eHealth AFRICA

2019 Q1
Impact Report
Nigeria

Foreword

We remain as committed as ever to support communities and leaders across Africa to build stronger health systems and lead healthier lives.

We are driven by our desire to make an impact on health systems and communities across Africa. Our passion drives us to create tools and solutions that enable governments to make decisions like where to cite facilities, what health interventions to invest in and how to build health workforce capacity in the most cost-effective way.

We care intensely about what we do and how we do it. We are committed to giving 100% and going the extra mile to deliver high-quality projects in collaboration with our partners.

Our Mission

Our 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.

Where We Work in Nigeria

PROJECTS

- GIS
- VTS
- RES
- RIC
- IFAIN
- GRID³
- AVADAR
- EOC Data Portal
- LoMIS Stock
- Global Good
- Kano Connect
- WFP Warehouses
- Vaccine Direct Delivery

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Our Expertise

Public Health

Data Management

Digital Health

Geographic Information Systems
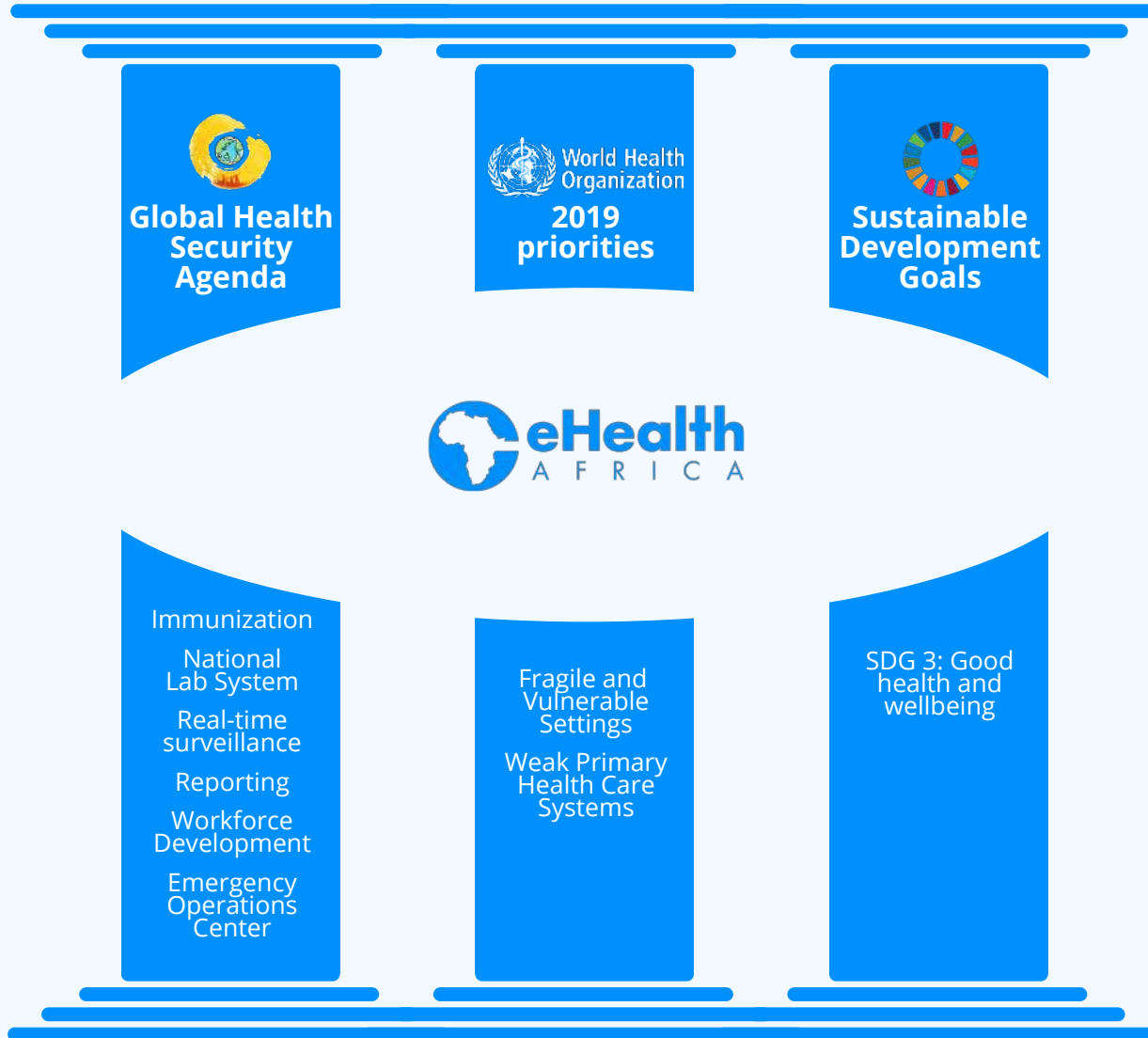
Monitoring and Evaluation

Project Management

Logistics and Infrastructure

eHA in the Global Context

Global Health Security Agenda

2019 priorities

Sustainable Development Goals

eHealth
A F R I C A

Immunization

National Lab System

Real-time surveillance

Reporting

Workforce Development

Emergency Operations Center

Fragile and Vulnerable Settings

Weak Primary Health Care Systems

SDG 3: Good health and wellbeing
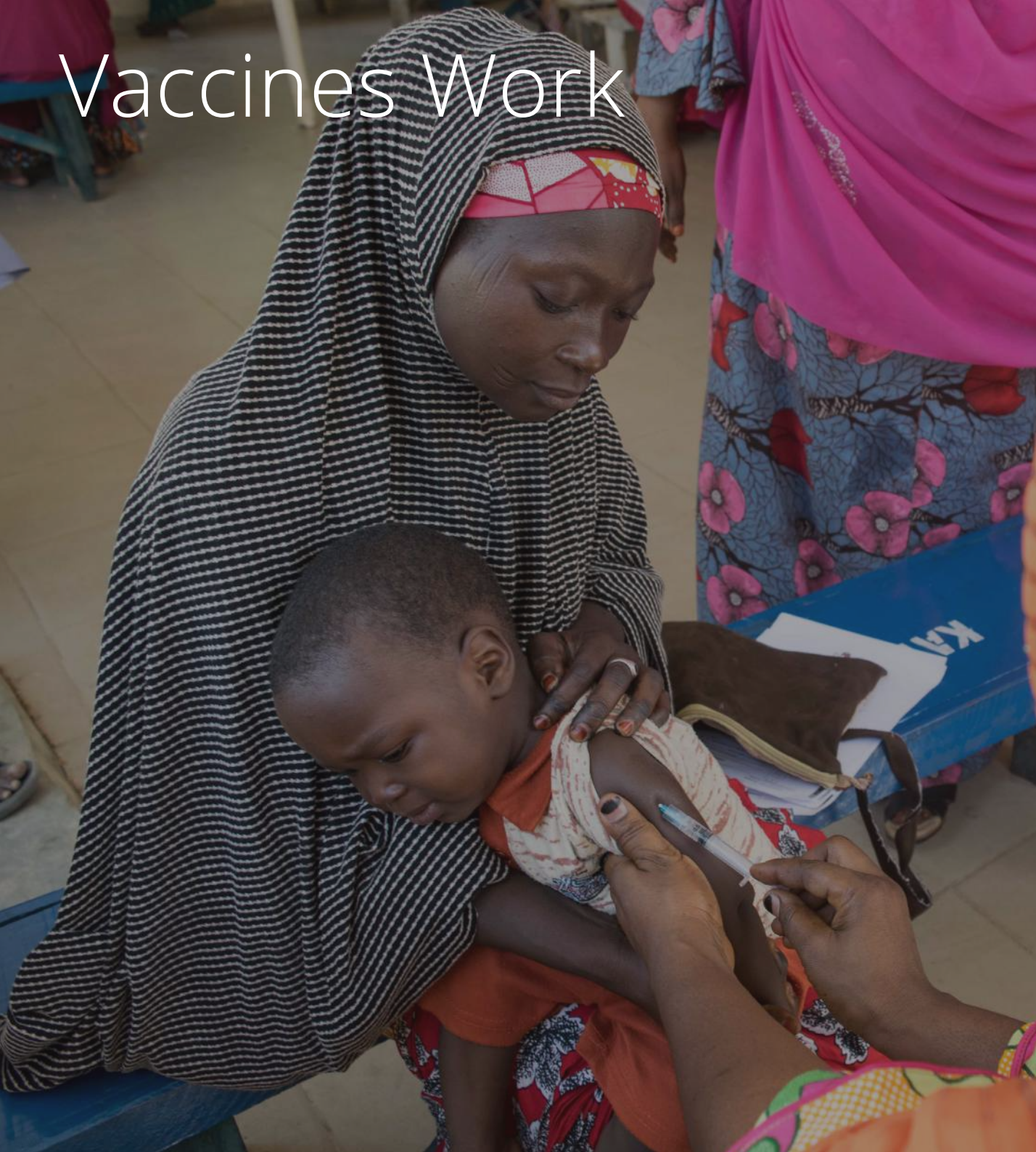
Our work aligns with global initiatives for improving health care deliver and strengthening health systems. We work to support our partners, communities and governments across Africa to meet global targets in primary health care, public health emergency management and preparedness and disease surveillance.

Vaccines Work

- 2,046,439 Antigens delivered for Bauchi and Sokoto states through Vaccine Direct Delivery

- 2,265 successful vaccine deliveries through VDD

- 531 facilities in Bauchi and Sokoto states supported via VDD

- 565 health care workers use LoMIS Stock to report and review vaccine stock data

- 19 categories of antigens and dry goods managed using LoMIS Stock

- 98% Routine Immunization Supportive Supervision (RISS) conducted in Kano state through Kano Connect.

We work with partners to ensure that health facilities have adequate supplies of life-saving vaccines and that health program managers and decision-makers have accurate, real-time data for planning and executing Routine Immunization.

The aim of our Vaccine Direct Delivery project is to ensure that health facilities never run out of vaccines. We provide a third-party logistics service to the primary health care management boards in Bauchi and Sokoto states by delivering adequate quantities of potent vaccines from cold stores straight to the health facilities.

Health workers use LoMIS Stock to send reports on vaccine stock availability, cold chain equipment status, vaccine utilization from their mobile phones. By passing the traditional, error-prone, paper-based reporting, errors are prevented and supervisors have near real-time visibility of stock levels at the facility level, for planning and decision making.

eHealth Africa and the Kano State Primary Healthcare Management Board developed Kano Connect, an mHealth platform for strengthening primary healthcare services through effective communication and information management. Using mobile phones, supportive supervision program officers visit health facilities and ask questions relating to RI service delivery from digitized checklists. Their observations, action-points as well as the GPS coordinates of the health facilities are submitted and stored on a dashboard which can easily be accessed and reviewed by managers for decision making.

Auto-Visual AFP Detection and Reporting (AVADAR)

AVADAR was 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 in polio-endemic and high-risk countries.

"The AVADAR project has greatly improved the quality of surveillance in Kousseri district. The informants send alerts for any cases of paralysis encountered, which broadens the scope of the real cases of AFP. They were also educated about other vaccine-preventable diseases so that active surveillance can be more wholistic. They also notify us of cases of other priority vaccine-preventable diseases using the AVADAR phones, at zero cost."

Nayang Costel
Health Office head, Kousseri District, Cameroon.

This Quarter,

6439
suspected AFP cases were reported by our community informants in Niger, Chad, Cameroon, South Sudan and DRC

116
true AFP cases were confirmed in Niger, Chad, Cameroon, South Sudan and DRC

90.8%
average completeness of reports sent on a weekly basis between January and March 2019 in Niger, Chad, Cameroon, South Sudan and DRC

98%
of all reports between January and March 2019 in Niger, Chad, Cameroon, South Sudan and DRC, were sent at most 48 hours after a notification was sent

89.6%
of all reported cases from January to March in Niger, Chad, Cameroon, South Sudan and DRC were investigated by DSOs

Augmenting the Traditional AFP Scouting System with Technology in the Democratic Republic of Congo

Although the Democratic Republic of Congo (DRC) has been polio-free for more than 20 years, it is still considered a polio high-risk country by the World Health Organization. The recent recurring Ebola Virus disease outbreak has shown just how vulnerable the DRC can be to infectious diseases.

Dr. Blaise Kalenga is the Chief Medical Officer of the Haut-Katanga region, one of the 26 provinces in DRC. He coordinates and monitors all the AFP surveillance activities conducted within the region including notification, investigation, confirmation, and reporting of cases. Several factors contributed to make AFP surveillance an arduous task in his province and in the country as a whole. One of these factors was the dependence on the traditional surveillance method which had proved ineffective. In addition, covering DRC's large land area was very difficult. A large proportion of DRC's population is scattered across the landmass and some of the population reside in very hard-to-reach localities. Insecurity in several rural areas was also significant, causing massive migration or displacement out of target locations, to safer areas. This weakened the routine vaccination system and hampered the active search for AFP cases or tracking of potential carriers.

"AFP surveillance was particularly difficult due to the insufficiency of data management and surveillance tools—standard case definition documents, AFP posters, surveillance guidelines—were not available in health centers and health zones. We also faced enormous difficulties in transporting laboratory samples after collection" - Dr. Blaise Kalenga

Dr. Blaise Kalenga

Chief Medical Officer,
Haut-Katanga region

Augmenting the Traditional AFP Scouting System with Technology in the Democratic Republic of Congo

Dr. Kalenga and his colleagues often struggled to achieve WHO targets in terms of timeliness and completeness of AFP reporting given the challenges above. These two are important for tracking how frequently suspected cases of AFP are reported, and the proportion of reported AFP cases that are investigated or confirmed by surveillance officers—key indicators which Dr. Kalenga needs for optimal planning and programming in his region.

In August 2017, AVADAR debuted in DRC, deploying technology to address the gaps in the traditional, paper-based AFP surveillance system. It decentralized AFP case scouting and made it more inclusive by enlisting more hands from the community, instead of a system limited to identified health workers. Community-based Informants armed with phones were trained to identify and report suspected AFP cases in the localities where they live. The reports are instantly uploaded onto a server which notifies the surveillance officers via SMS, to conduct further investigations.

In a matter of months, AVADAR's positive effect on AFP surveillance in Haut-Katanga was apparent. Reports of suspected cases increased and a large number now came from previously silent areas. The burden of AFP case finding was no longer solely on the surveillance officers, allowing them more time for investigation. This reduced the turnaround time between reporting and investigation time. An added benefit of the AVADAR program is that the community informants also report cases of other priority vaccine-preventable illnesses and this has strengthened the surveillance system in DRC.

"By providing the community informants with work tools, the AVADAR project has not just improved AFP surveillance in DRC but has improved the standard of living of these informants, who now feel valued. The informants also support the surveillance of other priority diseases and other health activities even without having trained them beforehand."

Especially beneficial to Dr. Kalenga is that the AVADAR platform allows him to track the activities of all the informants, investigators, and health workers on the platform and to ensure that everyone is delivering on their mandate. In turn, he is better able to address issues as they arise.

"AVADAR has integrated technology into the active search for AFP cases thus providing motivation for health workers to do their jobs better. Investigation and reporting rates in Haut-Kalenga have increased and now we are more confident of our ability to prevent and respond to any outbreaks."

The DRC has been one of the best-performing countries under the AVADAR project, demonstrating the commitment of its health system to forestall future outbreaks of Polio. In 2018, the DRC AVADAR network averaged a 96% investigation rate in 2018, causing the WHO to sanction an expansion to three new districts in the country last December. With 799 informants, DRC is now the country with the second largest network of informants currently after Nigeria.

Geo-Referenced Infrastructure and Demographic Data for Development (GRID^3)

The Geo-Referenced Infrastructure and Demographic Data for Development (GRID^3) is an offshoot of the mapping of 11 northern states in Nigeria conducted by eHealth Africa under the Global Polio Eradication Initiative from 2014 to 2015.

The aim of the GRID^3 project was to map and collect accurate, complete and geospatially-referenced data relevant to a variety of sectors across the remaining 25 states and the Federal Capital Territory (FCT).

Nationally, over 900,000 datasets on 20 points of interest such as settlements, health facilities,schools, markets, roads, farms, waterpoints etc. have been collected and shared with state and FCT governments .

The long-term impact of this project is that decision-makers will use this data for evidence-based resource distribution and data-driven policy formulation to improve the quality of life for Nigerian people, especially poor and vulnerable populations.

Accurate data helps decision makers plan and execute better!

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Geo-Referenced Infrastructure and Demographic Data for Development (GRID^3)

"The trainings on Map production and microplan generation have been most useful to me in my work. I have generated more than 200 maps thanks to the skill s that I acquired during the map automation training"

Yusuf L. Dauda
Higher Statistical Officer,
Kaduna State Bureau of Statistics

32,143
people cross Enugu state participated in the microcensus

36
states plus Federal Capital Territory in Nigeria given access to the GRID3 data portal

Building the Capacity of Kaduna State Bureau of Statistics (KDBS) to Support Decision Making

In developing countries, especially across sub-Saharan Africa, programs and policies developed to address social and economic challenges are still largely designed without data to inform planning. Tangible impact can only be achieved when governments formulate policies and make decisions that are based on accurately generated and analyzed data. However, the capacity to generate and use this data to proffer solutions to social and economic challenges in developing countries still remains low. The Geo-Referenced Infrastructure and Demographic Data for Development (GRID^3) Project is an offshoot of the Global Polio Eradication Initiative's mapping of 11 northern states in Nigeria. The objective was to support health workers to optimize resources and improve their outreaches by providing them with population estimations and geolocations of settlements.

With the mapping of all 36 Nigerian states and FCT complete, the GRID3 project focused on providing support to states to use this data for decision-making. In Kaduna State, the GRID^3 team worked with the Kaduna State Bureau of Statistics (KDBS) to improve the Bureau's data input processes, data management, and data analysis capacity, ensuring that the state could make effective use of the GRID3 data for improved decision-making, resource allocation, and intervention planning.

Kaduna was the only state in Nigeria to have received, under the GRID^3 project, this depth of support, including a transfer of data management technology and access to a full time embedded data analyst providing day-to-day technical assistance to the state team. This pilot intervention was developed in order to demonstrate the way in which the GRID^3 data and improved data management could positively influence the way in which the government runs. In the final quarter of the support from eHealth Africa to the Bureau, the team began to effectively use the GRID^3 data and apply their newly acquired skill sets in data management and data use, including in map automation and generation.

Building the Capacity of Kaduna State Bureau of Statistics (KDBS) to Support Decision Making

Mr. Yusuf Dauda, the Head of the GIS Division of the Bureau, was one of the recipients of this training and with his team, has produced over two hundred (200) base maps with points of interest and other features such as roads and boundaries added, to assist a team of enumerators to navigate various communities during a recent energy survey. The goal of the survey was to identify all the transformers in four hundred and ninety-four (494) communities. The survey would confirm the coordinates of the communities and transformers and allow the State to estimate the population in the target areas that currently have access to electricity.

"I am particularly happy about the trainings I received from eHealth Africa on map production and microplan generation. They are very useful for me and my team. We can now generate maps that can be used by other departments and bodies in the State."

The maps produced by Mr. Dauda and his team helped during the planning and implementation stages of the survey as enumerators were able to navigate the communities easily. In addition, the data collected from this survey helped the Kaduna State Power Supply Company (KADSCO) to plan the distribution of alternative energy sources in the State. In addition to this, Mr. Dauda's division also generated base maps for the twenty-three LGAs in Kaduna State to supplement the school directory data. The State Universal Basic Education Board and the State Ministry of Health are currently using the maps to determine the locations and availability of schools in the state for planning.

Mr. Dauda is pleased that his unit is better able to support the state to plan and execute programs accurately. Now that KDBS is able to produce accurate data and information, Kaduna is well on its way to improve the quality of life for its citizens.

"Our governor, His Excellency, Mallam Nasiru El Rufai doesn't do anything without data. We (KDBS) generate data, and the governor uses it."
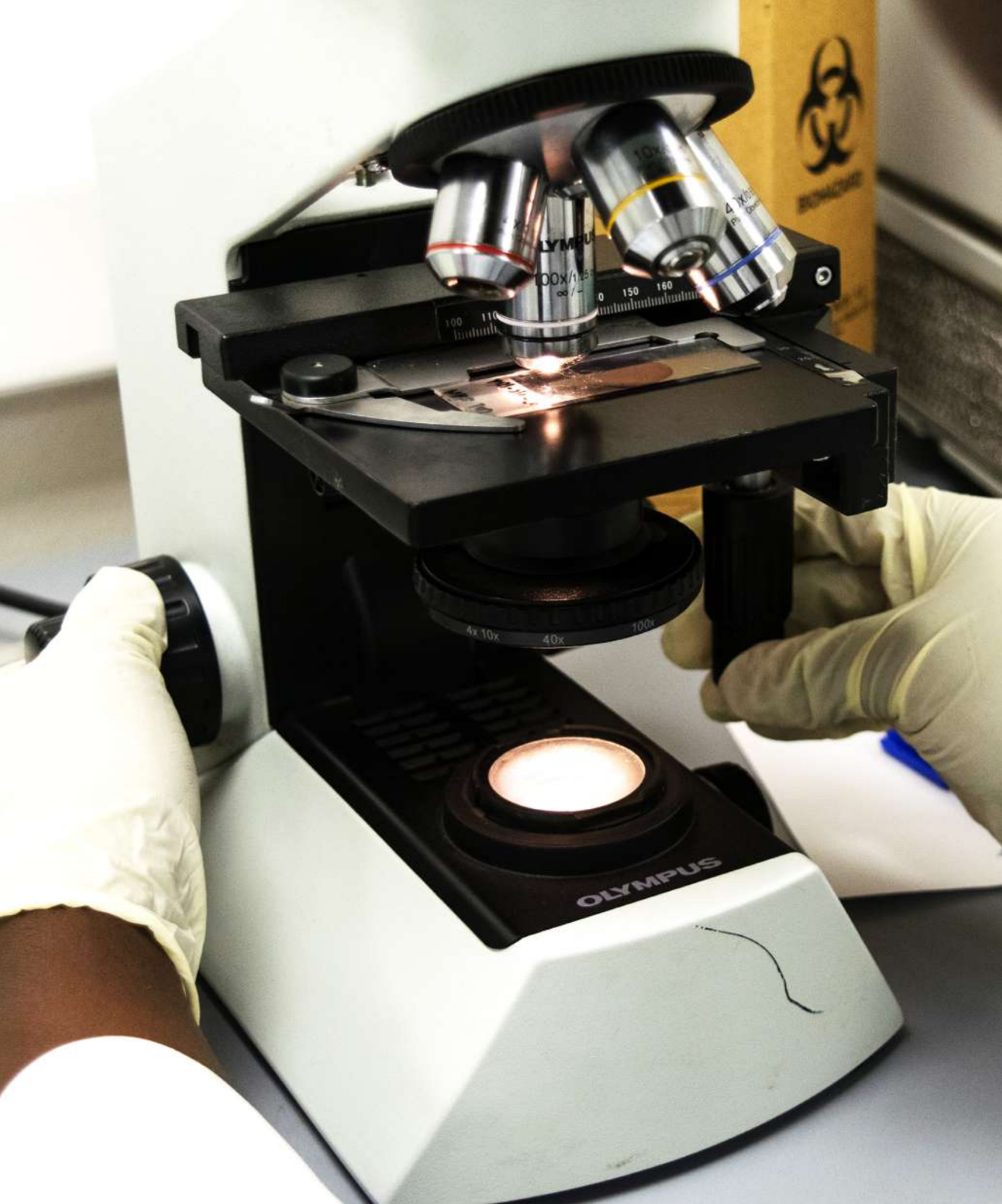
Workforce Development

807

hours of training and capacity building activities

We equip our partners, including health care providers reach millions of people with quality health services by building their capacity through workshops, trainings and access to eLearning facilities.

Stronger Laboratory Systems help to detect threats early

42 biological samples processed by the Sokoto Meningitis Lab

Our Sokoto Meningitis Lab supports the diagnosis of Cerebrospinal Meningitis and related diseases in Kebbi, Sokoto and Zamfara states via lab investigations before the commencement of treatment. This ensures effective case management and prevents outbreak and antimicrobial resistance.

Tackling Cerebrospinal Meningitis (CSM) in Sokoto through Quality Laboratory Diagnosis

Nigeria is one of the twenty-six countries within the sub-Saharan Meningitis Belt and has the highest rates of Cerebrospinal Meningitis. In Nigeria, Meningitis cases are found to occur at a greater rate, during the dry season and Sokoto state is one of the most affected states.

Dr. Idris Nuhu is a house officer with the Pediatric Medical Ward (PMW) at Specialist Hospital, Sokoto. Prior to the establishment of the Sokoto Meningitis Lab, care and treatment of patients with CSM progressed very slowly and was fraught with unethical practices. CSM is a highly fatal disease and 5% to 10% of patients die 24-48 hours after the onset of the symptoms. Medical practitioners often had to prescribe a course of treatment to prevent death or complications, because facilities for testing were unavailable or because the turn around time for diagnostic procedures took too long. Even though fatality was prevented, this practice has been linked to the recent mutation of Neisseria meningitidis, the chief causative agent of CSM and the rapid progression of seasonal outbreaks of CSM from alert to epidemic thresholds.

"The time or resources necessary to take Cerebrospinal Fluid (CSF) samples for testing in order to direct the course of patient's treatment just weren't available because the medical facilities are so understaffed. So, doctors here are forced to take action based on the symptoms a patient is presenting by order of priority, which means for most cases, going straight to treatment without first conducting any Lab investigation."

Dr. Nuhu

Tackling Cerebrospinal Meningitis (CSM) in Sokoto through Quality Laboratory Diagnosis

In 2016, Nigeria was hit by an outbreak of Cerebrospinal Meningitis. The first case was reported in Zamfara in December 2016. By June 2016, there had been a total of 14,518 cases and 1,166 deaths across 25 states. The Sokoto- Kebbi- Zamfara tri-state area was the worst hit by this outbreak, accounting for over 89% of the cases.

In response to the 2016 Meningitis outbreak which claimed 1,166 lives in Nigeria, eHealth Africa collaborated with the International Foundation Against Infectious Diseases in Nigeria (IFAIN) and the Sokoto State Ministry of Health (SMoH) to deploy the Sokoto Meningitis Laboratory.

The lab handle the testing of cerebrospinal fluid (CSF) samples collected from patients with suspected cases of CSM in three states including Sokoto State. eHA constructed the lab, currently manages the facility and coordinates lab operations and sample transportation from health facilities across local government areas in the Sokoto metropolis. IFAIN provides the reagents, technical support and laboratory machines including the Bactec 9050 for blood culture, while the SMoH provides the manpower (Medical Lab Scientists and Technicians) and some testing kits.

Through the Sokoto Meningitis Laboratory, eHealth Africa contributes immensely to the rapid diagnosis and accurate management of of CSM through world-class laboratory investigations that isolate the causative organisms and determine antibiotic sensitivity. The results of these tests are then directly reported to the medical officers in order to direct the course of treatment. In addition, eHealth Africa sends routine reports to the Ministry of Health and the Nigerian Centre for Disease Control (NCDC). These reports enable the NCDC and the Ministry of Health to be better prepared to handle public health threats and to plan programs like vaccination drives and mass prevention campaigns.

Since launch, the Sokoto Lab has tested 908 CSF and blood samples taken from patients with symptoms of Meningitis and over 219 have been confirmed positive for Meningitis With quality diagnostic systems in place, Dr. Nuhu advocates for more awareness to be raised by the government so that people can come to the hospital for treatment immediately they observe symptoms; and increase their chances of survival. Now more than ever, citizens of Sokoto, Kebbi and Zamfara states can be assured of quality and effective laboratory diagnosis before treatment according to laid down guidelines for the World Health Organization.
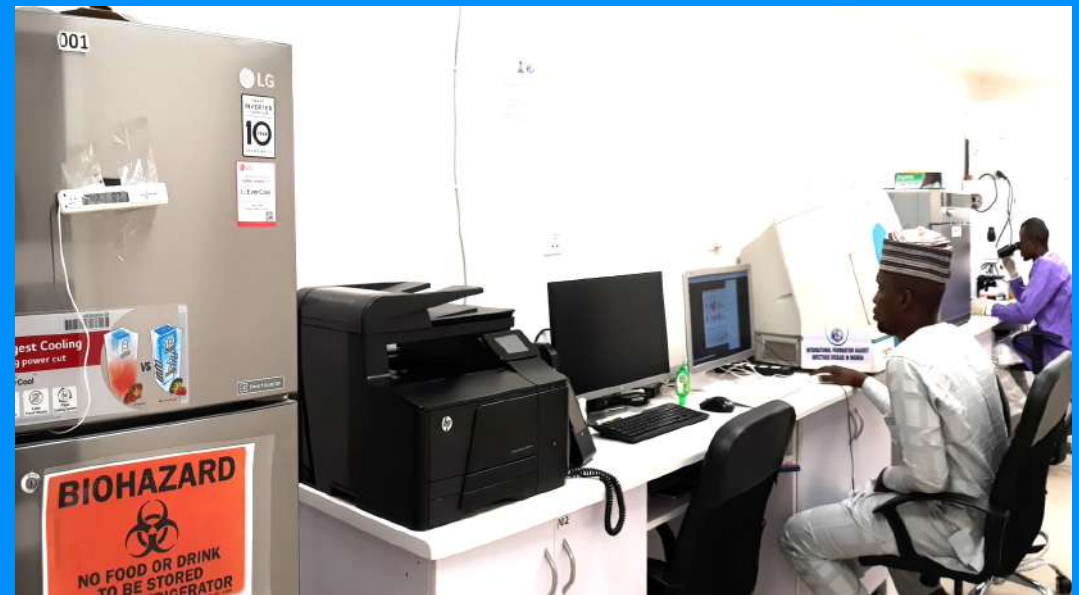
Vaccinator Tracking System (VTS)

The Vaccinator Tracking System project (VTS) was introduced in 2012 to support the polio eradication efforts of the Nigerian government and partner agencies towards the elimination of Poliovirus transmission and achieving Polio free certification.

The vaccination tracking project (VTS) uses an android based application to capture the passive movement of the vaccination team during each IPD campaign. The passive tracks collected from the devices are uploaded onto the dashboard for analytics and visualization.

These help the administrators of polio eradication in the country to have near real-time information on the vaccination coverage and missed settlements during supplementary immunization activities so that appropriate action can be taken immediately.
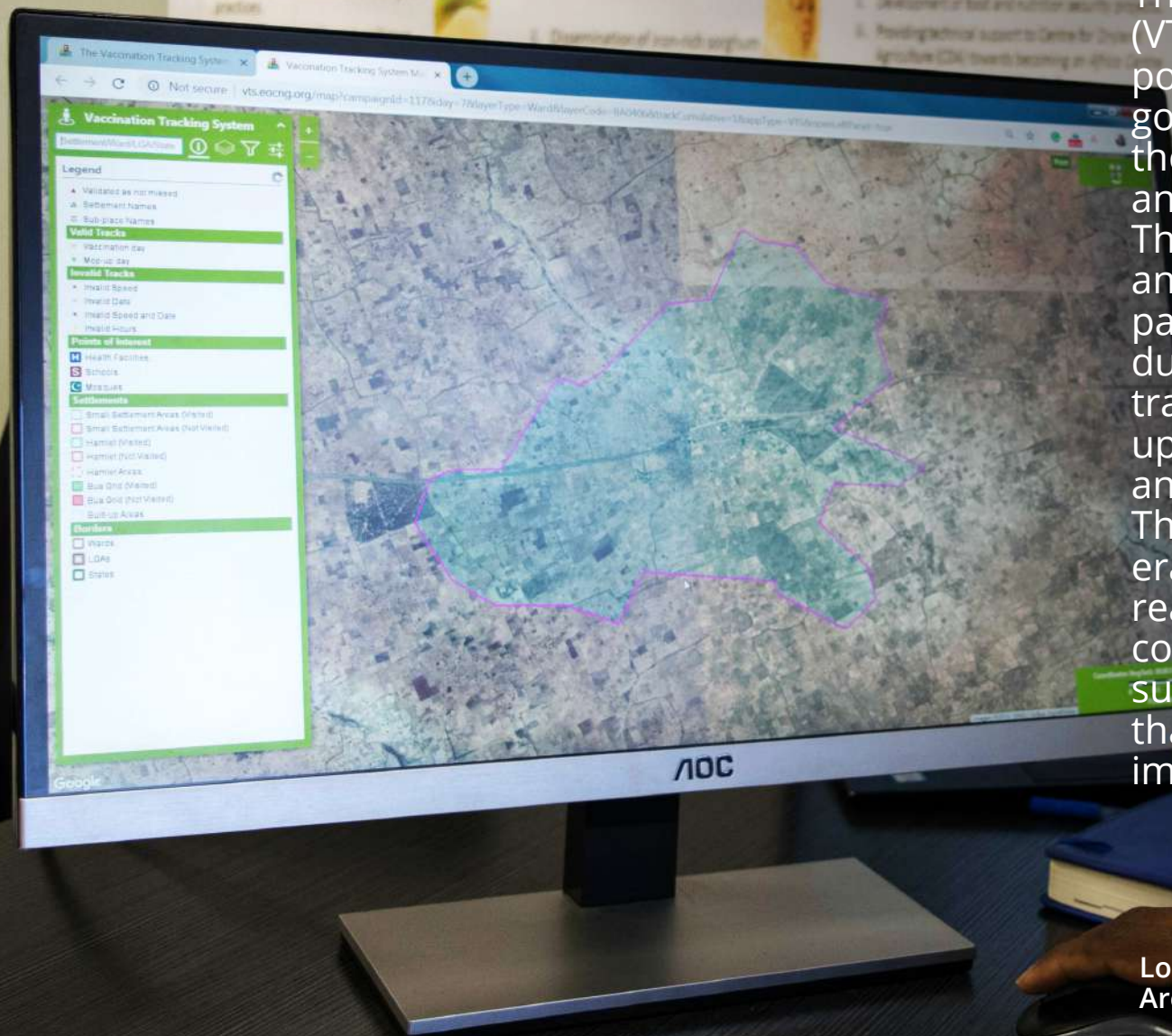
80
Local Government Areas tracked in 7 states

14,480
missed settlements identified in 58 LGAs

Infrastructure and Logistics

Reliable infrastructure and field support are pivotal to the success of any health project .
We collaborate with partners to design, build, restore and maintain diverse sites and facilities in complex global environments.
Our accomplishments throughout the continent include the establishment of emergency operations centers, warehouses, and laboratory sites.

Health Africa received funding from the Bill and Melinda Gates Foundation (BMGF) to renovate the annex offices of the National Primary Health Care Development Agency (NPHCDA).

The renovation included the correction of structural defects, renovation of office spaces, electrical and IT installations and office furnishings.

We delivered relevant training resources and guides to Technical Support Unit staff in NPHCDA and trained them to maintain the office infrastructure.

Infrastructure and Logistics

The World Food Programme (WFP) provides food aid to support vulnerable populations affected by the conflict in Northeast Nigeria.

The WFP Kano Warehousing project is an essential part of the supply chain which enables the provision of the required food commodities to those in need. eHA manages the operations of the warehouses in Kano and Borno states, ensuring that food commodities are handled and stored in a safe and efficient way.

eHA also manages the common storage space for the Logistics Sector, Nigeria. The storage space is provided to ease the operations of humanitarian organizations working in Borno State .

1,080,000 packages of food handled at the WFP warehouses in Dakata, Kano and Ngala, Borno State.

815 metric tons of commodities stored by 5 organizations at the WFP-Logistics Cluster common storage space.

Our greatest asset is our people

Anupma is a Senior Programs Manager, in charge of our Polio tracking interventions in Northeastern Nigeria. She oversees project activities, manages staff and liaises with technical eHA teams for effective project delivery.

Anupma has formed close collaborations with the Global Polio Eradication partners as well as humanitarian organisations working in Borno which has increased eHealth Africa's visibility and credibility in this space.

Anupma Sud
Senior Programs Manager

Our Partners

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