

Nigeria Half-Year Impact Report

20
18



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Our Vision



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

Foreword

We aim to contribute to growth and learning in the states and communities that we work.

eHealth Africa is committed to continuous growth and learning- one of our core values. We aim to contribute to growth and learning in the states and communities that we work in as well as to our own development as a team and organization. One of the ways that we do this is by evaluating our work and keeping track of the progress we have made in our various program pillars and areas of focus.

The 2018 Nigeria half-year report is intended to acknowledge the milestones that we have achieved. These achievements motivate us and our partners to forge ahead as we work towards the milestones and accomplishments ahead of us.



Our Focus Areas



eHA believes that stronger systems are best achieved through systems-level, integrated approaches. We work on the following focus areas:



Health Delivery Systems

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



Laboratory & Diagnostic Systems

We work to build and deploy reporting tools and technologies needed to collect and disseminate lab data.



Nutrition & Food Security Systems

We provide data-driven, technological approaches to improving the quality and availability of nutritious food products throughout West Africa.



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.



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.

Where We Work in Nigeria



PROJECTS

- GIS
- VTS
- RES
- RIC
- IFAIN
- GRID3
- Sokoto SET
- AVADAR
- Lomis Stock
- Global Good
- Kano Connect
- EOC Data Portal
- WFP Ware House
- Vaccine Direct Delivery
- RI Catchment Mapping
- Household Dietary Diversity Survey

eHealth Africa's 2018 Half-year Impact

A QUICK GLANCE



5,598

SETTLEMENTS

in security-challenged wards in Borno State reached since January this year



3M+

ANTIGENS

delivered using LoMIS Deliver



336,314+

METRIC TONNES OF FOOD

stored (inbound and outbound) for delivery to over 1.2 million beneficiaries affected by the conflict in WFP Warehouses



1000+

HEALTH WORKERS

in Kano State reached on a monthly basis through Kano Connect



2,531

STATE DATA COLLECTORS

trained on the use of innovative data collection tools such as ODK and GeoODK



494,013

FIELD POINTS OF INTEREST

collected across 22 different categories through the GRID³ Project

eHA's Impact in Polio Surveillance and Immunization



STOP
Do you need to open it?

VACCINATOR TRACKING SYSTEM (VTS)

Since 2012, eHealth Africa (eHA) has supported the efforts of the Federal Government of Nigeria and partner agencies working to stop the transmission of Polio virus in the country by monitoring the activities and movement of vaccinators using mobile phones encoded with GPS tracking devices to ensure optimal coverage of settlements in high-risk states like Borno, Sokoto and Jigawa states.

In the first half of 2018, eHA supported the final push against Polio in Nigeria with vaccination tracking in Adamawa, Borno, Gombe, Jigawa, Yobe and Sokoto State.

Also, during the period under review, a physical validation of unnamed settlements missed during the outbreak response in Gombe, Jigawa and Sokoto state was piloted.

During Outbreak Response II in Sokoto in June this year, the eHealth Africa team did a wonderful job by helping to track and rename missed settlements in Sokoto during the campaign. Looking at the impact and the importance of the application used for the exercise, it was agreed at the EOC to have the application available to some state and LGA staff to enable them to use the application to track missed settlements in their domains.

Dr. Abdulrahman Ahmad MBBS, MPH, PhD
Incident Manager, EOC, Sokoto

The activity resulted in the identification of settlements that had never been visited by immunization teams as well as settlements that were consistently missed.

The activity resulted in the identification of settlements that had never been visited by immunization teams as well as settlements that were consistently missed

150 unnamed, missed settlements in three states verified and named

75 unnamed settlements verified to be fully inhabited

7% increase in vaccination coverage of Sokoto state from January to June

10% increase in vaccination coverage of Yobe state from January to June

Spotlight on Borno

Since 2016, eHA in collaboration with other partners such as United Nations Children's Fund (UNICEF), World Health Organisation (WHO), Bill and Melinda Gates Foundation (BMGF), Solina Health and U.S. Center for Disease Control (CDC), has supported the Borno State Primary Health Care Development Agency (BSPHCDA) on geospatial mapping, data collection and tracking of vaccination teams in Borno.

eHA uses satellite images and ground-truthing, a process that allows image data to be related to real features and materials on the ground, in Borno. Equipped with tablets, mobile phones, and other digital devices, field officers gather information about settlements and local health facilities. The base maps generated guide the vaccination campaigns with the expectations that no settlements are missed after the campaigns.

94.4% settlement coverage during IPDs Planned visits in April 2018.

72% drop in percentage of missed settlements during IPDs since 2017

5,598 settlements in Security challenged wards reached since January 2018

7,000+ settlement names collected & updated in the Geodatabase

Before 2016, we didn't have geo-coordinates to identify abandoned or inhabited settlements. With the help of eHealth Africa we can reach those areas and hence, coverage rates are more accurate during vaccination campaigns

Mohammed Gambo,
Local Immunization Officer in Kondunga LGA



NO SETTLEMENT TOO FAR, GOING THE DISTANCE TO ERADICATE POLIO

The discovery of the wild poliovirus in July 2016 in the State of Borno, after more than two years without reporting a case, shocked the eradication endeavours in Nigeria. Inaccessibility as a result of insecurity caused by Armed Opposition Groups (AOGs) poses a great risk and impediment to the global polio eradication efforts.

The biggest challenge faced by the Local Government Area (LGA) teams was reaching missed children in the security challenged areas in Borno, mainly because their locations (geo coordinates) were unknown. The lack of distinct ward boundaries, further, exasperated this issue, as LGA teams were unclear on their areas of coverage and responsibility. Additionally, for the farther and hard to reach settlements, it was logistically impossible to maintain vaccine integrity due to unavailability of refrigeration units or ice packs.

Mohammed Gambo, the Local Immunization Officer (LIO) in Konduga Local Government Area of Borno State faced these battles regularly as he shouldered the responsibility of planning, implementing and monitoring immunization campaigns across the 11 wards in his LGA.

In 2016, eHealth Africa along with other partners such as the World Health Organization (WHO), Bill and Melinda Gates Foundation (BMGF), eHealth Africa (eHA), Solina Health, U.S. Center for Disease Control (CDC), UNICEF collaborated with the government of Nigeria to launch robust response strategies to expand polio vaccination from accessible areas to inaccessible areas in Borno State. eHA provided advanced GIS technology and an able team of field officers to track reached settlements using mobile devices so as to provide geo-evidence of visits by the vaccination teams. eHA consultants also worked closely with the LGA teams to collect geo-location and ever-changing habitation and security information for settlements to enable efficient planning of campaigns across varying accessibilities; thus ensuring that any missed settlements are factored into the next campaign.

Gambo and his team are better able to ensure the accountability of vaccination teams, using mobile applications developed and provided by eHA.



The positive impact of eHA cannot be overemphasized. Formerly, when we sent out our teams for vaccination, they didn't cover the expected areas, but with the assistance of eHealth Africa, we are able to monitor their movement through the Vaccinator Tracking System. We are now also able to understand coordinates, and boundary adjustments.

Mohammed Gambo

The applications help them to track vaccination teams, and to locate hard-to-reach settlements leading to a greater immunization coverage in Borno State. In addition, eHA consultants are involved at every stage of the lifecycle of campaigns and provide post-campaign feedback using maps, which allows Gambo to make data-driven and informed decisions about the future interventions.

Thanks to the work of eHealth Africa and other partners, more hard to reach settlements are being covered. In security challenged environments, 5,598 settlements have been reached since January this year and since March 2017, over 124,417 children have been vaccinated during the special interventions targeting security-challenged settlements.

The meticulous tracking done on settlement visitation done over multiple campaigns has also led to a dramatic rise in the coverage of settlements during the Immunization Plus Days (IPD) campaigns. This proves beyond any doubt, that we are truly going the distance in our work to eradicate Polio in Borno state and Nigeria.

Spotlight on Auto-Visual AFP Detection and Reporting (AVADAR)

Auto-Visual AFP Detection and Reporting (AVADAR) is a mobile sms-based software application designed to improve the quality and sensitivity of Acute Flaccid Paralysis (AFP) surveillance by health workers and key informants within hospital facilities and local communities.

This year, eHealth Africa provided daily troubleshooting phone support for AVADAR community informants and successfully coordinated the transition of routine field support activities such as in-field resolution of technical phone issues and continuous capacity building of AVADAR community informants from eHA field officers to World Health Organization field teams across 4 states: Borno, Sokoto, Adamawa, and Yobe.

1,071 (91%) technical issues from four (4) implementing states resolved

661 suspected AFP cases detected by informants

645 (98%) suspected AFP cases investigated by Disease Surveillance and Notification Officers

201 (31%) true AFP cases across (4) implementing states



//

AVADAR has improved the surveillance system by the active inclusion of community informants reporting on AFP cases using Android phones, unlike previously where AFP surveillance was only centered at the health centers

Yagana Shettima
Community Health Extension Worker, Yobe State

MORE EYES ON THE LOOKOUT FOR ACUTE FLACCID PARALYSIS IN YOBE STATE

In 2016, Nigeria reported four wild poliovirus cases, almost two years after the last reported polio case(s) and just on the verge of being certified polio-free. With this development, attention was drawn to the need to strengthen Acute Flaccid Paralysis (AFP) surveillance, a typical indicator of Polio.



When I was recruited to join the AVADAR network, I had never used an android phone. In my work as a CHEW, I captured data using paper-based forms or by talking with community members. My phone didn't even have a camera.

Yagana Shettima

The current practice for detection of AFP cases is active surveillance at health facilities for which the Local Government Area Disease Surveillance and Notification Officers (DSNOs) are solely responsible. The process was quite cumbersome because it required regular visits to health care facilities within settlement catchment areas, review of patient records, interviews with health care workers/community informants and follow up visits to communities to review cases in-person.

Based in Nguru Local government Area of Yobe state, Yagana Shettima is a health professional with 6 years of experience working as a Community Health Extension Worker (CHEW), in a nursing capacity. Her day-to-day duties typically included providing antenatal care, family planning, and birth delivery services. Before she joined the AVADAR network, Yagana had little to no exposure to an android phone or even filling forms electronically.

In 2016, the Bill and Melinda Gates Foundation, in conjunction with the World



Health Organization (WHO), Novel-T and eHealth Africa (eHA) designed and developed a mobile-based SMS surveillance application called AVADAR (Auto-Visual AFP Detection And Reporting) to improve the detection, timeliness of case reporting and case investigation rates of AFP.

The AVADAR application included an embedded 30-second video showing a child having difficulty crawling/walking which is typical of AFP, as well as an electronic data collection form for submission of detailed information on suspected AFP case patients and/or zero reports. The surveillance application was piloted in 2016 in two locations in Nigeria and then, scaled up to four additional Nigerian states including Yobe state between November 2016 and August 2017.

eHealth Africa trained health care workers and community informants in selected areas with low AFP surveillance, including Yagana, on how to use the AVADAR application to detect and report suspected AFP cases in their immediate community to local disease surveillance officers. To date, over 3,000 informants and health workers have been trained and are part of the AVADAR surveillance network in Nigeria.

The AVADAR project has reduced the burden of work on the Disease Surveillance and Notification Officers by ensuring that they have more eyes looking out for cases of AFP in Yobe State. By including Community Health Extension Workers and other community members like Yagana, the elements of community ownership and participation have been infused into AFP surveillance and reporting.

By so doing, the AFP surveillance system which was previously centered at the health centres and LGAs has been decentralized and others like Yagana, have a chance to be a part of the eradication of polio in Yobe State.

Spotlight on the Emergency Operation Centers (EOCs)

The EOCs have been instrumental in the coordination of outbreaks of Polio and other infectious diseases. In 2018, eHA built the capacity of EOC personnel to support programs planning for scheduled and unscheduled disease management interventions in the states where they are domiciled.

After an initial intensive 2-week training workshop at eHA Kano campus in April, a follow-up transition period aimed at monitoring and assessing the use of skills and knowledge by the EOC personnel was conducted. This has since resulted in the identification of new business pipelines and areas of collaboration with the states, using eHA's solutions.

17 Administrative and Technical Staff
trained across 8 states

Thanks to the internet connectivity at the EOC, we can view reports on the dashboard immediately they are sent by the LGA teams on the field. This helps us review the percentage coverage of the IPDs. Then we can decide and agree on how many days we should allocate for mop-up and which LGAs will be part of the mop-up exercise

Adamu Abdullahi,
Member, Bauchi State Emergency Routine
Immunization Coordination Center (SERICC)





EFFECTIVE COORDINATION EQUALS MORE CHILDREN REACHED

The Emergency Operating Centers (EOCs) were created by eHealth Africa and other partners including the U.S. Center for Disease Control and Prevention (CDC), World Health Organization (WHO) and Public Health England to serve as centers for the emergency management and response coordination of infectious diseases.

The Bauchi state EOC was established in 2014.

As part of the response coordination of Polio, the State Emergency Routine Immunization Coordination Center (SERICC) and other partners manage immunization activities in Bauchi State using the EOC as the command center. Immunization Plus Days (IPDs) are the primary polio intervention in several states. They are supplemental 3-5 day immunization campaign activities aimed at increasing herd immunity and reaching areas that have either been identified as high-risk locations or have low routine immunization coverage rates.

Before 2014, each Local government areas (LGA) presented daily reports of IPDs activities to partners separately which led to multilateral reporting lines and sometimes conflicting feedback from multiple partners addressing the same issues.

This fragmented system prevented the LGA teams from making any real progress. To address this challenge, the World Health Organization (WHO) began anchoring a state level debrief meeting where the teams from all LGAs in the state come in to report and address their challenges. However, it was not institutionalized and the state had little or no control over the meeting.

Adamu Abdullahi is a Bauchi state technical officer and a member of the State Emergency Routine Immunization Coordination Centre in Bauchi state. He is part of a team that is responsible for monitoring and coordinating IPDs and other routine immunization activities across all 20 LGAs of Bauchi State.



During my supervision of the LGA IPD activities, I saw different partner representatives taking note of issues and providing feedback to the LGA immunization teams. Sometimes, you would have different suggestions and comments on the same issue. It is very confusing and the LGA teams often don't know which to accept.

Evening review meetings have streamlined our polio campaigns because I can provide input to decision making and also sanction defaulters during IPDs.

Thanks to the internet connectivity at the EOC, we can view reports on the dashboard immediately they are sent by the LGA teams on the field. This helps us review the percentage coverage of the IPDs. Then we can decide and agree on how many days we should allocate for mop-up and which LGAs will be part of the mop-up exercise

Adamu Abdullahi

The establishment of the Bauchi EOC meant that the state was able to lead and coordinate the daily state level debrief meetings. Adamu and other SERICC members, as well as representatives of partner organizations, can easily visualize IPD reports and provide appropriate, useful feedback in a coordinated manner.

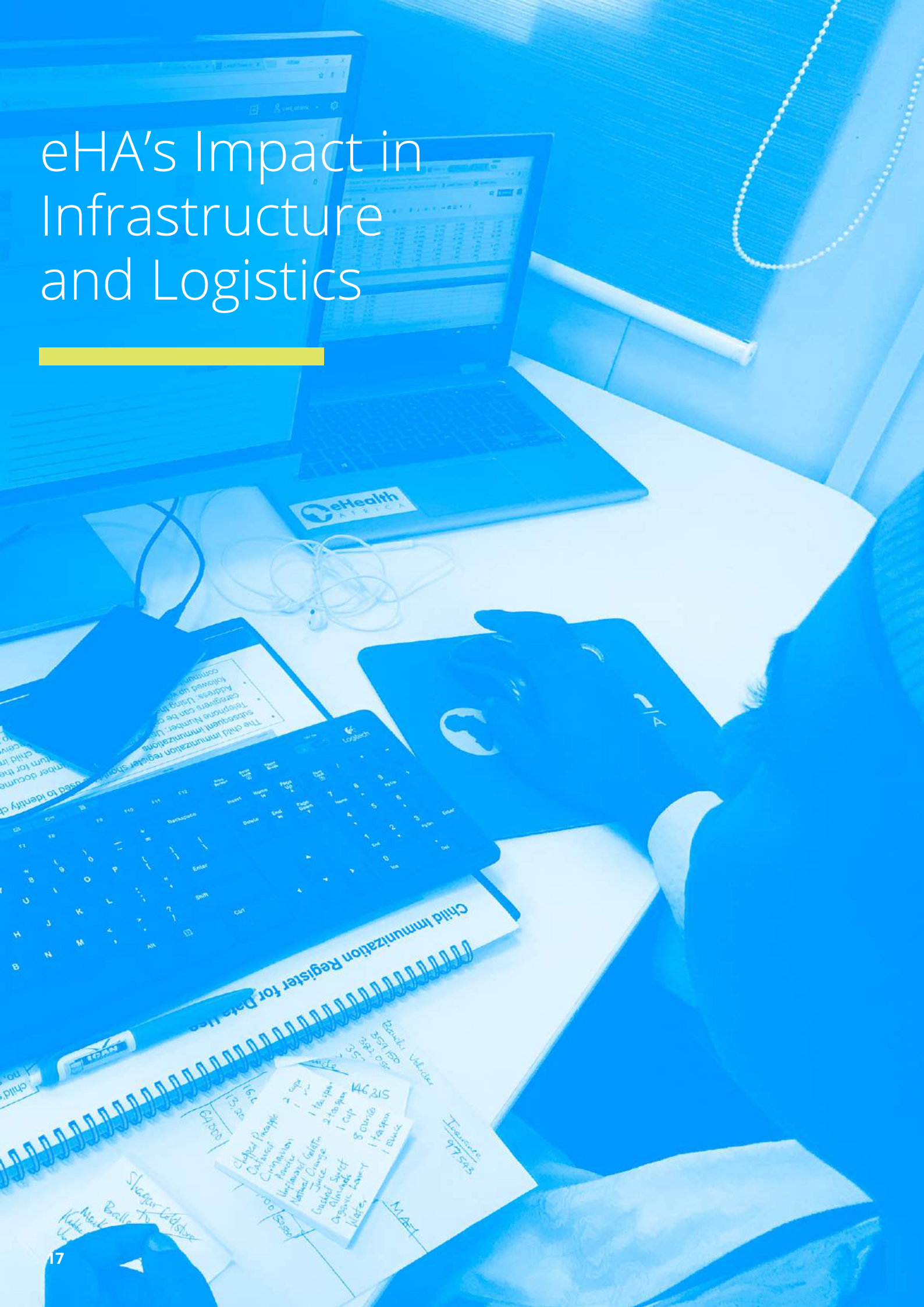
This effective coordination of partners and state feedback allows for the free flow of ideas and strategies to motivate LGA vaccination teams to cover even more areas. It was at one of such meetings that the reward and sanction strategy was suggested and adopted.

Consistently underperforming LGAs are given official warnings while high- performing LGAs are given awards and certificates at an official ceremony at the EOC.

Without the coordinating platform that the EOC provides, SERICC would not have been able to strengthen the polio campaign activities in accordance with the National Polio eradication emergency plan.

More than a center for emergency coordination, the EOC represents Bauchi state's efforts to monitor and plan immunization activities and reach more children in a coordinated manner on a daily basis.

eHA's Impact in Infrastructure and Logistics







VACCINE DIRECT DELIVERY (VDD)

Vaccine Direct Delivery (VDD) is a third party logistics service that ensures vaccines and dry goods are delivered on time, at correct doses and in good condition to health facilities at the ward level. Using an application called LoMIS Deliver, eHA plans, schedules and routes health facilities to conform to cycles of delivery.

This year, eHealth Africa's reach in Bauchi state was extended to include the northern clusters of Bauchi state. This translates to an additional 148 facilities serviced by Vaccine Direct Delivery. In addition, 20 Senior staff of Sokoto State Primary Healthcare Development Agency were trained to supervise and monitor vaccine deliveries using the LoMIS Deliver dashboard

 Total of **284** health facilities in Bauchi reached through Vaccine Direct Delivery.

 **50%** drop in stockout rate of Antigens in Sokoto state.


 **75%** drop in stockout rate of Antigens in Bauchi state.

WFP & LOGISTICS SECTOR, NIGERIA WAREHOUSES

Warehouse hubs are an essential part of the supply chain for the food aid which the World Food Programme provides to the internally displaced people in northeastern Nigeria. eHealth Africa upgraded the existing warehouse in Kano to expand storage capacity and continues to manage its operations. This year, eHA expanded the setup and management of two new WFP warehouses; one in Gunduwawa, Kano and the other in Ngala, Borno state. eHA commenced construction of the WFP Warehouse in Rann, Borno State in May this year.

eHA also manages a warehouse for the Logistics Sector Nigeria in Ngala and is in the process of setting up a second warehouse in Rann. These warehouses are for the use of other organizations working towards the humanitarian effort in Northeast Nigeria, to ease their operations.

 Over **336,314** metric tonnes of food stored (inbound and outbound) for delivery to over 1.2 million beneficiaries affected by the conflict

 **9,840** additional square meters of storage space added to Gunduwawa and Ngala warehouses

 **2** additional warehouse sites established

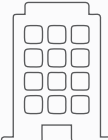



NPHCDA ZONAL OFFICES AND BORNO MOH/HMIS


With remarkable expertise in planning and constructing functional facilities, eHealth Africa embarked on major renovations and IT upgrades of the zonal offices of the National Primary Health Care Development Agency (NPHCDA) in the Northeast, Northcentral and Northwest zones.


The staff of these offices were also trained to configure and use the installed IT equipment.


In addition, the Borno State Ministry of Health received a revamp and the Health Management Informations Systems staff were equipped with new computers to enhance their work.


3 NPHCDA zonal offices (North East, North Central and North West) renovated with IT facility upgrades 

3 new thirty-seater capacity conference rooms set up in Borno MOH and three NPHCDA Zonal Office 

16 NPHCDA staff attended the technical know-how/product knowledge training 

12 office workspaces created for the HMIS staff in Borno State 

3 off-grid hybrid (Solar and wind) power system installed in three NPHCDA zonal offices 

12 brand new computers provided to the staff in Borno MoH 

eHA's Impact in Laboratory & Diagnostic Systems in Nigeria



eHealth Africa in partnership with the University of Nebraska Medical Center has been conducting a study on community-acquired pneumonia in pediatrics.

In addition, eHA is working with University of Nebraska Medical Centre, Case Western Reserve University, and HemexHealth Inc. on validation of a point-of-care screening tool for children with sickle cell disease. Sickle cell anemia is a genetic disease and early diagnosis plays a key role in its management.

The new screening device will allow for Sickle Cell to be diagnosed in children as early as 6 weeks old rather than at 6 months, as with current screening devices

This year, eHealth Africa and its partners, Case Western Reserve University, Hemex Health and the University of Nebraska Medical Center, won the Vodafone Wireless Initiative Project Prize for SMART(Sickle and Malaria Accurate Remote Testing). SMART is designed to diagnose, track and monitor sickle cell disease and malaria in low resource settings.



97

INDUCED SPUTUM SAMPLES

received from study participants.



602

ANTICOAGULATED BLOOD SAMPLES

tested in the HemeChip study

eHA's Impact in Nutrition and Food Security in Nigeria



eHealth Africa's Nutrition and Food Security program aims to build resilience among vulnerable populations in Nigeria and West Africa, especially women and children, and ensure that they get nutritious food.

In 2018, eHA conceptualized the Cornbot application, a maize disease diagnostic tool which uses an image-based interactive mechanism in the local language to help farmers identify, track, map, and treat fall armyworm and some of the most prevalent pests of maize in Nigeria. A prototype of the application is currently being developed for testing.

The mobile app is also linked to an online dashboard where near real-time data of Fall armyworm incidence displayed on heat maps would be accessed.

In addition, eHA conducted household and individual dietary diversification survey in 6 states; Kogi, Niger, Cross River, Jigawa, Ondo and Kebbi states in Nigeria using mobile-based tools. Funded by German cooperation, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH via the Competitive African Rice Initiative (CARI) and Sustainable Smallholder Agri-Business (SSAB) projects, this survey generated data that provides insight into the nutritional adequacy of their diets among CARI and SSAB farming households and their economic capability to access a variety of foods.

Household and individual dietary diversity survey conducted in

6

STATES

600

HOUSEHOLDS AND
600 INDIVIDUALS
were assessed

18

ENUMERATORS
TRAINED

on mobile based data
collection in the 6 states

eHA's Impact in Frontline Health Delivery



KANO CONNECT

Kano Connect is a mobile and web based health platform developed by eHealth Africa, with funding from the Bill and Melinda Gates Foundation.

The platform is the official communication channel for Kano State Primary Health Care Management Board (KSPHCMB) and contains a comprehensive health worker directory which houses contact details and relevant information about all health workers across all levels in Kano State's health system. Kano Connect also houses electronic information management tools such as RI supervision checklists and reports, enabling health workers to submit and review reports seamlessly. Health workers on the Kano Connect platform can access contact details of any staff and call or send SMS messages for free within a closed user group.

eHA handed over the platform to the KSPHCMB in 2016 but has continued to provide technical support to the state and to monitor the increase in usability of the platform. This year, the Kano connect e-learning platform was piloted in Fagge, Nassarawa and Gabasawa local government areas in Kano State. Fifty-seven frontline health workers from these local government areas were equipped with Android smartphones and trained to use the e-learning tool. This marks the beginning of a 2- month assessment phase during which knowledge gaps will be identified and improvements to the platform will be made.




Fantastic!!! Will lead usage amongst Frontline Health Workers, when visiting piloting LGAs.

Dr Sani Umar,
Member, Kano State Emergency Routine Immunization Coordination Center

1 
CALL
every minute

6 
SMS
every hour

1000+ 
HEALTH WORKERS
reached on a monthly basis

57 
FRONTLINE HEALTH WORKERS
trained to use the e- learning platform



Just like MAGIC, you're able to send information and visualize it!

Abdullahi Babar Ruga
Cold Chain Officer, Mokoda LGA

ACCESS TO ALL KANO STATE HEALTH WORKERS AT MY FINGERTIPS

Ahmad Usman Garba is the Zonal Supportive Supervision Program Officer (SSPO) for Nassarawa zone, one of the six zones in Kano state created by the state government for effective management of health programs. Nassarawa zone is made up of eight Local Government Areas.

Every month, he develops a work plan to guide supportive supervision in order to ensure that routine immunization activities go smoothly in his zone.

The supportive supervision exercise provides first-hand information about how vaccines, cold chain equipment, and records are maintained at the health facilities.

It is also a way to build the capacity of the LGA immunization team using a hands-on approach. Before he was introduced to the Kano Connect platform, carrying out the supervision was a difficult job. To visit some facilities, the supervision teams needed to travel very long distances in difficult terrain even then, they were sometimes unable to see the LGA health facility workers.

The supervision activity itself was carried out using a paper-based checklist which meant long hours spent collating and conducting analysis needed to take corrective action. In addition to this, there was no way to verify if a supervisor actually visited the LGA.

Kano Connect is a mobile health platform developed by eHealth Africa, with funding from the Bill and Melinda Gates Foundation.

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eHA was responsible for the development and integration of the communications and collaboration platform, including mobile and dashboard applications. eHA provided over 1400 android smartphones to the healthcare workers and provided training and technical support to the users of the platform. In 2016, the platform was handed over to the Kano State Primary Health Care Management Board.

“We don't have a vehicle for supervision. Sometimes, we would get to the facilities after work hours and there would be no way to reach the LGA immunization team members. We would need to come back the next day”

The introduction of Kano Connect has proven to be extremely helpful for Ahmad and his team. The Nassarawa zonal supportive supervision team is divided into teams of three. Four of us - Zonal LIO, Zonal CCO, Zonal Director and myself, use the Kano Connect Platform to conduct supportive supervision and so one of us will go with each team.

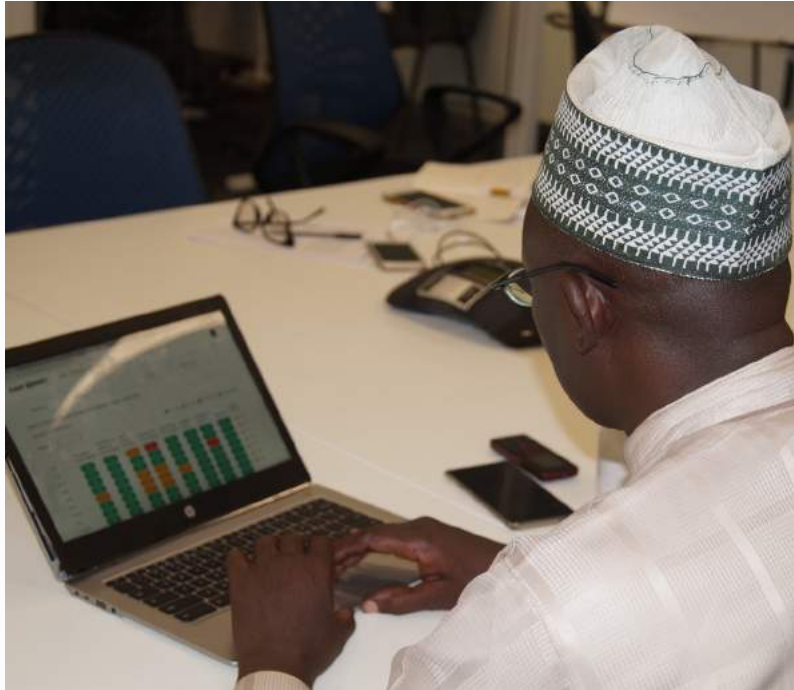
With Kano Connect, he can easily access the phone numbers of the LGA health facility workers and inform them of what day the supervision activity will take place. Another benefit that the platform affords Ahmad is that it makes the process of administering the checklist private.

“People could fill the checklist and submit without even leaving their houses.”

Kano Connect ensures that supervisors actually carry out the supervision exercise, thanks to the location feature which captures the GPS coordinates where the checklist is being administered from.

That's what I love best about Kano connect platform. All the health workers see is that I'm using the phone so they cannot see my questions. He has to tell the truth because he doesn't know what I'm doing; whether I am recording a video of him.

Ahmad Usman Garba



“When an action point is not addressed by the next supervision visit, it is very easy for me to escalate it because the numbers of the Zonal Director and Primary Health Care director are on the platform.”

Readily available contact information on the platform also helps him follow up on action points from the supervision visit as well as escalate, where necessary.

Kano Connect improves the quality of work at various levels of the healthcare system and how health services are delivered because reaching fellow health workers or superiors is very easy. Plans are currently in place to embed the geodatabases of designated locations on their Kano connect tools to further enhance supervisors' activities and improve efficiency in service delivery.

Spotlight on Geo-Referenced Infrastructure & Demographic Data for Development (GRID³)

This year, GRID³ completed the mapping of all 25 focal states, plus FCT, Abuja.

The project collected data relevant to a variety of sectors, including health, education, and the environment. The data collected included settlement names with geographic coordinates, points of interest (POIs) such as health facilities, schools, and public water points. It also included roads and administrative information such as State boundaries.

The data collected is now being stored in a National Portal built by eHealth Africa. This portal will ensure increased access to data for use by State Government decision makers in Nigeria; ensuring that data-driven decisions, programs and interventions and policies can be made.



The GRID³ Project is a laudable one...the data collected is of great benefit to the entire State especially because it goes even beyond the health sector...Oyo State is grateful to eHealth Africa for bringing this Project to our State and we commend the wonderful work done here by the State Coordinator and the entire GRID³ Project team. Thank you

**Dr. Abbass,
Executive Secretary, Oyo State Primary
Health Care Development Board**

25 states, plus FCT completely mapped

494,013 field points collected across 22 different categories.

92% geographic coverage during the data collection exercise across the 25 states and FCT

2531 state data collectors trained on the use of innovative data collection tools such as ODK and GeoODK

GRID³: SETTING THE PACE FOR ACCURATE DATA IN OYO STATE WITH TECHNOLOGY

The paucity of accurate geospatial data, including population settlement data presents a major obstacle to adequate decision making and development across Nigeria. A vast number of the most vulnerable human settlements in Africa remain unmapped.

In the case of a public health emergency, knowing where people live, the best ways to reach them, and the locations of basic necessities such as hospitals, emergency services, schools etc. are of paramount importance.

Francis Aigbokhaevho is a HIV/AIDS Counselling Psychologist at the Oyo State Agency for Control of AIDS, who works with a team in the field and in health centres/hospitals, to locate and provide HIV testing and counselling services to indigenes of Oyo State. Francis and his team regularly carry out household surveys on these hard to reach populations and are often unable to locate unmapped settlements especially in the rural areas. In addition to this, the paper-based system the Agency operates, makes it difficult to keep track of data collected during these surveys.

Sometimes we encounter input errors when transferring the data collected on paper into the system

In response to this obvious need for accurate data for planning and development, eHealth Africa working in a global partnership with Bill and Melinda Gates Foundation (BMGF), Department For International Development (DFID), University of Columbia, United Nations Population Fund (UNFPA) and Flowminder, launched the Nigeria Geo-Referenced Infrastructure and Demographic Data for Development (GRID³) Project in June 2017, to build on the work already completed in the eleven northern States through the Global Polio Eradication Initiative (GPEI) in Nigeria (2014-2015), by mapping the remaining 25 states and FCT of Nigeria. Oyo State provided 207 data collectors from relevant ministries, departments and agencies including the State Bureau of Statistics, State Primary Health Care Development Board and the State Ministry of Health. eHealth Africa trained them to carry out the mapping exercise using technology driven data collection tools.

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I am very grateful for the opportunity to participate in the Oyo State GRID³ Project because it has given me the opportunity to learn something new, while interacting with other staff from different agencies in Oyo State, to accomplish a common goal for the benefit of the State.

Francis Aigbokhaevho,
GRID³ Data Collector, Oyo State



Francis was one of the 207 data collectors nominated by the state to undergo the training process. Being used to paper-based data collection methods, he had never used such technologically advanced tools and was at first skeptical and overwhelmed. However, he was happy to learn a new skill and gain knowledge about a better, faster and more accurate way of data collection.

Recounting his experience during the data collection process, Francis described GRID³ as an intersectoral project. He explained that it gave him the opportunity to work with his fellow government workers on the field to improve the data in his state. Francis was particularly thankful for the efficiency of the tools which enabled him as well as other data collectors to completely map all the 33 local government areas of Oyo state in only 20 days.

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I was not familiar with these applications- ODK collect and Geo-ODK applications. I hadn't used these tools before

Francis was also thankful that locating settlements during his surveys would be much easier with the data collected during the Oyo State GRID data collection exercise.

Beyond Francis' work, the GRID data will improve planning and decision making for public health interventions in Oyo state leading to development and a better quality of life for all.

Our Solutions: Geographic Information Systems

Our GIS solutions continue to enhance the delivery of health services across several of our projects including the Vaccinator Tracking System (VTS), Geo-Referenced Infrastructure and Demographic Data for Development (GRID).

Here are some of our achievements so far in 2018:

Achievements in 2018



25

states mapped



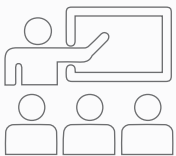
82,336

new settlements
named



162,911

points of interest
mapped in 9 states



17

EOC technical
teams on technical
GIS went through
Capacity Building
Program
capabilities



5

priority diseases'
historical data are
archived in the
postgreSQL
database

<http://ncdc.gov.ng/data>



13

staff of National
Center for Disease
Control on data
management and GIS
went through Human
Capacity development



100

participants in Bauchi and Sokoto trained to use GIS Catchment Area Maps for routine immunization microplanning

Logistics Management Information System (LoMIS) Suite

LoMIS Suite, made up of LoMIS Stock and LoMIS Deliver, was developed by eHealth Africa in 2014 to address supply chain and logistics challenges in the Nigerian health system.



With LoMIS stock, work is easier and stress-free. We can send our reports as at when due so that it is not choked up at the end of the month

Halima Usman,
Ward Technical Officer, Tarauni
Primary Healthcare Centre

Using LoMIS Stock, health care workers (HCWs) can bypass the traditional (slow) paper-based reporting system and submit reports instantly using an application on their mobile devices. LoMIS Stock enables supervisors to get near real-time visibility of stock levels at health facilities for planning and decision making.

LoMIS Deliver aids drivers and health delivery officers by automating the process of the paper based ledger entry, to

record the quantity delivered and stock at hand at health facilities.

eHealth Africa upgraded the mobile applications of LoMIS Stock and LoMIS Deliver. The new versions have a more user-friendly interface and have made data synchronization between the application and the dashboards much faster. LoMIS Stock is now used to visualize and manage vaccine logistics in all the local government areas in Kano state. The data from LoMIS Stock provides support for evidence-based decision making

Achievements in 2018



All **44** LGA cold stores in Kano State now report using LoMIS Stock



3441 successful deliveries made using LoMIS Deliver



4 Million
dry goods moved using LoMIS Deliver



3 Million +
Antigens delivered using LoMIS Deliver

Learning and Growth at eHealth Africa

James Adeyi

Data Collector

○
Aug 2013

Associate, Procurement

○
Mar 2018

How has joining eHA improved your career? eHA has provided an opportunity to diversify and develop my abilities & skills professionally. I have an accounting background but started my career at eHA as a data collector which still involves dealing with numbers. I currently work with the Supply Chain Department which also develops my numerical, negotiation and interpersonal skills.

What do you love about eHA?

The innovation and the technology used by the organization. Finding solutions to some social problems through the use of ODK, tablets etc.



Aishatu Ibrahim

*Relief Project
Field Officer*

○
Aug 2017

*Associate, EOC Office
Administration*

○
Jul 2018

How has joining eHA improved your career?

Since joining eHA I have been able to develop new skills which have also contributed to my increased passion for excellence and professionalism.

What do you love about eHA?

eHealth Africa is an organization that encourages self-development and creativity.



Our Partners



Bayero University,
Kano



Emory University



GFA Consulting
Group



World Food
Programme (WFP)



World Health
Organization (WHO)



John Snow
International (JSI)



SightSavers
International



Federal Ministry of
Health, Nigeria



Bill and Melinda Gates
Foundation (BMGF)



Intellectual
Ventures/Global Good



State Ministries of
Health (SMOHs)



National Primary Health Care
Development Agency



Nigeria Center for
Disease Control and
Prevention



University of Nebraska
Medical Center UNMC



National Population
Commission (NPC)



State Primary Health Care
Management Boards



Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ)



Foundation for
Innovative New
Diagnostics
(THINKMD/FIND)



International Foundation
Against Infectious Diseases in
Nigeria (IFAIN)



Nigeria Half-Year
Impact Report
2018



www.ehealthafrica.org