eHealth
AFRICA

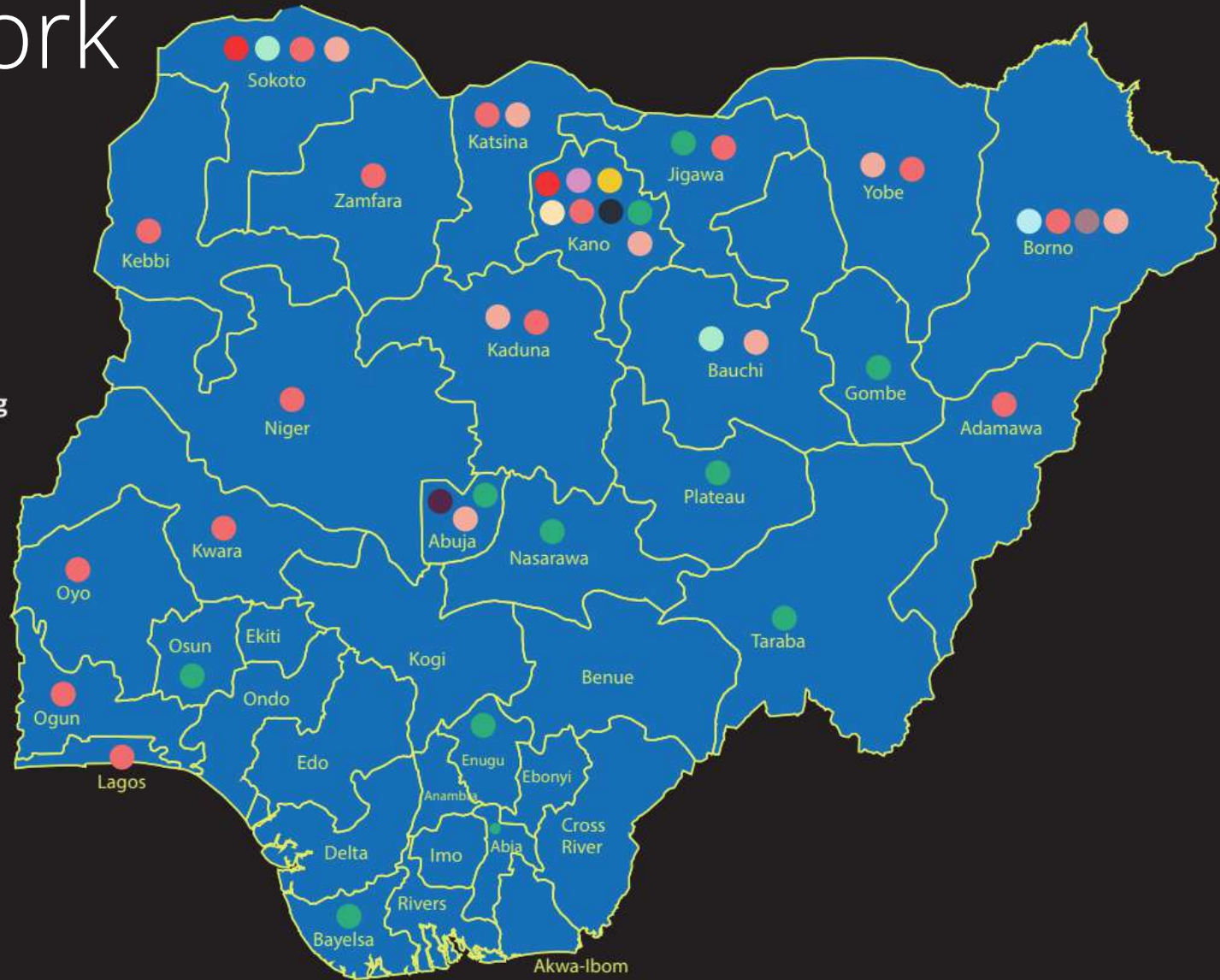2019 Q3
Impact Report
Nigeria

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.

Health workers in Chiranchi Primary Health Care Center, Kano use the LoMIS Stock application to monitor and report vaccine stock inventory

Where We Work

Projects

- Farm Management Tool
- Indigo deployment
- Vaccinator Tracking System/ IPD Tracking
- Kano Connect
- LoMIS Stock
- MetaFridge
- NPHCDA Annex Renovations
- Polio EOC Maintenance
- RES/RIC
- Vaccine Direct Delivery
- WFP Warehouses
- eHA-IFAIN Laboratory

Our Expertise

- Public Health
- Monitoring and Evaluation
- Logistics and Infrastructure
- Project Management

- Digital Health
- Data Management
- Geographic Information Systems

A Voluntary Community Mobilizer guides a patient as he fills a form at Kawaji PHC, Kano State.

eHA in the Global Context

Immunization

Disease Surveillance & Reporting

National Lab Systems

Workforce Development

We believe that no one should lack access to quality healthcare when they need it and that health systems should be supported to deliver quality health services to the population that they serve.

We design and implement projects across national and global thematic areas and support health systems across Africa to strengthen health service delivery in line with global health and development goals.

Through our projects, we provide decision makers with accurate data that can guide them to take the best actions for their health systems.

A vaccinator at Kawaji PHC drawing the Measles antigen for vaccinations at Kawaji PHC, Kano State.

Immunization

Immunization is one of the eight major components of primary health care (PHC). It protects children against a majority of life-threatening childhood illnesses so that they can go on to lead healthy lives in future. Even though there has been great progress towards achieving universal coverage, there are still 20 million unvaccinated and under-vaccinated children worldwide. According to the World Health Organization, at least 80% of eligible children must be immunized to ensure that vaccine-preventable diseases are eradicated. This means that all countries must provide an uninterrupted supply of potent vaccines to even the most hard-to-reach and conflict-affected areas.

eHealth Africa (eHA) works with various partners and stakeholders in the Nigerian health system to address supply and demand-side gaps that lead to reduced access to quality immunization services. The Vaccine Direct Delivery project and LoMIS Stock projects address supply-side gaps such as poor vaccine stock management at the health facility level. Through these projects, eHA provides decision makers with near-real time data which can be used to plan and address challenges as they arise.

A mother covers her baby's eyes as he receives his vaccinations at Kawaji PHC, Kano State.

Kano Connect was developed by eHA and the Kano State Primary Healthcare Management Board (KSPHCMB) to strengthen the delivery of primary health care services, especially Routine Immunization through capacity building and supportive supervision. eHA supports the state to maintain a comprehensive directory of health workers and health facilities in Kano state. In addition, eHA develops digitized observation checklists which supportive supervision program officers use to monitor and supervise the quality of routine immunization services provided at the facilities. The data collected can be stored on a dashboard which can easily be accessed and reviewed by managers for decision making.

We also work with national polio eradication partners across the country to increase the coverage of supplementary immunization activities like the Immunization Plus Days (IPDs) or outbreak responses. eHA provides vaccinators with Android phones that detect, record and store passive tracks of the vaccinators' movements during these Supplementary Immunization Activities (SIAs). The passive tracks are uploaded onto a dashboard to display a visual representation of the communities that were covered or missed on a daily basis so that immediate action can be taken. The Vaccinator Tracking System project is particularly useful in security-challenged areas like North East Nigeria where SIAs are vital for increasing herd immunity.

Together, these projects ensure that the Nigerian health system can better provide mothers and children with the potent life saving vaccines that they need to prevent diseases.

A mother covers her baby's eyes as he receives his vaccinations at Kawaji PHC, Kano State.

A baby getting immunized at Gwagwarwa PHC, Kano State.

3,872,018
children vaccinated in total from July to September 2019 in both secure and security-challenged areas

3,431
Supportive Supervision sessions conducted in Kano State this quarter

97%
Routine Immunization activities in 97% of health facilities in Kano State supervised through Kano Connect

75,543
immunization outreaches conducted in Kano State

354
health facilities in Kano State have functional cold chain equipment

2,550
vaccinators trained to administer the Oral Polio Vaccine in security-challenged areas

35
faulty cold chain equipment detected and reported using LoMIS Stock between July and September, 2019

1,634,159
antigens delivered in Bauchi, Sokoto and Zamfara states from July to September 2019

0
vaccine and dry goods stockout in Kano State

23,899
vaccination teams tracked in 6 states

7,336
missed settlement identified in 6 states

70,949
eligible children in missed settlements (using Geographic Information Systems (GIS) population model)

Now there is no need for any apex facility to visit the LGA cold store, because eHealth Africa delivers their vaccines twice every month. There is a great transformation from the old vaccine pull system, and the new push system which eHA is implementing.

Nura Muazu
CCO Sokoto

Meeting Routine Immunization Target with Kano Connect

The importance of technology in healthcare is becoming increasingly evident. Health technologies have been recognized by foremost health forums such as the World Health Assembly as being indispensable for preventing, detecting and treating diseases. Introducing communication strategies and information technology into health delivery systems can improve the quality of healthcare, improve health and bring us closer to achieving health equity.

As the Routine Immunization Officer in charge of Bebeji Local Government Area (LGA) in Kano State, Rufa'i Rabi'u's primary focus is to make sure that Routine Immunization sessions run smoothly so that eligible children in his LGA can receive their vaccinations at the right time and complete the entire vaccination course without dropping out.

"I work with the LGA Monitoring and Evaluation officer to analyze weekly and monthly data collected from the Ward Focal Persons (WFPs) to identify specific patterns of noncompliance, low vaccination coverage, dropouts, and vaccine wastage. Once I have identified these trends, I develop and suggest coordinated strategies to address these challenges, improve RI demand, and to increase immunization coverage"- Rufa'i Rabi'u

Achieving this is dependent on his ability to communicate and share information with his fellow health workers. To obtain and validate the data from the wards, he makes several calls on a weekly basis to the 14 WFPs, health facility in-charges, and his colleagues at the LGA level, often at his own expense. He also sends weekly reports relating to vaccine stock levels and vaccine utilization to the State Emergency Routine Immunization Coordination Committee (SERICC).

These reports are critical because they also contain vital information about action points, recommendations, or gaps identified during Routine Immunization Supportive Supervision (RISS) visits which need to be addressed promptly so that the RI sessions in the LGA can proceed as planned.

Rufa'i Rabi'u is the Routine Immunization Officer for Bebeji Local Government Area in Kano State.

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He was often unable to submit his reports when due because of challenges with internet connectivity.

" At the end of each week, when my weekly reports were due, I had to use my personal phone and data as a hotspot. This cost me a lot of money and I would still spend most of my weekend at the office because of network delays or poor internet connectivity. It was quite frustrating because it was a persistent problem."

eHealth Africa and the Kano State Primary Health Care Management Board received funding from the Bill and Melinda Gates Foundation (BMGF) to design and implement Kano Connect, a mHealth platform that strengthens primary healthcare services through effective communication and information management. As part of the project, eHA provided mobile phones and internet data for selected Kano state health system staff including all the health facility in-charges, to enable them to send reports through their mobile phones and communicate for free within a closed user group. The reports, action points from supportive supervision visits, as well as the GPS coordinates of the health facilities are stored on a dashboard which can easily be accessed and reviewed by managers for decision making.

This intervention completely transformed Rufa'i's work. By accessing the Kano Connect dashboard, he is now able to obtain and collate the data for his reports more quickly and efficiently. Having back-end visibility has also helped him to troubleshoot and address potential issues like stockouts or vaccine shortages before they arise. He monitors the vaccine stock levels of the facilities in his LGA through the dashboard and contacts the LGA Cold Chain Officer to supply vaccines to any health facilities that report low vaccine stock levels.

"Kano Connect has improved my work productivity. These days, I hardly need to contact the health workers to ask for data or to remind them to send reports because they can do this easily from their phone. Even when I have to make calls, it's completely free."

Testimonials like Rufa'i's elucidate the positive impact that communication and infor-mation sharing systems like Kano Connect can make on health service delivery, espe-cially in low resource settings. Currently, Kano Connect is managed completely by the Kano State Primary Health Care Management Board with technical support from eHealth Africa.

Rufa'i Rabi'u is the Routine Immunization Officer for Bebeji Local Government Area in Kano State.

Auto-Visual AFP Detection and Reporting (AVADAR)

eHealth Africa implements AVADAR in partnership with the World Health Organization and Novel-T with funding from the Bill and Melinda Gates Foundation (BMGF), in Cameroon, Chad, the Democratic Republic of Congo (DRC), Niger, Sierra Leone and South Sudan. The project aims to improve the quality and sensitivity of Acute Flaccid Paralysis (AFP) surveillance in polio-endemic and high-risk countries.

It increases active AFP case finding by "widening the net" of disease reporters and using an sms-based mobile technology to improve the completeness, timeliness, and availability of AFP reporting.

When informants report suspected AFP cases, automatic case alerts are sent to the appropriate disease surveillance officers, and the resulting data is automatically aggregated, visualized, and made available for decision makers.

The model has been so successful that it is also being used to report cases of other infectious disease like measles, diarrhea, and yellow fever and some of the implementing countries.

Mariam Mahamat, a health worker in Kinasserom, Chad is learning to activate the GPS feature on the AVADAR mobile application.

In Tchongolet,Chad, a community informant, Abdou Mbomi is learning to use the AVADAR mobile application.

4,131

communities covered by community informants in Niger, Chad, Cameroon, South Sudan and DRC

24.5%

of AFP cases in Niger, Chad, Cameroon, South Sudan and DRC were reported by female community informants

3,591,641

children below age 15 under active AFP surveillance in Niger, Chad, Cameroon, South Sudan, and DRC

19%

of our community informants are women

134

of 6,922 AFP cases reported by community informants in Niger, Chad, Cameroon, South Sudan and DRC are girls between 1 and 15

79.2%

of reports in Niger, Chad, Cameroon, South Sudan, and DRC were submitted within 48 hours or less of receiving a reminder during the reporting week

76.25%

of reported AFP cases in Niger, Chad, Cameroon, South Sudan and DRC were investigated

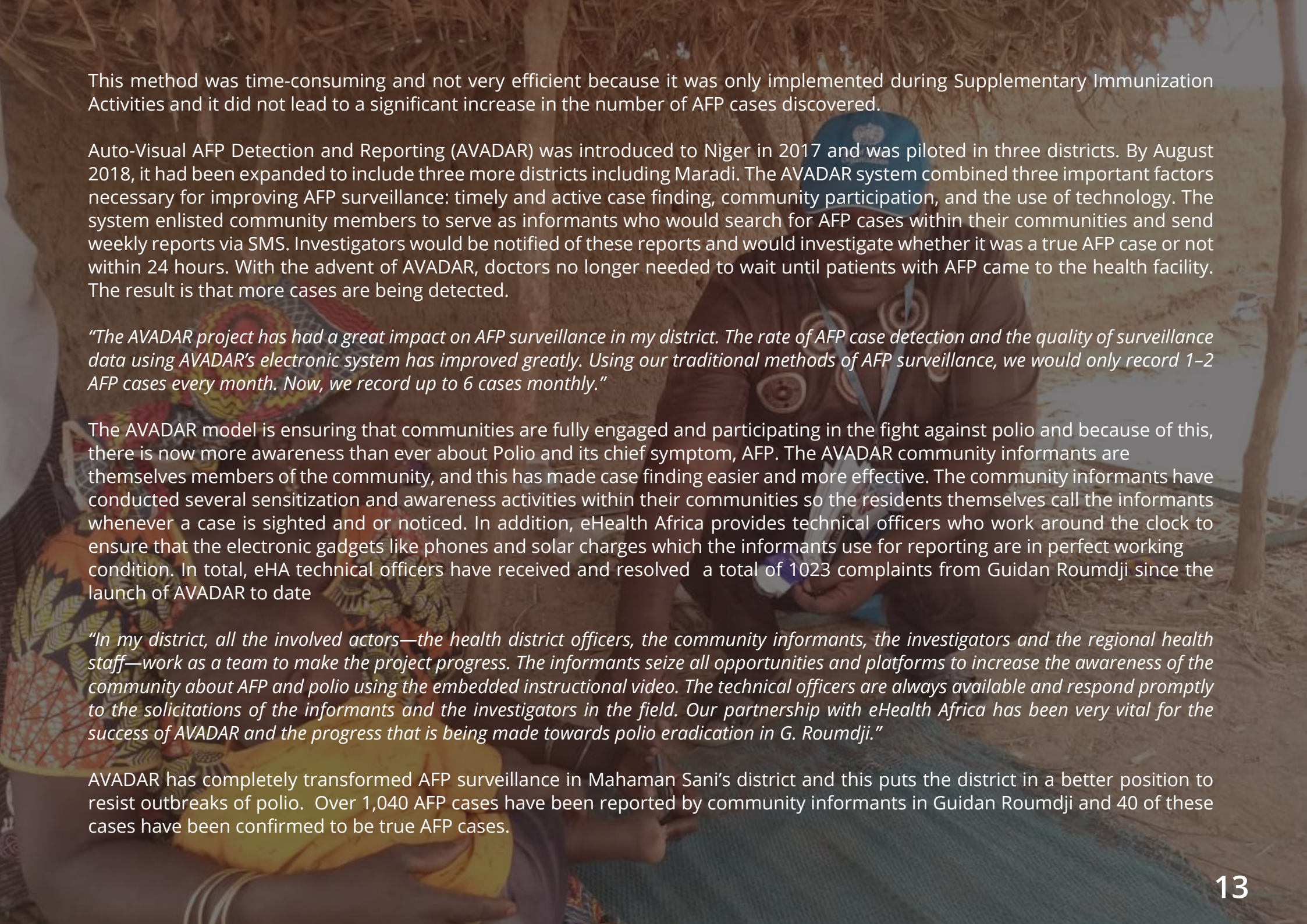# AVADAR Improves AFP Surveillance in Guidan Roumdji, Maradi District, Niger

Niger is a country in the Chad basin, bordering Nigeria. The need for Acute Flaccid Paralysis (AFP) surveillance became a substantial concern in 2016 when four new AFP cases were discovered in Nigeria. Mahaman Laminou Sani is the District Coordinator of Guidan Roumdji district, a position he has held since 2018. His district is located in Maradi region and is considered a high-risk location because it shares a border with Nigeria, a country where new cases of the wild polio virus were discovered in 2016.

Having served as a Disease Surveillance and Notification Officer prior to his current role, he is aware of the many challenges associated with AFP surveillance in his region. In previous times, surveilling for AFP cases was a tedious process. Active case searches were only conducted by medical doctors periodically at the health facility level. AFP cases were only detected, reported, and reported when patients visited the hospitals.

"Over the last few years, AFP surveillance in Guidan Roumdji has undergone many phases. It used to be a very inefficient, passive process and so, the number of cases being reported was not a true reflection of the number of AFP cases in the area. At some point, we came up with an initiative where informants took advantage of vaccination campaign rounds to visit communities and households to search for AFP cases. Once an AFP case was discovered, the informants would call a doctor, if they had a phone, or wait till they returned to the health facility to report the case. The doctor would then go to investigate the case."

Mahaman Sani is the District Coordinator of Guidan Roumdji in Maradi region, Niger. Guidan Roumdji is one of the districts where AVADAR is being implemented.

This method was time-consuming and not very efficient because it was only implemented during Supplementary Immunization Activities and it did not lead to a significant increase in the number of AFP cases discovered.

Auto-Visual AFP Detection and Reporting (AVADAR) was introduced to Niger in 2017 and was piloted in three districts. By August 2018, it had been expanded to include three more districts including Maradi. The AVADAR system combined three important factors necessary for improving AFP surveillance: timely and active case finding, community participation, and the use of technology. The system enlisted community members to serve as informants who would search for AFP cases within their communities and send weekly reports via SMS. Investigators would be notified of these reports and would investigate whether it was a true AFP case or not within 24 hours. With the advent of AVADAR, doctors no longer needed to wait until patients with AFP came to the health facility. The result is that more cases are being detected.

"The AVADAR project has had a great impact on AFP surveillance in my district. The rate of AFP case detection and the quality of surveillance data using AVADAR's electronic system has improved greatly. Using our traditional methods of AFP surveillance, we would only record 1–2 AFP cases every month. Now, we record up to 6 cases monthly."

The AVADAR model is ensuring that communities are fully engaged and participating in the fight against polio and because of this, there is now more awareness than ever about Polio and its chief symptom, AFP. The AVADAR community informants are themselves members of the community, and this has made case finding easier and more effective. The community informants have conducted several sensitization and awareness activities within their communities so the residents themselves call the informants whenever a case is sighted and or noticed. In addition, eHealth Africa provides technical officers who work around the clock to ensure that the electronic gadgets like phones and solar charges which the informants use for reporting are in perfect working condition. In total, eHA technical officers have received and resolved a total of 1023 complaints from Guidan Roumdji since the launch of AVADAR to date

"In my district, all the involved actors—the health district officers, the community informants, the investigators and the regional health staff—work as a team to make the project progress. The informants seize all opportunities and platforms to increase the awareness of the community about AFP and polio using the embedded instructional video. The technical officers are always available and respond promptly to the solicitations of the informants and the investigators in the field. Our partnership with eHealth Africa has been very vital for the success of AVADAR and the progress that is being made towards polio eradication in G. Roumdji."

AVADAR has completely transformed AFP surveillance in Mahaman Sani's district and this puts the district in a better position to resist outbreaks of polio. Over 1,040 AFP cases have been reported by community informants in Guidan Roumdji and 40 of these cases have been confirmed to be true AFP cases.

National Laboratory Systems

Our labs in Kano and Sokoto are equipped to conduct effective, modern point-of-care and laboratory-based diagnostics to support real-time biosurveillance and response to public health threats. In partnership with the International Foundation Against Infectious Diseases in Nigeria (IFAIN), we conduct comprehensive laboratory investigations that support the diagnosis of Cerebrospinal Meningitis in Kebbi, Sokoto, and Zamfara states at the Sokoto Meningitis lab.

Our Kano Laboratory is partnering with HemexHealth and the University of Nebraska Medical Center (UNMC) to develop and deploy an Electronic Medical Record (EMR) system for Malaria and Sickle Cell Disease in Kano State that can be accessed remotely by health practitioners so that they can monitor, track, and treat patients. In addition, the eHA is building the capacity of health workers in Kano state to safely collect, transport, and store infectious specimens.

100%
of Meningitis Samples collected and tested at the Sokoto Lab

11
health workers supervised and provided with on-the-job training through the Sokoto Lab

A mother covers her baby's eyes as he receives his vaccinations at Kawaji PHC, Kano State.

National Lab Systems

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Workforce Development

This quarter, we spent 880 hours training and building the capacities of health workers to better deliver health services that are responsive and of high quality.

Without a competent and coordinated health workforce, health systems will be unable to achieve health goals or meet global targets. We support health systems to build a health workforce that is diverse, multi-sectoral, and capable of conducting prevention, detection and response activities in a manner that is appropriate for their specific contexts and meets best practices.

A member of our Geographic Information Systems team (GIS), Samuel Aiyeoribe supervises a training for enumerators and data collectors at our Kano Campus.

Farm Management Tool

For the last six months, eHealth Africa has been working with 25 farmers from five local government areas to provide them with simplified specialist knowledge on farming practices such as soil testing, weeding practices, plant spacing, fertilizer application, and disease scouting and prevention, through the Farm Management Tool (FMT). The farmers earmarked a collective 22,500 square meters of control farmland to test the viability of the information disseminated via FMT.

This quarter, eHA continued to "handhold" the farmers and monitor the progress of the test portions of farmland so that they can maximize their outputs, improve the quality of their lives, and address food insecurity in Nigeria.

22,500

square meters set aside by 25 farmers in Kano State for FMT demonstrations

164

hours in total spent in training and handholding sessions

8%

of farmers trained are women

FMT team members supervise the progress of a control farm space at xxx LGA

World Food Programme (WFP) Warehouses

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 oversees the setup and management of the warehouses in Kano State, ensuring that food commodities are handled and stored in a safe and efficient way.

685,563

packages of food handled at the WFP warehouses in Kano State between July to September 2019

124

employment opportunities created by the Kano warehouses

Laborers at the WFP Warehouse in Kano load food packages into trucks for distribution.

Adedolapo Olusoga
Office Manager, Abuja EOC

Adedolapo "Dolly" Olusoga is the Office Manager for the Abuja Emergency Operations Center. She has been with eHA for over 3 years and is the "Face of eHA" at the EOC.

Dolly supervises and coordinates the daily operations of the Abuja EOC so that our partners, consultants and other stakeholders who use the EOC have a functional and efficient work environment to deliver interventions.

In addition, she serves as an operational liaison person between eHA and field officers and State technical advisors on all project activities concerning the National EOC. She also supports AVADAR, Geographic Information Systems (GIS), and Data Management projects.

"Dolly's sense of urgency and passion for the work we do at eHA is exemplary. She is always in a good mood, and is cool under pressure, even when more tasks are heaped on her. She consistently delivers results and is a valuable asset to eHA and the Polio Emergency Operations Center team."

Haruna Kaita
Project Manager,
PEOC

"Adedolapo Olusoga is a purpose-driven manager. She is passionate about her work and leads by example. This inspires us, her subordinates, to work hard and succeed at our jobs. The successes recorded by the Abuja EOC are linked to her dedication and purposefulness. I am very fortunate to have an incredible manager like Dolly."

Solomon Eteng
Office Admin Associate,
Abuja EOC

Our Partners

- Bauchi State Primary Health Care Management Board
- Bill and Melinda Gates Foundation (BMGF)
- GFA Consulting Group
- Emory University
- Intellectual Ventures/Global Good
- International Foundation Against Infectious Diseases in Nigeria (IFAIN)
- Kano State Government
- Kano State Primary Health Care Management Board
- Novel-T
- National Population Commission (NPC)
- National Primary Health Care Development Agency
- Nigeria Center for Disease Control and Prevention (NCDC)
- State Ministries of Health (SMOHs)
- Sokoto State Primary Health Care Management Board
- State Primary Health Care Management Boards
- University of Nebraska Medical Center (UNMC)
- Washington State University (WSU)
- World Food Programme (WFP)
- World Health Organization (WHO)

Field Operations Officers moving tracking equipment for quality checks.

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