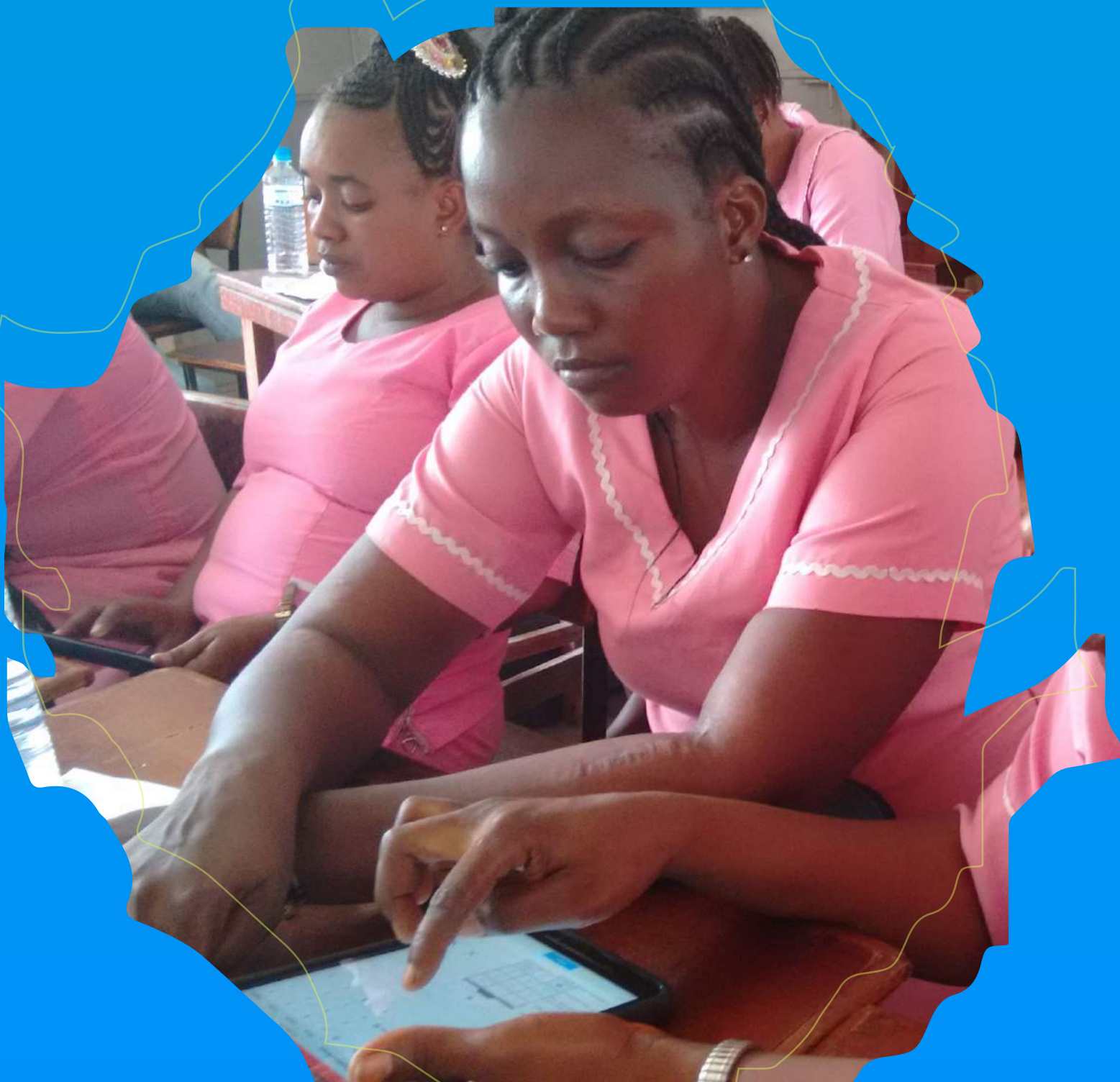


# Sierra Leone Half-Year Impact Report

20  
18



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# Foreword

eHealth Africa is committed to continuous growth and learning—a core value that is a cornerstone of our programs and operations.

Through our projects and programs, we work to further develop human capacity in the communities we work in and foster an environment that promotes growth and learning within our team.

The 2018 Sierra Leone half year report is intended to highlight the milestones that we have achieved in the first half of 2018. These achievements motivate us and our partners to forge ahead as we work towards strengthening health care systems in Sierra Leone.



# eHealth Africa's 2018 Half-year Impact

A QUICK GLANCE



**266**  
**HEALTH CARE WORKERS**

trained in the use of the eIDSR App



**3,456**  
**ACTIONED CALLS**

from 117 Call Center forwarded to district health management teams



**12**  
**TRUE AFP CASES**

detected through the AVADAR program



**523**  
**CASES**

referred to CHAMPS Mortality Surveillance team through 117 Call Center



**14,300+**  
**CHILDREN**

registered through the VaxTrac system



**11**  
**INTERMEDIATE MOHS**

Field Epidemiology graduates now serving as national FETP mentors



**100**  
**SIERRA LEONE RESEARCHERS**

trained on use of SLED data for future epidemiology on prevention and response to EVD outbreaks.



**57**  
**COMMUNITY HEALTH OFFICERS**

trained in management and leadership



# About eHealth Africa

## Our Mission

eHealth Africa's mission is to build stronger health systems through the design and implementation of data-driven solutions that respond to local needs and provide underserved communities with tools to lead healthier lives.

## Our Vision

Based in Africa, eHA establishes new standards in health delivery and emergency response through the integration of information, technology, and logistics.



# Brief Background of eHealth Africa in Sierra Leone



Based in Africa, we establish new standards in health delivery and emergency response through the integration of information, technology, and logistics. In Sierra Leone, eHealth Africa's work expanded greatly following the outbreak of Ebola Virus Disease (EVD).

In 2014, when eHA began work in Sierra Leone during the EVD outbreak, our portfolio was centered around emergency response. We supported the establishment of national and sub-national Emergency Operations Centers, built a national alert system and partnered with the U.S. Centers for Disease Control and Prevention (CDC) to implement the largest Ebola Vaccine trial in Sierra Leone.

True to our nature of taking a systems-level approach, we quickly expanded into health systems strengthening with the aim to improve Sierra Leone's ability to prevent, detect and respond to future outbreaks.

Our activities have targeted building better surveillance systems, strengthening laboratory networks, improving immunization coverage and training key Ministry of Health and Sanitation (MOHS) personnel and health workers in epidemiology, leadership and management.

We work side by side with the Ministry of Health and Sanitation in Sierra Leone and have implemented major projects with Department for International Development (DFID), U.S. CDC, CDC Foundation, World Health Organization (WHO) and the Bill and Melinda Gates Foundation.

# Where We Work



## PROJECTS

- 117
- SLED
- CHO MLTP
- EMP
- STRIVE
- eIDSR
- VaxTrac
- Malaria Research
- CHAMPS
- FETP
- AVADAR
- Njala University Training Laboratory



# eHA's Current Expertise in Sierra Leone

We believe that stronger systems are best achieved through systems-level, integrated approaches. We work on the following technical pillars:



## Health Delivery Systems

We develop people-centric and data-driven, technological solutions to improve health delivery systems for vulnerable communities.



## Public Health Emergency Management Systems

We provide infrastructure and human capacity support to improve governments' abilities to detect, investigate, and respond to public health threats, including the most remote areas.



## Disease Surveillance Systems

We provide the technological tools and operational support to collect and analyze data. Our teams contribute to the detection and ultimate prevention of disease outbreaks throughout West Africa.





# Disease Surveillance Systems

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# Pillar Overview: Disease Surveillance Systems

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Through our Disease Surveillance System programs, we increase the coverage of near real-time case-based disease reporting from communities, primary care facilities, and hospitals, increase the early detection and reporting of government-identified priority diseases and design, develop, validate, and deploy disease predictive models.

The following projects are implemented under Disease Surveillance System pillar in Sierra Leone:

- Auto-Visual Acute Flaccid Paralysis Detection and Reporting (AVADAR)
- Child Health and Mortality Prevention Surveillance Response (CHAMPS)
- Electronic Integrated Disease Surveillance Response (eIDSR)
- Formative Assessment on Mortality Assessment (FAMS)
- Field Epidemiology Training Program (FETP)
- 117 Call Center



# Auto-Visual AFP Detection and Reporting (AVADAR)

Are you at the child's place  
of residence?



Yes



No

## Auto-Visual Acute Flaccid Paralysis AFP Detection and Reporting (AVADAR)

The 2014 to 2016 Ebola outbreak in Sierra Leone stopped several years of vaccination campaigns and active surveillance, further weakening an already fragile health system. As a result, Sierra Leone is at risk for a resurgence of a number of diseases, and in particular the poliovirus (polio), which mostly affects children under the age of 15.

AVADAR has the main objective of improving Acute Flaccid Paralysis (AFP) surveillance in high risk polio countries for the purpose of identifying "hidden" cases of polio.

AVADAR "widens the net" of AFP surveillance by engaging influential members of the community to identify and report on suspected cases in a timely manner to district health management teams and health facilities. This is especially relevant in hard-to-reach communities without healthcare facilities.

By collecting weekly reports from informants (including 'no' reports), AVADAR also improves surveillance coverage by providing measurable statistics of active case searching. The AVADAR SMS mobile-based technology has improved AFP surveillance in low performing districts as healthcare workers and informants in communities now have the skills and resources to accurately detect and report suspected cases of AFP, in near-real time.

As a result, the quality of AFP detection is increased in AVADAR districts, which has a lasting impact on the communities and people that live there - and in particular, hard-to-reach communities.

### Impact

**34** suspected AFP cases submitted by informants

**29** suspected AFP cases investigated by Disease Surveillance Officers (85%)

**12** true AFP cases detected (41% of those investigated)

**452** informants in the Sierra Leone AVADAR network

**82%** Informants sent reports, on average, 82% of the time, each week

**95%** of the time each week, reports were timely (within 48 hours of the video reminder)

**74** AVADAR technical issues were resolved by eHA technical officers



# AVADAR helps to Rebuild Confidence in the Sierra Leonean Health Sector

The AVADAR mobile app plays a video on a weekly basis that shows a child with AFP symptoms that has difficulty walking, with weakness in the arms and legs. This allows community informants, especially those without a medical background, to easily identify cases of AFP and automatically report the details of suspected AFP cases, including the child's name, the guardians phone number, and GPS location. These reports are forwarded to the district disease surveillance officers (DSOs) to investigate. If the case meets the case definition of AFP, a stool sample is collected for lab investigation to confirm if it is polio.

Fatmata Bangura is a DSO in Western Urban district in Sierra Leone, a priority district for AFP surveillance. When community informants in her district submit a suspected AFP case through the AVADAR application, she receives a notification and she goes into the field to investigate. Fatmata logs the results of her investigation into her mobile phone, which is then available on a password-protected dashboard, thereby making the results available to partners in near-real time. AVADAR has improved Fatmata's ability to detect and respond to cases of AFP in her district.

*Since AVADAR, we have investigated and collected stool samples of 12 AFP cases from community informants and health workers in the western urban district. Before now, we were unable to meet our national and WHO target of 9 AFP cases per year for the under 15 population*

In addition, AVADAR has helped Fatmata to bridge the gap between health workers and traditional healers in the reporting of AFP.

*Traditional healers are the first point of call for people in communities instead of the health facilities. Since the ADVADAR project brought in traditional healers to serve as informants, they report suspected cases of AFP to the DSO. This connection between us - the health professionals and the traditional healers - has improved the trust between community people and health workers, especially after the mistrust and misconceptions after the Ebola crisis in Sierra Leone*

**Fatmata Bangura**



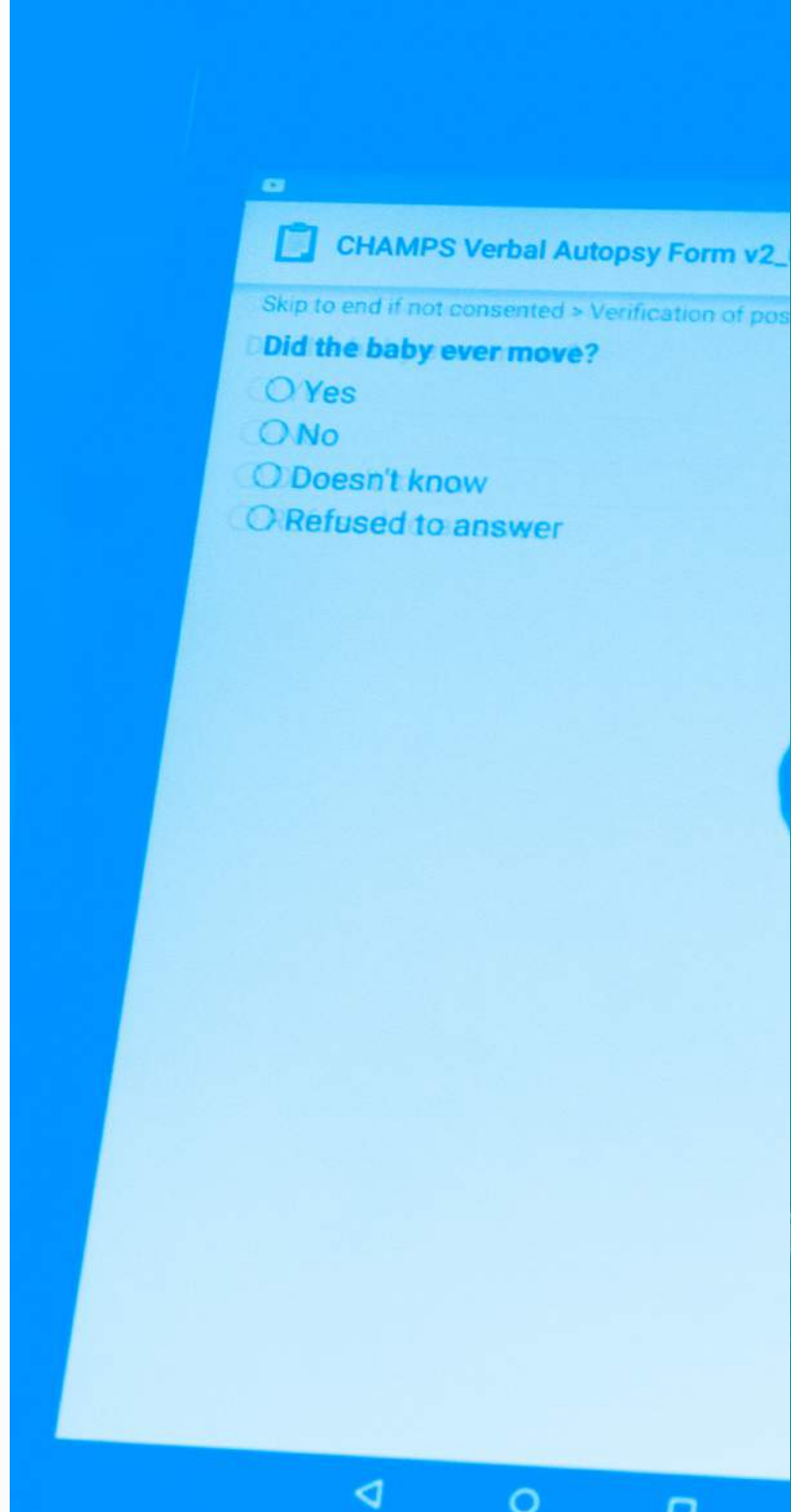
# Child Health and Mortality Prevention and Surveillance (CHAMPS)

Globally, under-five mortality continues to rise at alarming rates, with an estimated 5.9 million children under five years of age dying in 2015. Despite persistently high under-5 mortality rates in many low income countries, the causes of death are incompletely described.

The CHAMPS network aims to determine and track the causes of under-five mortality and stillbirths through epidemiologic surveillance.

Sierra Leone is part of an international network led by Emory University in Atlanta. CHAMPS has established sites in Bangladesh, Ethiopia, Kenya, Mali, Mozambique, South Africa, and recently, Sierra Leone. In Sierra Leone, CHAMPS implementation is led by the Ministry of Health and Sanitation and the U.S. Centers for Disease Control and Prevention (CDC).

The CHAMPS site in Sierra Leone is located in Makeni, Bombali District. CHAMPS Sierra Leone has four main implementing partners (Focus 1000, World Hope International, eHealth Africa and ICAP) to provide guidance on mortality surveillance, community engagement, informatics and laboratory support. Each stage of implementation is informed by formative and community engagement.



## Impact

**523** cases referred to CHAMPS Mortality Surveillance team through 117 Alerts System

**11** community interviewers trained in data collection and verbal autopsy using the tablets.

ODK and RedCap Servers set up with CHAMPS official forms to collect and transmit data to national and international servers



# Electronic Integrated Disease Surveillance and Response (eIDSR)

o (Y... Rural) clinic

16% 13:44

## IDS Weekly Disease Report

SLIMS Clinic - Week 8 2018

Training Version

Last submitted: 17 Apr 2018 13:17:09

Form submitted successfully via Internet. Timely: No

Disease/Condition/Event	<5 years old		>5 years old	
	Cases	Deaths	Cases	Deaths
14 Measles	0	0	0	0
15 Malnutrition severe	1	0	X	X
16 Malaria	17	0	17	0
Total Malaria cases	17	0	17	0
Total Malaria tested	9	0	13	0
Total Malaria positive	0	0	0	0
17 Meningococcal Meningitis	0	0	X	X
Death	0	0	X	X

## Electronic Integrated Disease Surveillance and Response (eIDSR)

The 2014 Ebola outbreak highlighted the need for a swift and modern surveillance system for priority diseases. In collaboration with Sierra Leone's Ministry of Health and Sanitation (MoHS), the U.S. Center for Disease Control and Prevention (CDC), the World Health Organization (WHO), and additional partners, we have been rolling out the eIDSR in Sierra Leone.

The electronic Integrated Disease Surveillance and Response system (eIDSR) was created to improve the flow of information within health systems. Paper-based methods present challenges that make health and disease data reporting time-consuming and error sensitive, resulting in questionable credibility and completeness of information.

To overcome the challenges of paper-based reporting, eHA created a time-saving and error-reducing tool for data collection and reporting that could be built upon an existing infrastructure.

In a continued effort to increase the capacity of Sierra Leone's health systems, eHA has partnered with the CDC to support the government of Sierra Leone by increasing the early detection and reporting of government-identified priority diseases using the eIDSR framework.

In the first quarter of 2018, eHA introduced two new features to the eIDSR app: data approval and sms compression. These two new features in the eIDSR application are adding immediate value to Sierra Leone's health systems, by simply automating work.

With the introduction of the new features:

- Quality of data used for disease surveillance has improved significantly
- Human errors are minimized
- Data can be submitted without the use of internet (via) Short Message Service (SMS). Through the sms compression, health facility staff do not have to leave their facilities to upload their data. This means more time for patient care
- Digital Technology facilitates data integration between health facilities, district health management teams and national health management teams

## Capacity Building for Health Care Workers

In the first half of 2018, a total of 266 facility staff (142- Western Area Urban; 124- Western Area Rural) and 10 District Health Management Team (DHMT) staff were trained in the use of the eIDSR app. These health care workers now use the technology in their DHMTs and health facilities in Sierra Leone.

The capital city of Sierra Leone, Freetown, is located in the Western Area and the population of Western Area is roughly 20% of the total population of Sierra Leone

## Data Recording and Reporting made Simple with eIDSR

Paper-based methods for reporting and recording data in disease surveillance can be very stressful and challenging.

Public health workers are frontline responders during disease outbreaks. To prevent diseases from outbreak, health workers need to be able to alert authorities quickly and accurately in order to ensure they get the right resources at the right time with a view to keeping communities healthy.

The 2014 Ebola outbreak highlighted the need for a swift and modern surveillance system for priority diseases. eHA has been rolling out eIDSR in collaboration with Sierra Leone's MOHS, CDC, WHO and other partners in Sierra Leone.

To overcome the challenge of paper-based reporting, eHA provided the technical expertise in the development and roll out of district and health facility- level eIDSR system system, a time-saving and error-reducing system for data collection, reporting and response. This was created to improve the flow of information within MoHS health system.

David is one of the beneficiaries of the eIDSR system in Sierra Leone. Before now, David and other healthcare workers could hardly access health facility surveillance weekly summary disease data real time.



*Since eIDSR was introduced, we have experienced improvement in timeliness and completeness. Staff in the three districts (Port Loko, Western Area Urban and Rural) where eIDSR has been rolled out, no longer have to deliver reports to the districts physically on Mondays. The eIDSR system has made recording and reporting data simple and easy. Also, there is improvement in the number of facilities that are able to successfully report by noon on Mondays. All districts now exceed the World Health Organization (WHO) Afro and National Completeness targets.*

**David K Kargbo,**  
Directorate of Health Security and Emergency  
(DHSE) Data Lead



*The disease surveillance teams at district and national levels are now able to access health facility surveillance weekly summary disease data real-time in three of its fourteen administrative districts where health facility eIDSR has been rolled out*

Nelson Clemens,  
eIDSR Project Coordinator,  
eHA Sierra Leone.

The eIDSR project has the objective of increasing access to timely and quality data for decision making and timely response to prevent/minimize disease outbreaks.





*The improvement in the data quality can be attributed, among others, to the District Data Approval system and the mail and SMS reminders to facility and district staff. Data Approval puts responsibility for the quality of district data on the districts. Unapproved data cannot be seen by other users. National is now able to follow-up on facility and district entry and provide immediate feedback after the data is approved by the district.*

Solomon Sogbeh,  
HSE Data Support staff

With the eIDSR mobile application, healthcare workers testify value has been added to their work given the improvement in data.

The improved capacity of facility and district staff has positioned the teams to respond to potential or actual outbreaks. With the use of DHIS 2, surveillance partners have greater access to district and national data. Healthcare workers are now using the eIDSR app in an efficient manner and yielding good results.

eHA has been invited to 3 international conferences to share learning around the development and roll out of eIDSR applications. Furthermore, the University of Oslo (UiO) is leveraging the learnings from eIDSR in Sierra Leone to develop their future app.

The eIDSR technology does not only benefit the People of Sierra Leone in terms of providing a more accurate and reliable system for monitoring disease occurrences and minimizing disease outbreaks, it also allows for healthcare workers to capture and disseminate surveillance data, doing more with less time.

## Formative Assessment on Mortality Surveillance (FAMS)

The aim of this project was to determine causes for low levels of death reporting from communities and proposes viable solutions to enhance reporting through the 117 Call Center.

eHA provided technical and operational support to qualitative and quantitative research activities.

Technical leads within eHealth Africa and the U.S. Centers for Disease Control and Prevention (CDC) collaborated to develop and finalize questionnaires, survey tools, data collection and analysis plans. Quantitative and qualitative research methods included telephone surveys and in depth interviews with community members who called via the 117 Call Center during the Ebola outbreak and in the immediate recovery period.

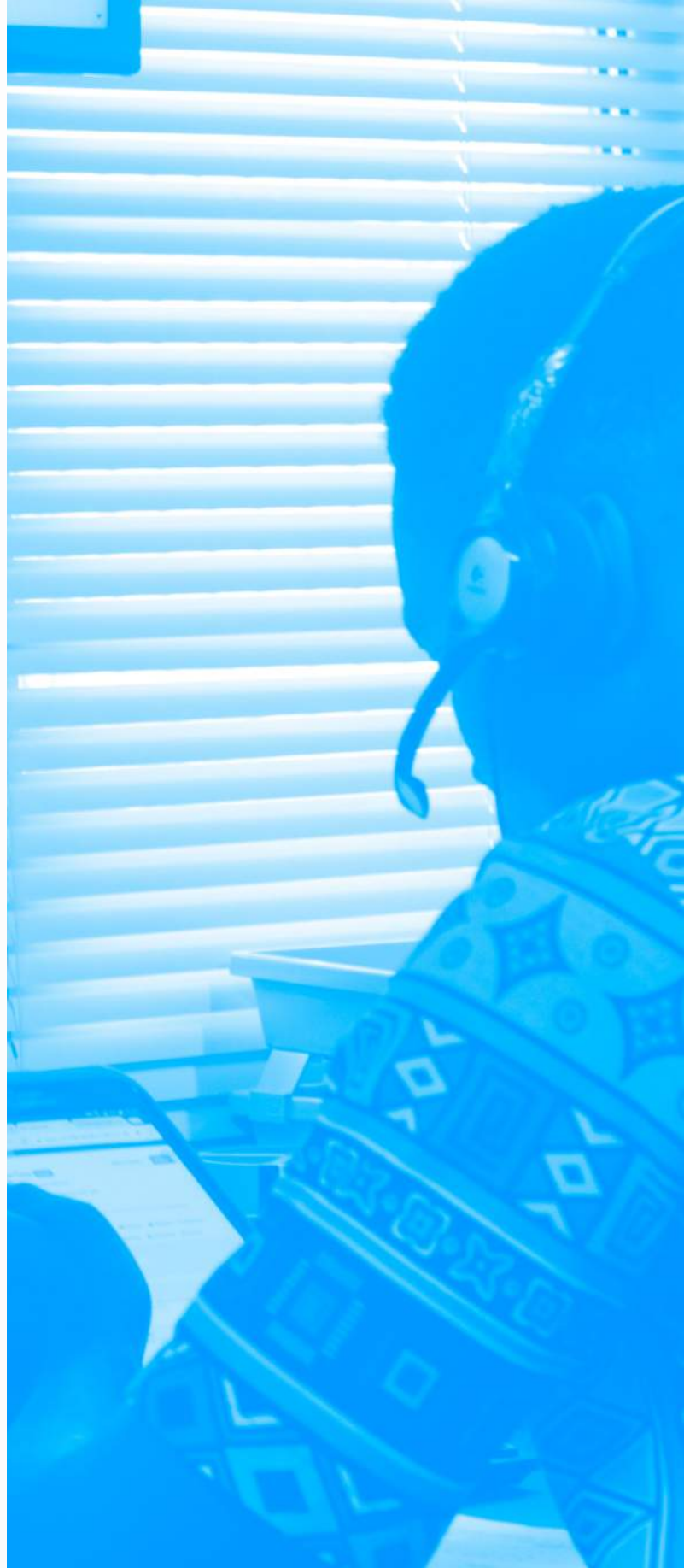
Results from these activities will be triangulated to pull out meaningful information that is subsequently disseminated to MoHS and other government agencies to provide insight on community perspectives and feedback on death notification and reporting processes.

### Impact

**6** data collectors hired and trained for quantitative and qualitative data collection processes.

**32** follow up in depth interviews (Kailahun=16 and Western Area 16) were done by district and past Ebola burden

**1** quantitative survey conducted for members of the community that have or have not reported recent deaths through the 117 system



## Field Epidemiology Training Program (FETP)

The Field Epidemiology Training Program (FETP) project has the main objective of strengthening Sierra Leone's public health system by increasing district and national level public health workers skills in ensuring quality surveillance, capacity for case/outbreak investigations, data analysis, and making data-informed decisions.

eHA's role is to provide programmatic, administrative and logistics support to the training and fieldwork experience.

To fulfill the Global Health Security Agenda (GHS) of 1 epidemiologist per 200,000 population, FETP aims to increase the number of public health workers who are trained and practicing basic epidemiological principles of disease surveillance. eHA and the MoHS delivered 2 training programs (FETP-Frontline & FETP-Intermediate) for key individuals involved in surveillance and data collection/analysis from January to June 2018.

### Updates on training and mentorship:

- 5th cohort of FETP-Frontline concluded, with 100 public health professionals trained in surveillance and emergency response
- International mentors provide mentorships to Intermediate participants in 1:4 ratio

## MENINGITIS OUTBREAK INVESTIGATION

Kenema district experienced a suspected outbreak of meningitis between February 23, 2018, and March 22, 2018. Eight cases and three deaths of suspected meningitis had been reported from Njagor community.

Njagor community, with a total population of 310, is located in the lower Bambara chiefdom of Kenema district. The timely and effective detection, notification, and investigation of an outbreak is critical in determining its outcome, morbidity, mortality, and the like. Key actors in this process include the district health management team (DHMT) and the National Emergency Operations Center.

The Field Epidemiology Training Program focuses on strengthening Sierra Leone's surveillance system and capacity to effectively respond to public health emergencies. FETP resident, Babah Jalloh, along with International mentor, Gebrekrstos Gebru, conducted an evaluation of the DHMT's preparedness and response to the suspected outbreak, specifically appraising detection, notification, and investigation of the outbreak.

The evaluation focused on the community, hospital, and DHMT and the report was presented at the Ministry of Health and Sanitation's Emergency Preparedness Readiness and Response Group to review successes and address challenges in hopes of improving future outbreak response.

### Impact

**11** Intermediate graduates serving as national FETP mentors

**19** case or outbreak investigations conducted between Jan-July 2018



# 117 Call Center

At a defining moment in the hands of the unsparing Ebola Virus Disease (EVD), eHA provided technical and operational support to expand the coverage of the 117 Call Center to every district in Sierra Leone.

eHA developed custom software to enable near real-time documentation of call details and the dispatching of 117 calls from the national center in Freetown to all District Emergency Response Centers. This system also provides call-back services to deliver updates on the dispatching of health workers to original callers. This project continued unto the first half of 2018.

Sierra Leoneans are still utilizing the 117 Call Center in the post- Ebola era. Disease and death cases are reported through the 117 line. Since January 2018 to date, 3,456 calls were received, and acted upon. Additionally 117 is being used in a pilot in Koinadugu as a maternal death surveillance tool and in Bombali, as a child mortality surveillance tool. The 117 Call Center is also used as a research mechanism to collect feedback from the public on death reporting and surveillance.

The major funders of the 117 Call Center are: DFID, CDC, CDC Foundation and the World Bank.

## APPRECIATING OUR 117 CALL CENTER CHAMPIONS

Victoria, the longest serving call operator, is appreciated for her commitment and hard work. Here is what she had to say about the 117 Call Center project:



*"I happened to be one of the first batch of 7 staff to be recruited as a telephone operator by the Government of Sierra Leone (in 2012) for the 117 operation. I was also part of the transition from 117 for maternal child health to 117 for Ebola, and back to the recovery phase. When Ebola crept in, we were joined by up to 100 volunteers at the 117 call center, most of whom became operators.*

*When eHealth Africa started supporting the 117 and introduced its technology, we saw 117 grow to work wonders in terms of reporting cases, documenting proper records and keeping them safe. The 117 system has also given us the opportunity to learn a lot of things like basic computer use and manipulation of applications we now use. Furthermore, new initiatives like the call back system was introduced by eHA."*





# Health Delivery Systems

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# Pillar Overview: Health Delivery Systems

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As part of the Health Delivery Systems pillar, we improve the quality and availability of healthcare for underserved populations, primarily through data management and logistics support to enable better decision-making.

The following projects are implemented under the health delivery system:

- Community Health Officer Leadership Management Training Program (CHO- MLTP)
- Hepatitis B Community- based Serosurvey (Hep B Serosurvey)
- VaxTrac
- Youth- Led Malaria Prevention Messaging



# Community Health Officers Management and Leadership Training Program (CHO-MLTP)

CHO-MLTP strengthens the capacity of Ministry of Health and Sanitation (MoHS) at the community level by providing leadership and management training, onsite mentorship and supportive supervision to Community Health Officers to deliver increased quality services.

In Sierra Leone, the Peripheral Health Units (PHU) comprise of the Community Health Centre (CHC), which is headed by a CHO. The CHC is usually located at the chiefdom headquarter and provides services to a population ranging from 5,000-10,000.

From January to June 2018, 57 out of 61 CHOs graduated under cohort 3 and 4. This brings the total of CHOs trained to 99, out of the CDC set target of 170 CHOs (58%) by the end of June 2019.

Two more cohorts remain to be trained in Moyamba, Port Loko, Tonkolili and Kono districts, starting July 2018 through June 2019.

*The CHO-MLTP came just at the right time, as it has helped me improve on my managerial skills especially with data storage and analysis. My team has immensely improved on data collection and harmonization. There is now good coordination among my staff. Additionally, I have been able to conduct productive meetings with my staff and they appreciate it so much. Above all, the MLTP has challenged me to apply the skills gained to all levels in the PHUs so as to help improve health outcomes*

**Philip S Kanneh CHO,  
Joru CHC, Kenema District.**



# CHO- MLTP Mentor Experience



**MOHAMED S JALLOH**  
CHO-MLTP Mentor



## **What I like about the MLTP is that we all make it happen together**

*“Providing career growth, opportunities to develop and strengthen our health system is of paramount importance to the Community Health Officers Management and Leadership Training Program (CHO – MLTP). I am lucky to be a mentor and part of a team that provides leadership training to a very important health cadre in Sierra Leone; serving as the frontline in health service delivery. What I like about the MLTP is that we all make it happen together ! The MLTP capacitates the CHOs in such a way that it builds up confidence to dive deeper in bridging health gaps. The CHOs are encouraged and educated to leverage resources within their reach to address these issues. Ultimately during mentorship, we work together to replicate this to other facility team members...”*



**ABU A. CONTEH**  
Chief CHO



## **My experience with the CHO MLTP in Sierra Leone is great**

*“Sitting in class and observing the facilitators delivering modules of leadership and management that are not offered in our conventional universities, the classwork, assignments, individual and group presentations by the participants, give me a special feeling of confidence in our health delivery system in the not distant future, should the CHOs practice what they are taught in class. The Mentors have done a tremendous job, reaching the CHOs in their facilities, coaching them on their field assignments and helping them implement their Quality Improvement projects. Through this training, CHOs have improved on their management decisions which has improved the quality of health services delivery in their respective Chiefdoms. My experience with the CHO MLTP in Sierra Leone is great!”*



## CHO- MLTP Trainee Improves Early Detection of Hypertension at Jenner Wright Clinic

In Sierra Leone, despite the high adult prevalence of hypertension, routine blood pressure (B.P) checks are infrequent and the few checks conducted are poorly documented due to the absence of standardized registers.

Zechariah Sandy, a CHO-MLTP trainee, set out to reverse this alarming situation at the Jenner Wright Clinic, East end of Sierra Leone's capital Freetown, after he was trained to conduct B.P screening and was supplied with the B.P monitor under the program.

eHealth Africa is implementing this project with funds from U.S. Centers for Disease Control and Prevention(CDC). eHA's role is to provide logistics, and technical support during workshops; onsite mentorship and supportive supervision to Community Health Officers.

As part of the field work, CHOs are expected to carry out a project on Quality Improvement (QI). The project aims to address gaps in service delivery or a specific health challenge. Zechariah employed a quality improvement approach to identify root causes of poor hypertension screening at his facility and together with his staff developed interventions to address that problem.



The interventions and change ideas included training of staff on the importance of hypertension screening (including the actual blood pressure measurement), developing a register for proper B.P documentation and creating community awareness.

The quality improvement project by Zechariah has led to a 73% increase in hypertension screening from a baseline of 27% at the facility. Furthermore, Zechariah has made recommendations to the MoHS to review and adopt the register developed for proper documentation of HTN across the country. He also recommends that the MoHS develops a national guideline on hypertension and make basic essential antihypertensive drugs available at the PHC level.



*Prior to my enrolment to the CHO-MLTP, issues such as data collection and analysis, maintaining documentation were poorly handled by PHU staff. Staff also barely followed their job descriptions. The community being the centre of our service delivery had little awareness on services offered. In most cases, patients access the facility only during emergencies, not for general hypertension screening*

**Zechariah Sandy,**  
CHO- MLTP Trainee

Zechariah made this comment after few months post graduation.



*The MLTP has enabled us to coordinate activities more orderly, with a tremendous improvement on our capacity. The Quality improvement project on hypertension has led to an increase in patient flow, more organised structure of patient care, majority of our clients screened for HTN voluntarily come for follow up and also encourage friends and relatives. Overall the project has raised awareness towards improving quality of service delivery and added sense of responsibility among staff in promoting clinic activities.*



## Hep B SeroSurvey

eHA in partnership with the CDC and Statistics Sierra Leone, is implementing a Hepatitis B SeroSurvey to determine chronic hepatitis B infection burden among children and mother/child pairs, to evaluate the routine childhood hepatitis B immunization program, and to inform hepatitis B vaccine birth dose introduction in Sierra Leone.

### Key Highlights

**20** blood bank volunteers trained on phlebotomy

**20+** Statistics Sierra Leone staff trained on the use of the ODK for household listing and survey

Household listing for survey has been done in three districts using the ODK survey tool

## Malaria Research

eHA in partnership with Restless Development and CUAMM Africa, has developed data collection tools and trained researchers to conduct a survey on young people's knowledge, attitudes and behavior on malaria prevention and treatment in Port Loko district. The study targets 2,500 respondents in three chiefdoms (Marampa, Masimera and Buya Romende).

### Key Highlights

**50** young people trained on the use of the ODK survey and Kish- Grid tools (random sampling tools used in the selection of respondents to be interviewed during a survey)

**2,417** responses were submitted to the malaria dashboard.

**eHA** set up the Kibana Malaria dashboard which shows analysis of data collected by researchers from the field.

# VaxTrac





## VAXTRAC

VaxTrac is a clinic-based, mobile, vaccine registry tool and is used in Sierra Leone to record children's vaccine data at the time and place of vaccine administration.

VaxTrac is a clinic-based, mobile, vaccine registry tool and is used in Sierra Leone to record children's vaccine data at the time and place of vaccine administration. The main objective of VaxTrac is to provide quality and timely vaccine data that can be used for defaulter tracing, immunization monitoring, planning, policy formation and decision making to ultimately increase vaccination coverage and decrease the rate of unvaccinated children.



*VaxTrac has made it possible for me to know how many children I give vaccine per day*

Adama Koroma,  
EPI Head, Macauley Hospital,  
Freetown



*VaxTrac helps us get information easily. It also helps us track our defaulters, thus making our job easy*

John V K Mustapha - Wellington  
Community Health Center

134 

### HEALTH CARE WORKERS

were trained by eHA in the use of the VaxTrac app in the first half of 2018

VaxTrac now operates in

59 

### FACILITIES

+ 9 added in 2018

14,003 

### CHILDREN

were registered on VaxTrac



# Public Health Emergency Management Systems

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# Pillar Overview: Public Health Emergency Management

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In line with the Global Health Security Agenda, eHA builds the capacity of Ministry of Health and Sanitation personnel on key emergency management principles.

We work with stakeholders to prepare for and respond to potential and active public health emergencies in order to eliminate or lessen their negative impact on populations, primarily through the design of context-specific technological tools and smarter operations.





## Emergency Management and Preparedness (EMP)

Lassa Fever is a serious health concern in Sierra Leone. So far in 2018, 20 cases have been reported throughout the country with 14 deaths. In order to ensure Sierra Leone is ready to respond to a Lassa Fever outbreak,

eHA, in collaboration with the Ministry of Health and Sanitation (MOHS), conducted a Lassa Fever outbreak simulation.

There were 40 participants from 5 districts and from the MOHS with other ministries, departments and agencies (MDAs). A presentation was made by Dr. Donald Grant, head of the Lassa Fever unit.

At the end of the exercise, participants learned how to identify Lassa fever cases, understood the roles of the laboratory, surveillance unit, social mobilization group, and the national security agency in an outbreak.

# Our Solutions: Gather

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eHealth Africa's years of experience in assisting, managing and undertaking a wide variety of data collection projects has shown that we faced recurring challenges when having to analyze and curate the collected data.

We saw a clear opportunity to solve these challenges with a unique solution that enables us to speed up the way effective health interventions and emergency services decisions are made.

**Gather** is a versatile software tool that empowers people to collect data in the field and quickly share it anywhere it's needed. Built from the ground up with the highest standards of security and with the widest range of extensibility in mind, Gather can be easily enhanced with data extraction, masking, and publishing capabilities.

CHAMPS uses Gather to collect the data in Sierra Leone and share them across-countries within the organization's network. Gather guarantees data security and government's control over the collected Information.

The Youth- Led Malaria Prevention Messaging Survey also uses Gather to automate visual dashboards of survey data.

# Learning and Growth at eHealth Africa

Augustine Kamara

*Emergency Operations Center Office Manager-  
Port Loko District, Northern Sierra Leone*

○  
Oct 2014

*Project Supervisor,  
AVADAR*

○  
Aug 2018

## **How has joining eHA improved your career?**

eHA over the years has provided me with the platform to network with key movers and shakers of the health sector both at the national and community level. This experience has sharpened my approach in the implementation and delivery of project goals in all eHA's projects that I was fortunate to be part of. eHA has provided me with the software and hardware skills needed in project management. Since joining eHA, I have experienced immense growth in my skills as a project staff.

## **What do you love about eHA?**

eHA is an organization that continually demands excellence and professionalism while still allowing a healthy and positive work environment. I love that I get to learn new things about eHA's innovations of health systems in Sierra Leone every day.



Sonia Khalil

*Logistics and Procurement Officer*

○  
Nov 2014

*Procurement Supervisor*

○  
Sep 2018

## **How has joining eHA improved your career?**

eHA has helped me in setting up a new office during disasters and to multitask in the absence of key employees to ensure that projects are delivered on time. I have a firm grasp of procurement operations under both normal and emergency circumstances and have kept documentation under such circumstances in order to report accurately to eHA partners and donors. This has improved my leadership skills and encouraged me in making strategic decisions to improve the organization. It has improved my knowledge of compliance and regulations such as prior approvals, waivers and what is required before acquiring goods and services.

## **What do you love about eHA?**

eHA is an organization that promotes employee development by giving them opportunities to grow and exercise their skills and expertise. The organization ensures that its employees know its values and mission. I love the team spirit we promote at the workplace and the fact that technology is used in everything we do.





# Our Donors/Partners

CDC Foundation	Restless Development	Emory University	Concern Worldwide
Focus 1000	World Bank	Novel T	World Hope International
Centers for Disease Control and Prevention	Bill and Melinda Gates Foundation	GFA Consulting Group	German Healthcare Partnership
Group (Pharmaceutical Manufacturer)	Njala University Sierra Leone	U.S. Centers for Disease Control and Prevention (CDC)	University of California, Los Angeles
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Sierra Leone Ministry of Health and Sanitation (MOHS)	World Health Organization (WHO)	The Department for International Development (DFID)
Sierra Leone Ministry of Health and Sanitation	College of Medicine and Allied Health Sciences (COMAHS)	The European Commission's Humanitarian Aid and Civil Protection Department (ECHO)	

A person wearing a headset is shown in profile, looking down at a computer screen. The background is blurred, showing office blinds and another person in the distance. The overall tone is professional and focused.

Sierra Leone  
Half-Year  
Impact Report  
2018



[www.ehealthafrica.org](http://www.ehealthafrica.org)