



AN ASSESSMENT OF COMMUNICABLE DISEASE SURVEILLANCE IN KAILAHUN DISTRICT

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ABSTRACT

Disease surveillance is critical for recognizing and anticipating infectious disease epidemics. It collects health-related data from a community in order to detect and monitor disease epidemics in their early stages. Disease monitoring necessitates a large network of sentinel sites to follow infections throughout the community.

The study focuses on communicable illness surveillance in the Kailahun district. It looks into the surveillance reporting system for communicable diseases, the flow of surveillance information, the various components of individuals involved in surveillance activities, the challenges faced by the surveillance system in the Kailahun district, and the involvement of community members in surveillance activities, as well as ways to improve communicable disease surveillance in the Kailahun district.

This study employs a quantitative cross-sectional design for research. It consequently employs the cross-sectional study design. I picked a cross-sectional design for this study based on the data needed to address the research questions. As a result, I structured the study questions so that qualitative data would be collected to provide descriptive information, while quantitative data would be analyzed in tables and charts.

Infectious disease surveillance is widely acknowledged as the foundation of public health policy and practice. Surveillance statistics are critical for monitoring the population's health state, diagnosing diseases, and taking action to avoid future illness and contain public health problems. The need to strengthen disease surveillance and response systems is now widely recognized around the world.

INTRODUCTION

Surveillance is the ongoing systematic collection, analysis, and interpretation of health data. It includes timely dissemination of the resulting information to those who need it for action. Surveillance is also essential for the planning, implementation, and evaluation of public health practice (WHO,2011)

A well-functioning disease surveillance system provides information for planning, implementing, monitoring, and evaluating public health intervention programs. Early warning of epidemics is essential for effective and rapid control, while information on endemic communicable diseases is essential for monitoring the disease. Many countries have developed surveillance capacities to monitor diseases with a high burden, detect outbreaks of epidemic-prone diseases, and monitor progress toward national or international control or eradication targets. In this sense, surveillance of communicable diseases is a national function. Mahdi, T F et, al, 2015)

Sierra Leone introduced Integrated Disease Surveillance and Response (IDSR) strategy in 2003(MOHS, 2012) In 2012, a strategic plan covering 2012 and 2017 was developed. This strategic plan seeks to enhance the national capacity to define, detect and respond to priority diseases, conditions, and events by 2023. Implementation of outlined strategies shall lead to improved evidence-based decision-making and a culture that demands quality data and stakeholder accountability. This plan is aligned with the National Action Plan for Health Security (NAPHS) 2018 -2022 and other relevant strategic plans. An agreed-upon monitoring and evaluation framework will serve

as the basis for all stakeholders and partners to measure achievements, identify gaps and trigger the appropriate corrective actions MOHS, 2012)

Sierra Leone experienced the worst Ebola Virus Disease (EVD) outbreak in world history with the index case reported in the remote eastern part of the country; Kailahun bordering Guinea and Liberia. The outbreak rapidly spread from the sparsely populated east to the more densely populated largely urban and peri-urban western region. All districts reported at least one case of EVD. A weakened health system worsened by many deaths among healthcare workers and poor infection prevention and control were key drivers of this epidemic. WHO,2012)

LITERATURE REVIEW

Health information a key ingredient in policy formation and program planning has often proven to be a scarce commodity in places where it is needed most (David P and Haberen S,2015). Communicable disease surveillance is an important source of health information. Communicable disease surveillance deals with contagious diseases (also called communicable diseases), which are diseases capable of being transmitted from one person or species to another. Contagious diseases are often spread through direct contact with an individual, contact with the bodily fluids of infected individuals, or with objects that the infected individual has contaminated (James Chin,2018). Surveillance is defined in many ways. According to one interpretation, surveillance means watching over with great attention, with authority, and



often with suspicion (Ghag S,2016). The commonly used definition for surveillance is a process of watchfulness over health events that may occur in a population. It has been defined as “the ongoing and systematic collection, analysis, and interpretation of health data in the process of describing and monitoring a health event” to support the planning, implementation, and evaluation of public health interventions and programs (WHO, 2016). More specifically, communicable disease surveillance is the continuous monitoring of the frequency and the distribution of disease and deaths due to infections that can be transmitted from human to human or from animals, food, water, or the environment to humans, and the monitoring of risk factors for those infections (Bonita R, et al,17). This definition means information for real action. Surveillance systems are networks maintaining their operation at different levels and providing information for disease prevention and control.

Surveillance reporting systems for communicable diseases

Effective communicable disease control needs effective response systems, which depend on effective disease surveillance. An effective surveillance system is a cornerstone in providing information for action on priority communicable diseases and plays a major role in public health decision-making. Surveillance provides data, which can be used for priority setting, policy decisions, planning, implementation, resource mobilization and allocation, prediction, and early detection of epidemics (Pluye P,2014)

The flow of surveillance information

The existing Sierra Leone eIDSR reporting structure was enhanced as follows: At the community level, community health workers were trained to actively look for signals, and either by home visits or through notifications, community health workers received information from informant networks in the community. Community health workers identified and selected people who were highly regarded in their community to serve as community informants, for sensitization and inclusion in the informant network. These informants included community leaders such as youth representatives, women’s representatives, traditional healers, administrative authorities, and religious leaders. This innovation became slow and defunct due to a lack of funds to pay incentives to Community Health Workers (Iwelunmor J,2015)

For the Kailahun district, the Sierra Leone Red Cross Society is implementing a project called Community Epidemic and Pandemic Preparedness Program with funds from USAID. The SLRCS has been an auxiliary to over governments since its establishment and had been very committed to responding to disasters and disease events across the country. In this project, they have Community-based surveillance volunteers across the district. These volunteers are reporting to Supervisors who are also working with Peripheral Health Unit for alerts coming from these volunteers. As soon as volunteers identified the signal, they sent a text message with the code of the signal detected, which simultaneously notified the supervisor and the supervisor in return, will notify the project manager and health facility and epidemiologic surveillance officers in district and regional offices. The Volunteers and Community Health

Workers were instructed to send weekly text notifications, even when there were no signals to report; zero reports (Kailahun DHMT,2022)

In addition, every week, Supervisors completed notification forms with the total number of signals identified during the past 7 days. Every week, Supervisors sent both notifications which are known as Nyss, and the same alerts will also be escalated to the DHS2 by the district surveillance officer. When Red Cross Supervisors and staff at health facilities received text notifications from community health workers, the Supervisors or supervising nurse is responsible for initial triage and verification, either via telephone or by visiting the community. For triage, nurses first called volunteers or community health workers to obtain additional data. If the signal met the criteria for a priority disease or unusual health event, Supervisors and nurses visited communities and verified whether signals represented public health events necessitating further investigation. If an investigation was conducted and proven to be true it will be reported to the district epidemiologic surveillance officer by phone and entered into the Frontline SMS database. Following standard IDSR guidelines (not part of the community-based surveillance project), the district epidemiologic surveillance officers conducting the investigation determined if the case should be classified as a suspected case and whether specimens should be collected in collaboration with health facilities. Specimens collected by the nurse or rapid response team are then sent to one of the identified laboratories in the country to investigate infectious diseases.

The challenges faced by the surveillance system.

Public health is presently being confronted with major challenges, especially in middle-income and low-income countries containing longstanding infectious diseases and where problems are perpetuated by political unrest, poverty, and lack of adequate health and sanitation infrastructure, and the Kailahun district is not an exception. The challenges of population growth, urbanization, deforestation, pollution, global climate change, and global movement of populations have been associated with a shift in geographical distribution and accelerated diffusion of old and new pathogens resulting in an increased number of outbreaks. The health, social, economic, and political consequences associated with these emerging diseases are still significant to public health (Peters DH,2012)

Coordinated efforts to monitor and prevent misuse of antibiotics are crucial to reducing the spread of microbial resistance, which can arise due to factors such as self-medication, prescription of antibiotics for viral infection, and general overuse of antibiotics (Nyenswah T,2013)

The involvement of community people in surveillance activities.

Community involvement in health development is understood to refer to a process to establish participation between Government and local communities in the planning, implementation, and use of health services to increase local



self-reliance and social control over health care (Nyenswah T,2013)

Community involvement means that people, who have both the right and duty to participate in solving their health problems, have greater responsibilities in assessing health needs, mobilizing local resources, and suggesting new solutions, as well as creating and maintaining local organizations. Community participation is used loosely for different PHC activities which cut across the economic, learning, and political spheres. (Buehler JW,2014) While community activities in each of these spheres can contribute to improving the health conditions of poor people, they raise quite different issues, particularly as regards the organization of the ministry of health. The economic dimension of community participation dominates when community members contribute resources-materials, money, and labour-promoting activities, or when they are enlisted to carry out tasks delegated by the healthcare system: village health workers are a widespread example. In terms of learning, community participation is a two-way process involving both community members and health workers. When the 14 community shares in defining needs, carrying out tasks, and gathering and processing information relevant to health, community members and health workers learn from each other. Finally, community participation is a political process in so far as community members acquire a say in decision-making about health and healthcare issues that affect them, and a measure of control over the persons that are supposed to serve their needs. Community participation in this sense raises the most serious organizational problems, and even dilemmas, for ministries of health (Sauerborn R,2014)

METHODOLOGY

The study was conducted in the Kailahun district, one of the districts sharing borders neighbouring Guinea and Liberia. The headquarter of the district is Kailahun town with an estimated population of 16,751(Census, 2015) Kailahun lies approximately 63 miles from Kenema and about 230 miles east of Freetown.

The Population target will constitute members that conform to a designated specification.

The study population comprised the resident leaders. Resident leaders are the community leaders who will represent the

residents in a particular household. They are responsible for taking up issues affecting the residents and one of the issues the resident leaders are responsible for is the health of the inhabitants. They are the adult members of households and include all ages 18 years and above who could give information on surveillance activities.

Quantitative data was gathered through open-ended and closed-ended interviews. Data collection in the communities was followed by discussions with health workers deployed at various Peripheral Health Units (PHUs), Community Health Centres (CHC), and the District Health Management Team (DHMT) in Kailahun town. Generally, qualitative research methods rely on understanding many stakeholders' viewpoints, social construction, and theory generation (Creswell, 2017).

Certain communities were chosen as a case for this research due to their proximity to neighbouring Guinea and Liberia and er districts in Sierra Leone and the social interactions between these people. The case study approach was the most appropriate because a comprehensive approach to the communicable disease surveillance issues in these communities was required and information was readily available through existing collaboration with community members (Noor, 2008)

Description of Study Sample

This section of the report recapitulates the results of the quantitative component of the research. A total of thirty (30) respondents were selected in five big towns in the Kailahun district with a target population of 500 inhabitants and 25 health staff with a target population of fifty-four (53) total staff; both health facilities and DHMT district headquarter.

The questionnaire required respondents to answer questions relating to the independent variables of the survey. Thirty (30) respondents representing five big towns in the Kailahun district with a target population of 500 inhabitants participated in the study which represents 6% of the total participants. A population of Five hundred (500) represented the local people with a percentage of 6% while Twenty-Five (25) health staff with a target population of fifty-four (53) total number staff; both the higher ranks(DHMT) and the lower ranks (Health Facility level) were also interviewed representing (47.2%) of the total staff representing MOHS. The number of local people surpasses that of MOHS because they are most directly having issues of surveillance on communicable diseases.

RESULTS AND DISCUSSIONS

DESCRIPTIVE STATISTICS

Table 1: Frequency and percentage distribution of Community people (respondents) as part of the surveillance of communicable disease

Dependent variable	Dependent variable	Frequency	Percentage
REPORTING SYSTEM			
Presence of a surveillance system			
	Yes	6	20
	No	24	80
	TOTAL	30	100%
INFORMATION			
Source of information			



Community people	0	0
Media	2	7
Rumours	7	23
Health providers	21	70
Local leaders	0	0
DHMT	0	0
CHW	0	0
Others (Specify)	0	0
TOTAL	30	100%
Appropriate means of communication		
Email	0	0
Phone SMS	0	0
Phone Calls	20	67
Hand Delivery	10	33
Others	0	0
TOTAL	30	100%
Surveillance information reaches the community		
Meeting	2	7
Radio	24	80
Public Announcement with a megaphone	4	13
Newsletters/bulletin	0	0
Others	0	0
TOTAL	30	100%
Feedback from the health facility		
Within 24 hours	0	0
72 hours	15	50
48 hours	15	50
TOTAL	30	100%
INVOLVEMENT		
Involved in the surveillance system		
Yes	10	20
No	20	80
TOTAL	30	100%
Sensitization on surveillance systems		
Yes	0	0
No	30	100
TOTAL	30	100%

Source: Field data, 2023

Table 1 shows the totality of results which indicates the characteristics of the respondents in the Kailahun district. The table indicates that there are a total number of 6(20%) respondents who must have known the existence of surveillance reporting systems in the district, whilst 24(80%) have no knowledge about the existence of surveillance systems in the district.

The table also illustrates the flow of surveillance information in the district. The results indicate that the main source of surveillance information is from health workers 21(70%),

rumours 7(21%) also played a key role and the media 2(7%) is also a means of getting surveillance information.

When asked about the appropriate means of communicating surveillance information, the respondents indicate that phone calls 20(67%) are the most accessible and appropriate means of passing information, but also state that hand delivery/oral communication 10 (33%) could also be another means of communication.

The table also shows that surveillance information from the Ministry of Health could best be passed through radio 24(80%), public service announcements/Megaphones 4(13%) and



meetings 2(7%) could also be applied to deliver surveillance information.

The table through the respondents indicates that there is a tie in the feedback from health facilities on the status of a suspected patient is received within 72hrs 15 (50%) and 4hrs 15(50%)

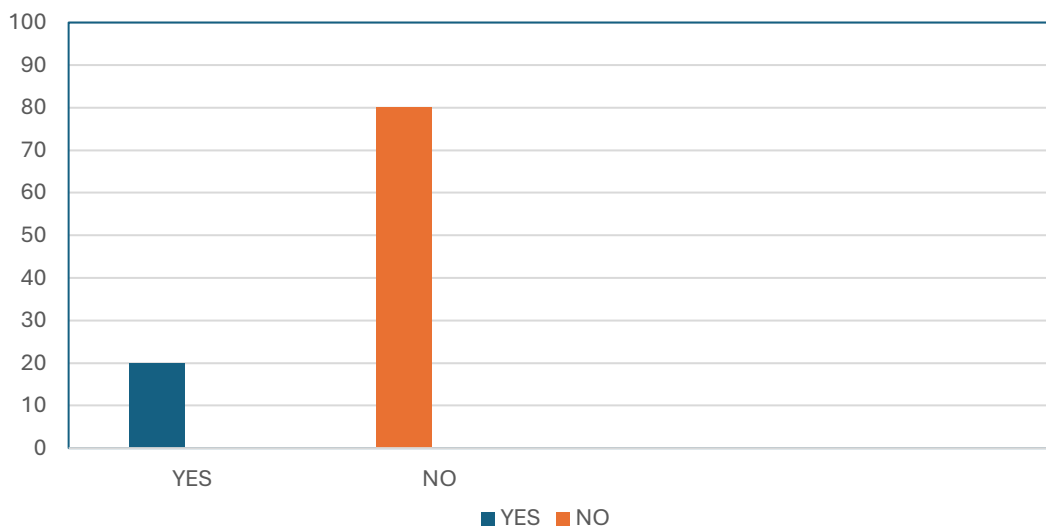
The findings from the table justify that, the involvement of community people in the surveillance is very low with a No 20(80%) whilst a few community stakeholders indicated a Yes 10(20%) that they have been involved. However, the respondents also stated that there is No 30(100%) sensitization on the surveillance activities in the district.

Table 2: represents the Frequency and Percentage of respondents indicating the present surveillance system in Kailahun district.

Characteristics	Frequency	Percentage
REPORTING SYSTEM		
Presence of a surveillance system		
Yes	6	20
No	24	80
TOTAL	30	100%

Source, field data 2023

Figure 1: Do you aware of the presence of a surveillance system in the district



SOURCE: Field Data, 2023.

Table 2 and figure 2 above illustrates out of 30(100%) respondents, A total of 6 (20%) of the respondents are aware of the presence of a surveillance system in their district. While

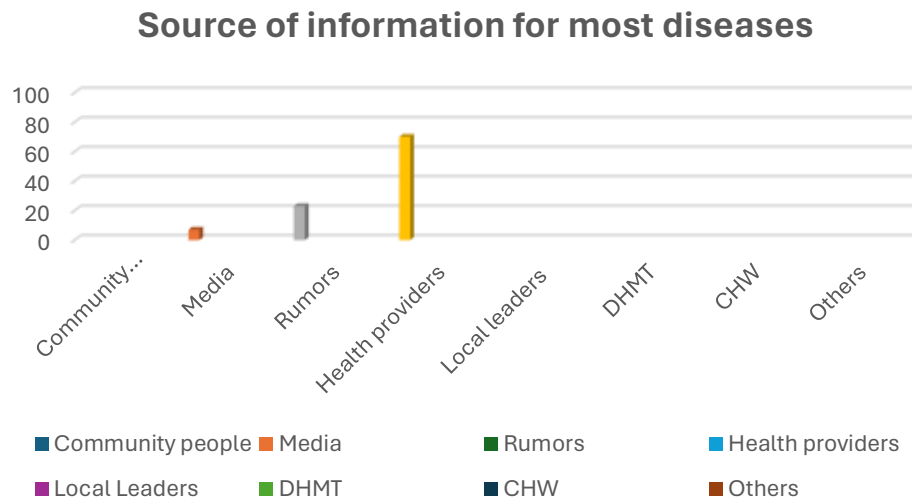
24(80%) were not aware of the presence of a surveillance system available in their district.

Table 3: Shows frequency and Percentage of the source of information of surveillance activities in the Kailahun district.

Characteristics	Frequency	Percentage
INFORMATION		
Source of information		
Community people	0	0
Media	2	7
Rumours	7	23
Health providers	21	70
Local leaders	0	0
DHMT	0	0
CHW	0	0
Others(Specify)	0	0
TOTAL	30	100%

Source; field data 2023

Figure 3: What is the source of information for most diseases in your community?



Source of field data, 2023.

As seen in table 3 and figure 1.2 above, 2(7%) of the respondents choose the media as their source of information, while 7(23%) of the respondents receive their information from

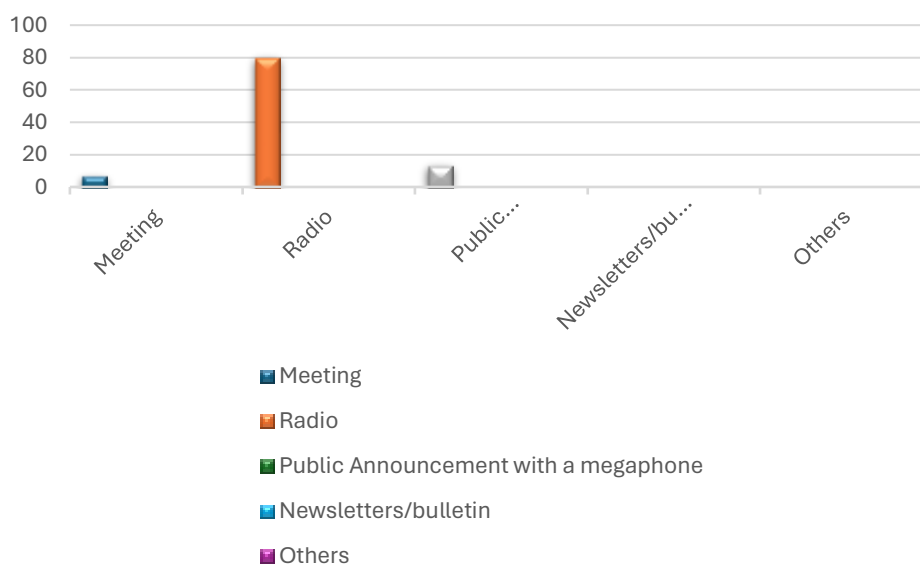
rumours. Only 21(70%) said their source of information is from health providers.

Table 4: Shows frequency and Percentage of how surveillance information reaches the community

Characteristics	Frequency	Percentage
Surveillance information reaches the community		
Meeting	2	7
Radio	24	80
Public Announcement with a megaphone	4	13
Newsletters/bulletin	0	0
Others	0	0
TOTAL	30	100%

Source field data, 2023.

Figure 1.4: How does surveillance information reach the community



Source field data, 2023.



Table 4 and figure 4 above illustrate that a total of 2(7%) of the respondents said that surveillance information reaches them through meetings. While 24(80%) indicate that surveillance information normally reaches them through radio, and the

remaining 4(13%) of the respondents said that surveillance information normally reaches them via public announcements via megaphone.

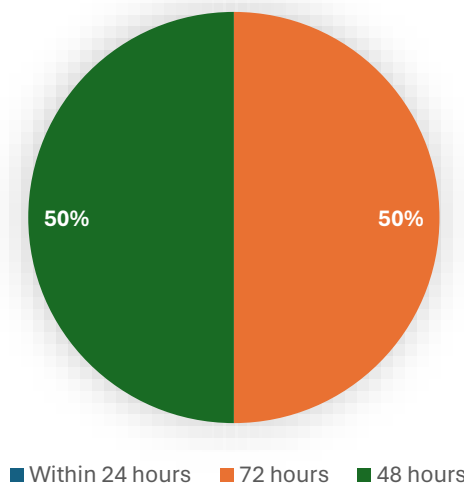
Table: 5 Shows the frequency and Percentage of how long it takes to receive feedback from the health facility

Characteristics	Frequency	Percentage
Feedback from the health facility		
Within 24 hours	0	0
72 hours	15	50
48 hours	15	50
TOTAL	30	100%

Source field data, 2023.

Figure 5: How long does it take to get feedback from the health facility

Duration to get feedback from the health facility



Source field data, 2023

As seen in table 5 and figure 5 above, out of 30(100), A total of 15 (50%) agreed that it only takes 72 hours for them to get feedback from the health facility, while 15 (50%) of the

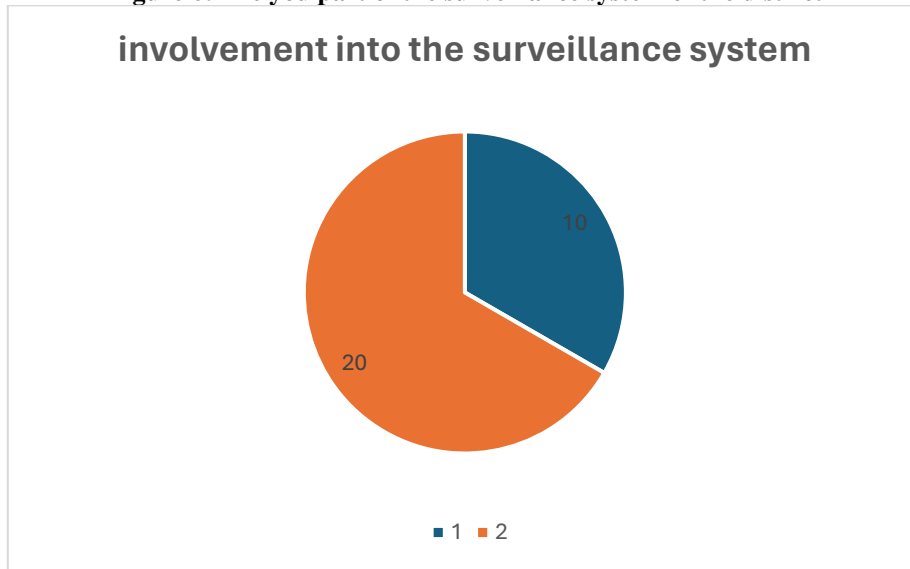
respondents said they normally receive feedback from health facility within 48 hours.

Table: 6 Shows the frequency and Percentage of how long it takes to receive feedback from the health facility

Characteristics	Frequency	Percentage
INVOLVEMENT		
Involved in the surveillance system		
Yes	10	20
No	20	80
TOTAL	30	100%

Source field data, 2023.

Figure 6: Are you part of the surveillance system of the district involvement into the surveillance system



Source field data, 2023.

Table 6 and figure 6, above illustrate that 10(20%) agreed that they are part of the surveillance system, and 20(80%) respondents agreed that they are not part of the surveillance

system of the district and that they have never been involved in any surveillance activities.

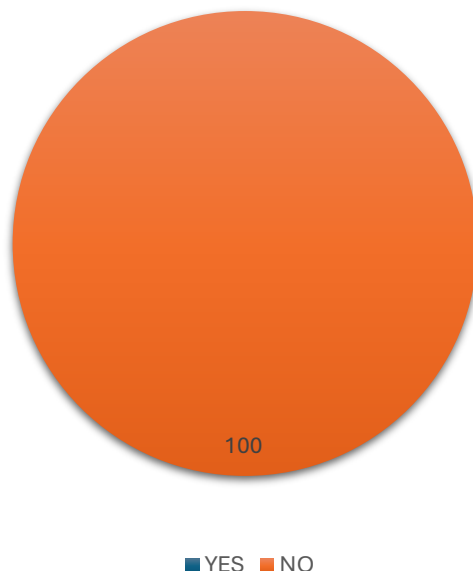
Table: 7 Shows the frequency and Percentage on if people who were ever sensitized to surveillance of communicable diseases

Characteristics	Frequency	Percentage
Sensitization on surveillance systems		
Yes	0	0
No	30	100
TOTAL	30	100%

Source field data, 2023.

Figure 7: Have you ever been sensitized to how surveillance systems work in your community?

sensitized to how surveillance systems work in your community



Source field data, 2023.



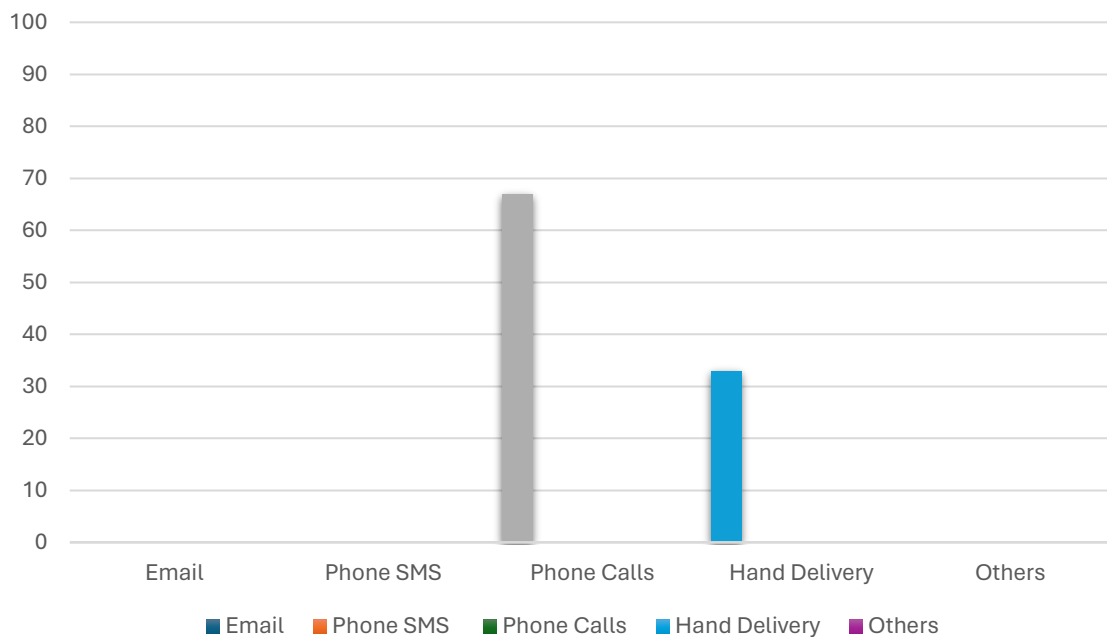
Table 7 and figure 7 above highlight that 30(100%) agreed that they have never been sensitized on how surveillance systems work in their various community.

Table 8 shows the frequency and Percentage of the most appropriate means of passing surveillance information to the public.

Characteristics	Frequency	Percentage
Appropriate means of communication		
Email	0	0
Phone SMS	0	0
Phone Calls	20	67
Hand Delivery	10	33
Others	0	0
TOTAL	30	100%

Source; field data 2023

Figure 8: Which means of communication is the most appropriate to pass surveillance information in your community



Source field data, 2023.

Table 9 and Figure 9 above highlight the means of communication that is most appropriate to pass surveillance information. A total of 20(67%) of the respondents choose

phone calls as their appropriate means to pass surveillance information. While 10(33%) select hand delivery as their means of passing surveillance information.

MOHS/DHMT MAIN ANALYSIS

Characteristics	Frequency	Percentage
Mandatory surveillance of diseases		
Yes	25	100
No		
TOTAL	25	100%
Manual for diseases surveillance		
Yes	25	100
No		
TOTAL	25	100%
Availability of IDSR reporting tools		



Case-based reporting form/IDSR Notification form	21	84
Weekly reporting form		
Line listing form		
Suspected outbreak/Rumor logbook	4	16
TOTAL	25	100%
Suspected outbreak reported in 2022		
EVD		
COVID-19	20	80
Cholera		
Measles	5	20
Polio		
Others, specify		
TOTAL	25	100%
Source of information for the outbreak		
Data analysis		
Media		
Rumours	10	40
Healthcare providers	11	44
Local leaders		
DHMT		
CHW	4	16
Others		
TOTAL	25	100%
Time is taken for DHMT to respond		
Within 24hrs		
24-48hrs	22	88
More than 48 hours	3	12
TOTAL	25	100%
Epidemiological week starts and ends		
Monday, end Sunday	25	100
Tuesday, end Saturday		
Wednesday, end Sunday		
TOTAL	25	100
Surveillance information recorded		
Paper form		
Electronic(form installed into phone tablet, text messages, phone call)	25	100
TOTAL	25	100%
Feedback to health facilities from the laboratory		
Yes all	2	8
Yes some	23	92
No		
TOTAL	25	100%
The turnaround time to receive feedback		
Within 24 hours		
72 hours	25	100
48 hours		
TOTAL	25	100%



Those involved in the surveillance system

Nurses	10	40
Community Health Workers	10	40
Community Health Animal Workers		
Traditional Healers		
Local authorities/ local people	5	20
TOTAL	25	100%

Major challenges faced in conducting surveillance activities

Vehicle	10	40
Road network		
Fuel	5	20
Mobile network coverage		
Cooperation from the people	10	40
TOTAL	25	100%

Supportive supervision of health facilities in 2022

Yes	19	76
No	6	24
Don't know		
TOTAL	25	100%

Means of communication used to send Surveillance reports to the regional office

Email	15	60
Phone SMS	5	20
Phone calls	5	20
Hand Delivery		
Others, specify		
TOTAL	25	100%

Does the health facility provide laboratory services?

Yes	10	40
No	15	60
Not applicable		
TOTAL	25	100%

Source, field data 2023

Table.9 shows holistic questions and answers from District Health Management Team. 25 people were interviewed from both health facilities and the headquarters town.

From the table, 25(100%) indicated that there is a mandatory surveillance system for communicable diseases

Also from the table,25 (100%) indicated that there are available manuals at all health facilities to teach the health staff about disease surveillance and how to investigate and record cases.

The table also showed 21(84%) of the health facilities have case-based reporting/IDSR Notification forms and 4(16%) confirmed that the facilities have suspected outbreak/rumour logbooks.

In the table also 20(80%) say they have received COVID-19 as the highest suspected case in 2022, whilst 5(20%) received measles as a suspected case in 2022.

From the table 11(44%) said the only source of information for suspected outbreaks is through nurses, 10(40%) indicated rumours as the best source of information, and 4 (16%) stated that information can also be sourced through Community Health Workers (CHW)

Table 22(88%) shows that 24hrs is the turnaround time for DHMT to respond to disease alerts at health facilities and communities, and 3(12%) stated that it takes 48hrs for DHMT to respond to disease alerts from communities.

The table also shows that 25(100%) confirmed that the epi-week starts on Monday and ends on Sunday.

Also in the table, 25(100%) indicated that electronic through phone tablets are used to record and report surveillance information at the health facility level.

From the table, 23 (92%) show that receive feedback from the laboratory after a suspected case, and 2(8sayays they used to receive feedback from the laboratory for all suspected cases reported.



Apparently from the table, 25(100%) say the turnaround time to receive feedback from the laboratory is within 72hrs.

The table illustrated that nurses 10(40%) are mostly involved in surveillance activities, although another 10(40%) also show that, the Community Health Workers (CHW) also form a great basis for surveillance of communicable diseases whilst, 5(20%) indicated local authorities/ community people also played a pivotal role towards surveillance of communicable diseases.

When asked about major challenges, the table shows that vehicle 10(40%) and fuel 5(20%) are their greatest challenges to conduct surveillance activities, although 10(40%) stated that cooperation from the local people to report the sick and provide accurate information during contact tracing is a major challenge

It was also revealed in the table that 19(76%) confirmed that the DHMT conducted supportive supervision in 2022, and 6(24%) says no supportive supervision was done in 2022

From the table, the means of communication used to send surveillance reports to the regional offices are Email 15(60%), Phone SMS 5(20%) and hand delivery 5(20%)

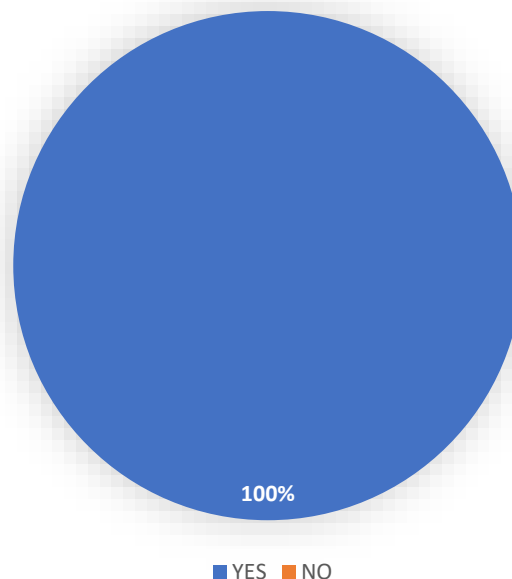
Regarding the availability of laboratories at health facilities, the t 15(60%) say they are no laboratories at the health facility level whilst 10 (40%) say their laboratories are at the Community Health Centre level although they cannot perform all tests for priority diseases.

Table 10: Indicated frequency and percentage of respondents on the presence of mandatory surveillance of all priority diseases.

Characteristics	Frequency	Percentage
Mandatory surveillance of diseases		
Yes	25	100
No		
TOTAL	25	100%

Source, field data 2023

Figure 10: Is there mandatory surveillance for any diseases



Source field data, 2023.

Table 10 and figure 10, above illustrate that all twenty-five (100%) respondents agreed that there is mandatory surveillance for any diseases. This reveals that the DHMT team are working

efficiently in the surveillance of any diseases at the community level.

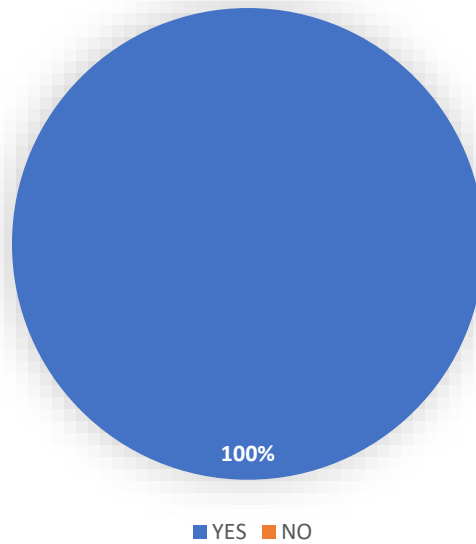
Table 11: Indicated frequency and percentage of respondents on the presence of disease surveillance manuals.

Characteristics	Frequency	Percentage
Manual for diseases surveillance		
Yes	25	100
No		
TOTAL	25	100%

Source; field data 2023



Figure 11: Is there a manual for surveillance?



Source field data, 2023.

Table 11 and figure 11, above demonstrate that all twenty-five (100%) respondents said that there is a manual for surveillance while executing their surveillance work at the community level.

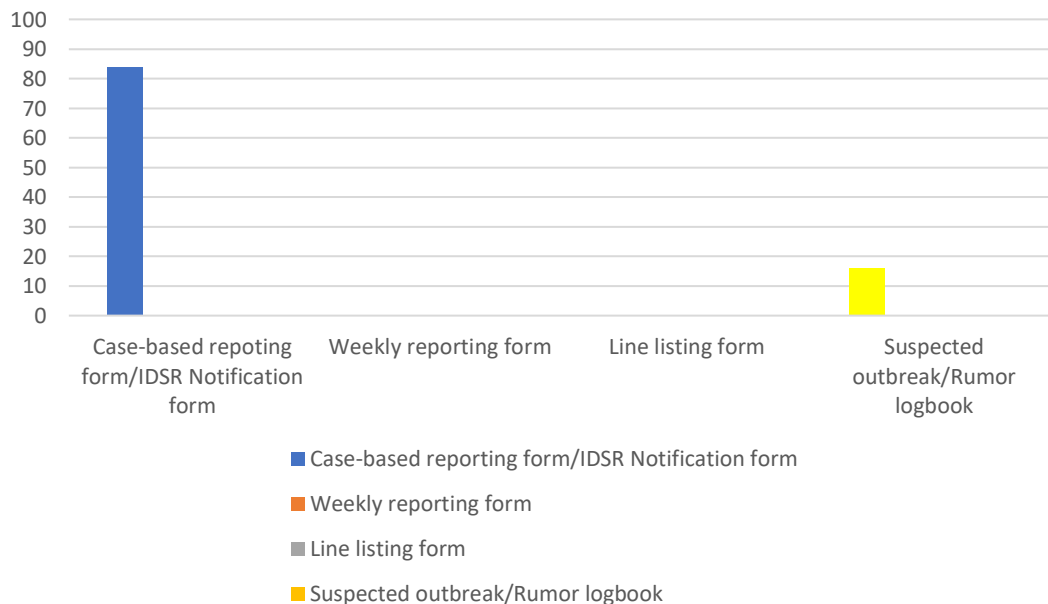
This reveals that the DHMT team has a low preferred manual for the surveillance of various diseases.

Table 12: Indicated frequency and percentage of respondents on the presence of disease surveillance manuals.

Characteristics	Frequency	Percentage
Availability of IDSR reporting tools		
Case-based reporting form/IDSR Notification form	21	84
Weekly reporting form		
Line listing form		
Suspected outbreak/Rumor logbook	4	16
TOTAL	25	100%

Source, field data 2022

Figure 12: Are the following IDSR reporting tools available at the health facility



Source field data, 2023.



As seen in table 12 and figure 12 above, out of 25(100), A total of 21 (86%) agreed that the IDSR reporting tools are available at the health facility, while 4 (16%) of the respondents

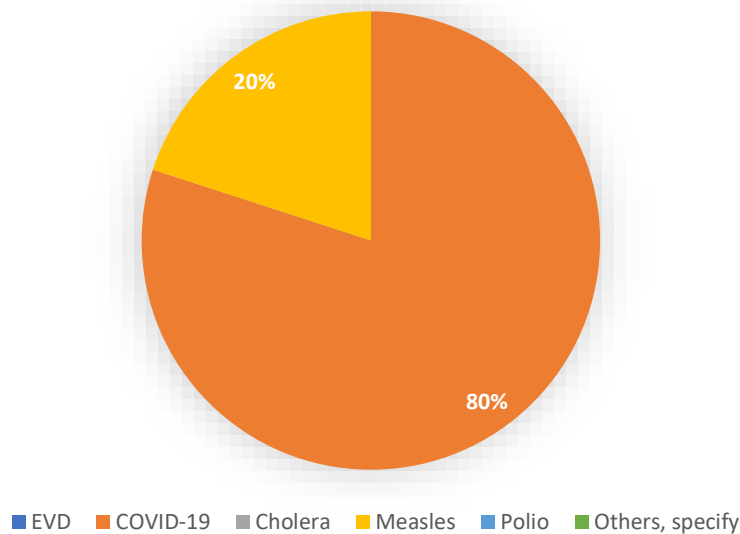
disagreed that the following IDSR reporting tools are not available at the health facility.

Table 13: Indicated frequency and percentage of respondents on the suspected outbreak reported in 2022

Characteristics	Frequency	Percentage
Suspected outbreak reported in 2022		
EVD		
COVID-19	20	80
Cholera		
Measles	5	20
Polio		
Others, specify		
TOTAL	25	100%

Source; field data 2022

Figure 13 suspected outbreak reported in 2022.



Source field data, 2023.

Table 13 and figure 13 above mention that 20(80%) of the respondents, select Covid-19 as the suspected outbreak disease

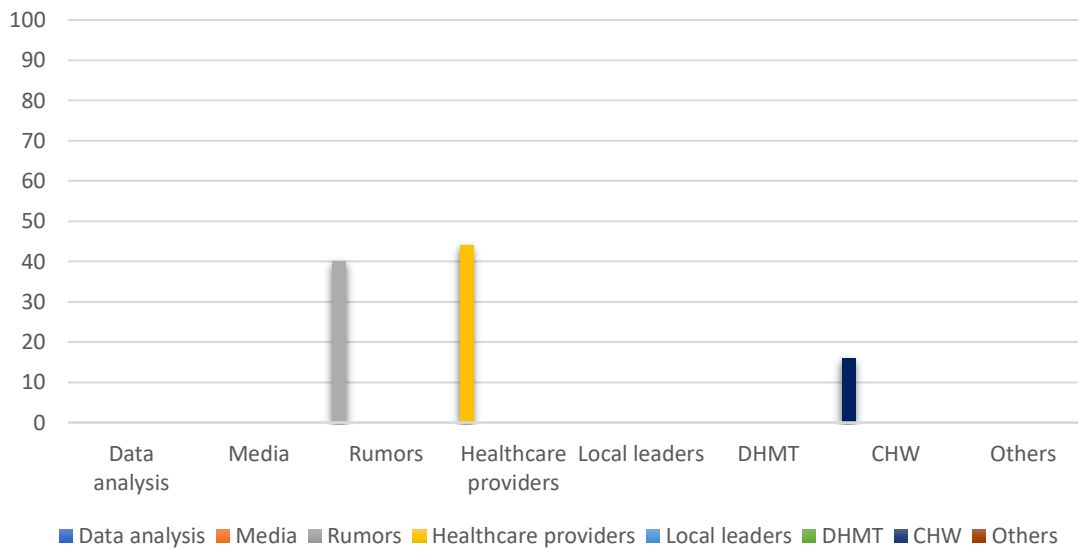
in 2022 for their health facility. While 5(20%) select measles as their suspected outbreak disease in 2022.

Table 14: Indicated frequency and percentage of respondents on the suspected outbreak reported in 2022.

Characteristics	Frequency	Percentage
Source of information for the outbreak		
Data analysis		
Media		
Rumours	10	40
Healthcare providers	11	44
Local leaders		
DHMT		
CHW	4	16
Others		
TOTAL	25	100%

Source, field data 2023

Figure 14: Source of information for the last outbreak



Source field data, 2023.

As seen in table 14 and figure 14 above, 10(40%) of the respondents said that rumours were their source of information for the last outbreak, while 11(44%) of the respondents revealed

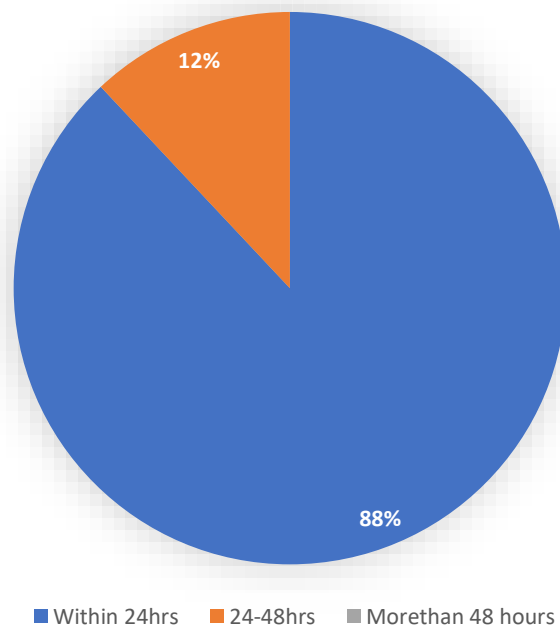
that healthcare providers were their source of information for the last outbreak, Only 4(16%) said that they receive their information from Community Health Workers within their various communities.

Table 16: Indicated frequency and percentage of respondents on the time taken for DHMT to respond to disease alerts. suspected outbreak reported in 2022.

Characteristics	Frequency	Percentage
Time is taken for DHMT to respond		
Within 24hrs		
24-48hrs	22	88
More than 48 hours	3	12
TOTAL	25	100%

Source, field data 2023

Figure 16: Time taken for DHMT to respond to the reported outbreak.



Source field data, 2023.



Table 16 and Figure 16 above illustrate that out of twenty-five respondents, a total of 22(88%) said it takes 24-48 hours for the DHMT team to respond to reported outbreak issues. and 3(12% reveals that it takes more than 48 hours for DHMT to

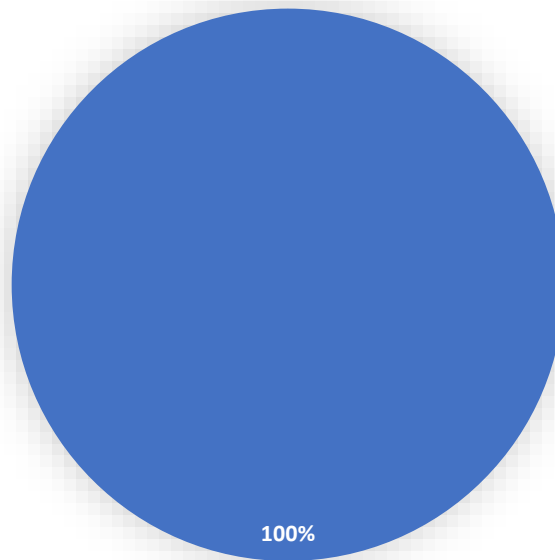
respond to any reported outbreak case. This simply implies that the DHMT team are working relentlessly in addressing community outbreak diseases within a day or two.

Table 17: Indicated frequency and percentage of respondents on the turnaround epidemiological week.

Characteristics	Frequency	Percentage
Epidemiological weeks start and ends		
Monday, end Sunday	25	100
Tuesday, end Saturday		
Wednesday, end Sunday		
TOTAL	25	100

Source, field data 2023

Figure 17: When does the epidemiological week start and end?



■ Monday, end Sunday ■ Tuesday, end Saturday ■ Wednesday, end Sunday ■ Thursday, end Monday

Source field, data 2023.

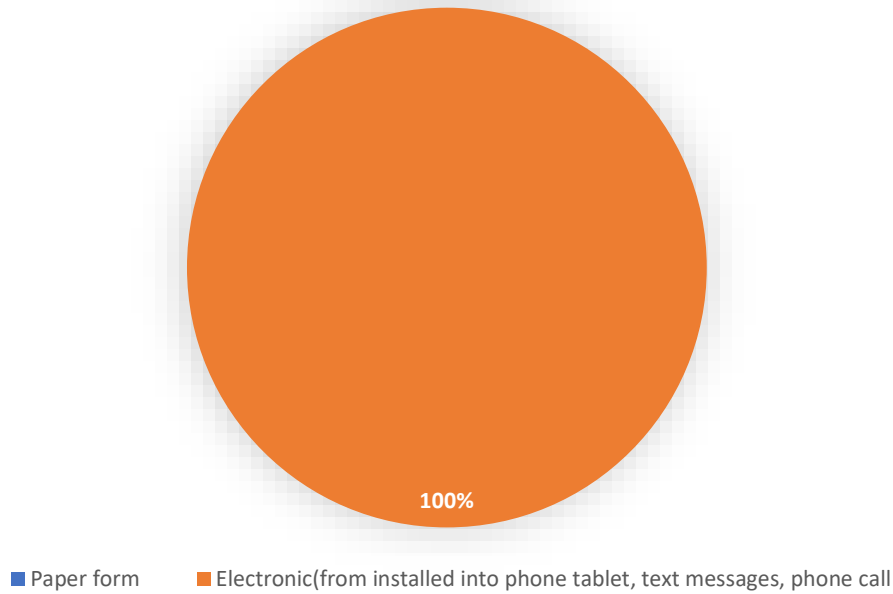
Table 17 and figure 17 above, depict that of all the twenty-five respondents, 25(100%) of the respondents strongly agreed that epidemiological week starts on Monday and ends on Sunday.

Table 18: Indicated frequency and percentage of respondents on how surveillance information are been recorded.

Characteristics	Frequency	Percentage
Surveillance information recorded		
Paper form		
Electronic (form installed into phone tablet, text messages, phone call)	25	100
TOTAL	25	100%

Source, field data 2023

Figure 18: How is surveillance information recorded in your district?



Source field data, 2023.

Table 18 and figure 1.18 above show that out of twenty-five respondent which made up the DHMT team, 25 (100%) said

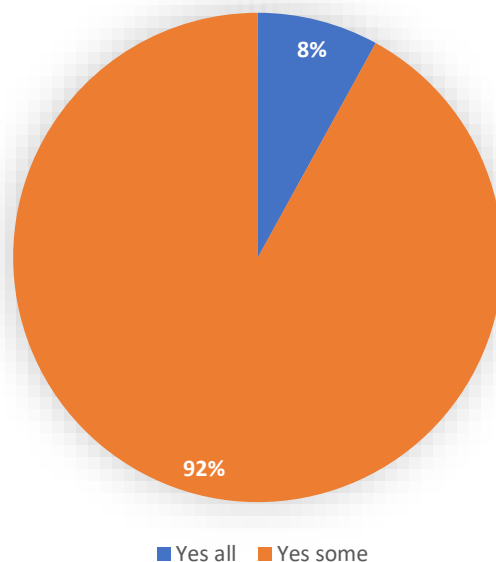
surveillance information is recorded via electronic (from installed into phone tablet, text messages, phone calls).

Table 19: Indicated frequency and percentage of respondents on feedback to health facilities from laboratories.

Characteristics	Frequency	Percentage
Feedback to health facilities from the laboratory		
Yes all	2	8
Yes some	23	92
No		
TOTAL	25	100%

Source, field data 2023

Figure 1.19: Do you give feedback to health facilities from the laboratory for specimens sent to the lab in 2022



Source field data, 2023.



Table 19 and Figure 19 above show the level of feedback to health facilities from the laboratory for specimens sent to the lab in 2022 respondents. However, 2(8%) of respondents said Yes, the laboratory at the regional level gives feedback to health

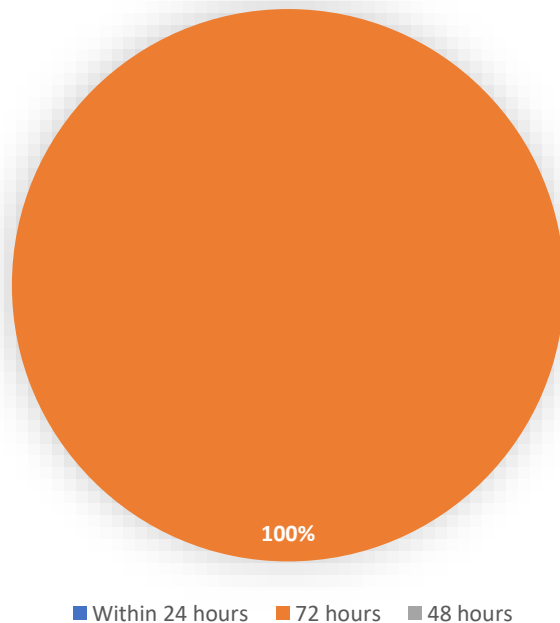
facilities from the laboratory for specimens sent to the lab. While the remaining 23(92%) respondents said Yes some gave feedback to a health facility for specimens sent to the lab.

Table 20: Indicated frequency and percentage of respondents on turnaround time on feedback to health facilities from the laboratory.

Characteristics	Frequency	Percentage
The turnaround time to receive feedback		
Within 24 hours		
72 hours	25	100
48 hours		
TOTAL	25	100%

Source, field data 2023

Figure 20: If yes, how long does it take to send feedback from the laboratory (turnaround time) to the health facility?



Source field data, 2022.

Table 20 and figure 20 above illustrate that all twenty-five 25(100%) respondents agreed that it takes 72 hours to send feedback from the laboratory (turnaround time) to the health

facility. This reveals that patients had to wait for about three days for their samples to be sent to the health facility.

Table 21: Indicated frequency and percentage of respondents on those who are involved in the surveillance activities in the district.

Characteristics	Frequency	Percentage
Those involved in the surveillance system		
Nurses	10	40
Community Health Workers	10	40
Community Health Animal Workers		
Traditional Healers		
Local authorities/ local people	5	20
TOTAL	25	100%

Source, field data 2023



Figure 21: Who is involved in the surveillance system of the district



Source field data, 2023.

Table 21 and Figure 21 above show people that are involved in the surveillance system. However, 10(40%) of respondents were nurses within health facilities. While 10(40%) of the

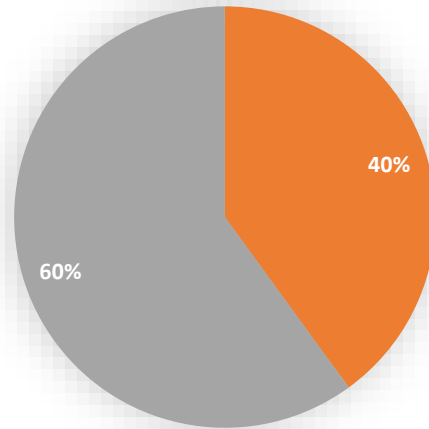
respondents are community health workers, and the remaining 5 (20%) are Local authorities/Local people.

Table 22: Indicated frequency and percentage of respondents on the major challenges faced in the conduct of surveillance activities.

Characteristics	Frequency	Percentage
Major challenges faced in conducting surveillance activities		
Vehicle	10	40
Road network		
Fuel	5	20
Mobile network coverage		
Cooperation from the people	10	40
TOTAL	25	100%

Source, field data 2023

Figure 22: What are the major issues and challenges that may affect your routine surveillance activities?



- Inadequate supportive supervision
- Inadequate transport means
- Poor telephone network
- No challenges
- Inadequate/inconsistency of airtime
- Inadequate IDSR reporting tools
- Other specify

Source field data, 2023.

Table 22 and Figure 22 above illustrate the major issues and challenges that may affect the daily routine surveillance activities of respondents. A total of 10(40%) of the respondents

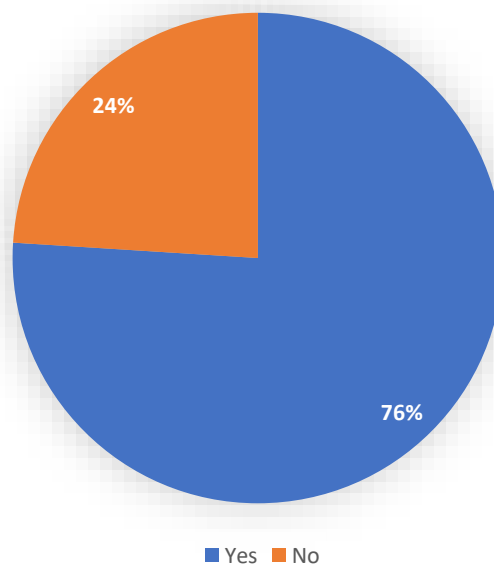
mention inadequate/inconsistent airtime, and 15(60%) highlight inadequate transport means as part of their major issues and challenges for the study.

Table 23: Indicated frequency and percentage of respondents on the supportive supervision to the health facilities in 2022

Characteristics	Frequency	Percentage
Supportive supervision of health facilities in 2022		
Yes	19	76
No	6	24
Don't know		
TOTAL	25	100%

Source, field data 2023

Figure 23: DHMT provide supportive supervision to this health facility in 2022



Source field data, 2023.



As seen in table 23 and figure 23 above, out of 25(100), A total of 19 (76%) agreed that DHMT provides supportive supervision to this health facility, while 6 (24%) of the

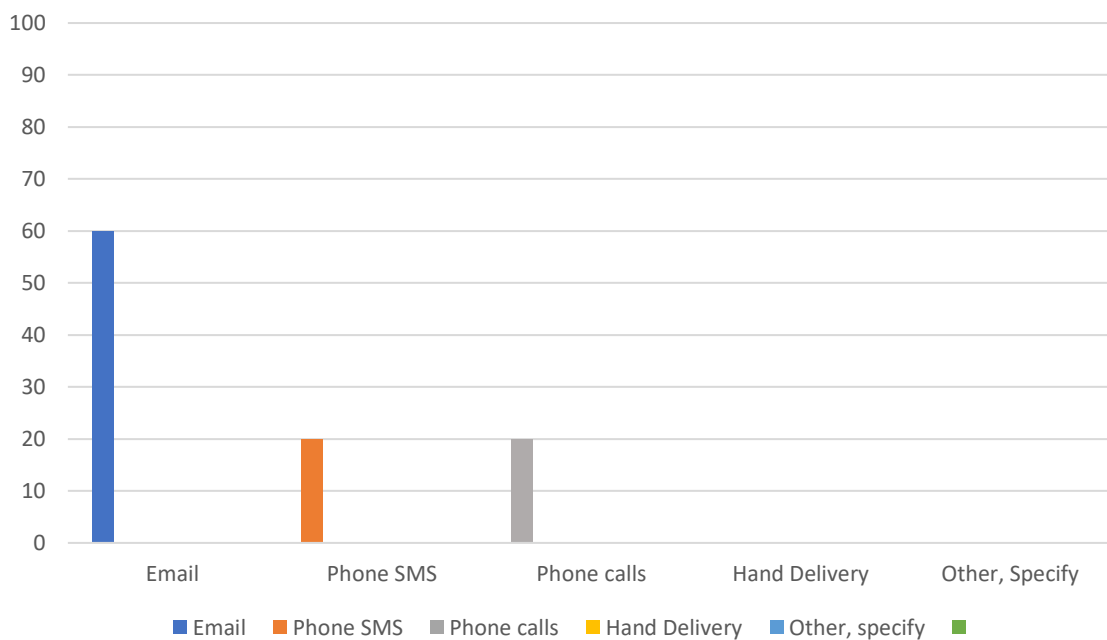
respondents disagreed that DHMT does not supportive supervision to this health facility in 2022.

Table 24: Indicated frequency and percentage of respondents on the means of communication to send surveillance information to the regional office.

Characteristics	Frequency	Percentage
Means of communication used to send Surveillance reports to the regional office		
Email	15	60
Phone SMS	5	20
Phone calls	5	20
Hand Delivery		
Others, specify		
TOTAL	25	100%

Source, field data 2023

Figure 24: Which means of communication does the DHMT use to send Surveillance reports to the regional office?



Source field data, 2023.

Table 25 and figure 25 above illustrates out of 15(60%) of the respondents choose email as their means of communication used by the DHMT to send surveillance report to the regional office, A total of 5(20%) of the respondents state phone SMS

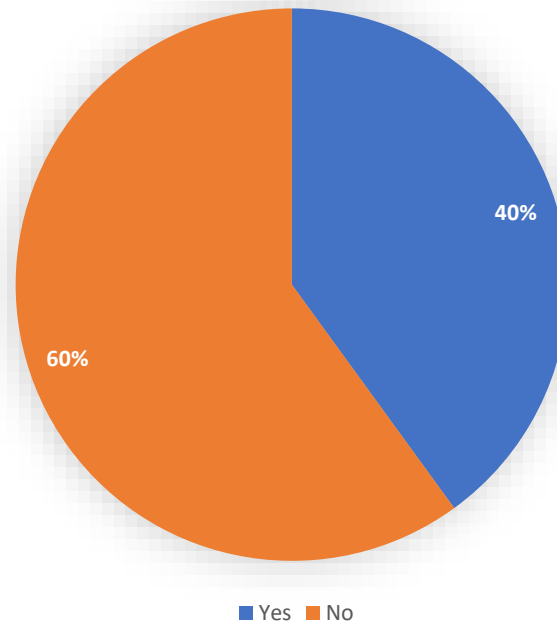
as their means of sending surveillance reports to the regional office, While the remaining 5(20%) of the respondents selects phone calls as their means of sending surveillance reports to the regional office.

Table 26: Indicated frequency and percentage of respondents on the provision of laboratory services by health facilities.

Characteristics	Frequency	Percentage
Does the health facility provide laboratory services?		
Yes	10	40
No	15	60
Not applicable		
TOTAL	25	100%

Source, field data 2023

Figure 26: Does the health facility provide laboratory services?



Source field data, 2023.

Table 26 and figure 26 above demonstrate that 10(40%) said their health facility provides laboratory services at the community level. While the remaining 15(60%) of the respondents disagreed that the health facility doesn't provide laboratory services at the community level.

RECOMMENDATIONS

Existing institutional arrangements. This will enable the district to identify potential collaborators, such as community organizations, NGOs etc. with which the District Health Management can get into partnerships for solving the issues of surveillance of communicable diseases.

Public Participation: The active involvement of the people in policy formulation, implementation, and evaluation of communicable diseases is necessary.

Education and awareness: There should be a continuous awareness program in place so that every person gets well accustomed to the operations of the surveillance systems in the district. There should also be public education so that people are not only made aware of the new surveillance system but also can understand the reasons behind being part of the structures of the surveillance system in the district to ensure sustainability.

LIMITATIONS

There is the possibility of misreporting the actual information given by community respondents, the health workers, and the District Health Management Team staff. The number of health facilities targeted is relatively smaller compared to the total number of health facilities in the Kailahun district. The inclusion of literate and illiterate traditional people who helped in the answering and collection of data could also be limited to the research, and not be 100 accurate.

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