eclampsia
 - Immediate New-born Care
 - Criterion based Audit in Obstetrics
 - Clinical Leadership (see below)
- E-Learning package in maternal health
- Advanced Life Saving Skills Booklet by MOHSW
- Beyond the Numbers: A Manual by WHO
- Monitoring Emergency Obstetric Care by WHO

LEADERSHIP: OBJECTIVES and LEARNING OUTCOMES

- Provide leadership in key areas of maternal health services

- Conduct organizational capacity assessment
- Manage change in a health facility
- Improve quality of services

TOPICS IN LEADERSHIP AND MANAGEMENT



TRAINING METHOD



WHO ARE THE TRAINERS?

The trainers comprised the following:

- Obstetricians local and international
- Anaesthetists/Anaesthetic Officers
- General Medical Officers working in OBGY Department
- Nurse midwives working in the in maternity ward
- Leadership and Management experts

TEACHING METHODS

A variety of teaching/learning methods were used including:

- Lectures and discussions
- Involving the trainees in the actual doing through practicing in the theatre as well as in the maternity and surgical wards at the teaching hospital
- Encouraging trainees to conduct their own group discussions and presentations and availing trainees the opportunity for self-study
- Use of Clinical Skills Lab for demonstrations and simulations
- A team approach to learning is emphasised where AMOs and Nurse Midwives learn together

TRAINING CURRICULUM: ASSESSMENT

- The assessment process is designed to promote the highest possible standards of demonstrable achievement within and beyond the scope and content of the curriculum.
- To achieve this, assessment of the trainees involves the following:
 - Course work and individual assignments
 - Class participation and group assignments
 - Self-assessment
 - Monthly tests
 - End of module assessment using written exams and OSCE

INTERNSHIP

The last 4 weeks of the course were on Internship in their Regional Hospitals

- No Lectures were given at the hospitals.
- AMOs managed the Maternity wards as well as labour wards under our supervision and did surgical procedures (C/S, vacuum etc.) on patients with indications.
- The nurses administered anaesthesia and did neonatal resuscitation in the theatre

MODE OF INTERNSHIP

- Clinical meeting- attended daily by NPCs, all senior hospital staff and supervisor
- Lively discussion of all cases admitted during the 24 hrs.
- Administrative problems discussed and sorted out
- Acts as a forum for continuing education and leadership role in action
- Daily ward rounds in the maternity ward
- Discussion on management of cases
- Focus on correct use and interpretation of the partograms
- Demonstration of practical procedures
- Applying skills and mentorship both in labour ward and theatre

*Adapted from material on the ETATMBA website

<http://www2.warwick.ac.uk/fac/med/about/global/etatmba/>

ETATMBA Facility Assessment (A)

Module 1: Moduli kuu (KAMILI)

Name of the Interviewer _____

Date of the interview: _____

GIS coordinates [filled by supervisor later] _____

Instructions:

SEHEMU YA 1: TAARIFA ZA MSINGI ZA KITUO			
NA	MASWALI NA MCHUJO	MPANGILIO WA MAKUNDI	RUKA
1101	District: _____		
1102	Name of the Facility: _____		
1103	ID of the Facility: _____		

Data Collection Sources and Quality

Please record the following information about the registers used to collect obstetric complication and maternal death information.

→ List as per MOH guidelines.

	Registers and Data Sources	Is register available at this facility? CSa	Check if used to collect (check all that apply):		Answer the following only for the registers that collect delivery and obstetric complication data and/or maternal death data:			
			Obstetric complication data CSb	Maternal death data CSc	Is the register easily accessible? CSd	Is the register completely filled out? CSe	Is the register up to date? CSf	Is the register regularly reviewed by staff? CSg
1	General admission register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
2	Delivery register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
3	Maternity ward register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
4	Female ward register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
5	Operating theatre register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
6	Gynecology register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
7	Post-abortion register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
8	Individual patient records	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
9	Discharge register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
10	Death register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
11	Mortuary register	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes
12	Monthly / annual facility summary	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes

	reports/forms							
13	Otherooo (specify):	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No <input type="checkbox"/> 1.Yes			

NB: UN Process Indicator Data:

CHUKUA TAKWIMU ZA KUENZIA January 2011- December 2011

Year														Total
	Ja n	F e b	M a r	A p r	M a y	J u n	Ju l	A u g	Se p t	Oc t	No v	Dec		
No. obstetric admissions														
Total No of all deliveries (SVD+CS)														
Total No deliveries (SVD)														
Deliveries (Breech)														
Twins														
BBA														
No. cesarean deliveries														
Other mal-presentations (Transverse, Compound etc)														
Direct obstetric complications:														
Hemorrhage (ante & post- partum)														
Obstructed / prolonged labor														
Ruptured uterus														
Post-partum sepsis														
Severe pre-eclampsia / eclampsia														

Complications of abortion (with hemorrhage and/or sepsis)														
Ectopic pregnancy														
Total direct obstetric complications														
Other obstetric complications (from all other causes) – Specify:														
Other abortion complications														

Year:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Maternal deaths – direct obstetric causes:													
Hemorrhage (ante & post-partum)													
Obstructed / prolonged labor													
Ruptured uterus													
Post-partum sepsis													
Severe pre- eclampsia / eclampsia													
Complications of abortion (with hemorrhage and/or sepsis)													
Ectopic pregnancy													
Total maternal deaths from direct obstetric causes													
Other maternal deaths (direct													

causes) – Specify:													
--------------------	--	--	--	--	--	--	--	--	--	--	--	--	--

** List indirect obstetric complications and maternal deaths relevant for local country context (examples: HIV, severe anemia, malaria, etc.)

Year:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Indirect obstetric complications: f26a-f26x													
26 malaria													
27 hiv/aids													
28 severe anaemia													
28_1 hepatitis													
28_2 other indirect complications													
Indirect maternal deaths:													
29 malaria													
30 hiv/aids													
31 severe anaemia													
Neonatal outcomes Stillbirths & neonatal deaths:													
32. Total live birth													
33 Fresh stillbirths < 2.5 Kg													
34 Fresh stillbirths ≥ 2.5 Kg													
35 Macerated stillbirths													
36 Early neonatal deaths (< 24 hrs)													
37 Early neonatal deaths (> 24 hrs)													
Referrals:													
38 Referrals out due to direct obstetric													

causes													
39 Referrals in due to direct obstetric causes													

(A.) EQUIPMENT, SUPPLIES & ESSENTIAL DRUGS

Name of district: _____ Name of Village: _____

Name of health facility: _____

Date of Interview: ___ / ___ / ___ Start time _____:

Instructions:

Equipment and supplies:

- Record whether there is a sufficient supply/number of the following items for the facility's daily caseload of deliveries, and whether the items are available & functional, available but NOT functional, or not available.
- Equipment, supplies and infrastructure are organized by room.

Essential drugs:

- Record the availability and supply of drugs for each room (emergency room, labor / delivery room, maternity ward, operating theatre and pharmacy). Check whether the listed drug is available and if the supply is sufficient to last for less than one week, up to one week, up to two weeks, up to three weeks, or up to four or more weeks.
- Drug lists are organized by room.
→ List according to MOH guidelines.

A. Emergency room

Code	Instructions	Available
A1	Does this facility have an emergency room? <i>Kama hakuna, nenda kwenye chumba kingine (Nenda B1)</i>	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A2	Are obstetric complications managed in the emergency room?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES

Infrastructure

ID	Instructions	Available
A3	Electricity	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A4	Sufficient light source to perform tasks during the day	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES

A5	Sufficient light source to perform tasks at night	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A6	Means of ventilation (Fan,AC Windows)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A7	Running water	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A8	Functioning toilet	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A9	Curtains/means of providing patient privacy	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
A10	Waiting area for visitors	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES

Equipments

ID	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	Not Available	Are there enough for the daily caseload of deliveries?
A11	Filled oxygen cylinder with cylinder carrier and key to open valve	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A12	BP cuff	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A13	Stethoscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A14	Fetal stethoscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A15	Cannular	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A16	Kidney basins/Beseni la kunawia mikono	2	1	0	<input type="checkbox"/> NO <input type="checkbox"/> 1.YES
A17	Clinical thermometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A18	Needles and Syringes (5-10-20cc)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A19	Suture needles/suture materials	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A20	IV Drip Stand(s)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A21	Urinary catheters	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A22	Adult ventilator bag and mask	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A23	Mouth gag	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A24	Patient transport (wheelchair, trolley, hammock)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A25	Examination table with privacy	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A26	Uris tix /Albustix (dip stick for protein in urine)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	Not Available	Are there enough for the daily caseload of deliveries?
	Infection prevention				
A27	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A28	Antiseptics (Kama Detol nk)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A29	Sterile gloves (Pea ya glovu zilizofungwa)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A30	Non-sterile gloves (Glovu hazijafungwa)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A31	Non-sterile protective clothing	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A32	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A33	Bleach or bleaching powder (Jik)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A34	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A35	Regular trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A36	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Essential drugs

ID	Drugs	Available
A37	Antibiotics	
A37a	Amoxicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37b	Ampicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37c	Benzyl penicillin (x-pen)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37d	Cloxacillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37e	Erythromycin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37f	Gentamicin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37g	Metranidazole (Flagyl)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37h	Nitrofurantoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37i	Penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A37j	Procaine penicillin G (PPF)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Drugs	Available
A37k	Trimethoprim/Sulfamethoxazole (Septrine)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A38	Anticonvulsants	
A38a	Magnesium sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A38b	Phenytoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A39	Antihypertensives	
A39a	Hydralazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A39b	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40	Dawa zinazotumika wakati wa dharura	
A40a	Adrenaline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40b	Aminophylline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40c	Atropine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40d	Calcium gluconate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40e	Digoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40f	Ephedrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40g	Frusemide(Lasix)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40h	Naloxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40i	Nitroglycerine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40j	Prednisolone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A40k	Promethazine (Phenergan)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A41	Analgesics	
A41a	Paracetamol/Asprin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A41b	Pethidine/ramadol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A42	Sedatives	
A42a	Diazepam (Valium)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A42b	Phenobarbitone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A43	IV Fluids	
A43a	Dextrose 5%	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A43b	Normal saline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A43c	Ringer's lactate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A44	PMTCT/HIV care	
A44a	ART	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
A44b	Niverapine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Drugs	Available
A44c	Rapid testing kit	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

B. Labor / Delivery room

Kama chumba cha kusubiri wakati wa uchungu ni tofauti na kile cha kujifungulia, tafadhali chukulia kama ni chumba kimoja

ID		Available
B1	Does this facility have a labor / delivery room? <i>Kama jibu ni NO, nenda kwenye chumba kingine (Nenda C1)</i>	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES

Infrastructure

ID		Available
B2	Electricity	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B3	Sufficient light source to perform tasks during the day	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B4	Sufficient light source to perform tasks at night	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B5	Means of ventilation (Fan,AC or Window)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B6	Running water	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B7	Functioning toilet	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B8	Panga boi (Fan)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B9	Curtains/means of providing patient privacy (Screen)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES
B10	Waiting area for visitors (<i>iliyo na viti na kivuli</i>)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1. YES

Vifaa

ID	Essential Items	A. Available			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
B11	Delivery bed with stirrups	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B12	Delivery bed (no stirrups)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B13	BP cuff	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B14	Stethoscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B15	Baby weighing scale	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B16	Fetal scope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B17	Kidney dish	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Essential Items	A. Available			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
B18	Clinical thermometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B19	Scissors	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B20	Needles and Syringes (10-20cc)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B21	Suture needles/suture materials	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B22	IV Drip Stand(s)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B23	Urinary catheters	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B24	Uristix/Albustix (dip stick for protein in urine)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B25	Filled oxygen cylinder with cylinder carrier and key to open valve	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B26	Mouth gag	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B27	Patient transport (wheelchair, gurney, hammock)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B28	Incubator/warm Room	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
Infection prevention (Kuzuia maambukizi)					
B29	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B30	Antiseptics	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B31	Sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B32	Non-sterile protective clothing (Gauns/Apron)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B33	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B34	Bleach or bleaching powder (Jick/Chlorinated lime)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B35	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B36	Covered contaminated trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B37	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B38	Mayo stand (or equivalent to establish sterile field)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Essential Items	A. Available			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
B39	Sterilizer/autoclave	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B40	Placenta pit	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41	Daily caseload of deliveries?				
B41 a	Artery forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 b	Cord-cutting/blunt-ended scissors	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 c	Cord ties	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 d	Gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 e	Plastic sheets/ Macking tosh	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 f	Gauze swabs	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B41 g	Cloth (<i>Green towels</i>)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42	Perneal/Vaginal/Cervical repair pack				
B42 a	Sponge forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 b	Artery forceps large/small	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 c	Needle holder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 d	Stitch scissors	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 e	Dissecting forceps, toothed	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 f	Vaginal speculum, (Sims)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B42 g	Vaginal speculum (Bivalve)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B43	Vacum extractor/				
B43 a	Vacuum extractor	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Essential Items	A. Available			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
B43 b	forceps delivery	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44	Uterine evacuation				
B44 a	Vaginal speculum (Sims)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 b	Sponge (ring) forceps or uterine packing forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 c	Single tooth tenaculum forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 c	Long dressing forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 d	Uterine dilators, sizes 13-27 (French)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 e	Sharp uterine curettes, size 0 or 00	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 f	Blunt uterine curettes, size 0 or 00	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B44 g	Metal uterine sound	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B45	Manual Vacuum evacuation				
B45 a	Basic uterine evacuation instruments (B43a-e & h)PLUS:	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B45 b	Vacuum syringes (single / double valve)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B45 c	Silicone lubricant	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B45 d	Adapters	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B45 e	Flexible cannulae, 4 - 12 mm	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46	Neonatal resuscitation park	Kipo japo kimoja kinafanya kazi	Kipo lakini hakuna kinachofan ya kazi	NOT Available	Vinatolewa kiasi cha kutosha kwa siku?

ID	Essential Items	A. Available			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
B46 a	Mucus extractor	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 b	Infant face mask	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 c	Ventilatory bag	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 d	Suction catheter Ch 12	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 e	Suction catheter Ch 10	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 f	Infant laryngoscope with spare bulb & batteries	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 g	Endotracheal tubes 3.5	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 h	Endotracheal tubes 3.0	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 i	Suction apparatus: Foot- or electrically-operated	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
B46 j	Oxygen cylinders	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Essential Drugs

Cod e	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
B47	Antibiotics		
B47 a	Amoxicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B47 b	Ampicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B47c	Benzyl penicillin (X-Pen)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B47 d	Cloxacillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B47 e	Erythromycin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

Cod e	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
B47f	Gentamicin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47g	Metronidazole (Flagyl)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47h	Nitrofurantoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47i	Penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47j	Procaine penicillin G (PPF)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47k	Trimethoprim/Sulfamethozazole (Septrine)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47l	Magnesium sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B47m	Phenytoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B48	Antihypertensives		
B48a	Hydralazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B48b	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B49	Oxytocics, Prostaglandins & other		
B49a	Ergometrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B49b	Methylergometrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B49c	Misoprostol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B49d	Oxytocin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B49e	Prostaglandin E2	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50	Dawa zinazotumika wakati wa dharura		
B50a	Adrenaline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50b	Aminophylline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>

Cod e	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
B50c	Atropine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50d	Calcium gluconate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50e	Digoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50f	Ephedrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50g	Frusemide (Lasix)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50h	Naloxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50i	Nitroglycerine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50j	Prednisolone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B50k	Promethazine (Phenergan)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B51	Anesthetics (Nusu kaputi)		
B51a	Halothane	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B51b	Ketamine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B51c	Lignocaine 2% or 1%	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B52	Analgesics		
B52a	Morphine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B52b	Paracetamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B52c	Pethidine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B53	Sedatives	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B53a	Diazepam (Valium)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B53b	Phenobarbitone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B54	Tocolytics		

Cod e	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
B54 a	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B54 b	Salbutamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B55	Steroids		
B55 a	Betamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B55 b	Dexamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B55c	Hydrocortisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B56	IV Fluids		
B56 a	Dextrose 5%	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B56 b	Glucose (20%/50%)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B56c	Normal saline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B56 d	Ringer's lactate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57	Antimalarial		
B57 a	ALU	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57 b	Artesunate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57c	Quinine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57 d	Sulfadoxine/Pyrimethamin e (SP)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57 e	Anti-tetanus serum	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57f	Ferrous sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57 g	Folic acid	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57 h	Magnesium trisilicate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
B57i	Tetanus antitoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

Code	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
B57j	Tetanus toxoid	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B57k	Anti-retrovirals – mother	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B57l	Anti-retrovirals – newborn	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B58	PMTCT / HIV care		
B58a	ART	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B58b	Niverapine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B58c	Rapid testing kit	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>
B58d	Post-HIV exposure prophylactic treatment	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 4+ <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>

C. Operating theatre

Code	Available
C1	Does this facility have an operating theatre? <i>Kama jibu ni NO ruka nenda chumba kingine (NENDA D1)</i>

o mbinu

Miund

Code	Available
C2	Electricity
C3	Sufficient light source to perform tasks during the day
C4	Sufficient light source to perform tasks at night
C5	Running water
C6	Means of ventilation (Fan)

Vifaa

Code	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
	Infection prevention				
C7	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C8	Antiseptics	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C9	Sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C10	Non-sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C11	Non-sterile protective clothing	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C12	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C13	Bleach or bleaching powder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C14	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C15	Regular trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C16	Covered contaminated waste trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C17	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C18	Mayo stand (or equivalent to establish sterile field)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C19	Sterilizer/autoclave	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20	Obstetric laparotomy / cesarean section pack				
C20a	Stainless steel instrument tray with cover	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20b	Towel clips	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20c	Sponge forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20d	Straight artery forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20e	Uterine haemostasis forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20f	Needle holder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20g	Surgical knife handle	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20h	Surgical knife blades	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20i	Triangular point suture needles/7.3 cm/size 6	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20j	Round-bodied needles/No	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Code	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
	12/size 6				
C20k	Abdominal retractors/double-ended (Richardson)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20l	Curved operating scissors/blunt pointed (Mayo)17cm	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20m	Straight operating scissors/blunt pointed (Mayo)17cm	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20n	Scissors, straight, 23 cm	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20o	Suction nozzle	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20p	Suction tube, 22.5 cm, 23 French gauge	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20r	Intestinal clamps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20s	Dressing (non-toothed tissue) forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C20t	Sutures (different sizes and types)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21	Anesthesia equipment				
C21a	Anesthetic face masks	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21b	Oropharyngeal airways	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21c	Laryngoscopes (with spare bulbs and batteries)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21d	Intubating forceps (Magill)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21e	Endotracheal tube connectors: 15 mm plastic (can be connected directly to the breathing valve; three for each tube size)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21f	Spinal needles (18-gauge to 25-gauge)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21g	Suction apparatus: Foot-operated	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21h	Suction apparatus: Electrically operated	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C21i	Anesthesia apparatus (EMO/draw-over system)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Code	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
C21j	Oxygen cylinders c manometer and flowmeter tubes and connectors/o2 concentrator	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22	Perineal / vaginal / cervical repair pack				
C22a	Sponge forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22b	Artery forceps large/small	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22c	Needle holder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22d	Stitch scissors	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22e	Dissecting forceps, toothed	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C22f	Vaginal speculum, large (Sims)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23	Uterine evacuation				
C23a	Vaginal speculum (Sims)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23b	Sponge (ring) forceps or uterine cpacking forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23c	Single tooth tenaculum forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23d	Long dressing forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23e	Uterine dilators, sizes 13-27 (French)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23f	Sharp/blunt uterine curettes,	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23g	Malleable metal uterine sound	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23	Manual vacuum evacuation(MVA)				
C23a	Basic uterine evacuation instruments PLUS:	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23b	Vacuum syringes (single / double valve)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23c	Silicone lubricant	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23d	Adapters	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C23e	Flexible cannulae, 4 - 12 mm	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24	Neonatal resuscitation pack				
C24a	Mucus extractor	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Code	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
C24b	Infant face mask	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24c	Ventilatory bag	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24d	Suction catheter	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24e	Infant laryngoscope with spare bulb& batteries	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24f	Endotracheal tubes	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C24g	Suction apparatus: warmer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
C25	Craniotomy equipment for destructive operation				
C25a	Craniotomy set/kit	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Essential Drugs

Code	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
C26	Antibiotics		
C26a	Ampicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C26b	Benzyl penicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C26c	Gentamicin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C26d	Metronidazole	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C26e	Penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C27	Anticonvulsants		
C27a	Magnesium sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C27b	Phenytoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C28	Antihypertensives		
C28a	Hydralazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C28	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

b			
C29	Oxytocics, Prostaglandins & other		
C29 a	Ergometrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C29 b	Misoprostol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C29 c	Oxytocin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30	Drugs used in Emergencies		
C30 a	Adrenaline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 b	Aminophylline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 c	Atropine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 d	Calcium gluconate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 e	Digoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30f	Ephedrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 g	Frusemide	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 h	Naloxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30i	Nitroglycerine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30j	Prednisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C30 k	Promethazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C31	Anesthetics		
C31 a	Halothane	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C31 b	Ketamine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C31 c	Lignocaine 2% or 1%	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C32	Analgesics		
C32	Morphine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

a								
C32 b	Paracetamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C32 c	Pethidine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C33	Sedatives							
C33 a	Diazepam	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C33 b	Phenobarbitone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34	Tocolytics							
C34 a	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34 b	Salbutamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34 c	Steroids	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34 d	Betamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34 e	Dexamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C34f	Hydrocortisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C35	IV Fluids							
C35 a	Dextrose	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C35 b	Normal saline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C35 c	Ringer's lactate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C36	Antimalarial							
C36 a	Artemether	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C36 b	Artesunate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C36 c	Coartem (ALU)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	
C36 d	Quinine dihydrochloride	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4+	

C36 e	Quinine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37	Other		
C37 a	Anti-tetanus serum	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37 b	Magnesium trisilicate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37 c	Tetanus toxoid	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37 d	Anti-retrovirals – Mother	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37 e	Anti-retrovirals - Newborn	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37f	HIV rapid testing kit	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
C37 g	Post-HIV exposure prophylactic treatment	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

D. Obstetric /Maternity ward

ID		Available
D1	Does this facility have an obstetric / maternity ward? <i>Kama jibu ni NO, ruka nenda chumba kingine(NENDA E1)</i>	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Infrastructure

ID	Miundo mbinu kwa ujumla	Available
D2	Electricity	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D3	Sufficient light source to perform tasks during the day	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D4	Means of ventilation	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D5	Running water	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D6	Fan / air conditioning (if applicable)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D7	Curtains/means of providing patient privacy	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D8	Waiting area for visitors (<i>iliyo na viti na kivuli</i>)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Vifaa

ID	Essential Items	A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
D9	Beds	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D10	Linens	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D11	Blankets for cold weather	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D12	BP cuff	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D13	Stethoscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D14	Baby weighing scale	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D15	Fetal stethoscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D16	Sponge bowls	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D17	Clinical oral thermometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D18	Clinical oral thermometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D19	Scissors	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D20	Low reading thermometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D21	Surgeon's handbrush w/ white nylon bristles	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D22	Needles and Syringes (10-20cc)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D23	Suture needles/suture materials	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D24	IV Stand(s)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D25	Filled oxygen cylinder with cylinder carrier and key to open valve/ O ₂ concentrator	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D26	Adult ventilator bag and mask	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D27	Mouth gag	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D28	Patient transport (wheelchair, trolley, hammock)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
	Infection and Prevention	At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
D29	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D30	Antiseptics	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D31	Sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID		A. Availability			B. Supply
D32	Non-sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D33	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D34	Bleach or bleaching powder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D35	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D36	Covered contaminated waste trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D37	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Instructions	Jibu
D38	Is food provided by the hospital to patients?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D39	Are there empty beds for the next patients?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D40	If yes, are the empty beds clean and ready to receive new patients?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Essential Drugs

ID	Drugs	Available
D41	Antibiotics	
D41a	Amoxicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D42	Ampicillin	
D42a	Benzathine penicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D42b	Benzyl penicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43c	Cloxacillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43d	Erythromycin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43e	Gentamicin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43f	Metronidazole	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43g	Nitrofurantoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43h	Penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43i	Procaine penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D43j	Trimethoprim/Sulfamethozazole	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D44	Anticonvulsants	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D44a	Magnesium sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D44b	Phenytoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D45	Antihypertensives	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID	Drugs	Available
D45a	Hydralazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D45b	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46	Drugs used in Emergencies	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46a	Adrenaline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46b	Aminophylline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46c	Atropine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46d	Calcium gluconate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46e	Digoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46f	Ephedrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46g	Frusemide	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46h	Naloxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46i	Nitroglycerine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46j	Prednisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46k	Prednisolone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D46l	Promethazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D47	Analgesics	
D47a	Morphine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D47b	Paracetamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D47c	Pethidine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D48	Sedatives	
D48a	Diazepam	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D48b	Phenobarbitone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D49	IV Fluids	
D49a	Dextrose	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D49b	Glucose	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D49c	Normal saline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
D49d	Ringer's lactate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

E. Laboratory

ID		Available
E1	Does this facility have a laboratory?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

	<i>Kama jibu ni NO, ruka nenda chumba kinachofuata (Nenda F1)</i>	
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Infrastructure

ID	Infrastructure kwa ujumla	Available
E2	Electricity	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E3	Chanzo cha mwanga kinachotosheleza kufanya kazi mchana	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E4	Njia za kuingizia hewa (ex. ceiling fan?)	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E5	Maji ya bomba	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

Vifaa

ID		A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT AVAILABLE	Are there enough for the daily caseload of deliveries?
E6	Jokofu	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E7	Test tubes - various sizes	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E8	Slides (microscope)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E9	Compound microscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E10	Microscope illuminator	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E11	Blood lancets	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E12	Cotton wool	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E13	Rack	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E14	8.5 g/l Sodium Chloride solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E15	20% Bovine albumin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E16	Centrifuge	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E17	Blood typing and cross-matching reagents	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E18	Blood collection bags	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E19	Artery forceps	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID		A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT AVAILABL E	Are there enough for the daily caseload of deliveries?
E20	Pilot bottles (containing 1 ml ACD solution)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E21	Hepatitis Test	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E22	HIV Test	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E23	Syphilis Test	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
	Laboratory supplies				
E24	Microscope	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E25	Immersion oil	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E26	Glass rods	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E27	Sink or staining tank	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E28	Measuring cylinder (10-50 ml)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E29	Wash bottle containing buffered water	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E30	Interval timer clock	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E31	Rack for drying slides	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E32	Leishman stain	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E33	Methanol	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E34	Refrigerator	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E35	Field stains A and B	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E36	Glass containers	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E37	Counting chamber (Neubauer)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E38	Pipette (various sizes)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E39	Tork diluting solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E40	Tally counter, differential if possible	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E41	Haemoglobinometer	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E42	Hydrochloric acid solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E43	Microhaematocrit centrifuge (manual or electric)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E44	Scale for reading results	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID		A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT AVAILABL E	Are there enough for the daily caseload of deliveries?
E45	Heparinized capillary tubes (75 mm x 1.5 mm)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E46	Spirit lamp	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E47	Ethanol	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
	Laboratory Supplies	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E48	Indicator papers and tablets	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E49	Benedict solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E50	Test-tube holder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E51	Beakers (various sizes)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E52	Spirit lamp	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E53	Sodium nitroprusside	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E54	Glacial acetic acid	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E55	Ammonia	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E56	Sulfosalicylic acid (300 g/l aqueous solution)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E57	Lugol's iodine solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E58	Ehrlich reagent	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E59	Uristix (dip stick for protein in urine)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
	Infection Prevention	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E60	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E61	Antiseptics	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E62	Sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E63	Non-sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E64	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E65	Bleach or bleaching powder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E66	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E67	Regular trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
E68	Covered contaminated waste trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

ID		A. Availability			B. Supply
		At least 1 available & Functional	Available but NONE functional	NOT AVAILABL E	Are there enough for the daily caseload of deliveries?
E69	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

F: Pharmacy

Code		Available	Essential Drugs
F1	<i>Does this facility have a pharmacy?</i>	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F2	Is drug inventory register up to date?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F3	Are records on supply requests from wards up to date?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F4	Is 'First-in-First-out' system for supply management used?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F5	Is there a regularly used mechanism to ensure that expired drugs are not distributed?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F6	Are drugs protected from moisture, heat or infestation (e.g., placed on shelves or slats, ventilated)?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F7	Does it have a buffer stock?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F8	Is there a minimum stock level for ordering new drugs?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F9	Do you receive what you order (Accuracy)?	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	
F10	Time taken from ordering till receiving the supply	<input type="checkbox"/> 0.---Wiki <input type="checkbox"/> 1.----- Miezi	

ID	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
F11	Antibiotics		
F11a	Amoxicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11b	Ampicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11c	Benzathine penicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11d	Benzyl penicillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11e	Ceftriaxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11f	Cloxacillin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

ID	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
			<input type="checkbox"/> 4+
F11g	Erythromycin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11i h	Gentamicin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11i	Kanamycin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11j	Metronidazole	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F11k	Nitrofurantoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F12	Penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F12a	Procaine penicillin G	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F12b	Trimethoprim / Sulfamethozazole	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F13	Anticonvulsants		
F13a	Magnesium sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F13b	Phenytoin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F14	Antihypertensives		
F14a	Hydralazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F14b	Aldomet/Metheldopa	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F14c	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F15	Oxytocics, Prostaglandins & other		
F15a	Ergometrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F15b	Methylegometrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F15c	Misoprostol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F15d	Oxytocin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

ID	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
F15e	Prostaglandin E2	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16	Drugs used in Emergencies	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16a	Adrenaline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16b	Aminophylline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16c	Atropine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16d	Calcium gluconate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16e	Digoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16f	Ephedrine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16g	Frusemide	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16h	Naloxone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16i	Nitroglycerine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16j	Prednisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16k	Prednisolone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F16l	Promethazine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F17	Anaesthetics		
F17a	Halothane	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F17b	Ketamine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F17c	Lignocaine 2% or 1%	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F18	Analgesics		
F18a	Morphine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F18b	Paracetamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

ID	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
			<input type="checkbox"/> 4+
F18c	Pethidine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F18d	Sedatives	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F18e	Diazepam	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F18f	Phenobarbitone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F19	Tocolytics		
F19a	Nifedipine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F19b	Salbutamol	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F20	Steroids		
F20a	Betamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F20b	Dexamethasone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F20c	Hydrocortisone	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F21	IV Fluids		
F21a	Dextrose	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F21b	Glucose	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F21c	Normal saline	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F21d	Ringer's lactate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F22	Antimalarial		
F22a	ALU	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F22b	Artesunate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F22c	Quinine dihydrochloride	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F22d	Quinine sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

ID	Drugs	Available	If yes, enough supply to last for up to (Check NUMBER OF WEEKS):
			<input type="checkbox"/> 4+
F22e	Sulfadoxine/Pyrimethamine	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23	Other	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23a	Anti-tetanus serum	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23b	Ferrous sulfate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23c	Folic acid	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23d	Magnesium trisilicate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23e	Sodium citrate	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23f	Tetanus antitoxin	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23g	Tetanus toxoid	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23h	Anti-retrovirals – Mothers	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23i	Anti-retrovirals – Newborn	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23j	HIV rapid testing kits	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
F23k	Post-HIV exposure prophylactic treatment	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES	<input type="checkbox"/> <1 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

G. Autoclave room

Code	Available
G1	Does this facility have an autoclave room? <i>Kama jibu ni NO, ruka nenda chumba (Nenda MWISHO)</i>

**Infr
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Code	Available
G2	Electricity

G3	Sufficient light source to perform tasks during the day	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G4	Sufficient light source to perform tasks at night	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G5	Means of ventilation	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
	Running water	

Equipments

ID	Infection prevention	A. Availability			B. Usambazwaji
		At least 1 available & Functional	Available but NONE functional	NOT Available	Are there enough for the daily caseload of deliveries?
G6	Autoclave (with temperature and pressure gauges)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G7	Soap	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G8	Antiseptics	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G9	Sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G10	Non-sterile gloves	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G11	Non-sterile protective clothing	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G12	Decontamination container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G13	Bleach or bleaching powder	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G14	Prepared disinfection solution	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G15	Regular trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G16	Covered contaminated waste trash bin	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G17	Puncture proof sharps container	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES
G18	Mayo stand (or equivalent to establish sterile field)	2	1	0	<input type="checkbox"/> 0.NO <input type="checkbox"/> 1.YES

REFERRAL

CODE	ITEM	Availability		
		Not available	Available and functional	Available but not functional
R				
R1	Land Telephones	0	1	2
R2	Mobile phones	0	1	2
R3	Radio communication set with repeater station	0	1	2
R4	Motor vehicle ambulance	0	1	2
R5	Ox carte	0	1	2
R6	Motor vehicle	0	1	2
R7	Motorcycle	0	1	2
R8	Bicycle	0	1	2
R9	Boat	0	1	2
R10	Who provides fuel for the ambulance(s)?			

Finish Time: Hour__/_ Minutes__/_

End