



MINISTRY OF HEALTH  
AND SANITATION



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Sierra Leone

## NEMS OPERATIONAL ACTIVITIES

### MONTHLY REPORT: JUNE 2022





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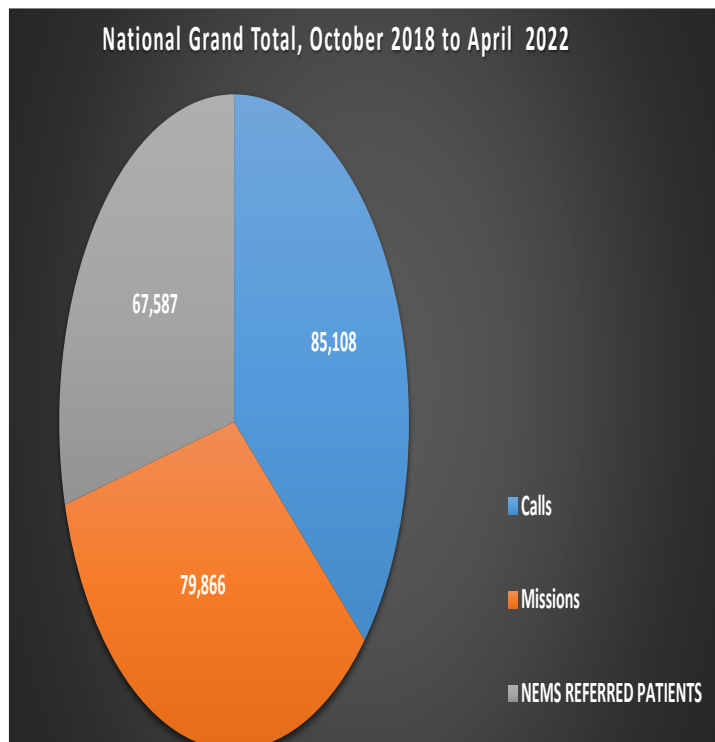


## Brief description of NEMS Operational Services

### Figure 1: Cumulative Number of Supported Indicators

The data collected from the NEMS database and the NEMS Referral Coordinators' database from **15<sup>th</sup> of October 2018 to the 30th of June 2022**, indicates that NEMS has accomplished over three (3) years of operations; delivering the following:

Cumulative total of **85,108 Calls**, **79,866 Missions** and **67,587 NEMS referrals** only.



### Distributions of the Ambulances

NEMS currently has **one hundred (100) ambulances** in operation nationwide. Each district has one ambulance allocated to the District Ambulance Supervisor (DAS) to serve as replacement in case an ambulance becomes inoperative, which summed to the total reported.

Ambulance Distributions	
District	Grand Total
BO	7
BOMBALI	6
BONTHE	5
FALABA	5
KAILAHUN	7
KAMBIA	5
KARENE	5
KENEMA	6
KOINADUGU	5
KONO	7
MOYAMBA	6
PORT LOKO	6
PUJEHUN	7
TONKOLILI	8
WESTERN AREA RURAL	7
WESTERN AREA URBAN	8
Grand Total	100

### Km Travelled

In June, NEMS operated with below 50% of the ambulances around the country; this includes both the DAS' allocated vehicles. They have travelled a cumulative total of **6,149,976 km**. In June 2022, a total of **20,900** kilometre covered by all the ambulances that were used to transport the various patients to the referred health facilities.

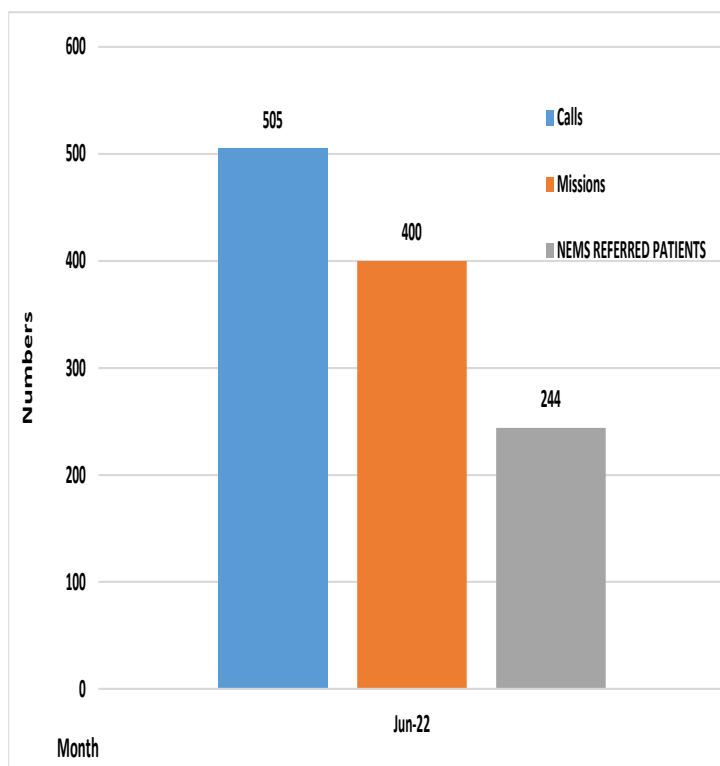
### COVID-19 Response

The total number of **COVID-19** confirmed cases transported by NEMS ambulances in **June 2022** is zero, with no suspected case reported. The cumulative figures since the COVID-19 outbreak in the country in March 2020 is **3,683 confirmed**, 258 **suspected**.



## 1. Overview of the Calls, Missions and Referrals

**Figure 2: Calls, Missions and Referrals (June 2022)**



The graph above displays the number of **Calls, Missions and NEMS Referrals** supported by NEMS in the month of **June 2022**.

The graph shows that for the period under review, **505 Calls, 400 Missions, and 244 NEMS Referrals** were supported.

**1.2. Table 1: Cumulative and Percentage Trend of Calls, Missions, Referrals**

Year	Months	CALLS	Trend	MISSIONS	Trend	NEMS REFERRED PATIENTS	Trend
2022	Jan-22	942	0%	686	-32%	426	-34%
	Feb-22	639	-1%	435	-59%	243	-27%
	Mar-22	188	-1%	125	-128%	66	-57%
	Apr-22	599	52%	463	57%	311	65%
	May-22	297	-34%	190	-42%	97	-52%
	Jun-22	505	26%	400	36%	244	43%
Total NEMS Project		85108		79866		67587	

**Table 1** above gives a comparative percentage trend analysis for the three (3) major indicators (i.e., **Calls, Missions, and NEMS Referrals**) by NEMS for the month of January, February, March, April, May and June 2022. The cumulative grand total for **Calls 85,108, Missions 79,866 and NEMS Referrals only 67,587**.

It is observed that there is a dramatic increase in the percentage Calls by 26%, Missions by 36% and Incoming Referrals by 43%.

**1.3. Table 2: NEMS Daily Activities Averages**

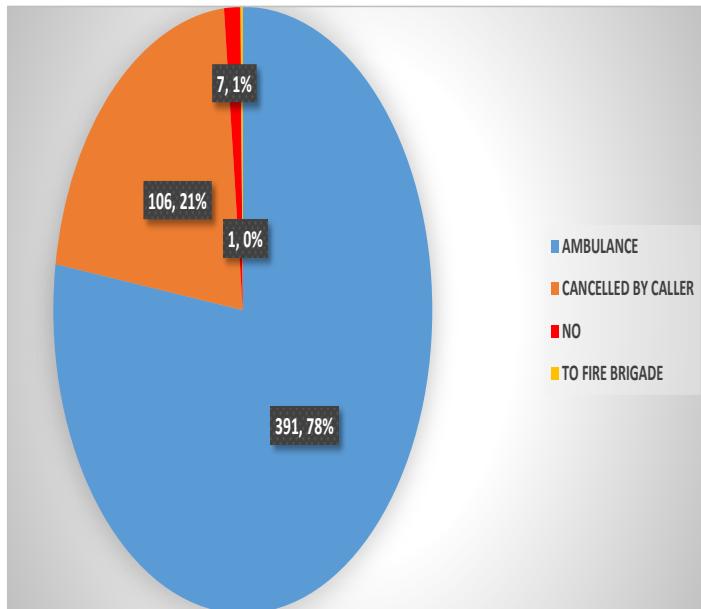
Daily Operations	Calls	Missions	NEMS REFERRED PATIENTS
Jun-22	17	13	8

**Table 2** shows the average daily Calls, Missions and Incoming NEMS Referrals for the same period.



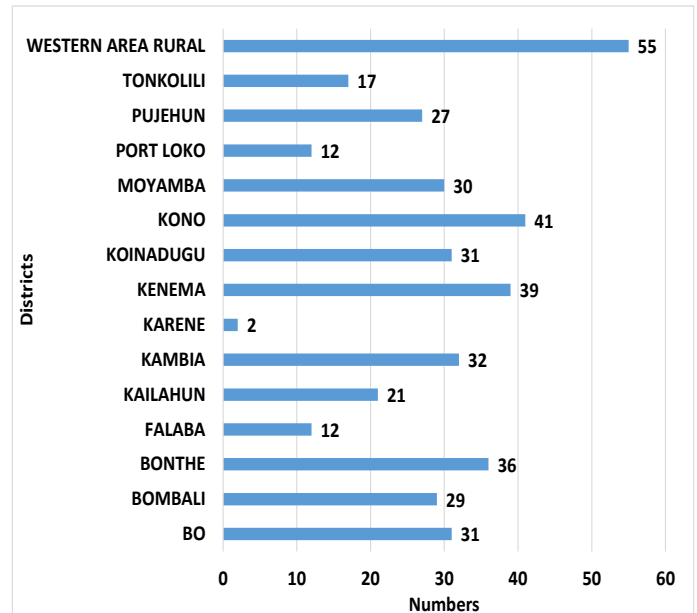
## Calls Analysis

**Figure 3: Classifications of Calls**



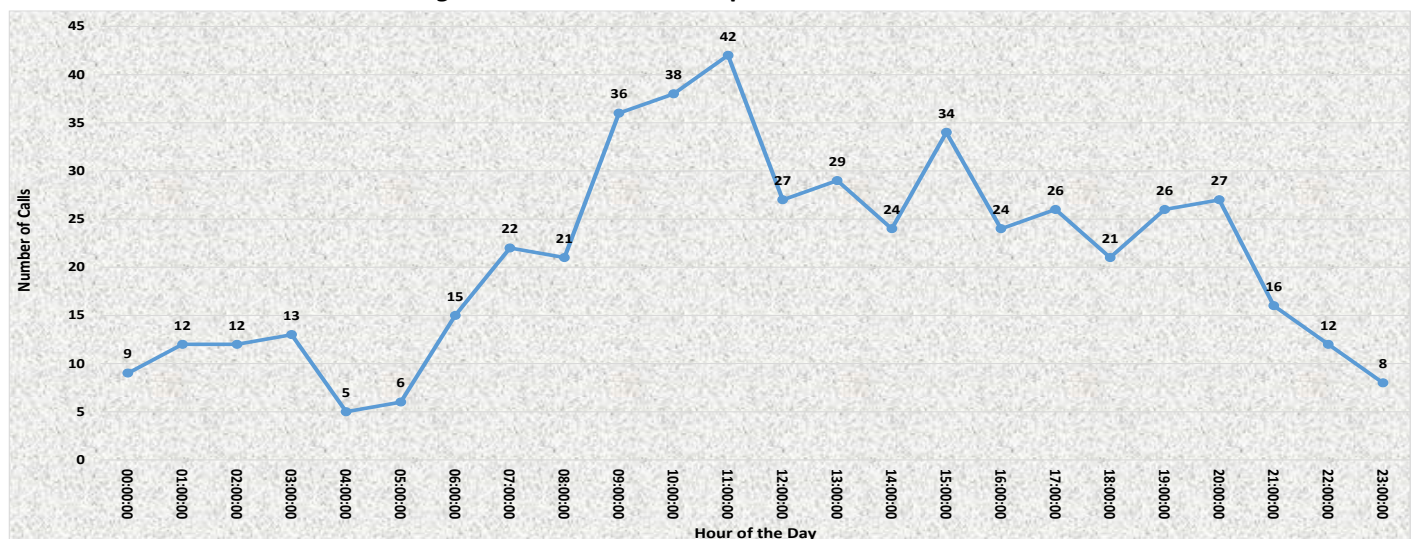
The pie chart labelled **Figure 2** outlines the classification of Calls as they are received at the NEMS Call Center. The call center operators received a cumulative total of 505 Calls with 391 (78%) requesting for ambulance, 106 (21%) cancelled by callers due to factors that are determined by the various callers, with 7 Calls that required no ambulance and 1 to fire brigade.

**2.1. Figure 3: Breakdown of Calls by District**



**Figure 3** shows the breakdown of Calls by district. Western Area Rural report the highest—55 and seconded by Kono. with 41 number of calls received. Karene recorded the least number of calls which is 2.

**2.2. Figure 4: Number of Calls per Hour**

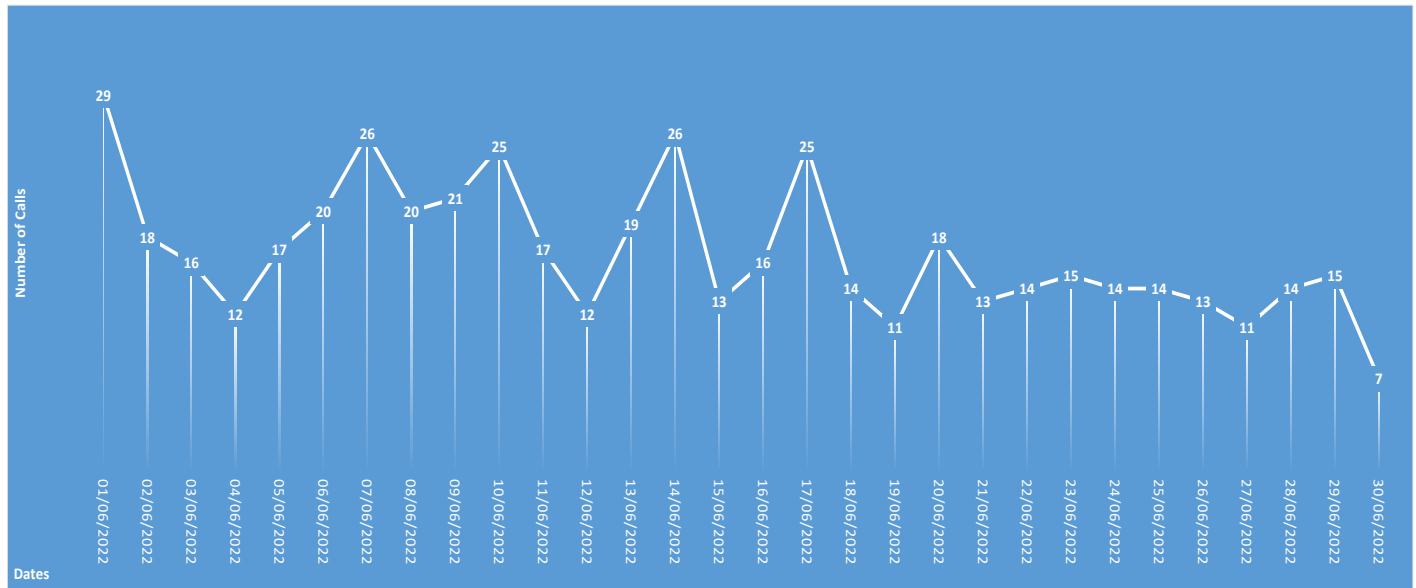


**Figure 4**, shows an oscillating line graph that describes the number of calls received at NEMS operation center on an hourly base. The chart above this narrative shows that, there was a surge in the number of calls received between the hours of 09:00 hours and 16:00hrs GMT, irrespective of its fluctuation. The operation center recorded its climax calls at around 11:00hrs GMT and the least at around 04:00hour.



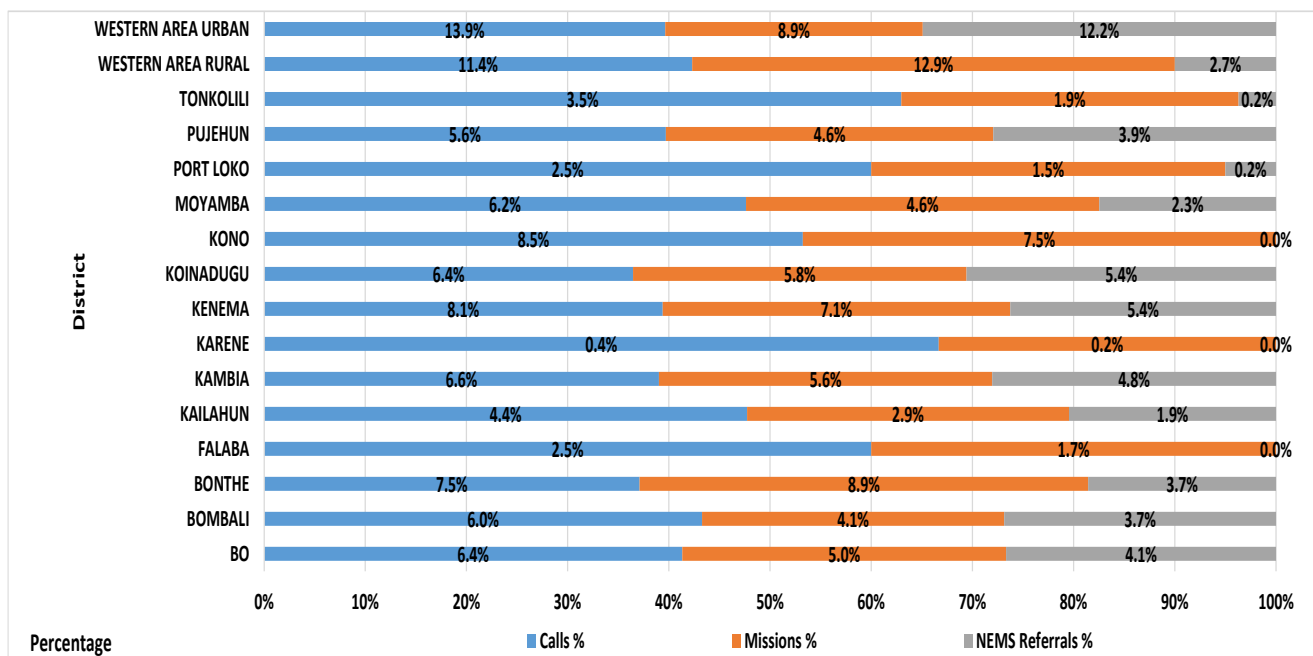


**2.3. Figure 6: Number of Calls per Day**



The chart demonstrates the trend of incoming calls to the NEMS call centre per day. The least number of Calls were recorded on the 30th with 7 call, while the highest number of Calls recorded on the 1<sup>st</sup> with 29 calls. The chart fluctuated throughout the month of June.

**2.4. Figure 7: Calls, Missions, Referrals by District**

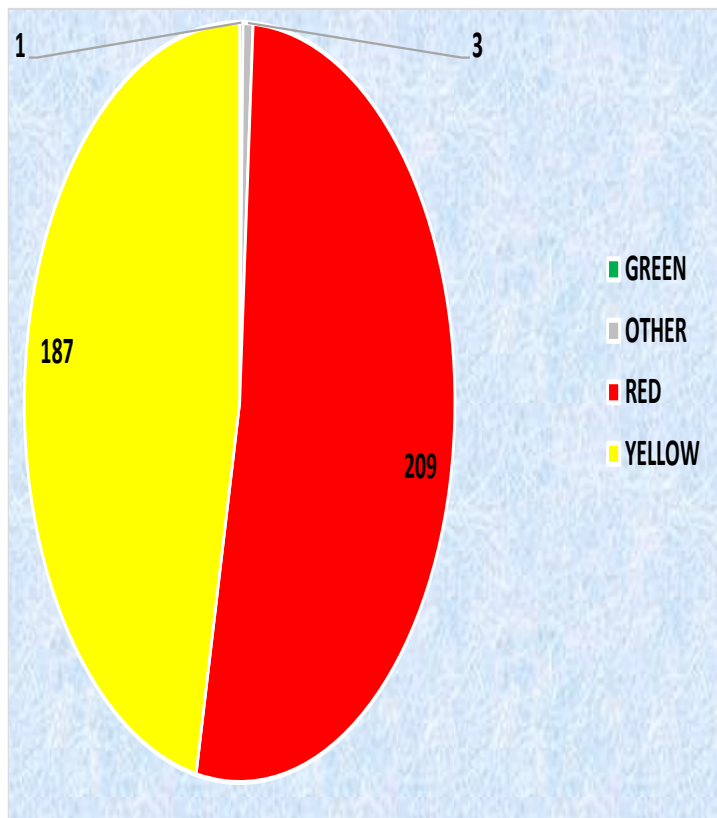


The bar chart above demonstrates the percentage of Calls, Missions and NEMS Referrals supported by NEMS per district in the month of June. On Calls, Western Area Urban recorded the highest percentage with 13.9%, seconded by Rural with 11.4%. For Missions and Referrals, Rural reported the Highest, while Port Loko shared the least percentage. Referrals, 12.2% of the Western Area Urban ended up becoming Referrals.



## Chapter 3 -Missions

### 3.0.Figure 8: Categories of NEMS Missions



The pie chart labelled **figure 8** gives an insight on how calls are categorized to determine a mission. The severity of the condition are segmented into three major categories, with an additional color described as 'Other' (Red, Yellow and Green).

Triage system is used to determine the severity of the condition of patients, separating the stable patient from the severely ill and then prioritize available resources. NEMS utilizes the triage process to determine whether the patient's condition matches the threshold for an emergency for an ambulance to be dispatched.

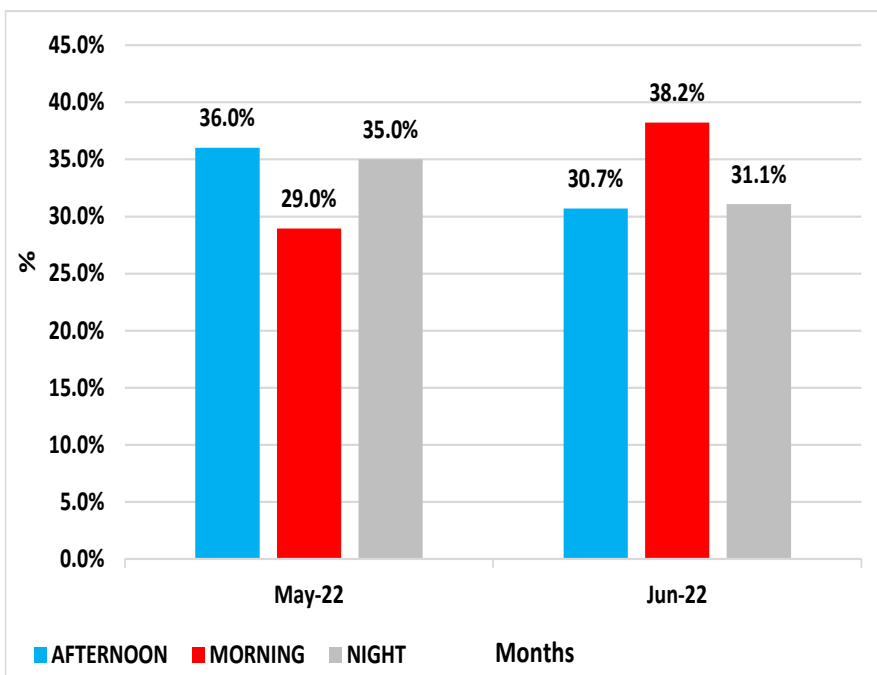
A NEMS mission can be activated by dispatching an ambulance provided the condition of the patient matches the severity criteria for Yellow and/or Red. The color code Green is ascribed when the patient's condition does not match the NEMS threshold for an emergency and the formation is shared with call center, for the operator to activate a mission and dispatch ambulance (s).

In this month's review, a total of 400 calls were received, out of which 396 led to a missions, and 4 of those were classified as other.

### 3.1.Figure 9: Time of the day of the Missions

The 'time of the day' is a measure of the period of the time within the day the call centre activates a mission. The diagram labelled Figure 9 demonstrates the percentage of missions undertaken in the morning (i.e., from 8 am to 2 pm), afternoon (from 2 pm to 8 pm) and night (from 8 pm to 8 am) comparing the daily percentages for the month of June.

Figure 9 displays a comparative percentage analysis for the months of June and May. In May, the percentage of Missions done in the Afternoon hours increase were 36.0%, while at Night - 35.0%, with 29.0% - Morning. For June, a significant number of missions were undertaken during morning hours, with 38.2%, while 30.7% were done at Afternoon and those that were done during the Night 31.1%.





**3.2. Figure 10: Comparative Analysis of NEMS Mission's complaints for the Previous month (April 2022 ) to Current month (June 2022)**

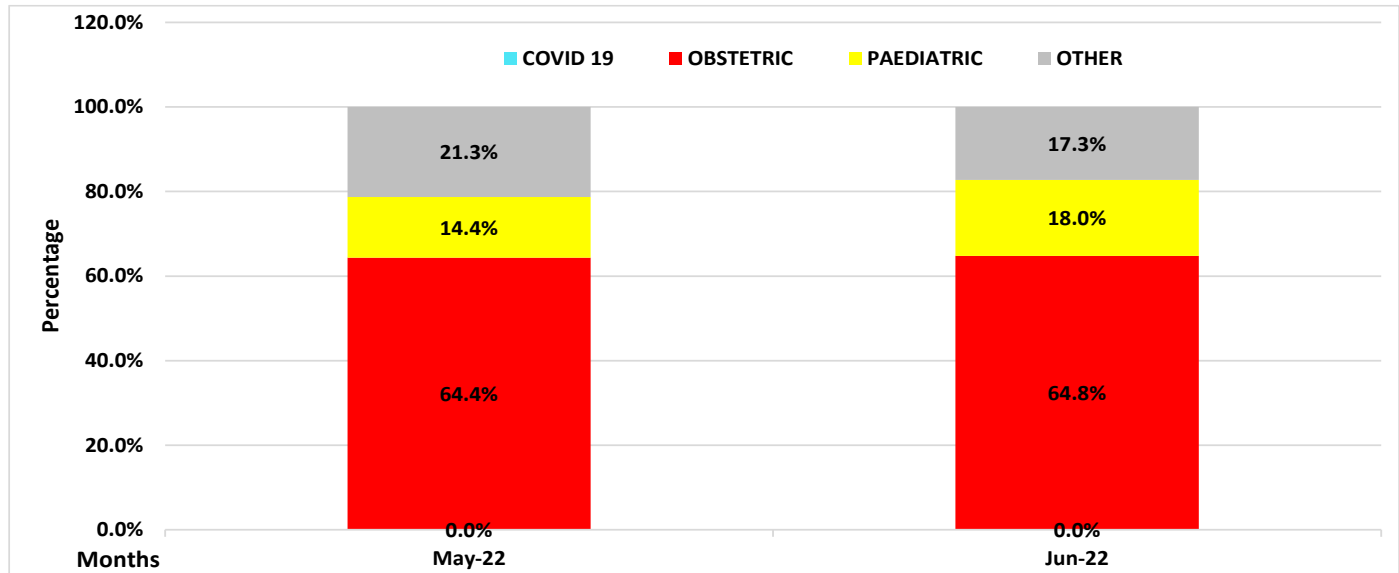


Figure 10 represents the major categories of complaints of the Missions comparing **June and May 2022** data. The data for COVID-19 Missions continues to be zero for both suspected and confirmed cases for the last four months. It is visible from the data that Obstetric cases are in the majority of the missions transported to the various health facilities.

The indicator 'Other' is a combination of other complaints, such as Abdominal Pain, Animal Bite, Consciousness, Road Accident, Trauma and etc. Between the months of **May and June**, there is a –4% decrement in other cases. For Obstetric, there is 0.4% increment from the previous month, and for Paediatric a 3.6% increase.

**3.3. Figure 11: Typology of complaints that lead to Missions**

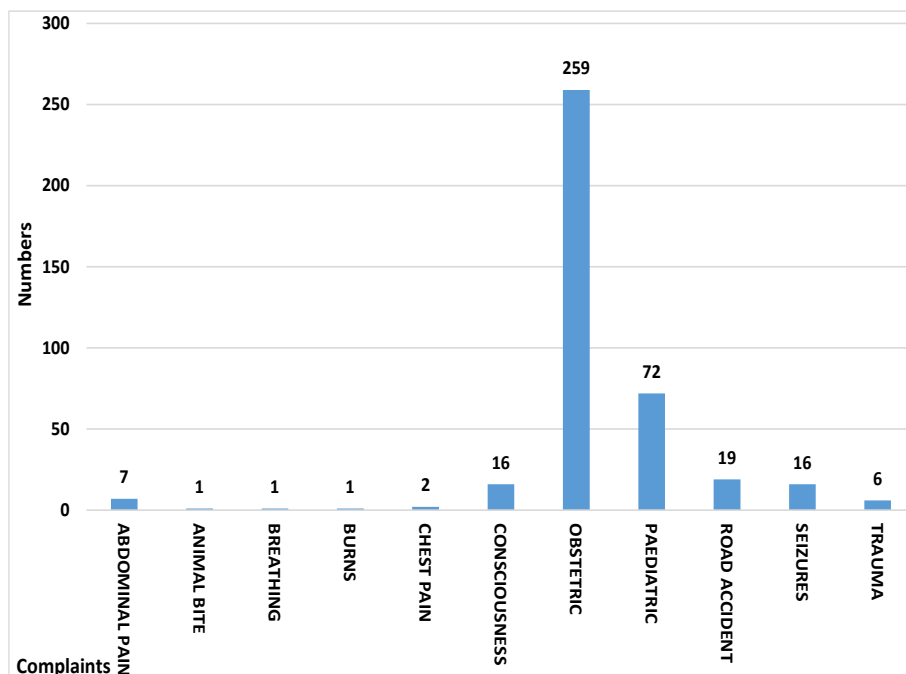


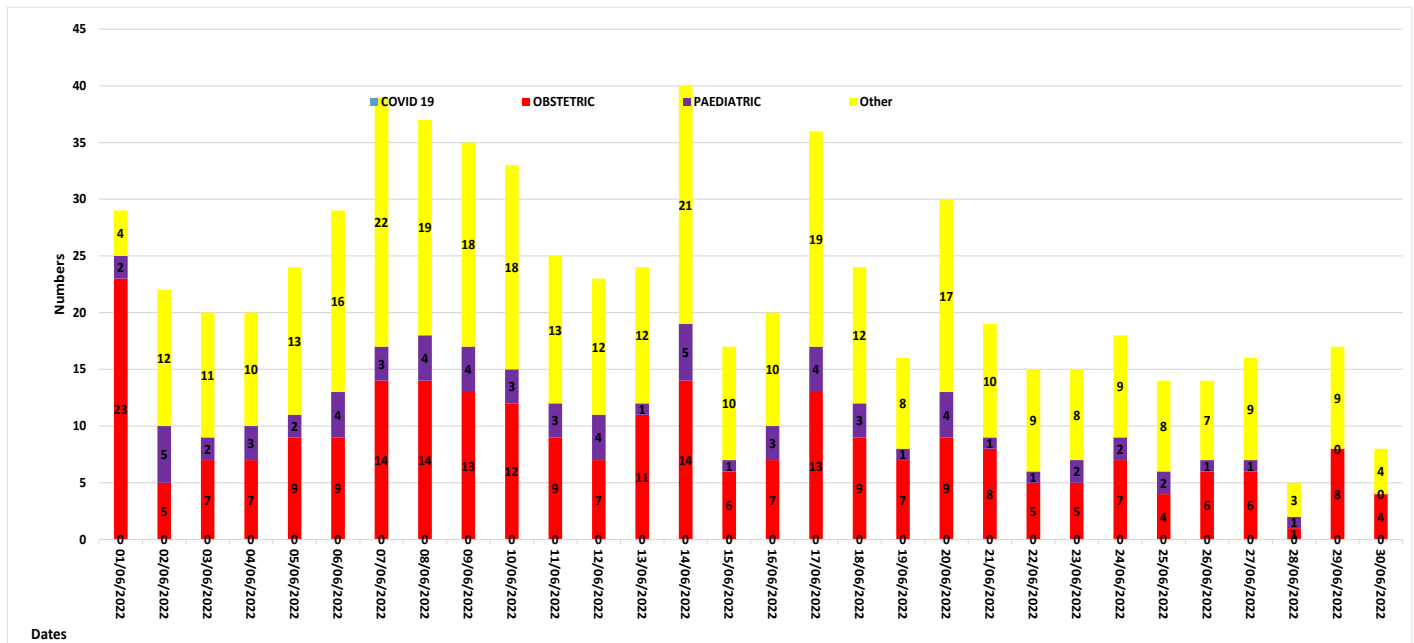
Figure 11 provides a detailed breakdown of the number of complaints received that are considered as missions.

It is evidently clear that obstetric (259) complaints were the most occurring, seconded by Paediatric (72), while Road Accident (19), Consciousness and Seizures (16) each, while combining Trauma, Abdominal Pain, Breathing, Chest Pain and Animal Bite gives (18) cases happen to be the least complaints received for the month under review.



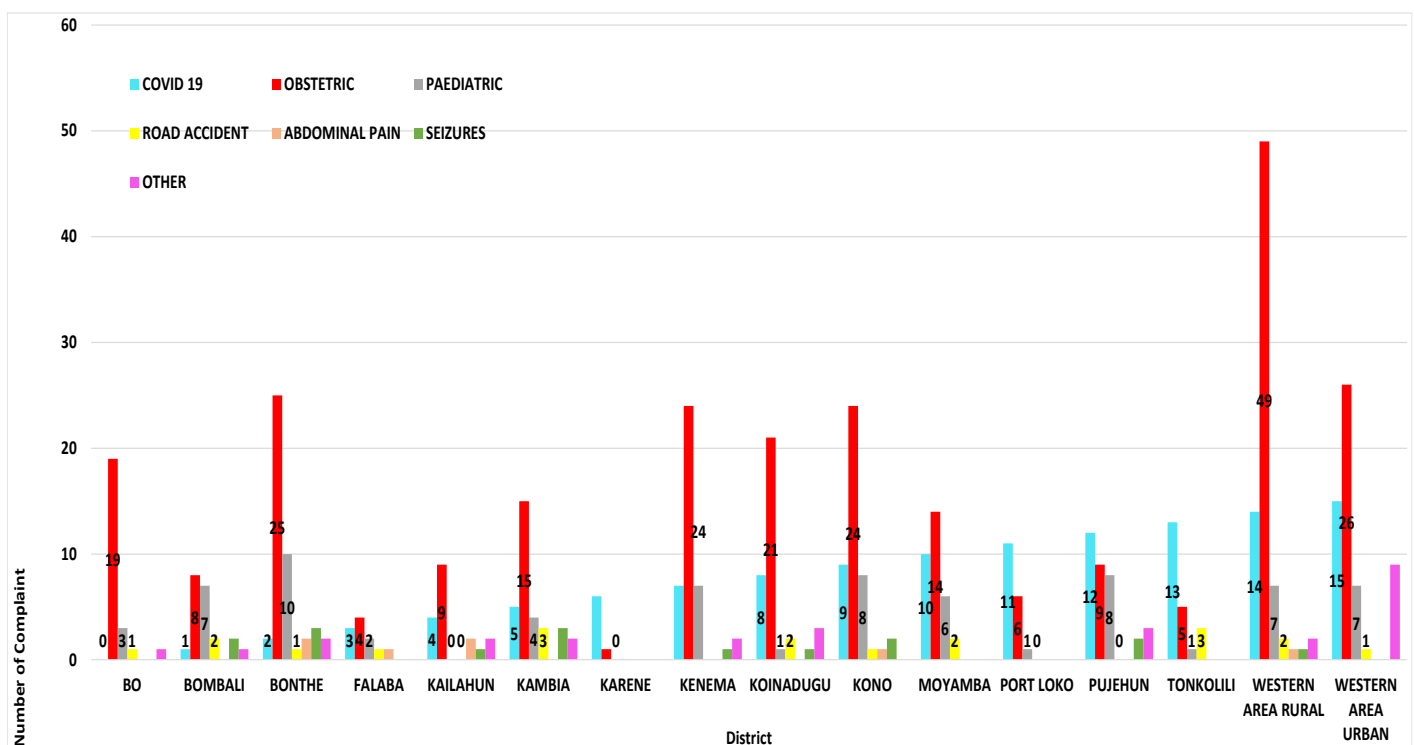


3.4. Figure 12: Trend of Missions complaints by day



The bar chart displays the number of missions undertaken in the month of June 2022 on a daily basis, with a special attention to the various complaints. Obstetric cases appear to be the only complaint that was transition to a mission for almost every other day of the month, while an enormous number of the total missions done on the 14th.

3.5. Figure 13: Missions Complaints by District



A breakdown on the number of complaints by the different districts nationwide. Every district in Sierra Leone reported obstetric, while the others other complaint did not happen at every other district. Western Area Rural happens to be the district with the highest obstetric cases, and reported the highest number of missions overall.



3.6. Figure 14: Number of Calls, Missions and Referrals Supported per Day



Figure 14 is a line chart that shows the number of Calls received, missions carried out, and NEMS referrals managed per day. Throughout June, the indicators fluctuated. The average call were 17, Missions is 13 and referrals 8 for the month under review.

3.7. Figure 15: Outcome of the Missions

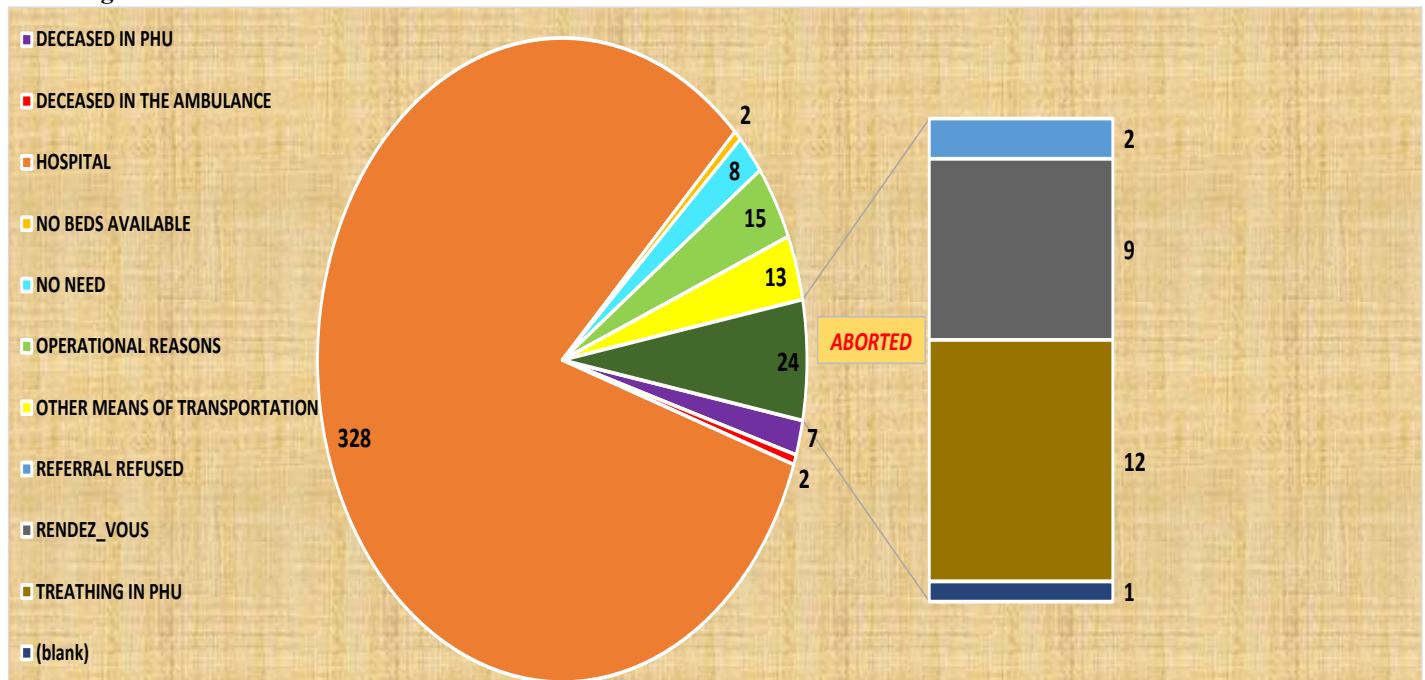


Figure 15 shows the outcome of missions carried out by NEMS in June 2022.

'Hospital' refers to mission lead referrals to a pre-identified health facility (Hospital). Referencing the data displayed in the pie chart above, for June shows that (328) 82.2% of the missions lead to referrals to a pre-identified specialist health facility, compared to the May 2022 data that shows that 84.1% of the missions were referred to a pre-identified specialist health facility. This indicates a decrease of 1.9% in the referrals when the data for June 2022 is compared to that of May 2022.



3.8. Table 4: Missions Outcome and the Reasons why missions are aborted

INDICATORS	ABORTED	DECEASED	HOSPITAL	NO NEED	RENDEZ_VOUS	Grand Total	% of Aborted Cases
AMBULANCE CHANGED	1	0	0	0	0	1	2.0%
DECEASED IN PHU	0	7	0	0	0	7	0.0%
DECEASED IN THE AMBULANCE	0	2	0	0	0	2	0.0%
HOSPITAL	0	0	328	0	0	328	0.0%
NO BEDS AVAILABLE	2	0	0	0	0	2	4.1%
NO NEED	4	0	0	4	0	8	8.2%
OPERATIONAL REASONS	15	0	0	0	0	15	30.6%
OTHER MEANS OF TRANSPORTATION	13	0	0	0	0	13	26.5%
REFERRAL REFUSED	2	0	0	0	0	2	4.1%
RENDEZ_VOUS	0	0	0	0	9	9	0.0%
TREATING IN PHU	12	0	0	0	0	12	24.5%
Grand Total	49	9	328	4	9	399	
%	12.3%	2.3%	82.2%	1.0%	2.3%	97.7%	

Table 4 above serves as a supplementary analysis to the pie chart above showing the outcomes of missions for the month under review.

'Aborted', The June 2022 data shows that out of the 190 missions undertaken, 12.3% of those missions were cancelled before or after the arrival of the NEMS ambulance team at the target. For a mission to be cancelled, there are diverse reasons, and these could be any of the following:

- ◆ **'Ambulance Changed'** - the data reveals that out of 4 missions aborted, 1 (2.0%) of the aborted missions were due to 'ambulance changed'.
- ◆ **'No Beds Available'** - with 2 (4.1%).
- ◆ **'Deceased'** – this mission outcome refers to the death before the arrival of the NEMS ambulance team. June 2022 data shows that (9) of the mission were cancelled because the patient died. The 7 missions cancelled was due to the fact that the patients passed away in the PHU, while the other 2 died in the ambulance while in transit.
- ◆ **'Operational reasons'** - this type of mission outcome has strong correlation with the ambulance technical problems. The table above shows that 15 (30.6%) of the aborted missions occurred because of technical problems with the ambulances in the month of June compared to May with 45.8% of aborted missions relating to 'operational reasons'.
- ◆ **'Other Means of transportation'** – refers to a situation where the patients or families of the patient decides to employ other medium of transportation after requesting for an ambulance. The May data shows that 13 (26.5%) of the aborted missions occurred because the patients used other means of transportation.
- ◆ **'Treated at the PHUs'** refers to a situation where either the PHU personnel or the ambulance team managed the emergency at the PHU level. The data shows that 12 (24.5%) of such cases were recorded for the month under review
- ◆ **'Other reasons' includes** no-need' of the ambulance (4).
- ◆ **'Rendezvous'** 9 (2.3%).



Chapter– 4 BEDS

#### 4.0 National Hospital Bed capacity

**Table 5: Bed Capacity and Average Percentage Bed Occupancy by Facility**

Facility	Adult Bed Capacity	% Average Bed Occupancy per Month	Maternity Bed Capacity	% Average Bed Occupancy per Month	Paediatric Bed Capacity	% Average Bed Occupancy per Month
Bo Government Hospital	139	57	54	73	95	70
Makeni Government Hospital	94	73	27	70	62	45
Mattru UBC Hospital	36	32	12	104	17	77
Connaught Government Hospital	167	86	0		24	79
Kailahun Government Hospital	38	59	37	67	42	65
Kambia Government Hospital	44	20	21	60	31	68
Kenema Government Hospital	118	56	41	77	96	61
Kabala Government Hospital	49	44	37	54	55	49
Koidu Government Hospital	75	80	40	71	56	190
Lungi Government Hospital	40	38	20	58	20	50
Moyamba Government Hospital	48	38	24	91	39	58
Ola Doring Children Hospital	0		0		174	84
Princess Christian Maternity Hospital	0		115		18	
Port Loko Government Hospital	65	29	35	51	20	87
Pujehun Government Hospital	41	44	34	80	36	77
Tonkolilli Government Hospital	97	11	28	68	89	59
34M Military Hospital	82	49	22	58	40	64
King Harman Road Government Hospital	4	92	17	58	30	64
Rokupa Government Hospital	6	49	21	49	39	64
Lumley Government Hospital	12	71	10	92	4	133
Macauley Government Hospital	13	0	10	0	4	0
Emergency Memorial Hospital	47	93	0	0	20	91
<b>Total National Bed Capacity</b>	<b>1215</b>		<b>605</b>		<b>1011</b>	

The tabular representation labelled table 5 above, provides further breakdown on the bed capacity and the percentage average for the different facilities.

From the tabular presentation, Connaught Hospital does not directly provide care to pregnant women with maternal related complaints and there is no specific department to handle pregnancy related complaints. Ola Doring Children's Hospital (ODCH), is a specialized children hospital providing care to sick children, while Princess Christian Maternity Hospital (PCMH), located adjacent ODCH with the purpose to support and address maternity related issues.

- ♦ The Special Care Baby Unit SCBU beds available at PCMH and ODCH are not counted in determining the bed capacity of the facility, which is the same for the other district or tertiary hospitals nationwide.
- ♦ These beds serve a different purpose from the others. Nationwide, all district and tertiary hospitals have a total of 2,655 beds, which has increase from its usual 2,831 useable beds.
- ♦ There are currently no referrals for admission to Lumley government hospitals because they are currently undergoing rehabilitation. However, there is a provision for consultation available only for emergency cases that can be further referred if required.
- ♦ **Emergency Memorial Hospital** provides specialist care to patients requiring surgical care and cannot do so for maternity related complications.
- ♦ All other facilities listed in the table above provide all the required services and has space for the various department listed in the table.
- ♦ **Adult Occupancy:** The data for the month under review indicates the adult bed capacity situation for the following health facilities. The data for June 2022 shows that no facility reported overcrowding. Emergency hospital recorded 93%, King Harman Road 92% and Connaught 86% as the average bed occupancy status.
- ♦ **Maternity Occupancy:** the table shows that no facility reported overcrowding, while the highest percentage average is from Mattru UBC Hospital —104%.
- ♦ **Paediatric Occupancy:** Koidu Government Hospitals and Lumley Government Hospital reported 190% and 133% respectively for their average bed capacity for June 2022, while all other facilities registered less than 100% indicating that they operated below full capacity.



4.1. Figure 15: National Percentage Bed Occupancy by Depart-

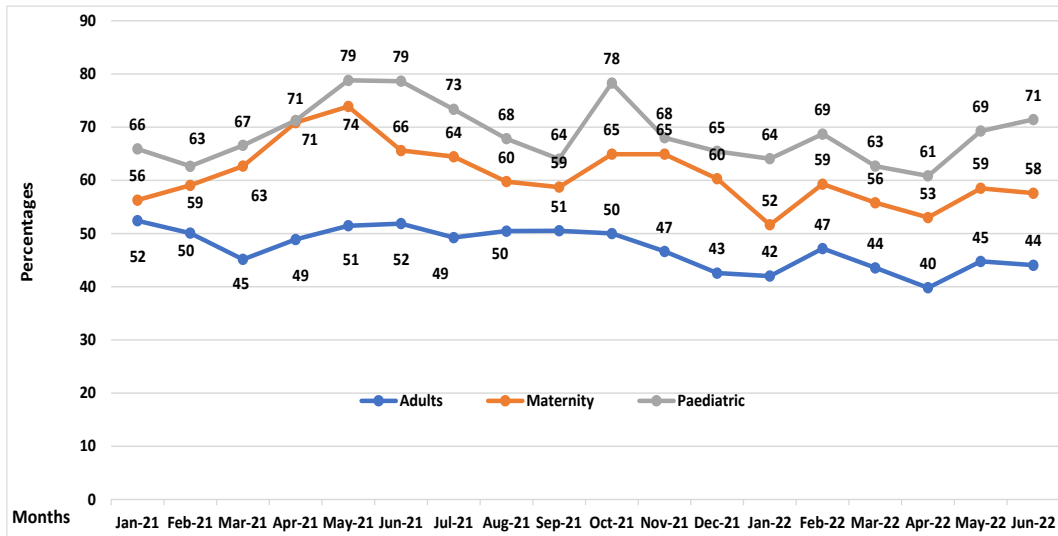


Figure 15 provides an average percentage bed occupancy by month. Health facilities have various subsectors that are merged to form the major listed departments on the line chart. Since the commencements of 2021, the average bed occupancy has been below 80% for the different departments and all the various health facilities. There is a slight decrease to 71% for the month of June.

## Chapter- 5 Referrals

5.0. Table 7: Number of Incoming and Outgoing Referred pa-

From the diagram labelled table 7 adjacent this narrative shows the total of 1128 referrals were supported by NEMS. In that number 1047 were classified as incoming referrals, while 81 represented the total outgoing referred patients supported.

In June, Pujehun recorded the highest number of incoming referred patients, while Kono and Macauley did not report any new referrals.

No:	National Referrals by District, June 2022				
	Facility	Total Referrals	Incoming Referrals	Outgoing Referrals	NEMS Referrals
	National Total	1128	1047	81	254
	Nationwide %	100	93	7	23
1	34M	24	12	12	1
2	Bo	22	20	2	22
3	Bombali	24	22	2	18
4	Bonthe	20	18	2	20
5	Connaught	82	81	1	14
6	Emergency	30	16	14	4
7	Kailahun	73	71	2	9
8	Kambia	38	36	2	23
9	Kenema	126	123	3	26
10	King Harman Road	35	34	1	2
11	Koinadugu	69	60	9	27
12	Kono	0	0	0	0
13	Lumley	15	3	12	0
14	Lungi	0	0	0	0
15	Macauley Street	8	4	4	0
16	Moyamba	49	44	5	11
17	ODCH	82	81	1	0
18	PCMH	138	138	0	43
19	Port Loko	53	48	5	1
20	Pujehun	147	147	0	19
21	Rokupa	13	11	2	13
22	Tonkolili	80	78	2	1





5.1. Table 8: The Outcome of the Number of Incoming Referred Patients by Districts

Number of Incoming Referrals by patients' outcome, June 2022										
Admission ongoing	Death	Death on arrival	Discharge against medical advice	Discharged	Onward referral	Patient did not arrive	Rejected referral	Unable to admit	Death in Ambulance	Total
455	50	2	22	475	10	1	0	8	0	1023
44	5	0	2	46	1	0	0	1	0	100
12	0	0	0	0	0	0	0	0	0	12
16	1	0	0	3	0	0	0	0	0	20
11	0	0	1	10	0	0	0	0	0	22
7	0	0	0	11	0	0	0	0	0	18
26	4	0	0	47	3	0	0	0	0	80
5	0	0	0	5	0	0	0	6	0	16
32	4	0	2	32	0	0	0	0	0	70
5	5	0	0	26	0	0	0	0	0	36
11	5	1	11	93	1	0	0	1	0	123
7	5	0	1	20	1	0	0	0	0	34
15	2	0	0	20	2	0	0	0	0	39
0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	1	0	0	1	0	3
0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	3	0	0	0	0	0	4
37	1	0	1	4	0	0	0	0	0	43
54	1	0	2	24	0	0	0	0	0	81
136	0	0	0	2	0	0	0	0	0	138
6	4	0	1	37	0	0	0	0	0	48
53	12	1	1	79	1	0	0	0	0	147
3	1	0	1	5	1	0	0	0	0	11
19	4	0	0	54	0	1	0	0	0	78

The outcomes of incoming referrals to the various health facilities nationwide are presented in the tabular diagram labelled Table 8 for the month under review. A significant portion of the referred patients were discharged (475), while out of the 8 were unable to admit, 50 of those were reported dead. 455 of the total patients were reported to still be in the various facilities receiving care.

5.2. Table 9: Number of Incoming Hospital Referrals supported by Cate-

Facility	Lactating	Non-FHCl	Pregnant	Under 5	EVD Survivor	Yes - other	Total
34M	0	6	2	0	0	0	8
Bo	0	2	14	4	0	0	20
Bombali	0	4	6	9	0	2	21
Bonthe	0	1	14	2	0	0	17
Connaught	7	32	1	29	0	0	69
Emergency	0	6	0	6	0	0	12
Kailahun	1	7	34	25	0	0	67
Kambia	2	5	15	8	0	0	30
Kenema	3	12	78	24	0	0	117
King Harman Road	0	4	1	29	0	0	34
Koinadugu	0	9	27	22	0	0	58
Kono	0	0	0	0	0	0	0
Lumley	0	0	2	1	0	0	3
Lungi	0	0	0	0	0	0	0
Macauley Street	0	0	0	4	0	0	4
Moyamba	0	2	15	26	0	0	43
ODCH	0	4	0	75	0	0	79
PCMH	4	0	133	0	0	1	138
Port Loko	3	3	27	13	0	0	46
Pujehun	1	4	54	85	0	0	144
Rokupa	0	0	11	0	0	0	11
Tonkolili	2	1	43	32	0	0	78
Total	23	102	477	394	0	3	999

Table 9 explains the categories of incoming referred patients at the various health facilities nationwide for the month of June. EVD survivors have dropped significantly and continued to be zero. The various facilities supported a total 999 incoming referred patients. Every active hospitals have recorded for pregnant women, with the exception of ODCH, Lungi Hospital, Kono, Macauley and Emergency, that do not records for the month of June that related to pregnant women.



5.3. Table 10: Outcome of Referred Patients by Free Health Care Category

FHC	Admission ongoing	Death	Death on arrival	Discharge against medical advice	Discharge	Onward referral	Patient did not arrive	Rejected referral	Unable to admit	Death in Ambulance	Total
Lactating	10	1	0	0	12	0	0	0	0	0	23
Non-FHCI	43	4	0	7	36	4	0	0	2	0	96
Pregnant	209	3	1	5	247	3	0	0	2	0	470
Under 5	173	32	1	9	164	2	1	0	1	0	383
EVD Survivor	0	0	0	0	0	0	0	0	0	0	0
Yes - other	3	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	<b>438</b>	<b>40</b>	<b>2</b>	<b>21</b>	<b>459</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>975</b>

The June 2022 data shows that, a significant portion of both pregnant, under 5 and Non-FHCI cases were discharged, while another proportion are still at the various health facility by the time this report is produced. Under 5 continues to report the highest number of death.

5.4. Table 11: Referral by Health Facilities (Hospitals)

REFERRAL HOSPITAL	Apr-22	May-22	Jun-22
<b>Tertiary Facility Total</b>	<b>97</b>	<b>21</b>	<b>73</b>
Connaught Hospital	24	3	16
Ola During Children's Hospital	9	3	-
Princess Christian Maternity Hospital	64	15	57
<b>Regional and District Hospital Total</b>	<b>226</b>	<b>111</b>	<b>191</b>
Bo Government Hospital	22	16	22
Kabala Government Hospital	24	15	27
Kailahun Government Hospital	12	-	9
Kambia Government Hospital	34	4	20
Kenema Government Hospital	36	1	27
Koidu Government Hospital	30	36	28
Lungi Government Hospital	2	5	2
Magburaka Government Hospital	8	4	2
Makeni Government Hospital	11	3	16
Moyamba Government Hospital	14	3	11
Port Loko Government Hospital	5	14	4
Pujehun Government Hospital	25	10	22
Segbwema Government Hospital	3	-	1
<b>Other Government Facility</b>	<b>28</b>	<b>6</b>	<b>18</b>
Kingharman Road Government Hospital	3	-	4
Other Government facilities (i.e. Lumley)	1	-	1
Rokupa Government Hospital	20	3	11
<b>34 MILITARY HOSPITAL</b>	<b>4</b>	<b>3</b>	<b>2</b>
<b>Private/NGO facility Total</b>	<b>36</b>	<b>21</b>	<b>43</b>
Emergency	8	3	4
Kamakwie	3	1	-
Masanga	1	2	-
Mattru UBC Hospital	6	9	26
MSF Hospital – Kenema	3	1	1
LIFE CARE HOSPITAL	2	-	-
YELE	4	2	4
CHOITHRAM MEMORIAL HOSPITAL	3	1	2
CHINESE HOSPITAL	5	1	6
LION HEART HOSPITAL YELEH	1	-	-
AT HOME	-	1	-
<b>COVID-19 CTC/CCC/ISOLATION</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>RENDEZVOUS</b>	<b>6</b>	<b>1</b>	<b>9</b>

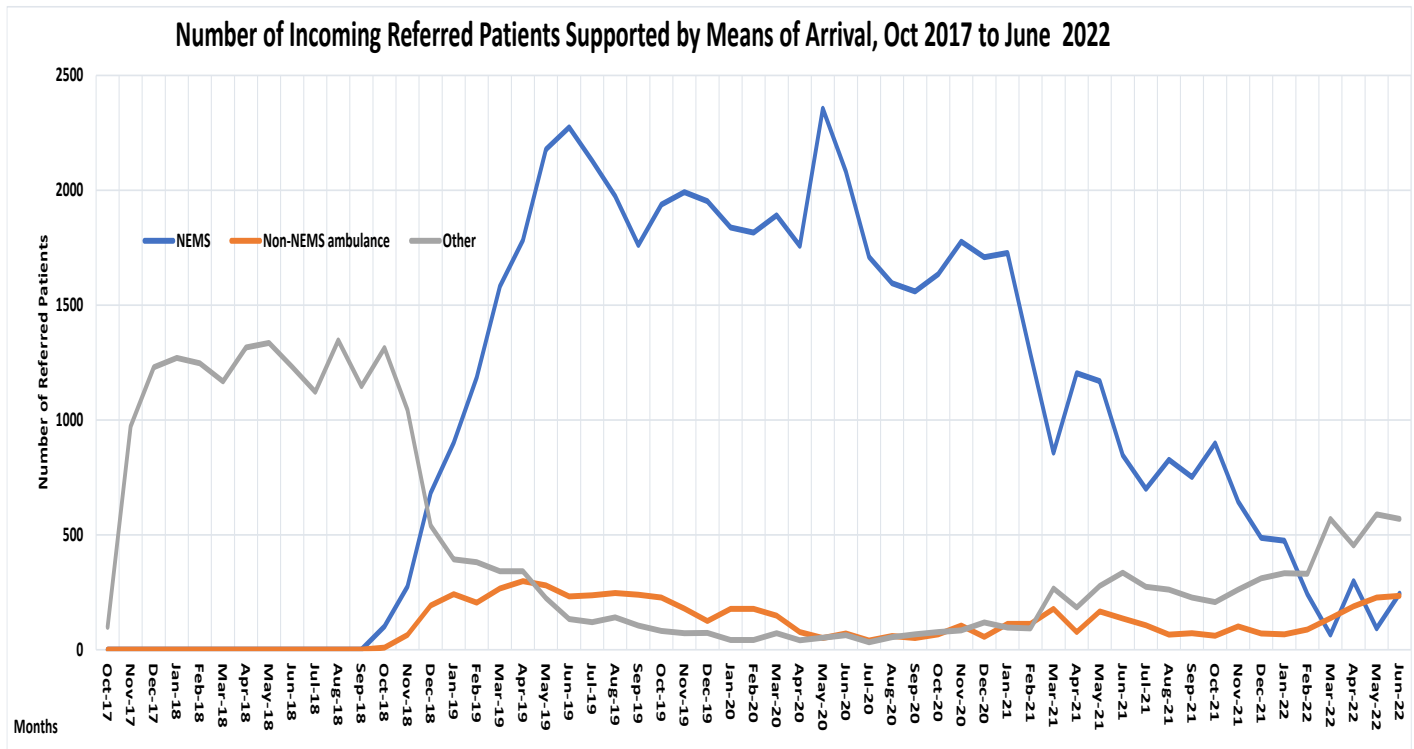
**Table 11** shows the NEMS general monthly referrals to the main hospitals for the month of June 2022. The table performs a quarterly analysis. It compares the data for the months of April, May and June 2022. It was observed that, for the June 2022, the other facilities accounted for the least recipients of referrals (18) as follows:

- ♦ King Harman Road (4), Lumley (1), Rokupa (11) and 34 Military (2) compared to May with a total receipt of 6. This indicates a significant increase in the following months.
- ♦ The Regional and District Hospitals received 73 for June, a rise from the previous month. This indicates an increase in the number of patients referred to the Regional and District Hospitals.
- ♦ Furthermore, the table labelled Table 11, displays the number of patients referred to COVID-19 Treatment Centres and Isolation Units, with a drop to 0 on the number of confirmed cases for both April, May and June 2022. There is a rise in Rendezvous from 1 in May to 9 in June 2022.

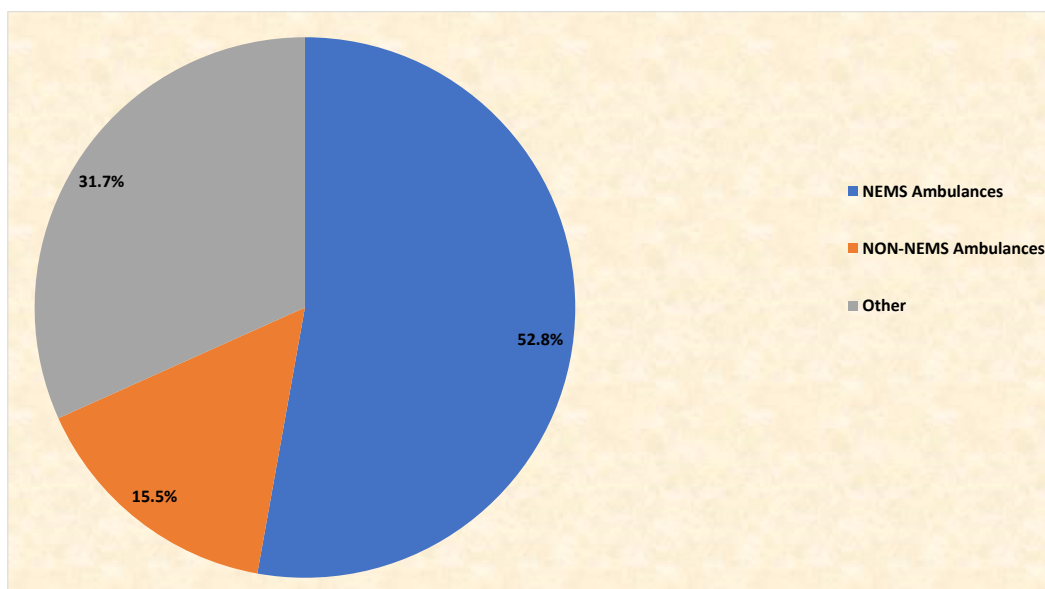


### 5.5.1 Figure 17: Number of Referred Patients by Arrival

The graph labelled **figure 17** provides a detailed analysis on patients' arrival methods at the various hospital where referral coordinators are attached. The June 2022 data clearly showed that there was a surge in the use of other means of arrival at hospitals.



### 5.2. Table 12: Arrival Methods of the Referrals by Hospital



The pie chart labelled figure 12 above, displays the methods of arrival provided by NEMS, Non-NEMS ambulances and other means to the various health facilities nationwide for the month of June 2022. The data as displayed in the pie chart shows 52.8% of the total number of referred cases received by the respective hospitals were transported by NEMS, while 31.7% of the total referred cases were transported by other means and 15.5% of the total number of referred cases that used Non-NEMS ambulances of transportation as displayed on the pie chart above.



**Table 12: Arrival Methods of the Referrals by Hospital**

REFERRAL FACILITIES	NEMS Ambulances	NON-NEMS Ambulances	Other
<b>Tertiary Facility</b>	<b>22.0%</b>	<b>32.2%</b>	<b>45.8%</b>
34 Military Hospital	0.0%	66.7%	33.3%
Connaught Hospital	17.3%	59.3%	23.5%
Kingharman Road Govt. Hospital	5.9%	94.1%	0.0%
Lumley Govt. Hospital	0.0%	0.0%	100.0%
Ola During Children's Hospital	0.0%	2.5%	97.5%
Princess Christian Maternity Hospital	31.2%	2.9%	65.9%
Rokupa Govt. Hospital	100.0%	0.0%	0.0%
<b>Private/NGO facility Total</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Matru UBC Hospital	100.0%	0.0%	0.0%
<b>Regional/District Hospital</b>	<b>36.4%</b>	<b>14.2%</b>	<b>49.4%</b>
Kabala Govt. Hospital	43.3%	0.0%	56.7%
Bo Govt. Hospital	100.0%	0.0%	0.0%
Kailahun Govt. Hospital	12.7%	4.2%	83.1%
Kambia Govt. Hospital	63.9%	0.0%	36.1%
Kenema Govt. Hospital	21.1%	32.5%	46.3%
Koidu Govt. Hospital	-	-	-
Lungi Govt. Hospital	-	-	-
Magburaka Govt. Hospital	1.3%	98.7%	0.0%
Makeni Govt. Hospital	81.8%	0.0%	18.2%
Moyamba Govt. Hospital	25.0%	2.3%	72.7%
Port Loko Govt. Hospital	2.1%	0.0%	97.9%
Pujehun Govt. Hospital	12.9%	4.1%	83.0%
<b>Grand Total</b>	<b>52.8%</b>	<b>15.5%</b>	<b>31.7%</b>

The tabular representation labelled **table-12** provides a simplified display of patients' arrival methods at the secondary and tertiary hospital nationwide for the month of June 2022. For tertiary hospitals, there has been an increase on the percentage of arrival method supported by NEMS. Most of the facilities reported receiving less than 20% of NEMS referrals at tertiary facilities, with the exception of Rokupa, which has 100% NEMS referrals.

100% of the Missions to Matru used NEMS ambulance to transport patients to their facility.

For Regional/District hospital, it is only Bo that used 100% NEMS ambulances for the month of June 2022, while the others health facilities reported receiving less than 90% of NEMS referrals.



5.2.Table 13: Time Taken to Triage

Time Taken to Triage	BO	BOMBALU	BONTHE	FALABA	KAILAHUN	KAMBIA	KENEMA	KARENE	KOINADUGU	KONO	MOYAMBA	PORT LOKO	PUJEHUN	TONKOLILU	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total June 2022	Percentage June 2022	Grand Total May 2022	Percentage May 2022
00:00:00 to 00:05:00	8	11	4	3	7	11	11	2	6	13	13	7	7	10	14	13	140	29.1%	95	36.4%
00:05:01 to 00:10:00	12	13	10	4	10	16	21	0	9	18	11	3	16	4	25	29	201	41.8%	82	31.4%
00:10:01 to 00:15:00	8	3	6	1	4	1	2	0	7	2	1	0	3	1	7	13	59	12.3%	28	10.7%
00:15:01 to 00:20:00	0	0	2	1	0	1	3	0	2	2	2	2	0	0	2	3	20	4.2%	19	7.3%
00:20:00 to 00:30:59	0	0	1	0	0	2	0	0	4	3	2	0	0	0	4	4	20	4.2%	19	7.3%
00:31:00 to 01:59:59	2	0	10	1	0	1	2	0	1	3	0	0	1	2	2	4	29	6.0%	14	5.4%
02:00:00 to 02:59:59	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.8%	2	0.8%
03:00:00 to 03:59:59	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0.6%	1	0.4%
04:00:00 to 04:59:59	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.2%	0	0.0%
05:00:00 to 05:59:59	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2%	1	0.4%
06:00:00 to 06:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
07:00:00 to 07:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
08:00:00 to 08:59:59	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0.4%	0	0.0%
09:00:00 to 09:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
10:00:00 to 10:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
11:00:00 to 11:59:59	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2%	0	0.0%
12:00:00 to 12:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
13:00:00 to 13:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
14:00:00 to 14:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
15:00:00 to 15:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
16:00:00 to 16:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
17:00:00 to 17:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
18:00:00 to 18:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
19:00:00 to 19:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
20:00:00 to 20:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
21:00:00 to 21:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
22:00:00 to 22:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
23:00:00 to 23:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Grand Total/District	31	29	36	12	21	32	39	2	31	41	30	12	27	17	55	66	481	100.0%	261	100.0%

The table above delineates the time taken by Call Centre to triage a patient when a call is received. In June 2022, **83.2%** of the total Calls received were triaged in less than fifteen minutes (15 minutes), while in May 2022, **78.5%** of the total calls supported were triaged in less than 15 minutes, indicating **4.7%** increment in the calls triaged in less than 15 minutes. The calls data shows that 16.8% of the total calls received that took more than 15-minutes to triage and it could be attributed to inevitable challenges in the allocation of an ambulance to undertake a specific mission. In comparison with May 2022 figures , which showed that a total of **21.5%** of the Calls supported by NEMS operators took more than 15 minutes to triage a patient and make a decision to send an ambulance.

5.2.1.Table 13: Time Taken to Reach the Target

Time Taken to Reach the Target	BO	BOMBALU	BONTHE	FALABA	KAILAHUN	KAMBIA	KARENE	KENEMA	KOINADUGU	KONO	MOYAMBA	PORT LOKO	PUJEHUN	TONKOLILU	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total June 2022	Percentage June 2022	Grand Total May 2022	Percentage May 2022
00:00:00 to 00:30:59	5	10	25	3	5	9	1	15	8	14	10	1	9	0	34	32	181	56.4%	87	58.8%
00:31:00 to 01:59:59	10	9	11	0	3	9	0	12	12	9	5	6	9	6	16	4	121	37.7%	52	35.1%
02:00:00 to 02:59:59	1	0	0	1	1	0	0	1	2	1	3	0	0	0	0	0	10	3.1%	5	3.4%
03:00:00 to 03:59:59	0	0	0	1	0	0	0	0	0	1	1	0	1	0	0	0	4	1.2%	3	2.0%
04:00:00 to 04:59:59	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0.6%	0	0.0%
05:00:00 to 05:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	1	0.7%
06:00:00 to 06:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
07:00:00 to 07:59:59	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0.6%	0	0.0%
08:00:00 to 08:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
09:00:00 to 09:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
10:00:00 to 10:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
11:00:00 to 11:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
12:00:00 to 12:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
13:00:00 to 13:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
14:00:00 to 14:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
15:00:00 to 15:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
16:00:00 to 16:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
17:00:00 to 17:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
18:00:00 to 18:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
19:00:00 to 19:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
20:00:00 to 20:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
21:00:00 to 21:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
22:00:00 to 22:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
23:00:00 to 23:59:59	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.3%	0	0.0%
Grand Total/District	16	19	36	6	9	18	1	29	24	25	19	7	20	6	50	36	321	100.0%	148	100.0%

When a decision is made to allocate an ambulance for a specific mission, the time taken by the ambulance team to reach the targeted Peripheral Health Unit (PHU), a health facility or private homes is shown in the table above. In June 2022, **97.2%** of the missions undertaken took less than 3-hour to reach the targeted PHU, while in May 2022, **97.3%** of the total missions supported by NEMS took less than 3-hour to get to the particular health facility that requested for an ambulance. The data further shows that **2.8%** of the missions in June 2022 took more than 2-hours to locate the respective PHUs.





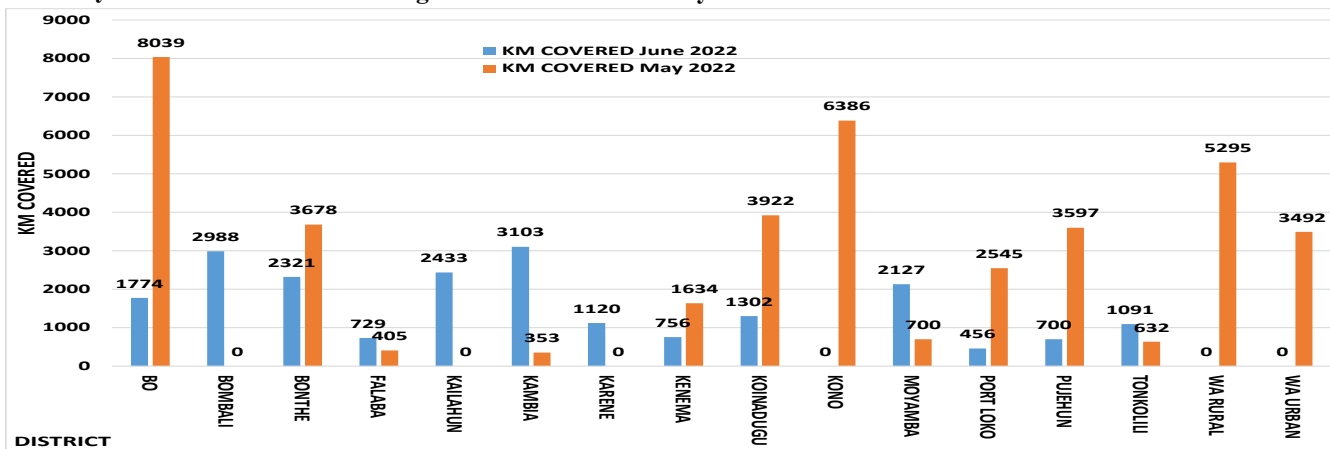
5.2.2. Table 14: Time Taken to Reach the Hospital

Time Taken to Reach the Hospital	BO	BOMBALI	BONTHE	KAILAHUN	KAMBIA	KENEMA	KONADUGU	KARENE	KONO	MOYAMBA	PORT LOKO	PUJEHUN	TONKOLILI	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total June 2022	Percentage June 2022	Grand Total May 2022	Percentage May 2022
00:00:00 to 00:30:59	2	3	8	0	7	10	7	0	6	4	1	4	1	7	17	77	23.9%	33	21.6%
00:31:00 to 01:59:59	10	14	23	7	9	11	9	0	16	9	5	14	3	45	19	194	60.2%	90	58.8%
02:00:00 to 02:59:59	2	1	2	3	3	3	4	0	7	4	1	1	1	1	0	33	10.2%	12	7.8%
03:00:00 to 03:59:59	1	0	2	0	0	1	2	0	0	1	0	0	2	0	0	9	2.8%	9	5.9%
04:00:00 to 04:59:59	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	1.2%	1	0.7%
05:00:00 to 05:59:59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3%	2	1.3%
06:00:00 to 06:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	2	1.3%
07:00:00 to 07:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.3%	0	0.0%
08:00:00 to 08:59:59	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.3%	1	0.7%
09:00:00 to 09:59:59	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.3%	1	0.7%
10:00:00 to 10:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
11:00:00 to 11:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	1	0.7%
12:00:00 to 12:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	1	0.7%
13:00:00 to 13:59:59	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.3%	0	0.0%
14:00:00 to 14:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
15:00:00 to 15:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
16:00:00 to 16:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
17:00:00 to 17:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
18:00:00 to 18:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
19:00:00 to 19:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
20:00:00 to 20:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
21:00:00 to 21:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
22:00:00 to 22:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
23:00:00 to 23:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
	16	18	35	10	19	27	25	0	29	19	7	20	7	54	36	322	100.0%	153	100.0%

Immediately after the collecting the patient from the PHU, the NEMS ambulance team then travel with the patients to a specific or selected health facility that has the required health services needed by the patients. The table above this narrative provides an in-depth analysis on the time taken to reach secondary or tertiary health facility. It is visible that in June 2022, 94.3% of the missions supported took less than 3 hours to reach the required health facilities, while in May, we saw a total of **88.2%** of the number of missions supported by NEMS within 3-hour to reach their various health facilities, which increased by **6.1%** to the previous month.

Missions by Ambulances:

Figure 19: Km Travelled by District



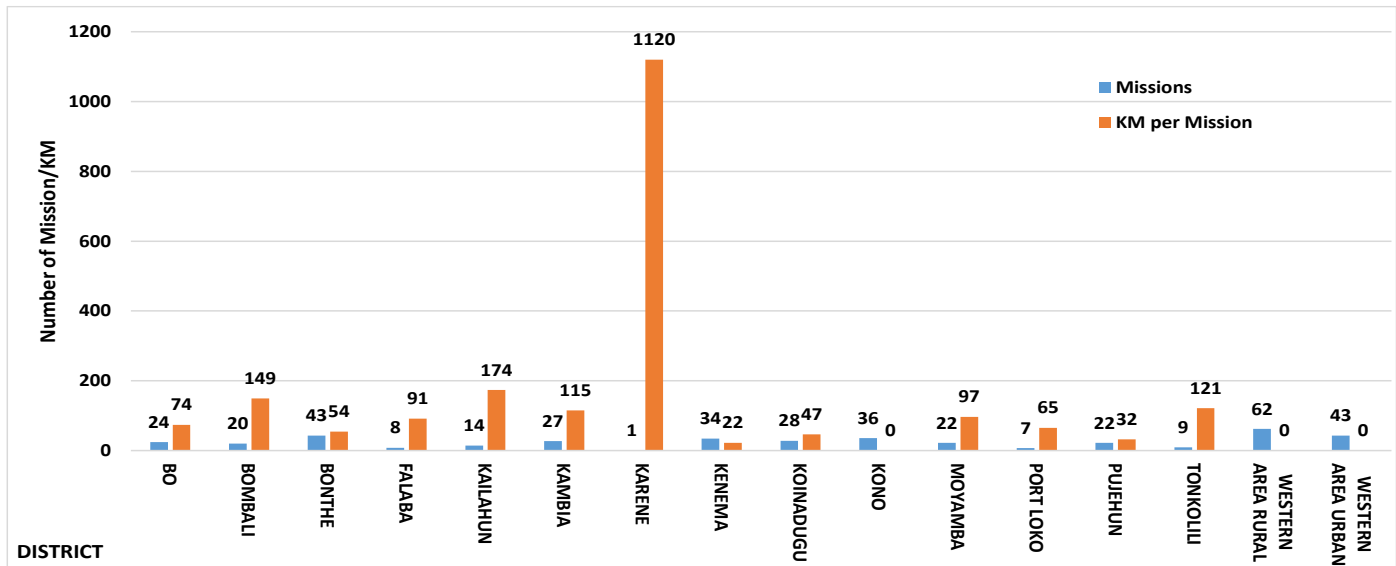
The District Ambulance Supervisors (DAS) provides a Monthly Kilometre Report that showed that, the data for June 2022 the ambulances covered a cumulative distance of **20,900 km**, when put in contrast with the May 2022 data, when **19,778 Km** was covered indicating a significant rise by **40,678 kilometres (km)** travelled by NEMS ambulances for the month under review. The two graphs (**Figure 19 and Figure 20**) display the number of km travelled by NEMS ambulances per district and the average km/mission covered per district.

A comparison was done for the inter-district figures for June 2022 and May 2022.

The analysis of the average km/mission represent all the missions handled by NEMS as per our database (and not only the one ending with a referral to the hospital, but those which required the ambulance to move from its location). Assessment of the district data showed that, there was a general fall in the June 2022 figure compared to the May 2022 figure for most districts, with the exception of Bombali, Kailahun, Kambia, Karene, Tonkolili and Moyamba. Another critical revelation of the June 2022 data evaluation is that Western Area Urban and Rural did not report any KM covered.



Figure 20: Average Km/Mission



The Bar chart labelled **figure 20** compares the average KM covered for a mission by district for June 2022. For the month under review, the district with the highest average KM per mission is Karene with 1 missions, the ambulances covered a significant 1120 Kilometres per mission (km/mission). The other districts that experienced significant increases in the kilometres/mission include Bombali by (149) km/mission, Kailahun by 174 km/mission and Tonkolili by 121 km/mission. It is essential to understand that, other district ? NEMS ambulances transported the missions recorded by Falaba and Karene.