



Government of Sierra Leone
Ministry of Health and Sanitation
Reproductive and Child Health Directorate

Facility Improvement Team (FIT)
Assessment Report



July 2015

ACKNOWLEDGEMENT

THE introduction of the Facility Improvement Team (FIT) assessment in 2010 has helped in galvanizing the support of Ministry of Health & Sanitation (MoHS) and its development partners, district stakeholders and line ministries in making the 78 designated emergency obstetric and newborn care (EmONC) facilities compliant for the delivery of essential and quality reproductive and child health services in Sierra Leone. The assessment has been an all-inclusive exercise; conducted in partnership with District Health Management Teams (DHMTs) whilst adequately informing the local councils and partners operating in the districts.

The FIT assessment in June, 2015 like its predecessor in December, 2014 was challenging due to the on-going Ebola outbreak in some parts of the country. I would like to commend the assessors, supervisors and their drivers who accessed facilities to collect data during this difficult time.

Options Consultancy Services have been the key financier of the FIT exercise since its introduction in 2010. The MoHS recognizes and appreciates their continued financial and technical support to this process.

The MoHS also appreciates the financial support of Evidence for Action (E4A) and the World Bank supported RCHP Phase II funds in past FIT assessments. The participation of the DHMT in the FIT assessment and above all, the cooperation of health facility staff are greatly valued; and I thank them on behalf of the MoHS.

As a ministry, we expect our partners, local councils and line ministries to partner with us in addressing the gaps identified in all the facilities towards our combined effort in providing EmONC compliant facilities; which are vital to providing quality services for the vulnerable women and children in Sierra Leone.

It is my hope that, this report will be vital in informing the planning of programmes by partners, DHMTs and other stakeholders

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ACRONYMS

ANC	Antenatal Care
BEmONC	Basic Emergency Obstetric and Neonatal Care
BPEHS	Basic Package of Essential Health Services
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CHA	Community Health Assistant
CHC	Community Health Centre
CHO	Community Health Officer
C/S	Caesarean Section
DHMT	District Health Management Team
DMO	District Medical Officer
EmONC	Emergency Obstetric and Neonatal Care
EVD	Ebola Viral Disease
FIT	Facility Improvement Team
IPC	Infection Prevention and Control
MCHA	Maternal and Child Health Aide
MDR	Maternal Death Review
MMR	Maternal Mortality Ratio
MoHS	Ministry of Health and Sanitation
NGO	Non-Governmental Organization
PCMH	Princess Christian Maternity Hospital
PHC	Primary Health Care
PHU	Peripheral Health Units
PMEL	Partnership Management Evaluation & Learning
RCH	Reproductive and Child Health
SBA	Skilled Birth Attendant
SECHN	State Enrolled Community Health Nurse

EXECUTIVE SUMMARY

IN the quest to ensure that quality Maternal Newborn and Child Health (MNCH) services are provided for the vulnerable women and children in Sierra Leone, the government is working towards equipping all hospitals and Community Health Centres (CHCs) with the inputs required to provide quality Emergency Obstetric and Neonatal Care (EmONC) services. On the recognition that achieving this is infeasible in a short time, the MoHS and the government focuses on certifying 13 hospitals for Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) services, one per district ; and five Community Health Centres (CHC) per district to be equipped to provide Basic Emergency Obstetric and Neonatal Care (BEmONC) services.

The Facility Improvement Team (FIT) assessment exercise is the system used to track the progress of the selected seventy-eight (78) facilities towards certification and was adopted in November 2010. Facilities are scored on seven standards which need to be met in order to achieve the relevant status. These became known as *enablers*. These enablers are:

- ❖ Water and sanitation
- ❖ Electricity
- ❖ Referrals
- ❖ Equipment for special procedures
- ❖ Blood storage and laboratory
- ❖ Staffing
- ❖ Drugs and supplies

Between the period 2010 and 2013, the assessment was done on a quarterly basis; but since late 2013, the assessment became a six-monthly activity. This change is to allow district stakeholders to act on recommendations in addressing gaps identified in each of the 78 facilities. This report covers the first half of 2015 (January-June, 2015) on progress made by facilities towards becoming EmONC compliant.

Findings on Enablers' Progress

THIS report analysed data obtained from 65 Community Health Centres and 13 Hospitals considered as Basic and Comprehensive Emergency Obstetric and Newborn Care facilities respectively. These facilities were assessed for their compliance to provide quality Emergency Obstetric and Newborn Care services. Overall, there is progress in the performance of the health facilities towards the achievement of EmONC status as compared to the December 2014 report. However, no facility in the country is considered EmONC certified as per set standards.

Among the CEmONC facilities, Pujehun maternity complex had the highest rating and the least ranked CEmONC is Bonthe hospital. Among the BEmONCs, Kono district has the highest score of 83.5 % for all enablers combined with Ross Road CHC in Western Area leading all facilities nationally with 96.4%. The least performing facilities are Madina and Tihun CHCs in Bonthe district.

Referral is the enabler with the highest score (86.0%) for both BEmONC and CEmONC. The high performance achieved in the referral category could be attributed to the fleet of ambulances in country to contain the Ebola Viral Disease outbreak. The electricity situation is encouraging for both BEmONCs and CEmONCs with at least one source of power supply in each facility. Laboratory and blood services are the least performing enablers in both CEmONCs and BEmONCs.

Key recommendations

The key recommendations arising from this assessment are:

1. Strengthening laboratory services at the BEmONC level through provision of equipment, appropriate reagents and capacity building of laboratory personnel to be able to perform basic, haematology, microscopy and biochemistry, and where applicable, posting of trained laboratory personnel to these facilities.
2. Equipping the health facilities with the required equipment and consumables such as Manual Vacuum Extractor, Manual Vacuum Aspirator & elbow gloves to carry out necessary procedures.
3. The DHMTs should continue to engage Councils, and NGOs to support the respective districts in addressing the gaps identified in the each of the facilities.
4. Provision of accommodation, training, and posting of more technical staff including midwives to the health facilities and providing other incentives by MoHS and its partners.
5. Extending the Performance Based Financing scheme to CEmONCs that become EmONC compliant to motivate others and also lead to sustainability for those who have already attained EmONC status.
6. The MoHS and partners should convene a meeting that will bring together all line ministries, partners, councils and other key stakeholders to discuss and come up with a more sustainable way of making facilities EmONC compliant for quality service delivery.
7. The MoHS should consider the redistribution of health workers from districts that are overstaffed to poorly staffed districts.

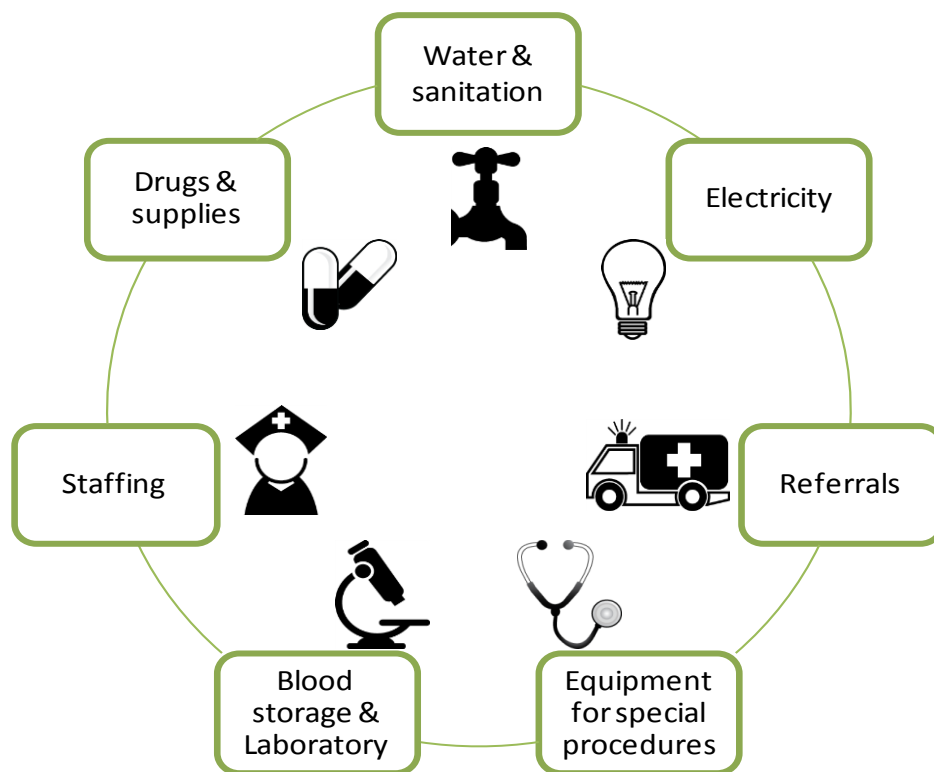
1.0 INTRODUCTION

EMERGENCY Obstetrics and Neonatal Care (EmONC) has been identified as a key strategy for the reduction of maternal and infant morbidity and mortality. In pursuance of this objective, 65 Community Health Centres (CHCs); five in each district were identified to be equipped to provide Basic Emergency Obstetrics and Neonatal Care (BEmONC) and 13 public hospitals to be equipped to provide Comprehensive Emergency Obstetrics and Neonatal Care (CEmONC). Following this development, a system of tracking the progress of the selected facilities based on agreed standards such as, drug supply, water, staffing, laboratory/blood services, equipment, referrals and electricity were put in place.

1.1 Enablers

The Facility Improvement Team (FIT) assessment exercise monitors the minimum standards of inputs required to achieve EmONC status in the seven enablers as shown in Fig.1. Meeting the set criteria for each of the enablers contributes towards the facility to provide quality EmONC services.





Figure 1: Facility Improvement Enablers



1.2 Scoring Approach

The FIT exercise set a scoring system in order to enable the ministry and partners identify gaps and areas that require resources. Scoring green on an enabler depicts that it meets all the criteria for that enabler. All facilities should attain green status for all enablers to be certified as EmONC compliant. This is to say the facility has met the minimum requirements as identified in the Basic Package of Essential Health Services (BPEHS). Further, each tracker code is allocated a percent score which is used to compare overall progress from one assessment to another and the maximum score a facility can achieve is 28 (maximum score for green is four for each of seven enablers). Table 1 is a list of definitions and scores of each tracker code.

Table 1: Coding Criteria

Code	Color	Score	Facility has:
	Green	4	Met all criteria
	Yellow	3	Mostly met criteria
	Amber	2	Partially met criteria
	Red	1	Not met criteria

2.0 METHODOLOGY

THIS section of the report highlights the methods adopted for the conduct of the June 2015 FIT Activity as follows:

2.1 Team Composition

The FIT assessment team comprised of seven teams each with two team members. Senior MoHS technical staff were recruited and trained. They provided on the job mentoring and guidance during the data collection exercise. Each team covered two districts with the exception of the team in Western Area. These teams were joined at district level by members of the DHMT as part of the assessors in the respective districts. This was to ensure that DHMTs were aware of issues identified in facilities and take prompt action. As a data quality measure, the team comprised of three supervisors which included the RCH Director, RCHD Team Leader and the Options Programme Coordinator. Each supervisor covered a region.

2.2 FIT Tools

The FIT tools comprised of two sets of questionnaires, one for the hospitals (CEmONCs) and one for the CHCs (BEmONCs). These tools defined the criteria that each designated CEmONC or BEmONC facility need to achieve on each of the seven enablers to be classified as an EmONC compliant facility. These criteria are set in accordance with existing guidelines of the MOHS such as the BPEHS for Sierra Leone, Norms and Standards for Improved Reproductive, Sexual, Newborn and Child Health Service Delivery in Sierra Leone and the Primary Health Care (PHC) Handbook.

2.3 Orientation Meeting

Prior to the actual field data collection, a one -day orientation meeting was held to discuss the questionnaires to make sure assessors collect the required sets of data in the field. Challenges and lessons learnt in the previous FIT assessment were also highlighted and discussed at the meeting.

2.4 FIT Assessment Visits

Field work data collection lasted 12 days which started on 24th June and ended on 5th July 2015. Entrance and exit meetings were held in the respective districts. The purpose of the entrance meeting was to inform DHMTs about the FIT process, discuss the last FIT findings and request a member of the DHMT to work with the FIT team. The exit meeting discussed the gaps identified in each facility for the current FIT assessment and ways of addressing them.

2.5 Data entry and Analysis

Data entry and analysis was done using principally two data analysis software packages Epi Info and Microsoft Excel to generate scorecards, tables and percentages. Prior to data entry, a validation exercise was conducted on the completed questionnaires to ensure completeness and accuracy of data.

3.0 OVERVIEW AND FINDINGS

3.1 FIT Trend Analysis 2010-2015

THIS is an overview of the performance of BEmONC and CEmONC facilities assessed since the introduction of the FIT assessment model in November, 2010.

Figure 2: BEmONC Achievement Trends.

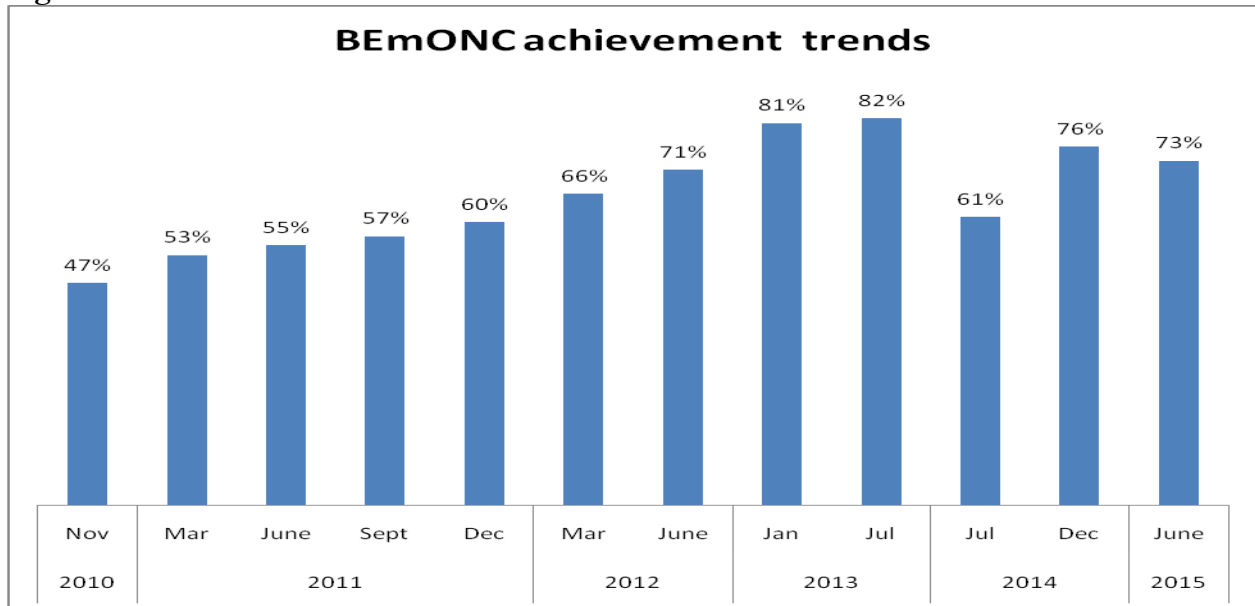
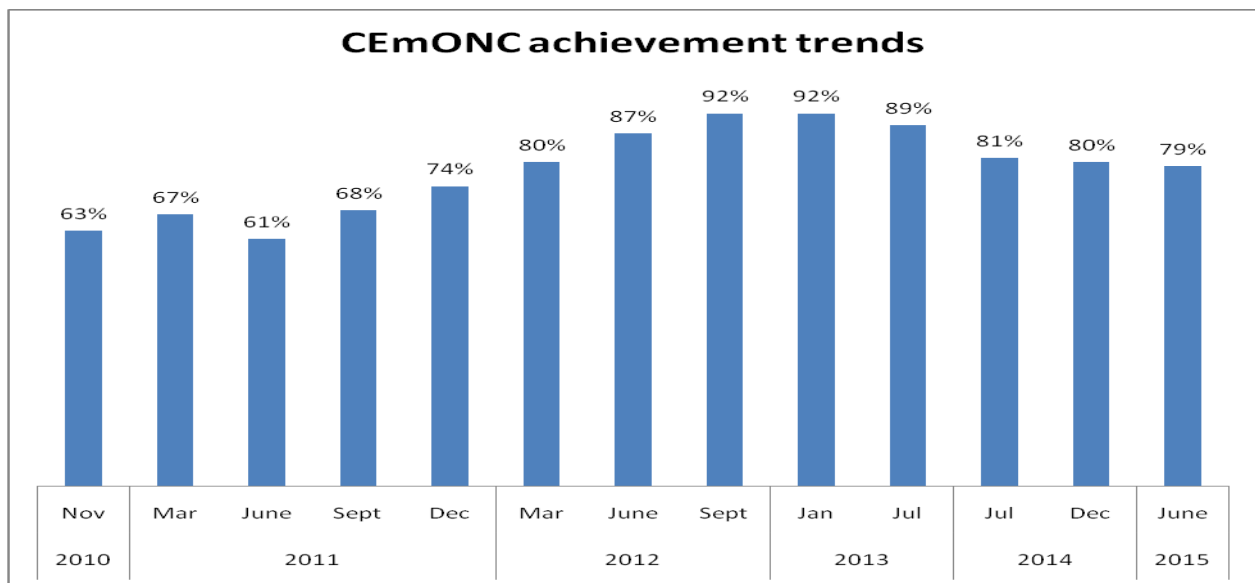


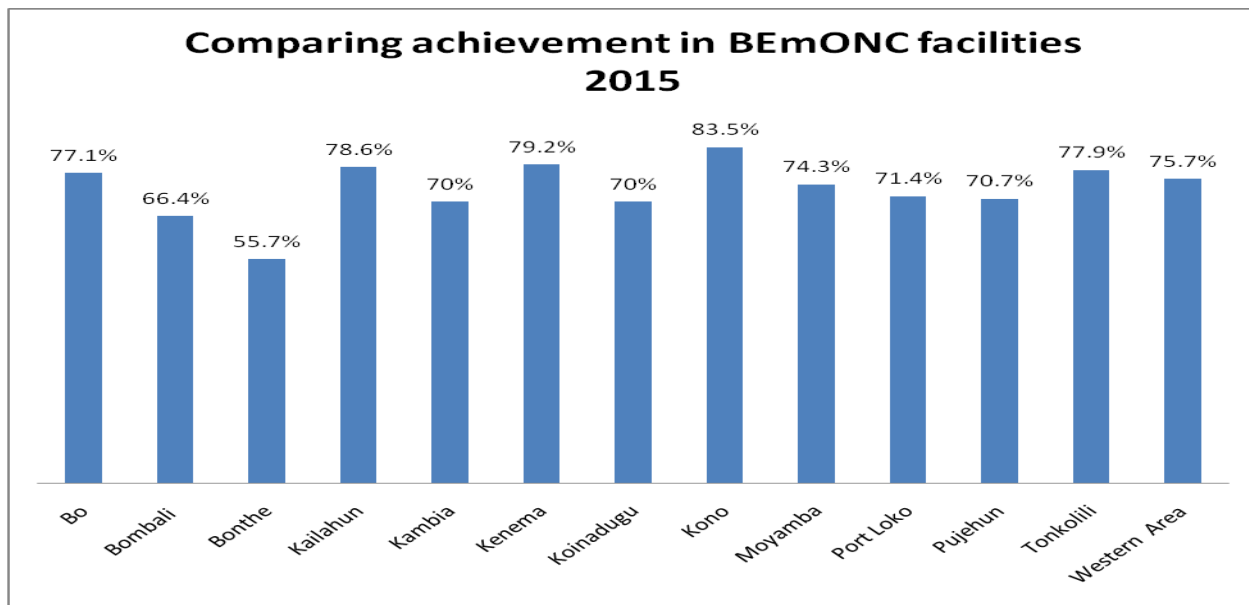
Figure 2 above, shows a gradual improvement made over the years since the commencement of the FIT process. However, a drop was observed in 2014 and 2015 which may be due to the Ebola virus disease (EVD) outbreak.

Figure 3: CEmONC Achievement Trends.



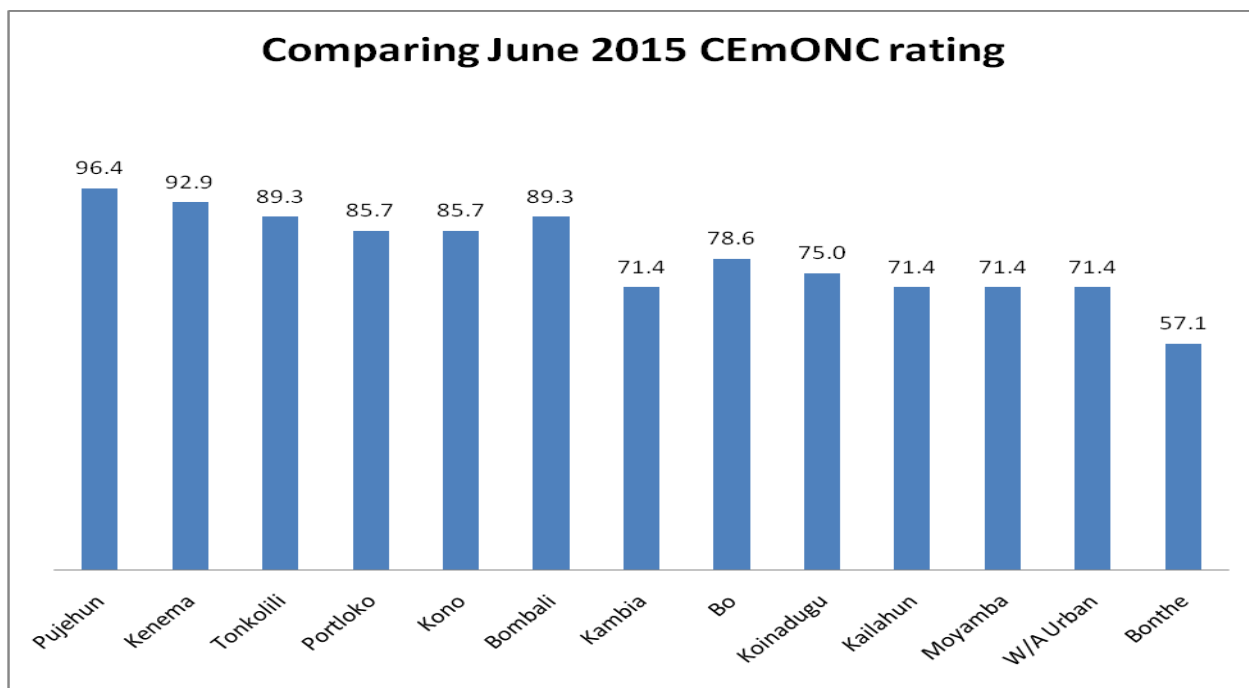
Among the CEmONCs a declining trend is also observed between 2014 and 2015 probably due to the EVD outbreak.

Figure 4: Performance by District among the BEmONCs, June 2015



The bar graph shows that Kono district has the highest score of 83.5%, whilst Bonthe has the least score of 55.7%.

Figure 5: Performance among CEmONCs, June 2015



Overall achievement in the CEmONCs as shown in Figure 5 indicates that Pujehun Maternity Hospital is leading with the highest score of 96.4%. Bonthe Hospital is the least performing with 57.1%.

3.2 Enabler Performance Rating

3.2.1 Water & Sanitation (WATSAN)

WATER and safe disposal of waste is crucial in the prevention and control of communicable diseases. The overall rating/achievement for water and sanitation is 73.8% for the BEmONCs and 80.8% for CEmONCs.

Among BEmONCs, Koinadugu and Kono districts have three facilities each that are compliant for WATSAN with none compliant in Kailahun, Pujehun, Tonkolili and Bonthe districts (see Figure 6) There is urgent need to restore WATSAN facility in these BEmONCs to enhance effective infection prevention and control for both staff and patients/client especially with the current Ebola outbreak.

Figure 6: Water and Sanitation Status in BEmONC Facilities

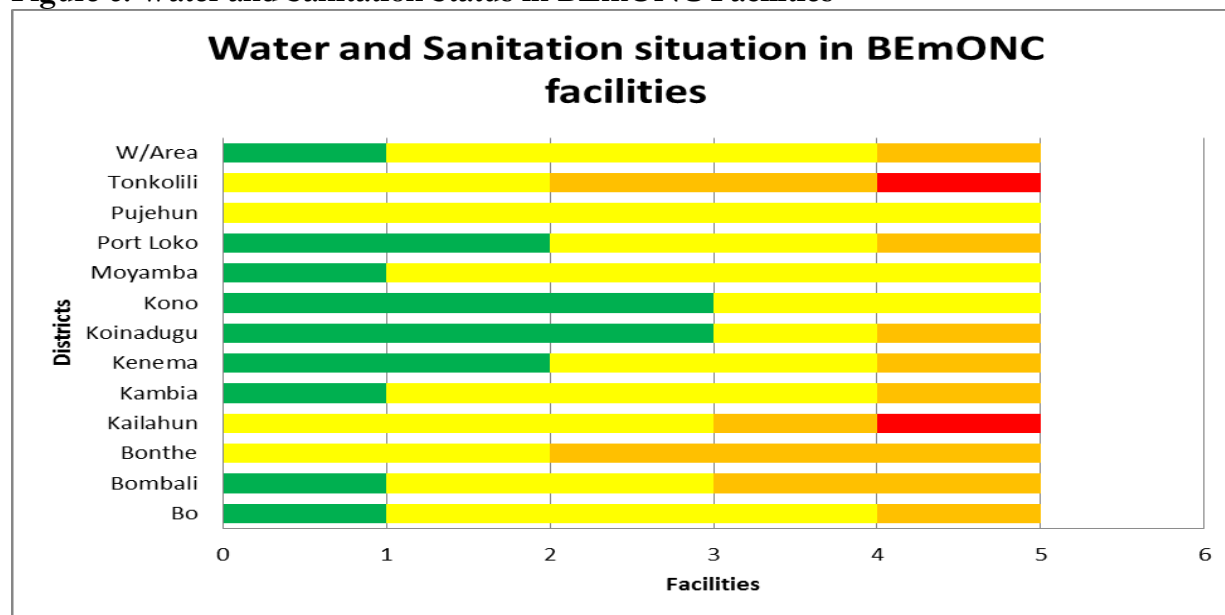


Table 2: Colour Coding for WATSAN in CEmONC Facilities

<i>Facility</i>	<i>Coding Status Attained</i>
Pujehun	Green
Kenema	Green
Tonkolili	Green
Portloko	Green
Kono	Green
Bombali	Yellow
Kambia	Green
Bo	Amber
Koinadugu	Yellow
Kailahun	Amber
Moyamba	Yellow
W/A Urban	Yellow
Bonthe	Amber

Table 2 shows the performance of CEmONC facilities in the various districts in terms of WATSAN readiness. Results show that six hospitals met all the requirements (Green); 4 hospitals met most of the criteria (Yellow) and three hospitals only partially met the criteria (Amber) for WATSAN. The

main challenge with this enabler is the lack of piped-borne water supply into the labour ward, toilet and theatre. There is a dire need to restore pipe borne water into Bo, Bonthe and Kailahun Government Hospitals.

3.2.2 Electricity

Figure 7: Electricity Situation in BEmONC Facilities.

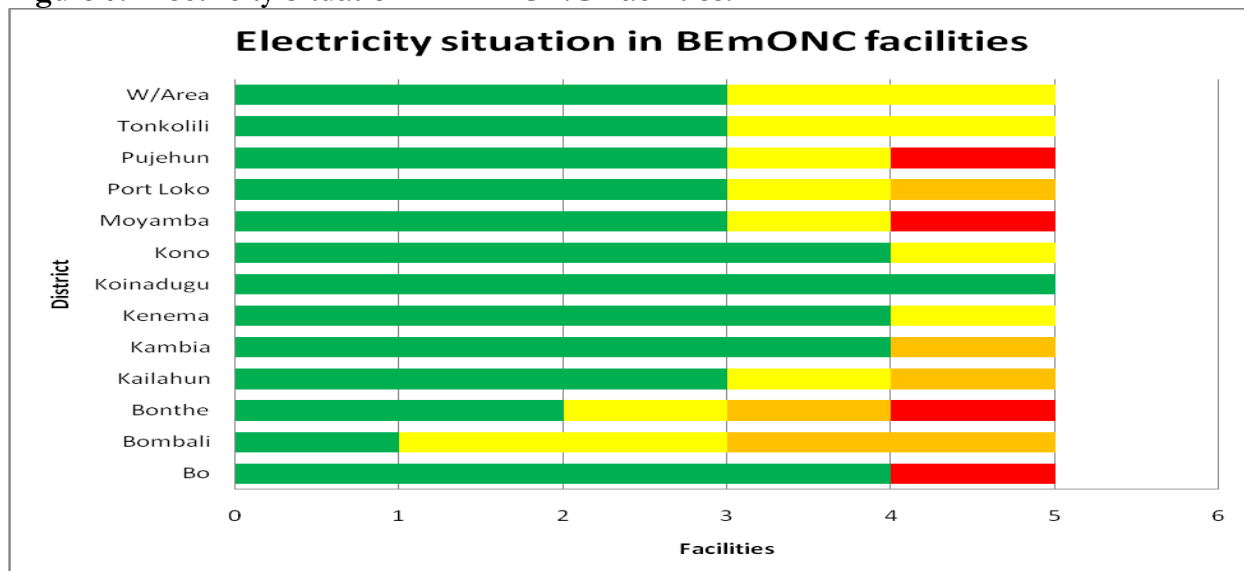


Figure 7 gives a picture of the power supply situation among BEmONC facilities. The main source of power supply for BEmONCs is primarily solar panels while generators and the national grid form the major sources of power supply for CEmONCs. The assessment showed that 85.8% and 90.4% of BEmONCs and CEmONCs have at least one source of electricity supply respectively. Only 64.6% of the BEmONCs and 76.9% of the CEmONC facilities met the criteria for electricity. Koinadugu is the only district with all five BEmONCs compliant in this enabler while four districts (Bo, Kambia, Kenema and Kono) have four BEmONCs each compliant in this enabler. Conversely, there are four facilities that are completely red and they include Zimmi CHC in Pujehun district; Ngalu CHC in Bo district; Shenge CHC in Moyamba district and Gambia CHC in Bonthe district..

Table 3: Status of Power in CEmONC Facilities

Hospital	Main source 24hrs (when needed available)	Second source	Coding
Makeni	1	1	2
Magburaka	0	1	1
Kabala	1	1	2
Kenema	1	1	2
Bonthe	0	0	0
Kailahun	1	1	2
Portloko	1	0	1
Pujehun	1	1	2
Bo	1	1	2
Moyamba	1	1	2
Kono	1	0	1
Kambia	1	1	2
PCM Hospital	1	1	2

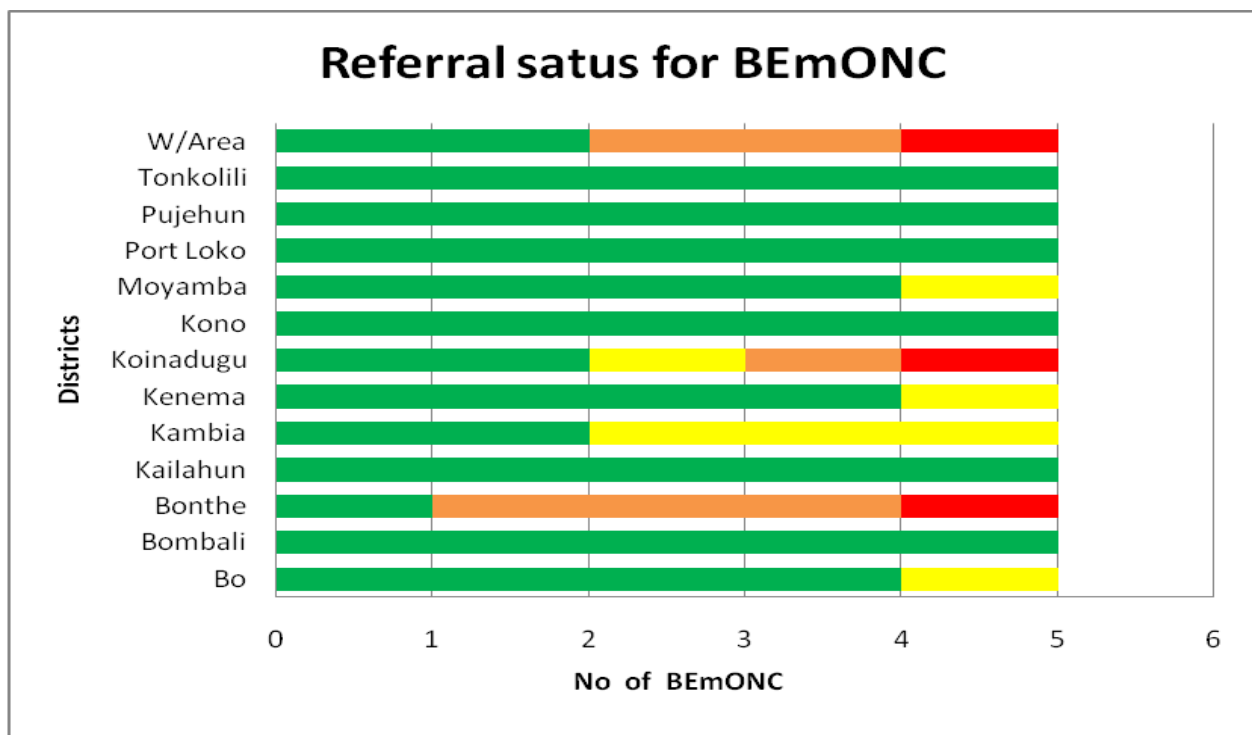
Table 3 shows that nine of the CEmONC facilities (76.9%) including Bo, Kabala, Kailahun, Kambia, Kenema, Makeni, Moyamba, Pujehun and PCMH met all the criteria for power supply (Green). With the exception of Bonthe (Red) which did not meet any of the criteria, the other three hospitals – Kono, Magburaka and Port Loko met most of the criteria for electricity supply (Yellow).

3.2.3 Referrals

THE overall rating for the referral enabler for both BEmONCs and CEmONCs is very good with 89.2% and 82.7% respectively. Among CEmONCs 83.3% have a 24 hours ambulance service and more than 91% met the response time of 3 hours for emergency referrals, dedicated staff to accompany the ambulance and a means of communication to call an ambulance. Kambia, Koinadugu and PCMH hospitals partially met the criteria (Amber) for this enabler whilst Koidu, Kailahun and Moyamba hospitals met most of the criteria (Yellow). Bo and PCM hospitals are in need of 24 hour ambulance and communication services. In the BEmONCs, 75.4% and CEmONCs 53.8% are compliant for referral.

Figure 8 indicates that all the BEmONCs in Tonkolili, Pujehun, PortLoko, Kono, Kailahun and Bombali districts are compliant for this enabler. Two facilities in Western Area and three in Bonthe districts only partially met the criteria (Amber). Bonthe, Koinadugu districts and Western Area have one facility each that did not meet any of the criteria (Red).

Figure 8: Referral Status in BEmONCs



3.2.4 Equipment for Special Procedures

HEALTH facilities need appropriate equipment to provide quality obstetric and new-born care at all times. This enabler combines both the availability of equipment and staff capacity to perform key life-saving procedures. Only one hospital (Pujehun Hospital) and nine BEmONCs are compliant for this enabler. The greatest challenge for the CEmONCs are shortage of equipment to perform assisted vaginal deliveries and basic equipment for routine care and the lack of chlorhexidine spray for cord care as shown in Figure 9.

Figure 9: Proportion of CEmONCs with Equipment to Perform Special and Routine Procedures

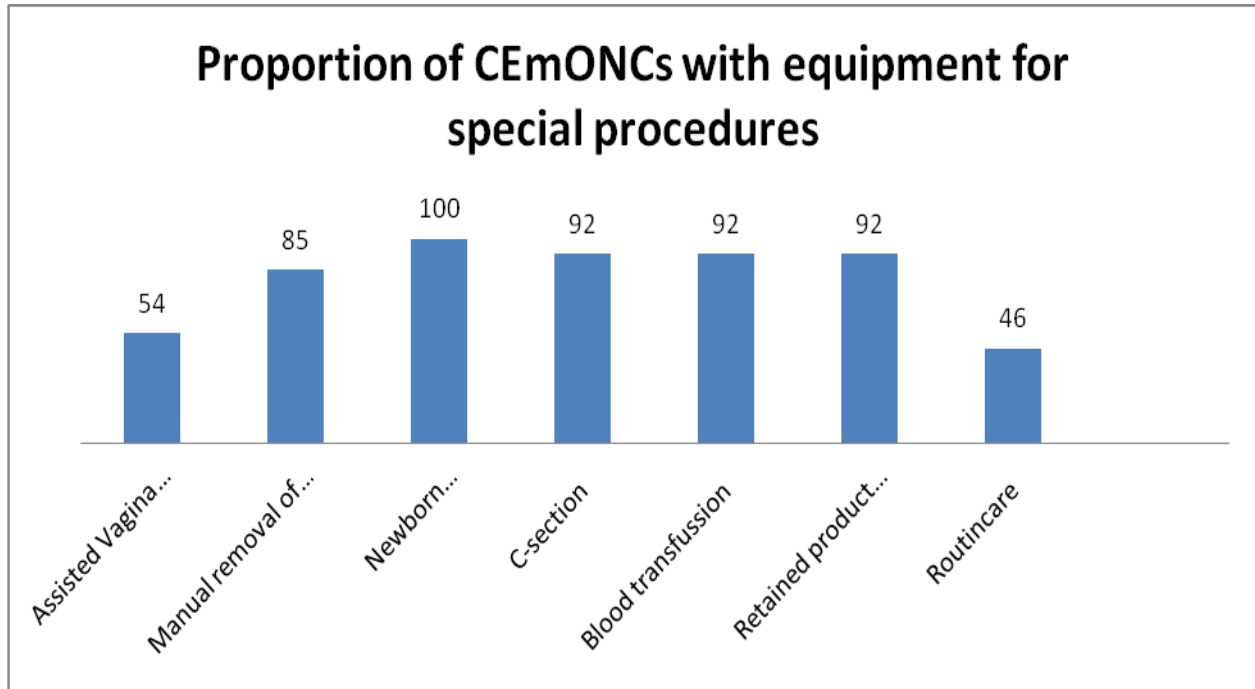


Figure 10: Equipment for Special Procedures in BEmONC Facilities

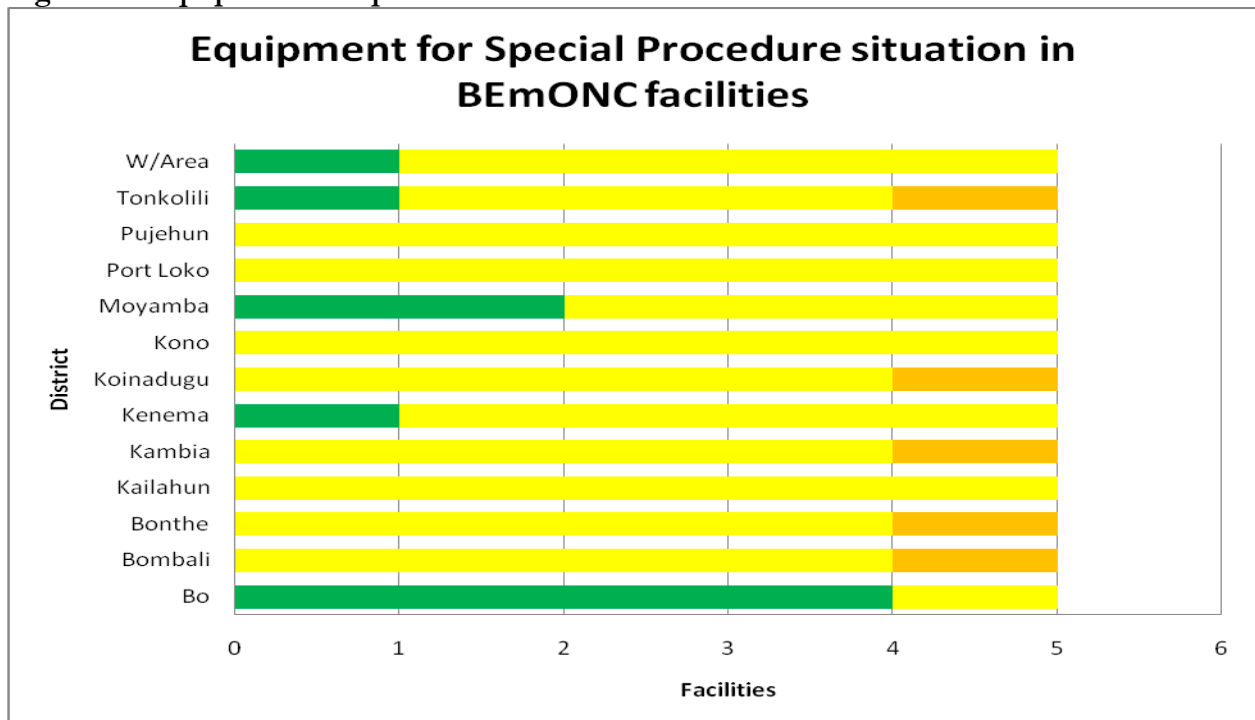


Figure 10 shows the availability of equipment for special procedures at BEmONC facilities. It can be deduced that most of the facilities have equipment for special procedures. Nine (9) out of the 65

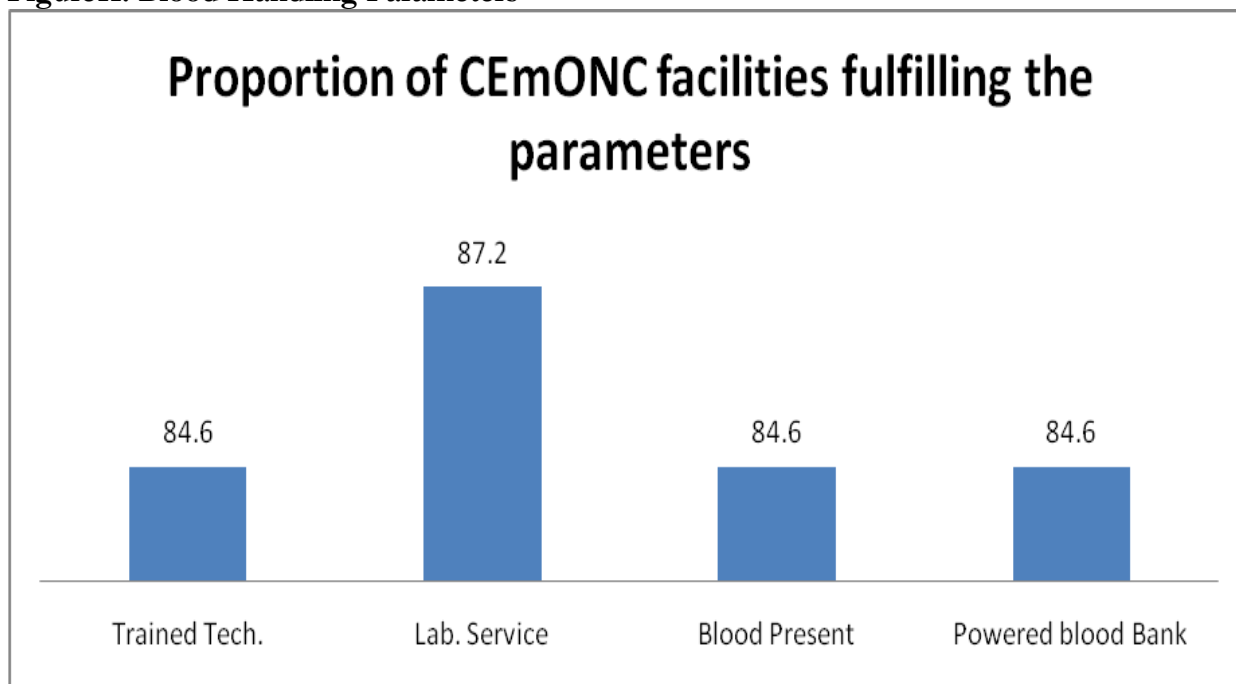
BEmONC facilities have all of the required equipment in the FIT Questionnaire (Green) with Bo having four out of the nine. The facilities are: Baoma Koya CHC in Kenema district, Ross Road CHC in the Western Area, Mile 91CHC in Tonkolili District, Sumbuya CHC, Koribondo CHC, Jembe CHC, and Dambala CHC in Bo district; Taiama CHC and Rotifunk CHC in Moyamba district. Seventy-eight percent of the other facilities met most of the criteria (Yellow).

3.2.5 Blood Handling and Laboratory

Laboratory services are generally poor in BEmONCs with an average score 48.8%. Only 6.2% of facilities met all criteria (Green). Two parameters were used to rate the laboratory in BEmONC which are: the availability of laboratory equipment and the presence of trained Laboratory Assistant/Technician to perform hematology, microscopy and biochemistry. Four parameters were used to rate laboratory and blood handling for CEmONC facilities; the availability of 24hrs powered blood bank, presence of blood in the blood bank and/or no reported stock out for the past three months and a full laboratory service with trained Lab Technician available 24hrs daily.

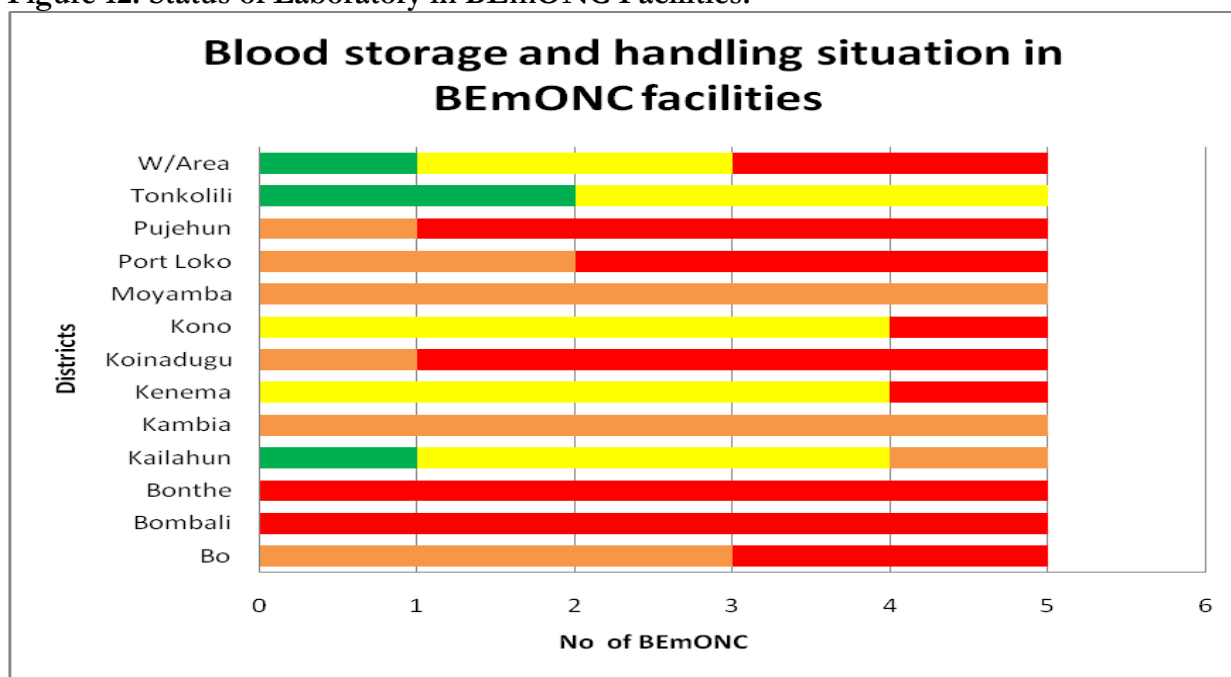
The performance of the CEmONCs in this enabler shows an overall score of 76.9% with 53.8% compliance. Seven (7) hospitals (Pujehun, Kenema, Magburaka, Port Loko, Koidu, Makeni and Bo) met all of the criteria scoring green. Bonthe and Moyamba Hospitals have the greatest challenge with blood storage and handling.

Figure11: Blood Handling Parameters



More than half of the BEmONCs scored red in laboratory services. Only Western Area (Regent CHC) Tonkolili (Bumbuna and Mile 91 CHCs) and Kailahun (Jojoima CHC) districts have BEmONCs that are compliant for laboratory services. Two districts- Bo and Bonthe have all of the BEmONCs rated red. Pujehun and Koinadugu districts had red in four and amber in one facility each (Fig 12).

Figure 12: Status of Laboratory in BEmONC Facilities.



3.2.6 Staffing

THE BPEHS, 2010 categorized the technical staff that should be available in a BEmONC and CEmONC facility. Staffing criteria for BEmONC are: there should be at least 1 Community Health Officer, 1 Midwife, 2 State Enrolled Community Health Nurses or Community Health Assistants, 3 Maternal and Child Health Aides and a Laboratory Technician/Assistant. For CEmONCs there should be: 2 Doctors capable of performing caesarian section, 4 Midwives, 10 State Registered Nurses (SRN) or State Enrolled Community Health Nurses (SECHN), 2 Pharmacists/Technician, 2 Lab Technicians and 1 Nurse Anaesthetist. The composite score for staffing is 59.6 % for BEmONCs and 80.8% for the CEmONCs. Further analyses show that 10.8% and 30.8% of BEmONCs and CEmONCs met the criteria on staffing respectively. Pujehun, Kenema, Bombali and PCMH are rated green for this enabler.

In this assessment, no district has all the required number of health staff in the five BEmONC facilities. Table 4 shows the total number of staff per cadre available in the districts and the number needed to fill the gaps. All districts have the required number of CHOs except Bonthe that has three CHOs. Community Health Officers are not available at Yoni and Bendu CHCs. Five midwives are needed to fill the current gap in Bonthe, Bo, Kailahun, Kenema and Tonkolili districts for BEmONCs and CEmONCs. The greatest gap on staffing is lack of the required SECHN/CHA, MCH Aides and laboratory Technician/Assistants. A total of 51 SECHN/CHAs, 91 MCH Aides and 25 laboratory Technician/Assistants are needed to meet the staffing criteria for BEmONCs. Interestingly, Western Area is over staffed with SECHNs whilst the districts are in need of them. Kono is the only district without SECHN/CHA in any of the BEmONCs. A visible gap is also noted for the MCH Aide cadre. To fully address this gap, 91 MCH Aides should be distributed in all the BEmONCs. Two districts (Kambia and Port Loko) are without Laboratory Technician/Assistant in their BEmONC facilities. Four districts; Kenema, Tonkolili, Pujehun and Western Area met the required number for Laboratory Tech/Assistants. To fully satisfy the standards for this cadre MoHS would need to train and deploy 25 laboratory personnel. In Table 4,

note that the colour codes are used to indicate areas of priority. Green denotes meeting the required number of staff, yellow denotes not meeting the required number and red the gaps to be filled.

Table 4: Status of Staffing in BEmONCs per District

District	CHO (1 per CHC = 5)		Midwife (1 per CHC = 5)		SECHN/CHA (2 per CHC = 10)		MCHA (3 per CHC = 15)		Lab Assist (1 per CHC = 5)	
	Available	Gap	Available	Gap	Available	Gap	Available	Gap	Available	Gap
Bo	8	0	4	1	9	1	12	3	1	4
Bombali	5	0	5	0	4	6	4	11	2	3
Bonthe	3	2	4	1	3	7	4	11	2	3
Kailahun	6	0	4	1	11	0	8	7	4	1
Kambia	5	0	5	0	1	9	9	6	0	5
Kenema	5	0	4	1	11	0	5	10	7	0
Koinadugu	5	0	5	0	4	6	3	12	3	2
Kono	5	0	5	0	0	10	7	8	4	1
Moyamba	5	0	5	0	7	3	14	1	4	1
Port Loko	5	0	5	0	8	2	8	7	0	5
Pujehun	5	0	5	0	6	4	10	5	5	0
Tonkolili	5	0	4	1	7	3	5	10	7	0
Western Area	11	0	8	0	59	0	27	0	9	0
Total Needed		2		5		51		91		25

Table 5 shows the situation of required technical staff in the CEmONCs as at July, 2015. All districts have the required number of doctors that can perform C/S except Bonthe and Kambia that have only one each. Nationally, there are 14 midwives needed to fill the gap. Bombali, Western Area, Bo and Kenema districts met the criteria for midwives. The current number of SRN and SECHN combined nationally are enough to meet the standards for these cadres in the CEmONCs. There is high concentration in Bo, Moyamba and Kenema leaving gaps in Bonthe, Pujehun, Kono, Kambia and Koinadugu. Equal deployment of these staff will go a long way not only to address the gaps in the CEmONC but also in the BEmONCs where SECHNs are also needed.

Bonthe hospital is the only facility without a Pharmacy Technician whilst in Kailahun, Koinadugu, Bo and Pujehun additional deployment of one each is required. All districts are rated green for Laboratory Technician except Koinadugu and Bonthe which requires deployment of one and two additional personnel respectively. Nurse Anesthetists are present in all the CEmONCs except Bonthe district.

Table 5: Status of Staffing in CEmONC Facilities¹

	Doctors		Midwives		SRN/SECHN		Pham. Tech		Lab. Tech.		Nurse Anaesthetist	
	Available	Gap	Available	Gap	Available	Gap	Available	Gap	Available	Gap	Available	Gap
Bombali	4	0	6	0	29	0	5	0	21	0	3	0
Tonkolili	3	0	2	2	26	0	3	0	3	0	2	0
Koinadugu	3	0	3	1	9	1	1	1	1	1	1	0
Kenema	4	0	10	0	45	0	2	0	32	0	4	0
Bonthe	1	1	1	3	7	3	0	2	0	0	0	1
Kailahun	2	0	2	2	37	0	1	1	6	0	0	1
Portloko	2	0	3	1	10	0	2	0	5	0	1	0
Pujehun	2	0	3	1	8	2	1	1	2	0	1	0
Bo	2	0	4	0	21	0	1	1	16	0	1	0
Moyamba	2	0	3	1	44	0	2	0	8	0	1	0
Kono	3	0	2	2	9	1	2	0	10	0	1	0
Kambia	1	1	3	1	8	2	4	0	3	0	2	0
PCMH	8	0	36	0	120	0	9	0	20	0	13	0
Total Needed		2		14		9		6		1		2

3.2.7 Drugs and medical supplies

FIFTEEN products have been identified to be needed and available in the health facilities at all times. These are monitored as tracers - an indicator of quality in-terms of the availability of drugs. Among these, there are four lifesaving EmONC drugs: Calcium Gluconate, Magnesium Sulphate, Parenteral Antibiotics and Oxytocin. The criteria to rate drugs and supplies are the availability of 3 and 2 months' supply of the 15 tracer drugs for CEmONCs and BEmONCs respectively plus the presence of appropriate storage facilities and cold chain storage of Oxytocin. The total scoring for drugs and supplies in the BEmONCs and CEmONCs are 78.1% and 75% respectively. However, only 32.3% of BEmONCs and 7.7% of CEmONCs are compliant for this enabler. Koidu Hospital is the only facility that meets this enabler. Figure 13 shows that only 25% of the BEmONCs have all the tracer drugs plus IV/IM Ampicillin, Gentamycin and Calcium Gluconate.

¹ Standard: 2 Doctors, 4 Midwives, 10SRN/SECHN, 2 Pharmacist/technician/assistant, 2 Lab technicians, 1 Nurse Anaesthetist

Figure 13: Proportion of BEmONCs Meeting Parameters for Drugs and Supplies

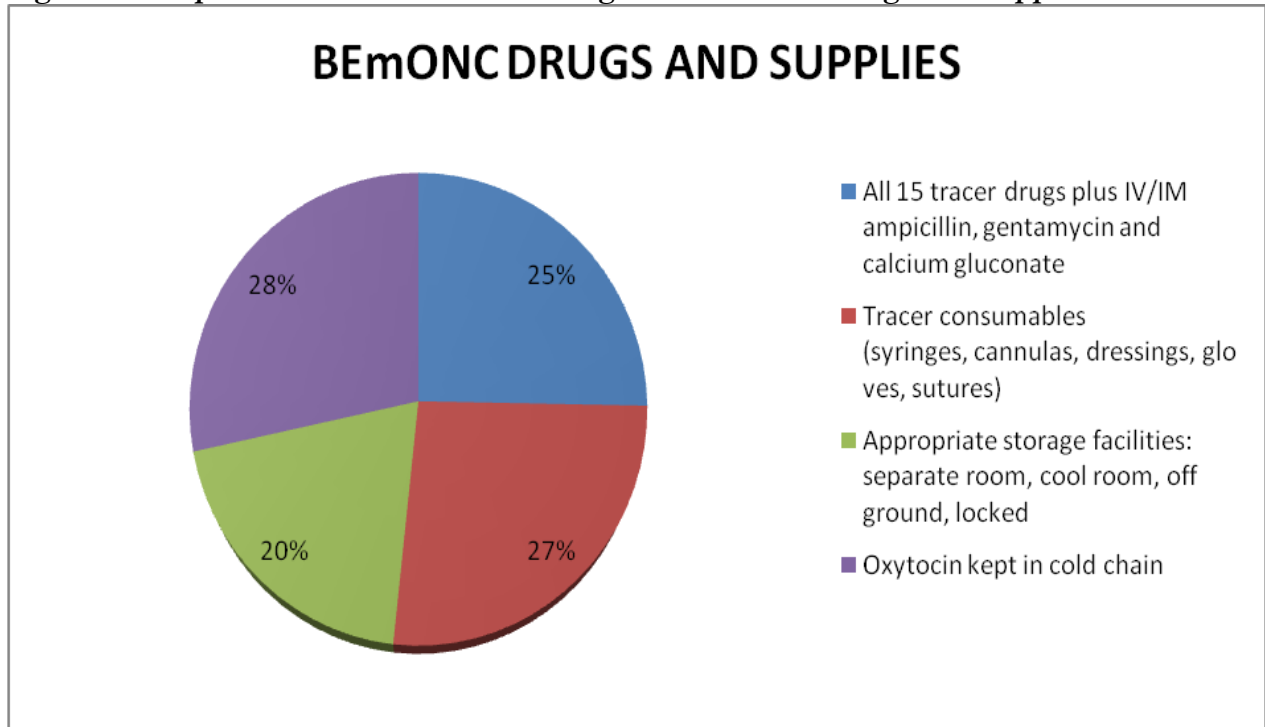
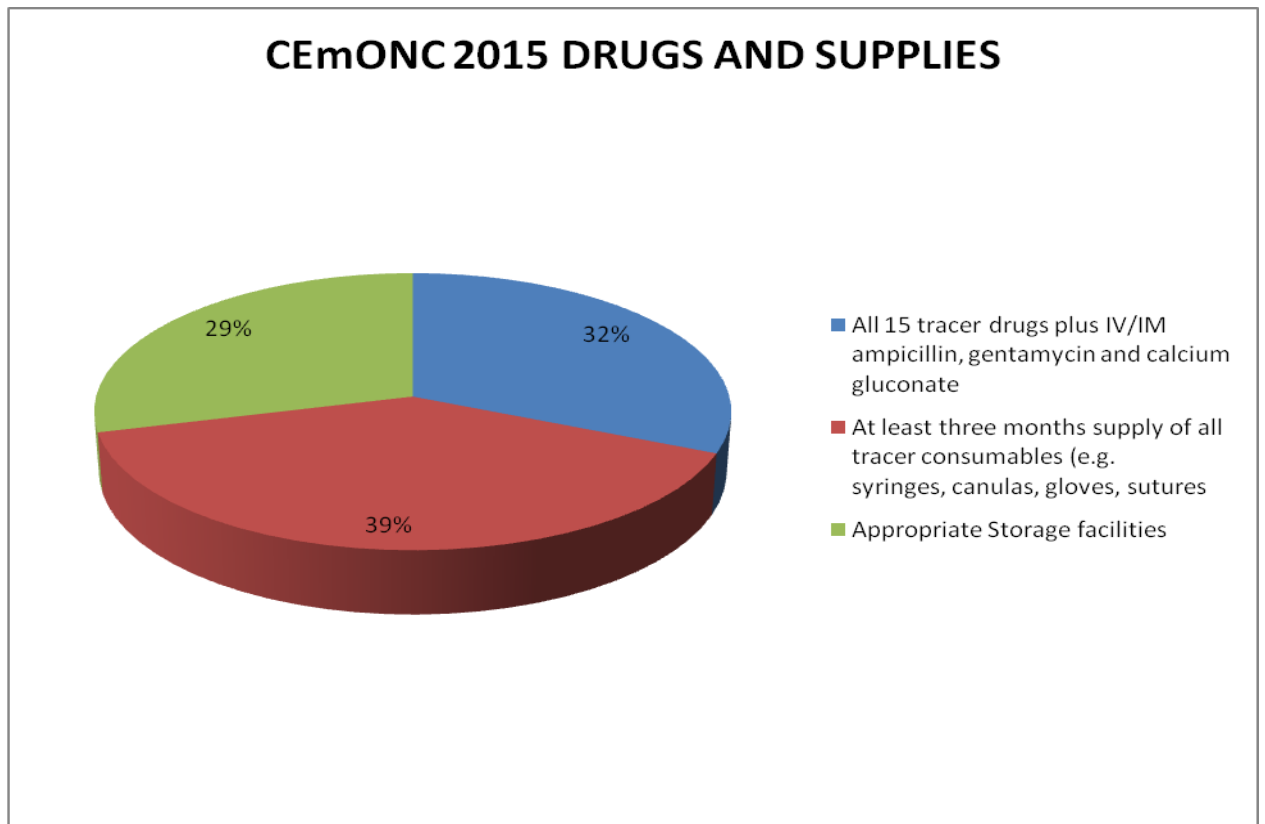


Figure 14: Proportion of CEmONCs Meeting Parameters for Drugs and Supplies



4.0 EXPANDED ITEMS

4.1 Normal Deliveries and C-Sections

Figure 15: Normal Deliveries and C-Sections Conducted at CEmONC Facilities December 2014- May 2015

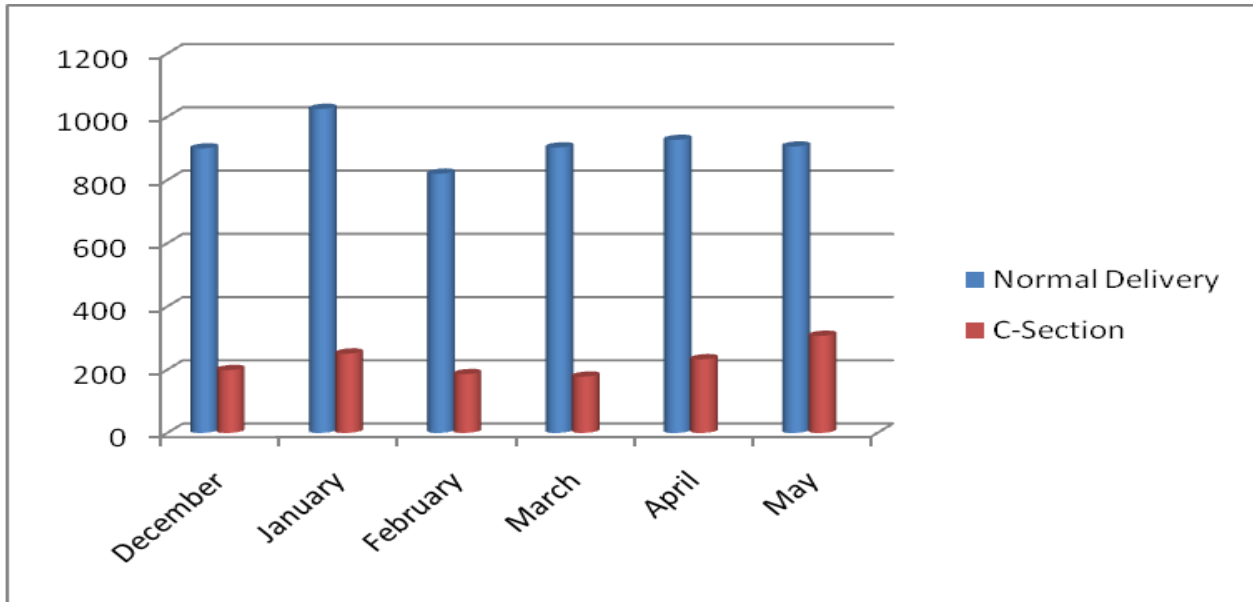


Figure 15 shows a marked increase from December 2014 to January 2015 for normal deliveries. However, there has been an observable drop afterwards, with February recording the least number of normal deliveries. The number of C-sections fluctuated in the last six months with the highest and lowest operations in May and March respectively.

Figure 16: Normal Deliveries Conducted in BEmONC Facilities from December 2014 – May 2015.

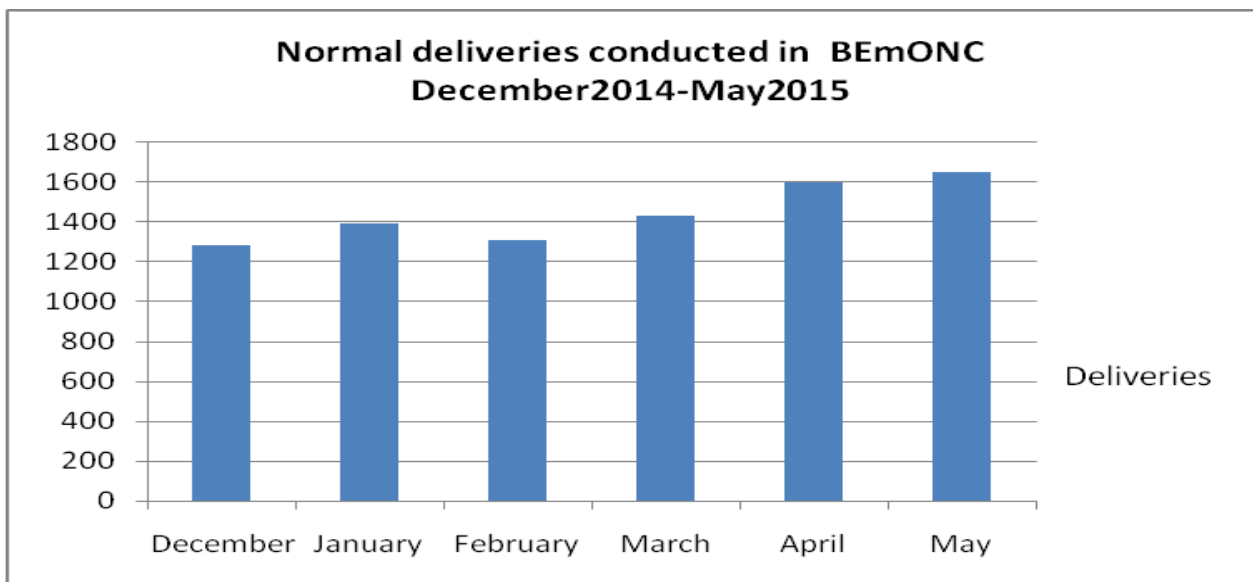


Figure 16 shows the number of normal deliveries conducted at the BEmONCs during the period under review. The results show an initial increase from December 2014 to January 2015, but a drop from January to February in the same year. However, the number of deliveries had since seen a steady increase from February through May. The data reveal a pattern in the number of deliveries conducted with similar results in batches of two months with the lowest number of deliveries conducted in December and February, and the highest in April and May.

Figure 17: Recorded Maternal Deaths and Stillbirths at CEmONC Level

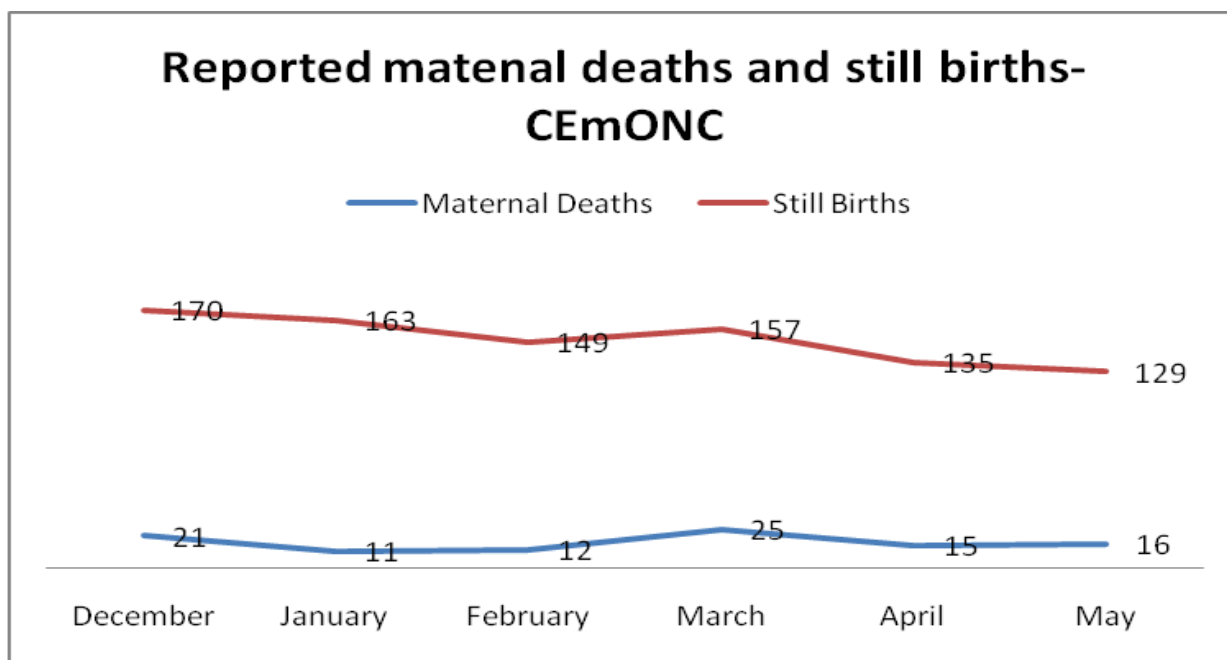


Figure 17 shows the number of maternal deaths and still births recorded at the sampled CEmONC facilities during the period under review. The total number of recorded maternal deaths and still births in CEmONC facilities between December 2014 and May 2015 was 100 and 903 respectively. The highest maternal deaths took place in March (25 deaths) while the highest still births was recorded in December 2014. Although there have been fluctuations (rising and falling) of death cases, however, there was a steady decrease in deaths (maternal and still births) from March to May within the same year. However, it is worth noting that the questionnaire did not capture the causes of maternal death.

Figure 18 shows the distribution of maternal deaths in hospital during the period under review. Of the total recorded deaths, Bo Hospital recorded the highest deaths followed by Magburaka Hospital. Deaths were also high in Kambia, Kenema, Makeni and Kabala Hospitals. PCMH reported 3 maternal deaths, Pujehun recorded 2 and Port Loko recorded 1. Bonthe Hospital is the only district with no recorded maternal death.

Figure 18: Distribution of Maternal Deaths by CEmONCs in Proportion of Total Deaths

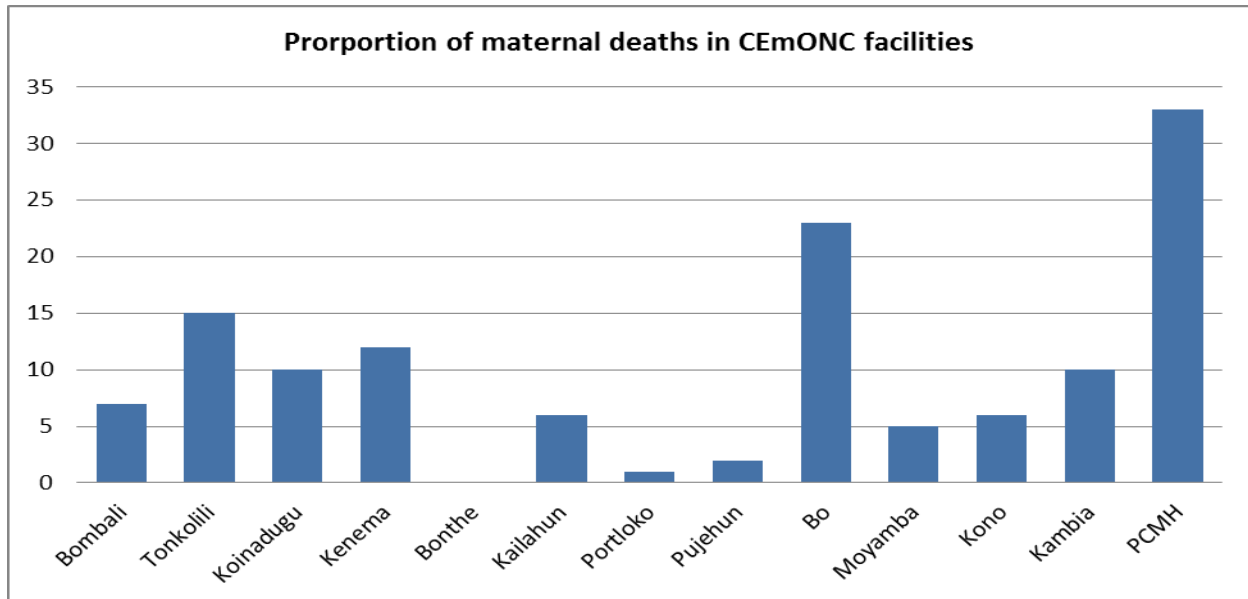
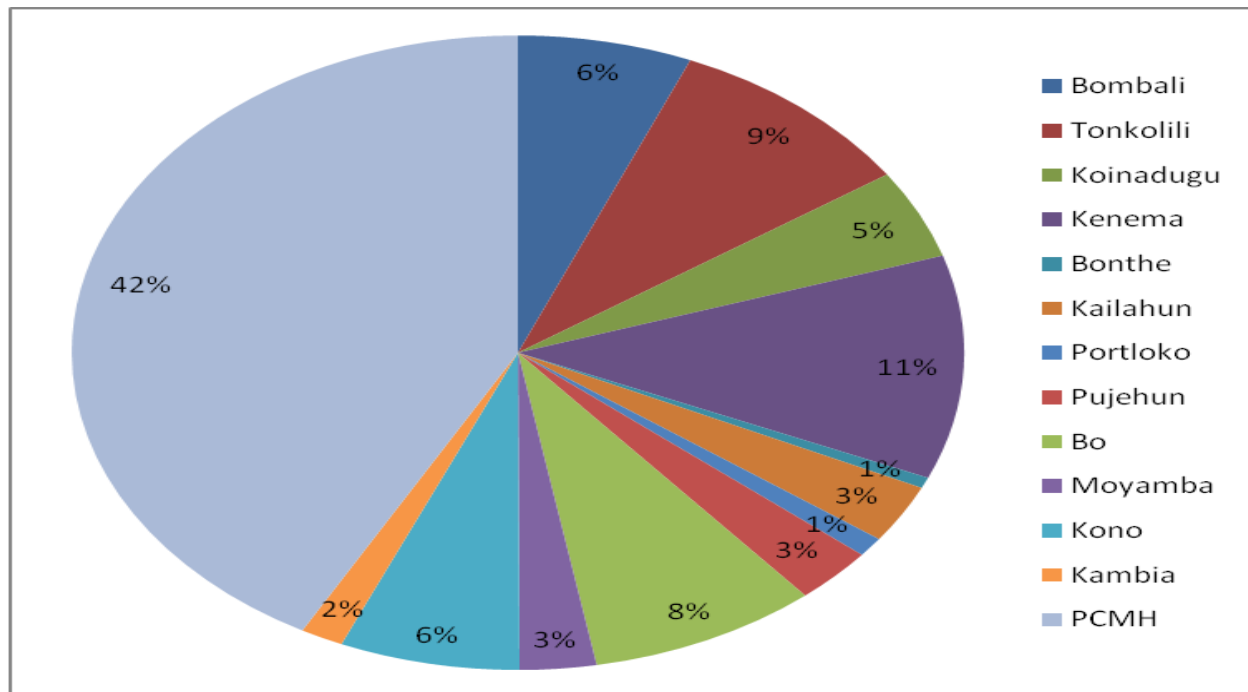
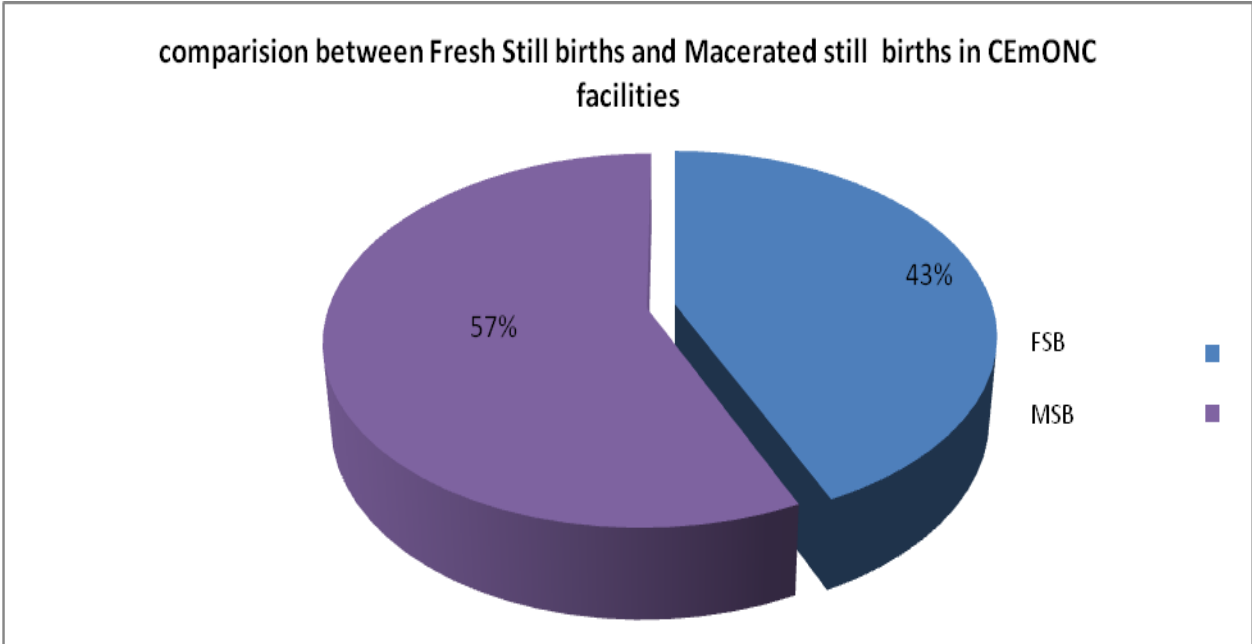


Figure 19: Percentages of Reported Stillbirths



There were also 903 recorded cases of stillbirths across the sampled facilities. Figure 19 above shows the distribution of stillbirths by hospital. PCMH recorded the highest number of deaths (42%) followed by Kenema Hospital with 11%. Two districts including Bonthe recorded only 1% of still births.

Figure 20: Comparison between FSB and MSB in CEmONC



The above result shows that there were more macerated still births than fresh still births. PCMH recorded the highest number of macerated and fresh still births.

5.0 CONCLUSIONS AND RECOMMENDATIONS

1. Access to portable water all year round and proper sanitation is crucial for proper infection prevention and control. There is urgent need to provide pipe-borne water and adequate sanitation in Gbangbatoke and Goderich facilities.
2. Strengthening laboratory services at the BEmONC level by providing appropriate reagents and capacity building for lab personnel to be able to perform hematology, microscopy and biochemistry.
3. Equip health facilities with the required equipment to carry out life-saving procedures.
4. DHMTs should continuously engage Local Councils, NGOs and other stakeholders to support the respective districts in addressing gaps identified in each of the 78 facilities.
5. The MoHS and its partners should invest in training, employing and posting more technical staff to the health facilities and provide appreciable remote allowance and accommodation among other incentives. The MoHS should consider the redistribution of health workers from districts that are overstaffed to poorly staffed districts.
6. The MoHS to extend the Performance Based Financing scheme to health facilities that become EmONC compliant to motivate others and to sustain those who have already attained EmONC status.
7. The MoHS should pay much attention to upgrading health facilities to EmONC status to enhance quality service delivery
8. The MoHS and partners should convene a meeting that will bring together all line ministries, partners, Local councils and other key stakeholders to discuss a more sustainable way of making facilities EmONC compliant
9. In view of the high maternal and neonatal death, there is an urgent need to strengthen the maternal death reviews in all districts to provide feasible and pragmatic solutions to mitigate this trend.

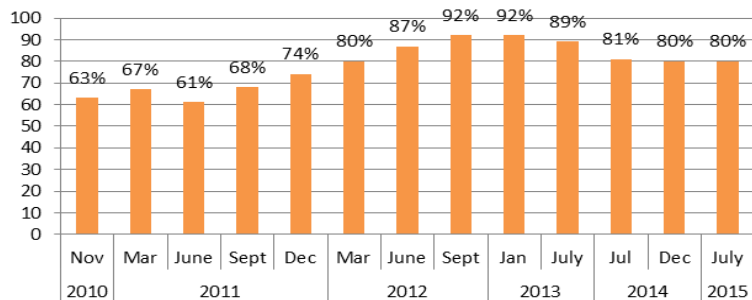
Annex 1: July 2015 CEmONC Ranking

Progress of selected Government Hospitals in achieving comprehensive emergency obstetric & neonatal care (CEmONC) status, July 2015

The Facility Improvement Team (FIT) assessments score selected health facilities, including Government Hospitals, on their readiness to provide quality EmONC based on whether they meet certain criteria for each of seven enablers ranging from water and sanitation to essential drugs. See over page for the details of these criteria. The criteria for a hospital are different to a community health centre (CHC) because hospitals are expected to perform complicated deliveries that need instrumental or operative procedures. Each facility is scored using the same traffic light colour system for each enabler as described on the scorecard for hospitals.

Performance rating	Score	Facility has:
	Green 4	Met all criteria
	Yellow 3	Mostly met criteria
	Orange 2	Partially met criteria
	Red 1	Not met criteria

CEmONC Trend 2010-2015










Each facility is given an overall score. The image to the left shows the progress for all hospitals since the FIT assessments started, based on the total scores of all enablers of the hospitals together (and expressed as a percentage).

See below for more details of how each hospital performed for each enabler using the traffic light rating and how each hospital ranked among all the hospitals assessed under the FIT.

For more details, contact : Dr Santigie Sesay Director, Reproductive & Child Health, MoHS Sierra Leone; sanniesay@gmail.com

FACILITY PERFORMANCE AGAINST ENABLERS								
	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Pujehun Govt. Hospital	1 st							
Kenema Govt. Hospital	2 nd							
Magbaruka Govt. Hosp	3 rd							
Makeni Govt. Hospital	3 rd							
Port Loko Govt. Hospital	4 th							
Koidu Govt. Hospital	4 th							
Bo Govt. Hospital	5 th							
Kabala Govt. Hospital	6 th							
Kambia Govt Hospital	7 th							
Kailahun Govt. Hospital	7 th							
Moyamba Govt. Hospital	7 th							
PCM . Hospital	7 th							
Bonthe Govt. Hospital	8 th							

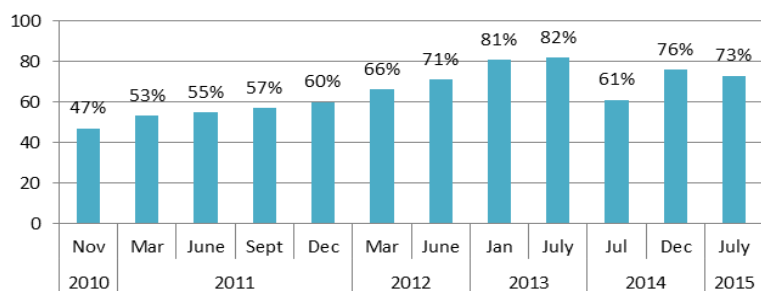
ENABLER	CRITERIA TO ACHIEVE GREEN STATUS FOR HOSPITALS
 <p>Water & Sanitation</p>	<p>Water supply needs to be:</p> <ul style="list-style-type: none"> • Safe (i.e. drinkable) • Piped and available in labour room, theatre toilet • Available 24 hours a day • Effectively drained from the facility • Functional hand washing facilities available in the labour ward, theatre & toilet <p>Waste disposal:</p> <ul style="list-style-type: none"> • Incinerator available • Waste bins for dry and wet waste with cover • Functional autoclave
 <p>Electricity</p>	<p>Main source: Solar, Generator or Central Power that is available 24 hours daily, when needed</p> <p>Second source: available in labour room and operating theatre (minimum)</p>
 <p>Referrals</p>	<p>Transportation:</p> <ul style="list-style-type: none"> • Availability of functional ambulance 24 hours daily • Response time to PHU and back within 3 hours. • Dedicated medical personnel to accompany ambulance <p>Communication:</p> <ul style="list-style-type: none"> • Communications with cellular phone or VHF radio • 24 hour availability of communication
 <p>Equipment for special procedures</p>	<p>Availability of functional equipment for the following procedures :</p> <ul style="list-style-type: none"> • Assisted vaginal delivery • Manual removal of placenta • Resuscitation • Caesarean section • Blood transfusion • Routine care • Removal of retained product of conception.
 <p>Blood storage & handling & laboratory</p>	<p>Facility needs to have:</p> <ul style="list-style-type: none"> • 24 hour powered blood bank (central power, generator, solar) • Blood present in the blood bank and / or no stock out for the past three months • Full laboratory service • Trained Lab Technician available 24 hours daily.
 <p>Staffing</p>	<p>Staff to include at least:</p> <ul style="list-style-type: none"> • 2 Doctors able to perform caesarean section (operative delivery) • 4 Midwives • 10 SRN/ SECHN • 2 Pharmacist / Technician / Assistant • 2 Lab Technician • 1 Nurse Anaesthetist • 5 Porters and/or Cleaners • 2 Ambulance drivers <p>Plus</p> <p>Staff able to perform all procedures: manual vacuum extraction, removal of placenta, removal of products of conception, resuscitation.</p>
 <p>Drugs</p>	<p>At least a three month supply of:</p> <ul style="list-style-type: none"> • All 16 tracer drugs plus IV/IM ampicillin, gentamycin and calcium gluconate; • At least three months' supply of all Tracer consumables (e.g. syringes, cannulae, gloves, sutures) • Appropriate storage facilities: separate room, cold room, off-ground, locked.

Annex 2: July 2015 BEmONC Ranking

Progress of selected Government Hospitals in achieving basic emergency obstetric & neonatal care (BEmONC) status, July 2015

The Facility Improvement Team (FIT) assessments score selected health facilities, including Community Health Centres (CHCs), on their readiness to provide quality EmONC based on whether they meet certain criteria (see back) for each of seven enablers ranging from water and sanitation to essential drugs. The criteria for a CHC is different to a hospital because CHCs are not expected to perform complicated deliveries that need instrumental or operative procedures. Each facility is scored using the same traffic light colour system for each enabler as described on the scorecard for hospitals.

BEmONC Trend 2010-2015



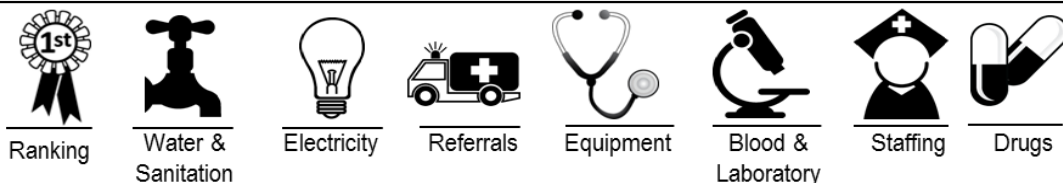
Performance rating	Score	Facility has:	
	Green	4	Met all criteria
	Yellow	3	Mostly met criteria
	Orange	2	Partially met criteria
	Red	1	Not met criteria

Each facility is given an overall score. The image above shows the progress since the FIT assessments started based on the total scores of all enablers of the CHCs together and expressed as a percentage. Data from September 2012 are excluded as only 26 facilities that fell under the President's Performance Contract were assessed in the rainy season.

See below for more details of how each CHC performed for each enabler using the traffic light rating and how each CHC ranked among all the CHCs assessed under FIT.

For more details, contact Dr. Santigie Sesay, Director, Reproductive & Child Health, MoHS Sierra Leone; sanniesay@gmail.com

FACILITY PERFORMANCE AGAINST ENABLERS



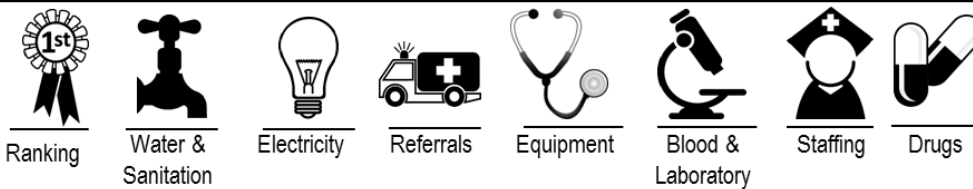
Kono District, ranked 1st among all districts (overall score 83.6%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Sewafe CHC	3 rd							
Kayima CHC	3 rd							
Kangama CHC	6 th							
Gandorhun CHC	2 nd							
Kombayendeh CHC	4 th							

Kenema District, ranked 2nd among all districts (overall score 79.3%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Baoma CHC	8 th							
Joru CHC	4 th							
Gegbwema CHC	4 th							
Largo CHC	4 th							
Levuma CHC	4 th							

FACILITY PERFORMANCE AGAINST ENABLERS



Kailahun District, ranked 3rd among all districts (overall score 78.6%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Pendembu CHC	4 th	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow
Daru CHC	4 th	Red	Green	Green	Yellow	Yellow	Green	Green
Jojoima CHC	4 th	Yellow	Yellow	Green	Yellow	Green	Green	Orange
Koindu CHC	6 th	Orange	Green	Green	Yellow	Orange	Yellow	Yellow
Beudu CHC	7 th	Yellow	Orange	Green	Yellow	Yellow	Yellow	Orange

Tonkolili, ranked joint 4th among all districts (overall score 77.9%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Mile 91 CHC	2 nd	Yellow	Yellow	Green	Green	Green	Yellow	Green
Bumbuna CHC	3 rd	Orange	Green	Green	Yellow	Green	Green	Yellow
Massingbi CHC	5 th	Yellow	Green	Green	Orange	Yellow	Yellow	Yellow
Makali CHC	7 th	Orange	Yellow	Green	Yellow	Yellow	Orange	Yellow
Yele CHC	9 th	Red	Green	Green	Yellow	Yellow	Red	Orange

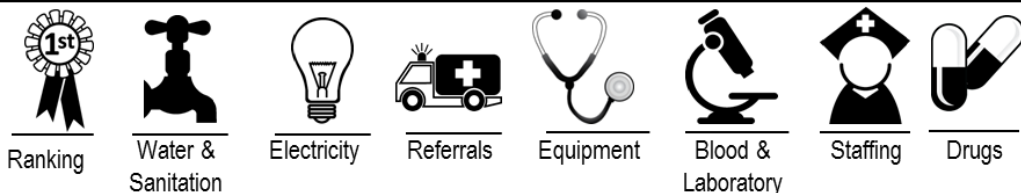
Bo District, ranked joint 5th among all districts (overall score 77.1%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Sumbuya CHC	3 rd	Green	Green	Green	Green	Orange	Orange	Green
Koribondu CHC	4 th	Yellow	Green	Green	Green	Orange	Orange	Green
Jembe CHC	5 th	Yellow	Green	Green	Green	Red	Orange	Green
Dambala CHC	5 th	Yellow	Green	Green	Green	Red	Orange	Green
Ngalu CHC	10 th	Orange	Red	Yellow	Yellow	Orange	Orange	Green

Western Area, ranked joint 6th among all districts (overall score 75.7%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Ross Road CHC	1 st	Green	Green	Green	Green	Yellow	Green	Green
Waterloo CHC	3 rd	Yellow	Green	Green	Yellow	Yellow	Green	Yellow
Regent CHC	4 th	Orange	Green	Orange	Yellow	Green	Green	Green
Hastings CHC	11 th	Yellow	Yellow	Red	Yellow	Red	Orange	Yellow
Goderich CHC	11 th	Yellow	Yellow	Orange	Yellow	Red	Orange	Orange

FACILITY PERFORMANCE AGAINST ENABLERS



Moyamba District, ranked 7th among all districts (overall score 74.3%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Taiama CHC	3 rd	Green	Green	Green	Green	Orange	Orange	Green
Shenge CHC	10 th	Yellow	Red	Yellow	Yellow	Orange	Orange	Yellow
Rotifunk CHC	7 th	Yellow	Yellow	Green	Green	Orange	Orange	Orange
Moyamba Junction CHC	5 th	Yellow	Green	Green	Yellow	Orange	Orange	Green
Gbangbatuke CHC	6 th	Yellow	Green	Green	Yellow	Orange	Orange	Yellow

Port Loko District, ranked 8th among all districts (overall score 71.4%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Petifu CHC	6 th	Yellow	Green	Green	Yellow	Red	Orange	Yellow
Masiaka CHC	7 th	Green	Yellow	Green	Yellow	Red	Orange	Yellow
Mange CHC	7 th	Yellow	Green	Green	Yellow	Red	Orange	Yellow
Rogbere CHC	7 th	Green	Orange	Green	Yellow	Orange	Orange	Yellow
Lunsar CHC	8 th	Orange	Green	Green	Yellow	Red	Orange	Yellow

Pujehun District, ranked 9th among all districts (overall score 70.9%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Zimmi CHC	9 th	Yellow	Red	Green	Yellow	Orange	Orange	Yellow
Sahn CHC	8 th	Yellow	Yellow	Green	Yellow	Red	Orange	Yellow
Potoru CHC	7 th	Yellow	Green	Green	Yellow	Red	Orange	Yellow
Bumpeh CHC	6 th	Yellow	Green	Green	Yellow	Red	Orange	Green
Gbondapi CHC	6 th	Yellow	Green	Green	Yellow	Red	Orange	Green

Koinadugu District, ranked 10th among all districts (overall score 70.0%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Sinkunia CHC	4 th	Green	Green	Green	Yellow	Orange	Yellow	Yellow
Kondembaya CHC	6 th	Green	Green	Green	Yellow	Red	Orange	Yellow
Yiffin CHC	7 th	Yellow	Green	Yellow	Yellow	Red	Orange	Green
Krubola CHC	9 th	Green	Green	Red	Yellow	Red	Red	Green
Mongo CHC	11 th	Orange	Green	Orange	Orange	Red	Yellow	Orange

FACILITY PERFORMANCE AGAINST ENABLERS



Ranking



Water & Sanitation



Electricity



Referrals



Equipment



Blood & Laboratory



Staffing



Drugs

Kambia District, ranked 10th among all districts (overall score 70.0%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Mambolo CHC	8 th	Orange	Green	Yellow	Yellow	Orange	Orange	Yellow
Kukuna CHC	7 th	Yellow	Green	Yellow	Yellow	Orange	Orange	Yellow
Bamoi Munu CHC	5 th	Green	Green	Green	Yellow	Orange	Orange	Yellow
Kamasassa CHC	6 th	Yellow	Green	Green	Yellow	Orange	Orange	Yellow
Mapotolon CHC	11 th	Yellow	Orange	Yellow	Orange	Orange	Orange	Orange

Bombali District, ranked 11th among all districts (overall score 66.4%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Batkanu CHC	8 th	Yellow	Orange	Green	Yellow	Red	Yellow	Yellow
Kamabai CHC	10 th	Orange	Yellow	Green	Yellow	Red	Orange	Orange
Binkolo CHC	7 th	Yellow	Yellow	Green	Yellow	Red	Orange	Green
Kalangba CHC	6 th	Green	Green	Green	Orange	Red	Yellow	Yellow
Kagbere CHC	11 th	Orange	Orange	Green	Yellow	Red	Orange	Orange

Bonthe District, ranked 12th among all districts (overall score 55.7%)

CHC	Ranking	Water & Sanitation	Electricity	Referrals	Equipment	Blood & Laboratory	Staffing	Drugs
Tihun CHC	12 th	Orange	Orange	Orange	Yellow	Red	Orange	Orange
Yoni CHC	10 th	Yellow	Green	Orange	Yellow	Red	Red	Yellow
Madina CHC	13 th	Orange	Yellow	Red	Orange	Red	Orange	Orange
Bendu Cha CHC	10 th	Orange	Green	Orange	Yellow	Red	Orange	Yellow
Gambia CHC	10 th	Yellow	Red	Green	Yellow	Red	Orange	Yellow