



## **NEMS OPERATIONAL ACTIVITIES**

## **MONTHLY REPORT: SEPTEMBER 2022**





49 J Spur rd, Freetown, Sierra Leone

NEMS

National Emergency
Medical Service

## Table of Content

INDEX	Page No
Departmental Updates	3
Brief description of NEMS operational services	4
Chapter 1 - Overview	5
1.0 Overview of the Calls, Missions, and Referrals	5
1.1 Calls, Missions, Referrals	5
1.2 Cumulative Percentage Trend of Calls, Missions, and Referrals	5
1.3 NEMS Daily Activities	5
Chapter 2 - Calls	6
2.0 Classification of Calls	6
2.1 Breakdown of Calls per District	6
2.2 Number of Calls per Hour	6
2.3 Number of Calls per Day	7
2.4 Calls, Missions, Referrals by District	7
Chapter - 3 Missions	8
3.0 Categories of NEMS Missions	8
3.1 Time of the day of Missions	8
3.2 Comparative Analysis of NEMS Missions Complaints	9
3.3 Topology of Complaint that leads to Mission	9
3.4 Trend of Mission Complaints by day	10
3.5 Mission Complaint by District	10
3.6 Number of Calls, Missions, and Supported per Day	11
3.7 Outcome of the Missions	11
3.8 Missions Outcome and the Reason why Missions are aborted	12
Chapter - 4 Bed Capacity	13
4.0 National Hospital Bed Capacity	13
4.1 National percentage Bed Occupancy by department	14
Chapter 5 - Referrals	14
5.0 Number of Incoming and outgoing Referred Patients by district	14
5.1 The Outcome of the number of incoming Referred Patients by district	15
5.2 Number of Incoming Hospital Referrals supported by category	15
5.3 Outcome of Referred patients by Free Health Care Category	16
5.4 Referrals by Health Facilities	16
5.5 Number of Referred patients by Arrival Methods	17
5.5.1 Number of Referred patients by Arrival Method	18
5.2 Time taken to Triage	19
5.2.1 Time taken to reach Target	19
5.2.2 Time taken to reach the Hospital	20
5.3 Kilometres Travelled by District	20
5.3.1 Average Kilometre per Mission	21

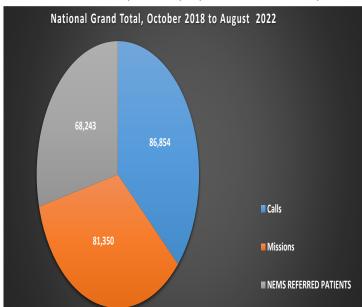


## Brief description of NEMS Operational Services

#### 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>**October 2018 to the 30th September 2022**, indicate that NEMS has accomplished over three years and eleven months (3yrs and 11 months) of operations. The following key indicators have been delivered as follows:

Cumulative total of 86,854 Calls, 81,350 Missions and 68,243



#### **Distributions of the Ambulances**

NEMS currently has **one hundred (100) ambulances** deployed to operate nationwide. Each district has one ambulance allocated to the District Ambulance Supervisor (DAS) to serve as backups in case an ambulance becomes inoperative because serious mechanical issues, which summed to the total reported figure of 100 ambulances. In August, 91% of the ambulances were operational.

Ambulance Distributions					
District	<b>Grand Total</b>				
во	7				
BOMBALI	6				
BONTHE	5				
FALABA	5				
KAILAHUN	7				
KAMBIA	5				
KARENE	5				
KENEMA	6				
KOINADUGU	5				
KONO	7				
МОҮАМВА	6				
PORT LOKO	6				
PUJEHUN	7				
TONKOLILI	8				
WESTERN AREA RURAL	7				
WESTERN AREA URBAN	8				
Grand Total	100				

#### **Km Travelled**

In **September**, NEMS operated with below 70% of the ambulances nation-wide; this includes the vehicles allocated to the Dis. They have travelled a cumulative total of **6,312,791** km. In **September** 2022, a total of **45,395** kilometre covered by all the ambulances that were used to transport the various patients to the referred health facilities.

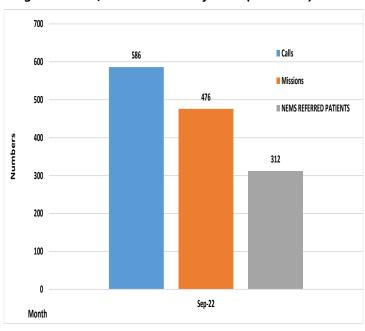
#### **COVID-19 Response**

The total number of **COVID-19** confirmed cases transported by NEMS ambulances in **September** 2022 was zero (0). There was also zero (0) suspected case reported. The cumulative figures since the COVID-19 outbreak in the Sierra Leone in March 2020 is **3,683** confirmed cases, 258 suspected cases. These numbers have not changed since January 2022. The nation has continued to registered no case of COVID-19 that required further referral for specialist care at tertiary hospitals.



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

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



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

The graph shows that for the period under review, **586 Calls** were received, **476 Missions** and **312 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
	Jan-22	942	0%	686	-32%	483	-3%
	Feb-22	639	-1%	435	-59%	255	-31%
	Mar-22	188	-1%	125	-128%	77	-54%
ſ	Apr-22	599	52%	463	57%	325	62%
2022	May-22	297	-34%	190	-42%	93	-56%
Ī	Jun-22	505	26%	400	36%	244	45%
Ī	Jul-22	420	-9%	363	-5%	205	-9%
	Aug-22	740	28%	645	28%	392	31%
	Sep-22	586	-12%	476	-15%	312	-11%
Total I	NEMS Project	86854		81350		68243	

**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, June, July, August and *September* 2022. The cumulative grand total for Calls 86,854, Missions 81,350 and NEMS Referrals only 68,243.

A dramatic decrease was observed in the percentage Calls by minus 12%, Missions by minus 15% and Incoming Referrals by minus 11%.

1.3. Table 2: NEMS Daily Activities Averages

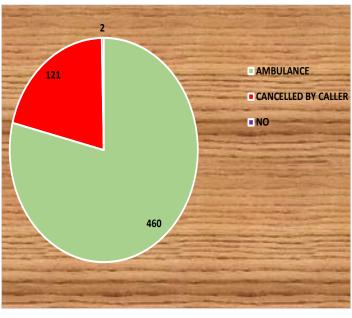
Daily Operations	Calls	Missions	NEMS REFERRED PATIENTS
Sep-22	20	16	10

**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 were received at the NEMS Call Center. The call center operators received a cumulative total of 581 Calls. 460 of the cumulative total calls representing (78.5%) required NEMS ambulance. 121 calls representing (20.6%) were cancelled by the callers due to factors that are determined by the

various callers. Two(2) Calls did not call for ambulance .

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

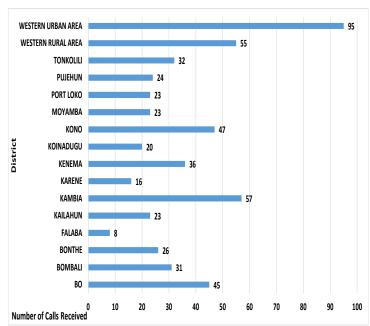
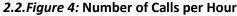


Figure 3 shows the breakdown of Calls by district. Western Area Urban reported the highest number of calls—95 and seconded by Kambia with 57 number of calls received. The least number of Calls were from Falaba recorded 8.



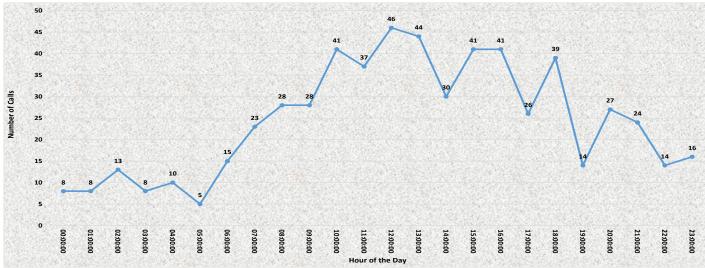
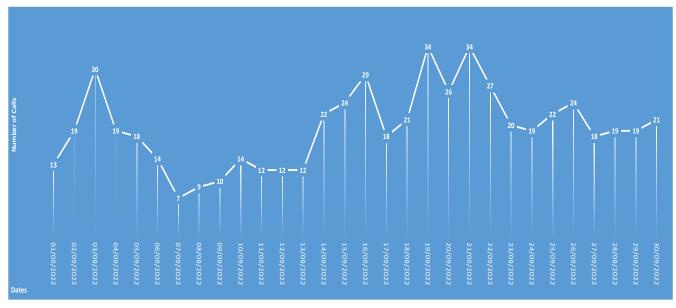


Figure 4, shows an oscillating line graph that describes the number of calls received at NEMS operation center on an hourly base. The chart above this narrative shows that, there was a surge in the number of calls received between the hours of 06:00 hours and 19:00hrs GMT, irrespective of its fluctuation. The operation center recorded its highest number of calls at around 12:00hrs GMT, while the least number of calls were received at around 05:00 hour.

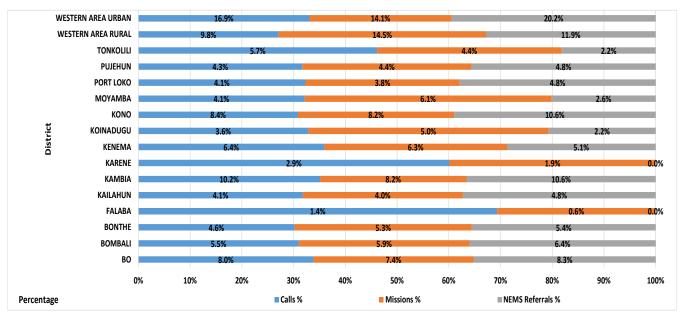


#### 2.3. Figure 6: Number of Calls per Day



The chart **Figure 6**, demonstrates the trend of incoming calls to the NEMS call centre per day. The least number of Calls were recorded on the 7th with 7 calls, while the highest number of Calls were registered on the 19th and 21st with 34 number calls. The chart fluctuated throughout the month of *September 2022*.

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

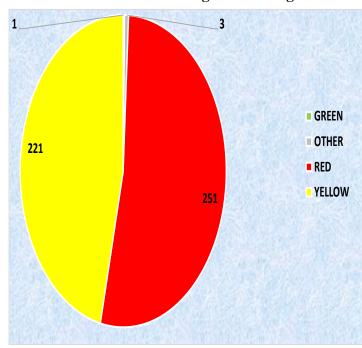


The bar chart above demonstrates the percentage of Calls, Missions and NEMS Referrals supported by NEMS per district in the month of September. For both Calls, Western Area Urban recorded the highest percentage with 16.9%, seconded by Western Area Rural with 9.8%, with the least calls from Koinadugu. For Missions, in which Western Area Rural registered the highest, seconded by Urban. Port Loko reported the lowest Missions for this period. Referrals are a reflection of the number of Missions that were completed. 20.2% of the Referrals were from Western Area Urban. Moyamba district recorded the least number of referrals. Karene and Falaba reported zero, which is due to the fact that the referral system is not capturing them as separate district.



## 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 which call could meet threshold for a mission to be undertaken. The severity of the condition are segmented into three major categories that are color—coded as (Red, Yellow, Green and 'Others').

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 of an emergency for an ambulance to be dispatched.

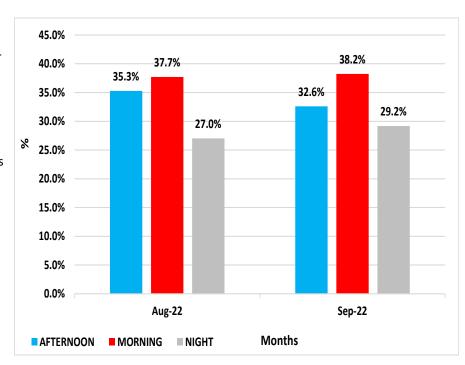
A NEMS mission can be activated by dispatching an ambulance provided the condition of the patient matches the emergency color code Yellow and/or Red. The color code Green is ascribed when the patient's condition does not match the NEMS threshold for an emergency situation that will requires the NEMS operator to activate a mission and dispatch ambulance (s).

In this month's review, a total of **586** calls were received, out of which **472** led to a missions, and **4** of those were classified as other and green, which means an ambulance is not required.

#### 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 September 2022.

Figure 9 displays a comparative percentage analysis for the months of August and September . In September, the percentage of Missions done in the Afternoon hours increase were 32.6%, while at Night - 29.2%, with 38.2% - Morning. For August, a significant number of missions were undertaken during morning hours, with 37.7%, while 35.3% were done at Afternoon and those that were done during the Night 27.0%.





#### 3.2. Figure 10: Comparative Analysis of NEMS Mission's complaints

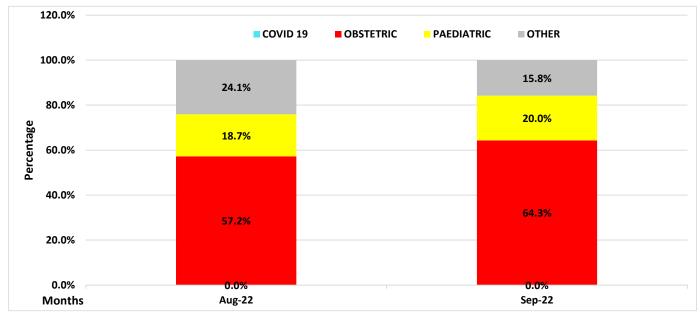


Figure 10 represents the major categories of complaints of NEMS Missions. comparing August and September 2022 data. The data for COVID-19 Missions continues to be zero for both suspected and confirmed cases for the last nine months. It is visible from the data that Obstetric cases are in the majority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

The indicator 'Other' is a combination of other complaints, such as Abdominal Pain, Consciousness, Road Accident, Trauma and etc. Between the months of August and September, there is a -8.3% decrement in other cases. For Obstetric, there is 7.1% increment from the previous month, and for Paediatric a 2.3% decrease.

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

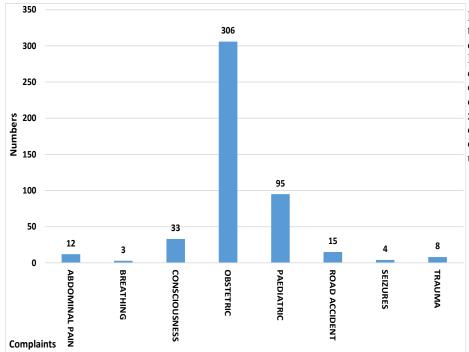
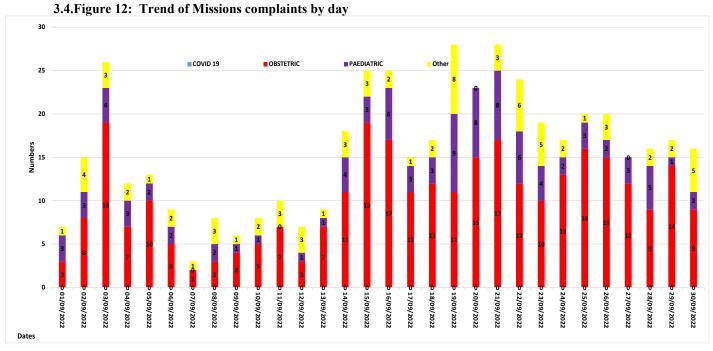


Figure 11 provides a detailed breakdown of the number of complaints received that are considered as missions.

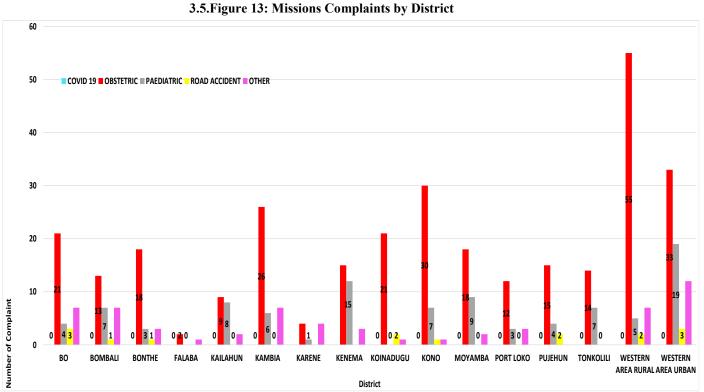
It is evidently clear that obstetric (306) complaints were the most occurring, seconded by Paediatric (95), while Road Accident (15), Consciousness (33) and Seizures (4), while combining Trauma, Abdominal Pain, Breathing account for (27) cases complaints received for the month under review.







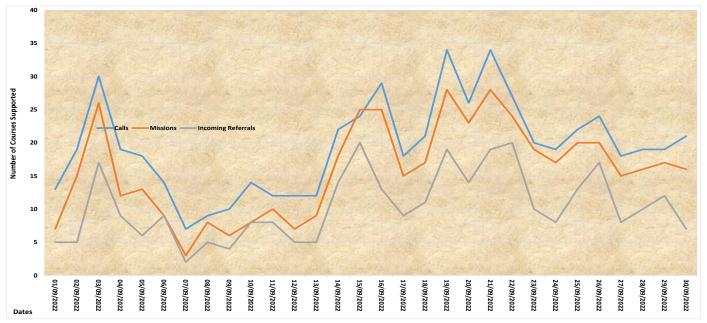
The bar chart displays the number of missions undertaken in the month of September 2022 on a daily basis, with a special attention to the various complaints. Obstetric cases appear to be the only complaint that was transition to a mission for almost every other day of the month, while an enormous number of the total missions done on the 19th.



A breakdown on the number of complaints by the different districts nationwide. Every district in Sierra Leone reported obstetric, while the others complaint did not happen at every other district. Western Area Urban 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 September, the indicators fluctuated. The average call were 20, Missions is 16 and referrals 10 for the month under review.

#### 3.7. Figure 15: Outcome of the Missions

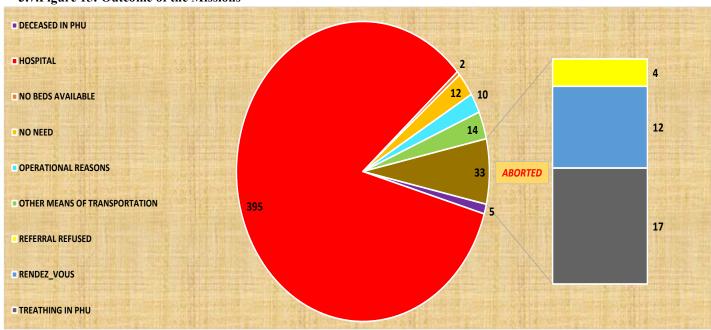


Figure 15 shows the outcome of missions carried out by NEMS in September 2022.

'Hospital' refers to mission lead referrals to a pre-identified health facility (Hospital).

Referencing the data displayed in the pie chart above, for September shows that (395) 83% of the missions lead to referrals to a preidentified specialist health facility, compared to the August 2022 data that shows that 81.2% of the missions were referred to a preidentified specialist health facility. This indicates a decrease of 1.8% in the referrals when the data for September 2022 is compared to that of August 2022.



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#### 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	5	0	0	0	0	5	8.8%
DECEASED IN PHU	0	5	0	0	0	5	0.0%
HOSPITAL	0	0	395	0	0	395	0.0%
NO BEDS AVAILABLE	2	0	0	0	0	2	3.5%
NO NEED	5	0	0	7	0	12	8.8%
OPERATIONAL REASONS	10	0	0	0	0	10	17.5%
OTHER MEANS OF TRANSPORTATION	14	0	0	0	0	14	24.6%
REFERRAL REFUSED	4	0	0	0	0	4	7.0%
RENDEZ_VOUS	0	0	0	0	12	12	0.0%
TREATHING IN PHU	17	0	0	0	0	17	29.8%
Grand Total	57	5	395	7	12	476	100.0%
%	12.0%	1.1%	83.0%	1.5%	2.5%	100.0%	

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 September 2022 data shows that out of the 57 missions undertaken, 12.0% 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 57 missions aborted, 5 (8.8%) of the aborted missions were due to 'ambulance changed'.
- ♦ 'No Beds Available' with 2 (3.5%).
- 'Deceased' this mission outcome refers to the death before the arrival of the NEMS ambulance team. September 2022 data shows that a total of 5 (1.1%) death were reported and breakdown to; the 5 missions cancelled was due to the fact that the patients passed away in the PHU.
- 'Operational reasons' this type of mission outcome has strong correlation with the ambulance technical problems. The table above shows that 19 (17.5%) of the aborted missions occurred because of technical problems with the ambulances in the month of September compared to August with 24.7% 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 September data shows that 14 (24.6%) 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 17 (29.8%) of such cases were recorded for the month under review.
- 'Other reasons' includes' no-need' of the ambulance (5) and Refused referral 4.
- ♦ 'Rendezvous' 12 (2.5%).



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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	Peadiatric Bed Capacity	% Average Bed Occupancy per Month
Bo Government Hospital	139	44	54	52	72	69
Makeni Government Hospital	68	47	30	60	43	64
Mattru UBC Hospital	36	47	12	104	19	46
Connaught Government Hospital	235	0	0		28	0
Kailahun Government Hospital	38	41	37	64	42	52
Kambia Government Hospital	29	44	24	47	35	39
Kenema Government Hospital	123	48	41	69	63	40
Kabala Government Hospital	49	35	37	40	55	35
Koidu Government Hospital	74	89	36	82	57	116
Lungi Government Hospital	40	35	20	32	20	44
Moyamba Government Hospital	48	19	24	47	39	52
Ola During Children Hospital	0	0	0		131	85
Princess Christian Maternity Hospital	0	0	134	89	18	
Port Loko Government Hospital	65	40	35	42	20	82
Pujehun Government Hospital	42	43	41	79	35	38
Tonkolilli Government Hospital	49	28	40	48	72	55
34M Military Hospital	82	91	22	51	10	94
King Harman Road Government Hospital	4	52	17	42	15	56
Rokupa Government Hospital	19	73	21	50	26	99
Lumley Government Hospital	12	0	10	0	4	0
Macauley Government Hospital	12	61	10	38	4	68
Emergency Memorial Hospital	38	80	0	0	29	83
Total National Bed Capacity	1202		645		837	

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 During 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. In August, nationwide, hospital facilities **2,831** and this did not change in the month of September.
- 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 September 2022 shows that no facility reported overcrowding. Koidu Government Hospital and Emergency Memorial Hospital recorded 89% and 80% respectively, as the average bed occupancy status and that is the highest for Adults.
- Maternity Occupancy: the table shows that only one facility reported overcrowding which is Mattru UBC Hospital 104%.
- ♦ Paediatric Occupancy: Koidu Government Hospitals reported 116% average bed capacity for September 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-

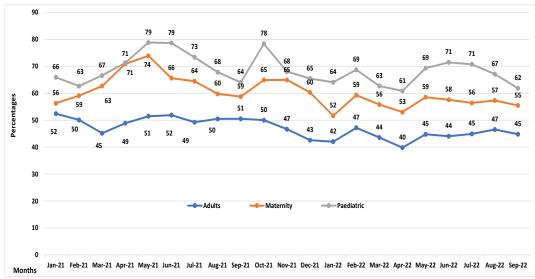


Figure 15 provides an average percentage bed occupancy by month. Health facilities have various subsectors that are merged to form the major listed departments on the line chart. Since the commencements of 2021, the average bed occupancy has been below 80% for the different departments and all the various health facilities. There is a slight decrease to 62% for the month of September.

**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 1,205 referrals were supported by NEMS. In that number 1,108 were classified as incoming referrals, while 97 represented the total outgoing referred patients supported.

In September, ODCH recorded the highest number of incoming referred patients, while Rokupa recorded the least number of referrals.

	National Referrals by District, September 2022									
	Facility	Total	Incoming	Outgoing	NEMS					
No:	racinty	Referrals	Referrals	Referrals	Referrals					
	National Total	1205	1108	97	312					
	Nationwide %	100	92	8	26					
1	34M	46	29	17	0					
2	Во	31	26	5	26					
3	Bombali	30	27	3	20					
4	Bonthe	19	18	1	17					
5	Connaught	121	121	0	21					
6	Emergency	37	14	23	2					
7	Kailahun	73	71	2	15					
8	Kambia	39	38	1	33					
9	Kenema	91	90	1	16					
10	King Harman Road	58	54	4	4					
11	Koinadugu	33	26	7	7					
12	Kono	38	34	4	33					
13	Lumley	12	4	8	0					
14	Lungi	10	9	1	1					
15	Macauley Street	12	6	6	0					
16	Moyamba	29	26	3	8					
17	ODCH	124	118	6	9					
18	РСМН	110	110	0	64					
19	Port Loko	50	48	2	14					
20	Pujehun	104	103	1	15					
21	Rokupa	0	0	0	0					
22	Tonkolili	138	136	2	7					



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

	Number of Incoming Referrals by patients' outcome, September 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
394	48	2	20	624	5	1	0	8	0	1102
36	4	0	2	57	0	0	0	1	0	100
29	0	0	0	0	0	0	0	0	0	29
0	0	0	0	26	0	0	0	0	0	26
17	1	1	0	8	0	0	0	0	0	27
0	0	0	0	17	0	0	0	1	0	18
5	0	0	5	109	0	0	0	0	0	119
10	1	0	0	0	0	0	0	3	0	14
22	5	0	3	40	1	0	0	0	0	71
8	1	0	1	25	1	1	0	1	0	38
10	6	1	2	69	0	0	0	2	0	90
26	2	0	2	24	0	0	0	0	0	54
14	0	0	0	10	0	0	0	0	0	24
34	0	0	0	0	0	0	0	0	0	34
0	0	0	0	2	1	0	0	1	0	4
0	1	0	0	8	0	0	0	0	0	9
0	0	0	0	6	0	0	0	0	0	6
24	0	0	0	2	0	0	0	0	0	26
45	17	0	0	54	1	0	0	0	0	117
33	0	0	0	77	0	0	0	0	0	110
27	0	0	7	14	0	0	0	0	0	48
54	5	0	0	42	1	0	0	0	0	102
0	0	0	0	0	0	0	0	0	0	0
36	9	0	0	91	0	0	0	0	0	136

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 (624), while out of that 8 were unable to admit, 48 of those were reported dead. 394 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-FHCI	Pregnant	Under 5	EVD Survivor	Yes - other	Total
34M	0	27	0	1	0	0	28
Во	0	3	18	5	0	0	26
Bombali	0	5	8	12	0	0	25
Bonthe	0	2	14	2	0	0	18
Connaught	1	58	0	62	0	0	121
Emergency	0	8	0	6	0	0	14
Kailahun	2	12	30	27	0	0	71
Kambia	3	10	18	7	0	0	38
Kenema	4	11	50	25	0	0	90
King Harman Road	0	4	0	50	0	0	54
Koinadugu	0	2	12	12	0	0	26
Kono	0	1	28	5	0	0	34
Lumley	0	2	2	0	0	0	4
Lungi	0	0	9	0	0	0	9
Macauley Street	0	0	0	4	0	0	4
Moyamba	0	1	12	13	0	0	26
ODCH	0	18	0	100	0	0	118
PCMH	1	0	109	0	0	0	110
Port Loko	3	3	24	17	0	0	47
Pujehun	1	7	55	40	0	0	103
Rokupa	0	0	0	0	0	0	0
Tonkolili	3	6	56	71	0	0	136
Total	18	180	445	459	0	0	1102

Table 9 explains the categories of incoming referred patients at the various health facilities nationwide for the month of September. EVD survivors have dropped significantly and continued to be zero. The various facilities supported a total 1,108 incoming referred patients. All active hospitals have recorded for pregnant women, with the exception of Connaught, Emergency, King Harman Road, Macauley Street, ODCH and Rokupa that did not record pregnant cases for the month of September.



#### 5.3. Table 10: Outcome of Referred Patients by Free Health Care Catego-

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	6	0	0	0	12	0	0	0	0	0	18
Non-FHCI	59	11	1	5	96	1	1	0	5	0	179
Pregnant	161	2	0	2	274	2	0	0	2	0	443
Under 5	164	35	1	13	240	2	0	0	1	0	456
EVD Survivor	0	0	0	0	0	0	0	0	0	0	0
Yes - other	0	0	0	0	0	0	0	0	0	0	0
Total	390	48	2	20	622	5	1	0	8	0	1096

The September 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	Jul-22	Aug-22	Sep-22
Tertiary Facility Total	58	109	105
Connaught Hospital	9	44	26
Ola During Children's Hospital	3	7	11
Princess Christian Maternity Hospital	46	58	68
Regional and District Hospital Total	179	291	223
Bo Government Hospital	23	28	28
Bonthe Government Hospital	1	-	-
Kabala Government Hospital	20	23	17
Kailahun Government Hospital	7	22	15
Kambia Government Hospital	25	31	32
Kenema Government Hospital	12	45	20
Koidu Government Hospital	22	24	32
Lungi Government Hospital	-	6	2
Magburaka Government Hospital	8	8	13
Makeni Government Hospital	13	28	20
Moyamba Government Hospital	7	18	10
Port Loko Government Hospital	4	31	18
Pujehun Government Hospital	37	25	16
Segbwema Government Hospital	0	2	-
Other Government Facility	15	25	15
Kingharman Road Government Hospital	-	1	2
Other Government facilities (i.e.Lumley & Macauley)	-	-	1
Rokupa Government Hospital	12	19	6
34 MILITARY HOSPITAL	3	5	6
Private/NGO facility Total	34	90	39
Emergency	1	22	4
Kamakwie	7	8	3
Masanga	4	7	2
Mattru UBC Hospital	13	27	18
MSF Hospital – Kenema	4	8	7
LIFE CARE HOSPITAL	1	4	1
YELE	2	6	1
CHOITHRAM MEMORIAL HOSPITAL	1	-	2
CHINESE HOSPITAL	-	2	-
LION HEART HOSPITAL YELEH	-	-	-
AT HOME	1	0	1
SAROWLLA	-	1	-
TREASURE HOSPT. KING HARMAN	-	2	0
MAMA SIA LIFE SAVING HOSPITAL - BO	-	2	0
KINGTOM POLICE HOSPITAL	-	1	0
LUNGI INTERNALNAL AIRPORT	-	-	1
LUNSAR	-	-	1
KISSY MENTAL HOSPITAL	-	-	1
COVID-19 CTC/CCC/ISOLATION	-	-	-
RENDEZ_VOUS	9	28	12

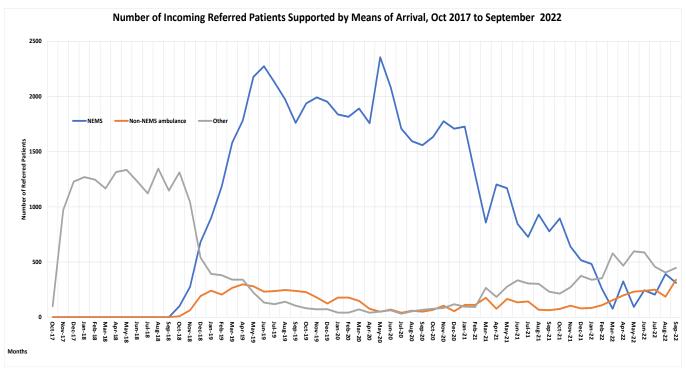
**Table 11** shows the NEMS general monthly referrals to the main hospitals for the month of September. The table compares the data between July, August and September 2022. You can see that for the month under review (September), the other facilities accounts for the least recipient of referrals (15) as follows:

- King Harman Road (2), Macauley (1), Rokupa (6) and 34 Military (6) compared to August with a total receipt of 25. This indicates a significant decrease in the following months.
- The Regional and District Hospitals received 223 for September, a increase from the previous month. This indicates a decrement in the number of patients referred to the Regional and District Hospitals.
- ♦ Furthermore, the table adjacent to this narratives 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, June, July, August and September 2022.
- ♦ The table shows that the Rendezvous reported a overwhelming increase 12.

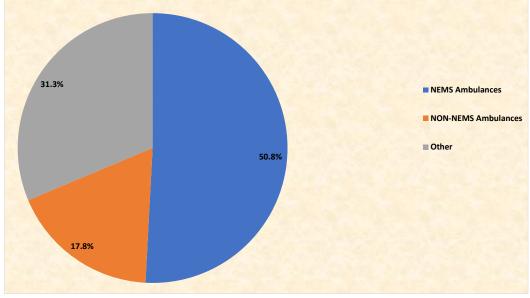


#### 5.5.1 Figure 17: Number of Referred Patients by Arrival

The graph labelled **figure 17** provides a detailed analysis on patients' arrival method at the various hospital where referral coordinators are attached. The September 2022 data demonstrates that the most common means of arrival at hospital is through the utilization of other means.



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



The pie chart labelled figure 12 above, exemplifies the methods of arrival provided by NEMS, Non-NEMS ambulances and other means to the various health facilities nationwide for the month of September 2022. The data as displayed in the pie chart above shows 50.8% of the total number of referred cases received by the respective hospitals were transported by NEMS, while 31.3% of the total referred cases were transported by 'other means' and 17.8% 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
Tertiary Facility	15.2%	41.4%	43.4%
34 Military Hospital	0.0%	65.5%	34.5%
Connaught Hospital	17.8%	81.4%	0.8%
Kingharman Road Govt. Hospital	7.4%	92.6%	0.0%
Lumley Govt. Hospital	0.0%	0.0%	100.0%
Ola During Children's Hospital	7.8%	6.9%	85.3%
Princess Christian Maternity Hospital	58.2%	1.8%	40.0%
Rokupa Govt. Hospital	-	-	-
Private/NGO facility Total	94.4%	0.0%	5.6%
Matru UBC Hospital	94.4%	0.0%	5.6%
Regional/District Hospital	42.9%	12.1%	45.0%
Kabala Govt. Hospital	26.9%	0.0%	73.1%
Bo Govt. Hospital	100.0%	0.0%	0.0%
Kailahun Govt. Hospital	21.1%	0.0%	78.9%
Kambia Govt. Hospital	86.8%	0.0%	13.2%
Kenema Govt. Hospital	17.8%	42.2%	40.0%
Koidu Govt. Hospital	97.1%	2.9%	0.0%
Lungi Govt. Hospital	11.1%	0.0%	88.9%
Magburaka Govt. Hospital	5.1%	79.4%	15.4%
Makeni Govt. Hospital	74.1%	0.0%	25.9%
Moyamba Govt. Hospital	30.8%	19.2%	50.0%
Port Loko Govt. Hospital	29.2%	0.0%	70.8%
Pujehun Govt. Hospital	14.7%	2.0%	83.3%
Grand Total	50.8%	17.8%	31.3%

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 September 2022. For tertiary hospitals, there has been an increase on the percentage of arrival method supported by other means.

It is only Bo Government Hospital that reported 100% NEMS arrival method for Regional/District hospital. It is essential to note that Princess Christian Maternity Hospital reported 58.2% of Non-NEMS referrals.

94.4% of the Missions to Mattru used NEMS ambulance to transport patients to their facility, while the remaining 25.6% used other means.





#### 5.2. Table 13: Time Taken to Triage

Time Taken to Triage	во	BOMBALI	BONTHE	FALABA	KAILAHUN	KAMBIA	KENEMA	KARENE	KOINADUGU	KONO	МОУАМВА	PORT LOKO	PUJEHUN	TONKOLILI	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total September 2022	Percentage September 2022	Grand Total August 2022	Percentage August 2022
00:00:00 to 00:05:00	14	13	5	0	8	19	10	3	3	10	10	8	6	13	0	0	122	29.8%	209	28.3%
00:05:01 to 00:10:00	12	11	3	4	9	21	17	9	8	15	6	6	8	10	0	0	139	33.9%	251	34.0%
00:10:01 to 00:15:00	3	3	4	1	4	8	5	1	3	8	1	5	3	3	0	0	52	12.7%	96	13.0%
00:15:01 to 00:20:00	4	3	1	0	0	3	1	0	2	4	0	2	4	1	0	0	25	6.1%	46	6.2%
00:20:00 to 00:30:59	2	1	2	2	1	3	2	2	2	6	5	0	1	4	0	0	33	8.0%	43	5.8%
00:31:00 to 01:59:59	8	0	9	0	1	3	1	0	2	4	1	2	1	0	0	0	32	7.8%	65	8.8%
02:00:00 to 02:59:59	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	4	1.0%	8	1.1%
03:00:00 to 03:59:59	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0.5%	16	2.2%
04:00:00 to 04:59:59	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.2%	2	0.3%
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	0.1%
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%	1	0.1%
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	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%	1	0.1%
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	44	31	26	8	23	57	36	16	20	47	23	23	24	32	0	0	410	100.0%	739	100.0%

The table above delineates the time taken by Call Centre to triage a patient when a call is received. In September 2022, call centre took less than 15 minutes to triage 76.4% of the total Calls received, while in August 2022, it took less than 15 minutes to triage 75.2% of the total calls supported, with a difference of 1.2% increment. The calls data shows that 23.6% of the total calls received that took more than 15-minute, which could be due to inevitable challenges in the allocation of an ambulance to undertake a specific mission in September. In comparison with August, which showed a total of 24.8% of the Calls supported 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

									9											
Time Taken to Reach the Target	во	BOMBALI	BONTHE	FALABA	KAILAHUN	KAMBIA	KARENE	KENEMA	KOINADUGU	KONO	МОУАМВА	PORT LOKO	PUJEHUN	TONKOLILI	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total September 2022	Percentage September 2022	Grand Total August 2022	
00:00:00 to 00:30:59	30	17	17	2	18	29	5	24	18	30	25	13	20	15	65	57	385	93.4%	331	62.1%
00:31:00 to 01:59:59	2	3	4	0	1	3	1	0	3	5	0	2	1	1	1	0	27	6.6%	174	32.6%
02:00:00 to 02:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	13	2.4%
03:00:00 to 03:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	8	1.5%
04:00:00 to 04:59:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	2	0.4%
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%	3	0.6%
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%	1	0.2%
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%	1	0.2%
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	0	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Grand Total/District	32	20	21	2	19	32	6	24	21	35	25	15	21	16	66	57	412	100.0%	533	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 September 2022, 100% of the missions undertaken took less than 3-hour to reach the targeted PHU, while in August 2022, 97.2% 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 0.0% of the missions in September 2022 took more than 2-hours to locate the respective PHUs.



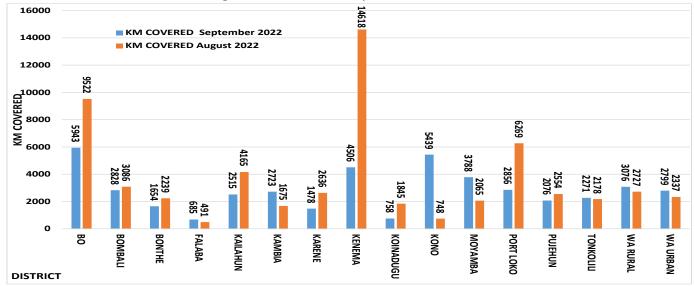


#### 5.2.2. Table 14: Time Taken to Reach the Hospital

Time Taken to Reach the Hospital	во	BOMBALI	BONTHE	KAILAHUN	KAMBIA	KENEMA	KOINADUGU	KARENE	KONO	МОҮАМВА	PORT LOKO	PUJEHUN	TONKOLILI	WESTERN AREA RURAL	WESTERN AREA URBAN	Grand Total September 2022	Percentage September 2022	Grand Total August 2022	Percentage August 2022
00:00:00 to 00:30:59	13	2	10	2	6	7	1	0	7	7	4	4	1	12	30	106	27.0%	145	27.6%
00:31:00 to 01:59:59	7	16	5	12	19	8	7	5	18	15	12	10	12	49	23	218	55.6%	305	58.1%
02:00:00 to 02:59:59	2	1	3	3	1	7	3	1	1	1	0	3	2	1	2	31	7.9%	43	8.2%
03:00:00 to 03:59:59	2	3	0	0	0	1	2	0	2	1	0	0	0	0	0	11	2.8%	9	1.7%
04:00:00 to 04:59:59	2	0	1	0	2	1	2	0	4	0	0	0	0	0	1	13	3.3%	11	2.1%
05:00:00 to 05:59:59	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	4	1.0%	5	1.0%
06:00:00 to 06:59:59	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5%	1	0.2%
07:00:00 to 07:59:59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3%	1	0.2%
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%	1	0.2%
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%
10:00:00 to 10:59:59	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.3%	1	0.2%
11:00:00 to 11:59:59	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.3%	1	0.2%
12:00:00 to 12:59:59	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0.5%	0	0.0%
13:00:00 to 13:59:59	0	0	0	0	0	1	0	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	1	0	0	0	0	0	0	1	0.3%	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%	1	0.2%
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%	1	0.2%
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%
	31	22	19	17	28	25	17	6	34	24	18	18	15	62	56	392	100.0%	525	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 September 2022, 90.5% of the missions supported took less than 3 hours to reach the required health facilities, while in August, we saw a total of 93.9% of the number of missions supported by NEMS within 3-hour to reach their various health facilities, which decreased by 3.4% to the previous month.





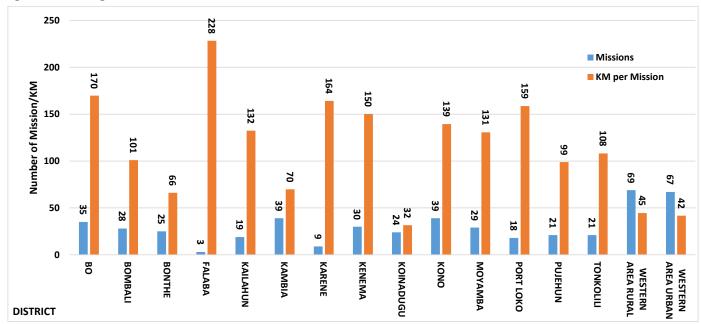
The District Ambulance Supervisors (DAS) provides a Monthly Kilometre Reports showed that, In September 2022 data, a cumulative **45,395 km** was travelled, when put in contrast with the August 2022—**59,155** Km indicating a significant drop by **13,760 km** in the kilometres travelled by NEMS ambulances for the month under review.

The two graphs (Figure 19 and Figure 20) displays the number of km travelled by NEMS ambulances per district and the average km/mission covered per district, with the calculation of all the missions undertaken by NEMS as recorded in the NEMS database. A comparison was the inter-district figures for September and August 2022.

Assessment of the district data showed that, there was a general rise in the September 2022 figure compared to the August 2022 figure for every districts in Sierra Leone.

National Emergency Medical Service

Figure 20: Average Km/Mission



The Bar chart labelled figure 20 compares the average KM covered for a mission by district for September 2022. For the month under review, the district with the highest average KM per mission is Falaba with 3 missions, while the ambulances covered a significant 228 Kilometre per mission (km/mission). The other districts that experienced significant increases include Kenema by (150) km/mission, Kailahun by 132 km/mission and Karene by 164 km/mission. It is essential to understand that, other district NEMS ambulances transported the missions recorded by Falaba and Karene. Calculated the average km/mission is for 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).