eHealth
AFRICA

Impact Report
2021

www.ehealthafrica.org

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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, we establish new standards in health delivery and emergency response through the integration of information, technology, and logistics.

Our Values

01 Impact and Quality

02 Innovative Problem Solving

03 Integrity

1200 G Street NW, Suite 800
Washington, DC 20005
USA

4th Floor Monjed Jawad Building, Opposite Raza Hotel, Aberdeen, Freetown, Sierra Leone

4-6 Independence Road Kano Nigeria

28 Osun Cresent, Maitama, Abuja FCT.

eHealth & Information Systems Africa gGmbH Prenzlauer Allee 186 10405 Berlin Germany
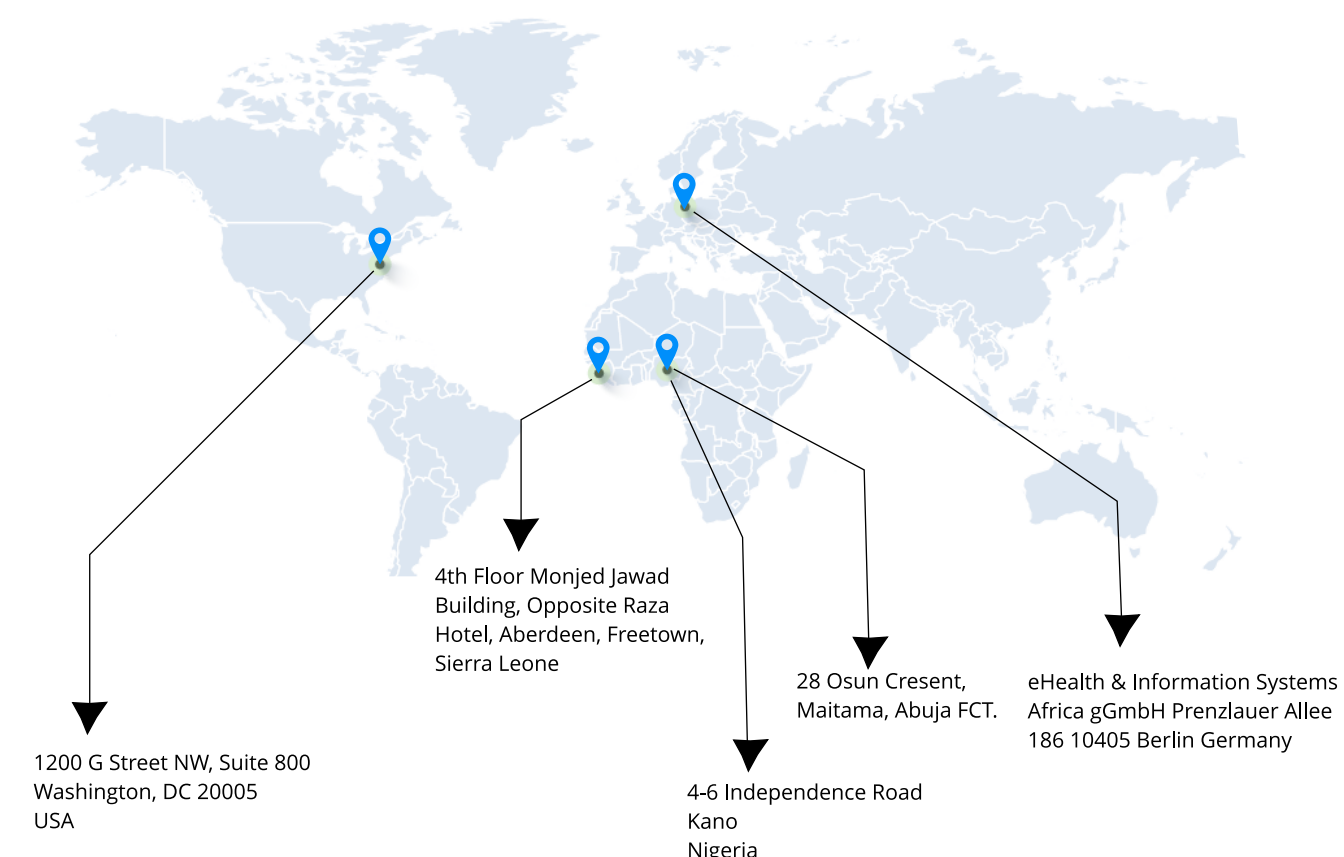
Programmatic focus areas

Health Delivery Systems

Throughout West Africa, we develop people-centric and data-driven, technological solutions to improve health delivery systems for vulnerable communities.

Public Health Emergency Management Systems

Throughout the region, 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 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.

Laboratory & Diagnostic Systems

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

Nutrition and Food

The process of obtaining or providing food that is appropriate and necessary for the human body to grow and maintain adequate health. Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food.

Competencies

Infrastructure

Reliable infrastructure is a key pillar of any health system and it is vital to build and maintain such systems. Our team of highly qualified engineers, field sta ffand project managers collaborated with partners to design, build, restore and maintain specialized world-class facilities that meet international best practices and standards. We ensure to utilize renewable sources of energy such as solar energy to improve power systems. Over the years, we have set up, renovated and managed physical, IT and data infrastructures for public health emergency operations centers, laboratories, warehouses and government health office buildings.

ICT Services

eHA's team of IT systems professionals design, implement, maintain and manage IT infrastructures for clients. We provide enterprise-level management of servers, workstations, and all other network components coupled with timely technical support to users of all levels.

In addition, eHA operates and manages Tier III Data Centers with geographical redundancy, multiple power sources, dual internet connectivity, redundant hardware and supporting processes and services offering a fully redundant and secure hosting infrastructure. Currently, we have two data centers that host several physical and virtual servers for our internal and external projects.

Some of the other services we offer include call centers, helpdesk services and third-party software support. Our call center and helpdesk services provide 24/7 technical and customer care support. Our highly experienced sta fftriages each call by opening a service ticket and escalating calls to the appropriate sta ffmembers via various channels (live chat, email, SMS, etc).

Data Management

eHA provides GIS and data management services to government and non-government health agencies/organizations to support emergency response operations and health service delivery. We have developed an open-source suite of tools and services to support evidence-based planning and decision making for advanced data management operations such as large-scale data collection exercises. Our broad range of data solutions and services includes location mapping, data collection, data analytics, data visualization, data storage, data exchange and interoperability, and capacity building.

Project Logistics

eHA is highly skilled in strategy development, project/program design and planning, end-to-end project implementation, and monitoring and evaluation. eHA's adoption and institutionalization of the PRINCE2/PRINCE2 Agile project management methodology ensure quality project delivery across our multi-country portfolio. Our team comprises a competent group of project managers with extensive multi-sectoral expertise.

As a standard procedure to ensure that activities and interventions are contributing to the overall project objective, eHA utilizes its online results framework and knowledge management tool, Aya to monitor and analyze programmatic data.
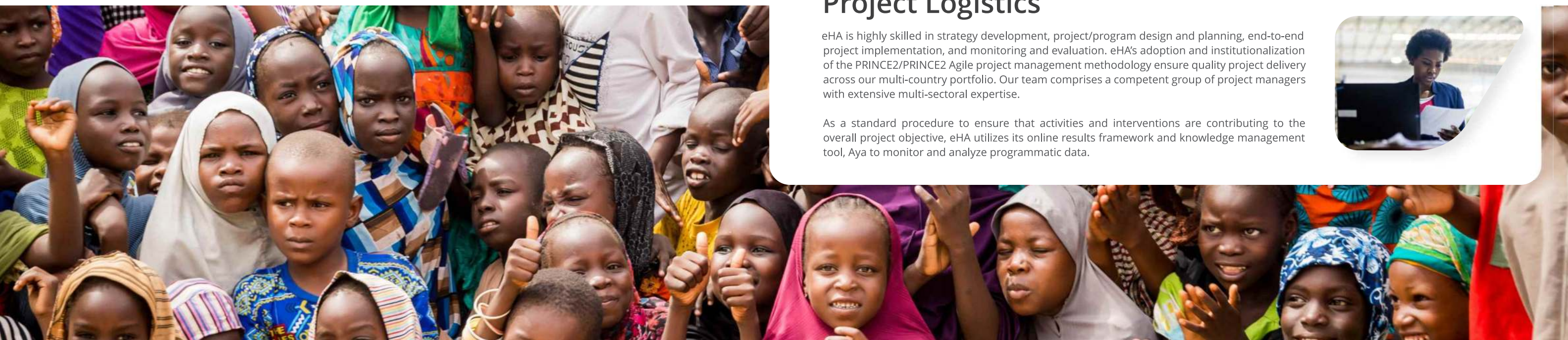
Goodbyes and Hello

Dear friends,

After almost 12 years of serving as eHealth Africa's Executive Director, my business partner Adam Thompson and I have decided it is time for us to step down. With 2022 looking to be a stronger financial year for eHA than last year, many people have questioned why now?

Ultimately, we believe that eHealth Africa has outgrown being a founder-led organization. As founders, Adam and I brought a strong emotional connection to the purpose and culture of eHA and we are very proud of the company eHA has grown into. We have worked hard to build the systems and processes needed to allow eHA successfully transition away from its founders. Here are 3 reasons we believe now is the right time.

The first is Juliet Odogwu becoming eHAs new Executive Director. It has been Adam's and my goal for many years that we would be able to transition eHA to a Nigerian-led organization, and when Juliet joined eHA over 3 years ago, we had high expectations that she would grow into the ED position. The board of directors ran a rigorous candidate interview process and unanimously agreed to appoint Juliet. She's intelligent, passionate, innovative, self-aware and humble. She leads with compassion while still holding people accountable. We have full trust that she is the right person to lead eHA.

The second is that eHA is ready for a shake-up. New evidence compiled by the WHO shows that the COVID-19 pandemic is likely to halt two decades of global progress towards Universal Health Coverage. We saw immunization coverage drop for the first time in 10 years and deaths from TB and malaria increased. COVID-19 has taken a toll on all of our lives and will continue to influence eHAs impact and working culture. New innovative ideas will be needed to keep eHA impactful and new leadership allows and encourages middle management to step up and develop unique solutions.

The third is the eHA family. The team at eHA has been tried and tested over and over again and continues to blow expectations out of the water. eHA staff have done some truly amazing things and have had an enormous impact. eHA has strong leaders and motivated and passionate staff and we believe with all our hearts that they are the future of eHealth Africa and the key to its success.

This was not an easy decision for Adam and me to make. We discussed it at length with our Board of Directors, friends and family. We believe this is the right decision for ourselves and for the company. I am really sad to be leaving eHA but at the same time, really happy. There are not many organizations that are able to successfully transition from founder-led and I am incredibly proud that eHA is in the position to do that.

Thanks to everyone who has supported me over the years. It has been an honour working with you all and I am excited for my next chapter at eha Impact Ventures.

All the best,

Evelyn Castle

Evelyn Castle
Chairperson of the Board, eHealth Africa
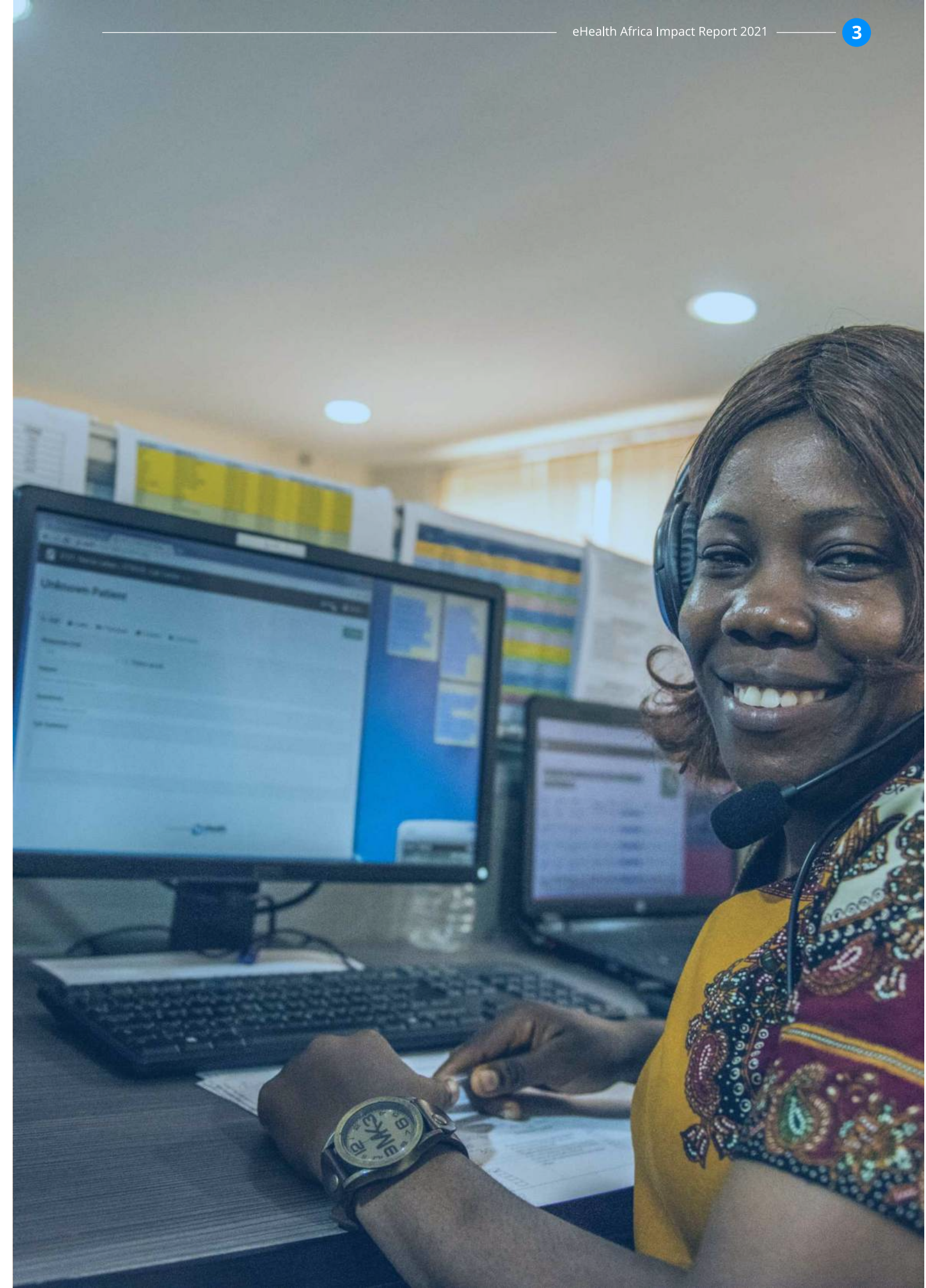
List of Projects

1. Immunization Coordination Centers (ICC)
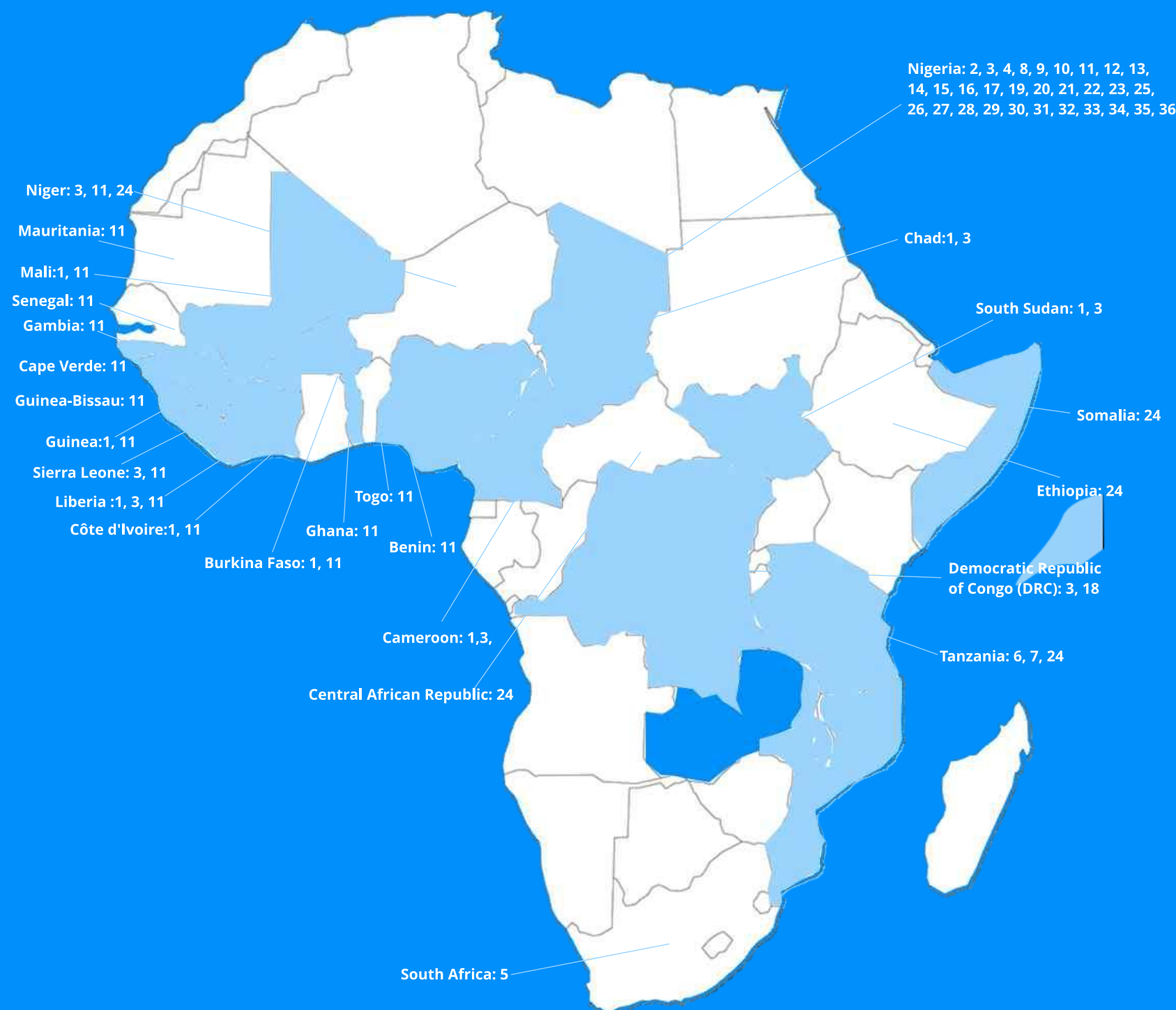2. Accelerating Nutrition Results in Nigeria (ARiNN)
3. eHealth Support for the Auto-Visual AFP Detection and Reporting (AVADAR)
4. Emergency GBV Response integrated with WASH component to conflict affected women, girls, men and boys in Borno State, North East Nigeria
5. Blut-Informationssystem für Krisenintervention und -management (BISKIT), Teilvorhaben: Datenmanagement, Informationssystem und Software
6. DHIS2 Connector
7. Health Telematics project in Tanzania
8. COVID-19: Nigeria PTF Emergency Response Communications Support
9. COVID-19: Support for Improved Sample Collection and Lab Testing
10. COVID-19: Data and Logistics Support for Nigeria
11. Rapid Response to Ebola Viral Disease in West Africa through Strengthening of Surveillance Systems and Disruption of Chain of Transmission Interventions
12. GIS tracking to support routine immunization services in Borno
13. Hemoglobin Measurement (HEME) Laboratory Validation Study
14. Energy Mapping Facility Survey in Selected Local Government Areas (LGAs) of Kano and Osun States, Nigeria
15. Kano Connect
16. LoMIS Stock (Routine Immunization & Pharmaceutical)
17. Kano State Primary Health Care Monitoring and Evaluation Assessment
18. Mapping Support for Health in DRC
19. Integrated National Serosurveillance in Nigeria - Maintenance
20. Integrated National Serosurveillance in Nigeria - Upgrade
21. National Food Consumption and Micronutrient Survey
22. Nigeria Mobile Rapid Diagnostic Test Project
23. Polio Emergency Operations Centers
24. Support to Polio Outbreak Control Rooms in Africa
25. Quantitative Energy Surveys PeopleSuN
26. SMC GIS eTracking for Adamawa and Yobe States
27. Resolve to Save Lives
28. Unfit for Human Consumption (UHC) Disposal
29. Mobile Device Support for Sickle Cell Disease Care in Nigeria
30. Vaccination Attitudes and Acceptance in Nigeria
31. Sokoto Vaccine Direct Delivery (VDD)
32. Nigeria VTS-GDB Transition
33. Management of World Food Programme (WFP) Warehouses
34. Implementation of Common Storage Service in Ngala, Borno
35. External Monitoring Services Provision – Third Party Monitoring (TPM)
36. New Horizons SOW 14

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Cameroon: 1,3,

Central African Republic: 24

Tanzania: 6, 7, 24

South Africa: 5

2021 at a Glance

Physical Infrastructure

Strengthened government's ability to combat cVDPV2 and other vaccine-preventable diseases and reduce their spread.

POCRs set up to combat cases of Vaccine-Derived Poliovirus 2 (cVDPV2) in Central African Republic, Niger, Somalia, Ethiopia and Tanzania.

Facility adaptable to address other vaccination challenges through better coordination, collaboration, and country ownership of routine immunization.

ICT Services

Upgrade of local GBV Center to a State 24x7 Call Centre with emergency response facilities within 60 days, in Borno State.

Upgrade of power and IT infrastructure at the National Reference Laboratory and Nigeria Centre for Disease Control.

Provision of data management tools, trainings and support at NRL and NCDC.

Data Management

Developed data-based systems for safe blood supply to target populations.

Capacity building of NCDC ICT team on system administration and management of SENAITE LIMS

Data collection, analysis and validation on vaccine acceptance, equity, and broader trust in government.

LoMIS Stock and LoMIS Deliver address challenges with the supply/distribution of health commodities to last-mile health facilities, enabling data-driven health system policy decisions.

Energy surveys of households and enterprises across 247 non-urban enumeration areas of three geo-political zones in Nigeria.

Project Logistics

4,434,317 Antigens Delivered

1,232,705 Number Of Children Immunized

2,426,806 Dry Goods Delivered

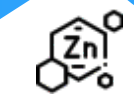**30,448** Children (12-59 months) reached with

30,574 Children (6-59 months) reached with Vitamin A

26,636 Children 6-59 months reached with Zinc/ORS for

1,034 Women reached with modern

6,022 Children (6-23 months) reached with micronutrient

ICT As A Service

Summary of Projects and Achievements

Upgrade of local GBV Center to a State 24x7 Call Centre with emergency response facilities within 60 days, in Borno State.

Upgrade of power and IT infrastructure at the National Reference Laboratory and Nigeria Centre for Disease

Provision of data management tools, trainings and support at NRL and NCDC.

eHA maintains a team of systems professionals that can design, implement, maintain and manage IT infrastructure for clients.

We provide enterprise-level management of servers, workstations, and all other network components coupled with timely technical support to users of all levels. In addition, eHealth Africa operates and manages Tier III Data Centers with geographical redundancy, multiple power sources, dual Internet connectivity, redundant hardware and supporting processes and services offering a fully redundant, secure hosting infrastructure.

The Borno Gender Based Violence (GBV) Project

"The establishment of the GBV Call center was a huge achievement for Borno State, the center has increased accessibility to case management for survivors across the state and provides the guarantee of confidentiality as survivors can easily access the services of the center without being present in person."

"I was one of the call center volunteers at the GBV management center at Umaru Shehu Hospital. Because of the knowledge and experience I gained while working at the call center, I now have a new job with INGO as a GBV caseworker in Bama".

- Hajiya Falmata Hamza Gambo,
Director Ministry of Women Affairs (Borno State)

To further address Gender-based violence (GBV) in Borno State, we worked closely with Norwegian Church Alliance (NCA) to expand the GBV call center that they managed, to a state-level call center that will provide 24x7 service to survivors of GBV and swiftly respond in emergencies.

Our team of highly trained engineers repurposed a portion of an existing rape crisis center in Maiduguri to build a GBV focused call center. We completed the renovation within 60 days. We expanded and renovated the facility to a fully functional soundproof call center to serve as an operational base for handling reported incidents and improving case management in Borno State.

The focus of the project is to strengthen the institutional capacity of the Borno State Government via the Ministry of Women Affairs and Ministry of Health to collate, to improve access to GBV case management in the state.

Story of Change #1 - Borno State Gender-Based Violence (GBV) Case Management Call Center

The COVID-19 pandemic in 2020 exacerbated Sexual and Gender-Based Violence (SGBV), gender inequalities, putting women and girls at higher risk of violence. Subsequently, COVID-19 measures included travel restriction and lockdown hindering the provision of physical (static) life-saving GBV case management services in deep field locations across the northeast. To ensure service continuity the Norwegian Church Aid (NCA) successfully piloted remote GBV case management through toll-free telephone call services in Umaru Shehu (N3lewa) center in Maiduguri, with designated phone booths in Pulka where survivors could easily connect to GBV case managers for PSS and referrals.

In October 2020, eHealth Africa (eHA) in partnership with NCA secured funding from the Nigerian Humanitarian Fund (NHF) to expand the services of the call center managed by NCA to a state-level call center to provide 24x7 GBV response services to survivors and related persons to ensure the continuity and expansion of case management services for the GBV sub-sector across the State.

The Borno State Ministry of Women Affairs is the Government Agency (MOWA) responsible for the overall coordination of case management across the state via humanitarian and development partners. Hajiya Falmata Hamza Gambo, the director of this ministry, is saddled with the responsibility of ensuring all GBV survivors have access to quality case management services irrespective of their location of residence across the State.

Prior to the establishment of the Borno GBV case management center, the director stated, survivors will have to identify and locate a case management center within their communities, and these centers are obviously not available across the state. The centers are mostly present in LGAs with the presence of protection/GBV humanitarian partners, hence some survivors do not have access to case management services.

Hajiya Falmata indicated that the call center was a game-changer as it relates to case management in the state, as survivors from all the nooks and crannies of the state can easily access GBV call center volunteers from the comfort of their homes via a toll-free line (08001010111) and access quality GBV case management services. More so, the call center encourages more survivors to access case management services, since there is no physical interface with the case managers. This gives them some sort of guarantee of confidentiality in their conversations with case managers.

The establishment of the case management call center provided an opportunity for building the capacity of 15 GBV call center volunteers on the use of the call center digital systems to effectively provide life-saving services to survivors. The knowledge and working experiences garnered by these volunteers have created opportunities for some of them to get better employment in other organizations.

Since the establishment of the GBV Call Center in October 2020, 1,541 cases have been received and GBV call center volunteers timely responded to the GBV related cases. NCA coordinated the development and updating of GBV referral pathway mechanisms and service mapping to promote quick referral and linkage of survivors to the next service provider. Worth noting, despite the end of project NHF funding in 2021, NCA, through the bilateral donor-Norwegian Ministry of Foreign Affairs (NMFA) still supports the running of call center activities to ensure accessibility of GBV services across Borno State and provide a timely and lifesaving response to survivors of GBV. This has been achieved through eHA willing technical support.

Integrated National Serosurveillance in Nigeria

To expand capacity for Integrated Serosurveillance at the National Reference Laboratory (NRL) and Nigeria Centre for Disease Control (NCDC), for improved public health programs management in Nigeria. eHealth Africa implemented upgrades to power and IT infrastructure at the NRL and NCDC. We provided data management tools and support to the data teams of NRL and NCDC. We also provided training to NRL/NCDC Data and IT teams to enable them effectively manage upgraded IT/Data systems.We ensure all the above are in place to improve NRL & NCDC's capacity to conduct multiplex testing and to collect, store, and analyze the results and lay the foundation for additional capacity to be built in the future and ensure that results will be available to inform public health programming in Nigeria.

Story of Change #2 - Integrated National Serosurveillance Project

Integrated serosurveillance (multi-disease serologic surveillance) is a cost-effective approach that can dramatically scale up the availability of data for public health action. In Nigeria, CDC Nigeria has identified Integrated National Serosurveillance as a priority for generating high-quality supplemental information to enhance the current surveillance network, and for the overall public health response in Nigeria. CDC has developed an novel approach to integrated serosurveillance for multiple diseases of public health importance using a multiplex bead assay platform. The platform can simultaneously measure up to 100 different disease-specific markers from a single dried blood spot.

In February 2020, eHA was engaged by CDC Foundation, with funding from BMGF, to conduct a technical assessment of the ICT, power, and data systems at NRL and NCDC. The assessment results showed that infrastructural upgrades were necessary to improve the capacity of the NCDC to conduct integrated national serosurveillance. eHA implemented the identified/recommended upgrades for each of the three systems and this was completed in May 2020. On completion of the upgrades, it was determined that continuous technical support was required, hence eHA was engaged in August 2020 to provide maintenance support to the NCDC. eHA provided both remote and on-site maintenance support to the NCDC from August 2020 to November 2022, in two separate contracts.

Prior to the infrastructural upgrades at the NRL, data was being processed and stored on individual staff laptops as no central data storage management system was available. There was also only 1 HP Proliant DL388 Gen 9 server with 16GB RAM, 3TB HDD and running on Windows Server 2012 operating systems at the facility. It was adequate to cater for the other needs of the center however, in order to scale to provide a secure and central storage for data, an additional server was recommended and a HP Proliant DL388 Gen 10 32GB RAM, 8TB HDD server was installed. The internet infrastructure at the internet was limited to 5Mbps of internet bandwidth available via Microwave Radio provided by Layer3.
Since there was no secondary internet provision and the internet utilization was very high, a backup Internet link was provisioned. The 5Mbps was upgraded to 20Mbps and configured as the primary source and an additional 20 Mbps from a different provider as the backup source. At the NCDC HQ, there was also no secondary internet provision and the Internet utilization is very high. An additional 20 Mbps from a different provider was provided as the secondary/backup internet source, while their current 20Mbps can be upgraded to 50 Mbps and configured as the primary Internet source. The recommended 50Mbps is based on an estimated 512Kb per user for 100 users. The 512Kb per user is based on the typical user activity for web browsing. The extra provision is for other possible additional usages in the future as well as the fact that the Internet bandwidth becomes cheaper as you buy more.

"eHA has made significant contributions to the NCDC-NRL and has provided real-time support (both remote and onsite) to the power team at the facility since the inception of the project. Onche has also been very helpful with providing technical support and capacity building to the team to handle issues at the NRL."
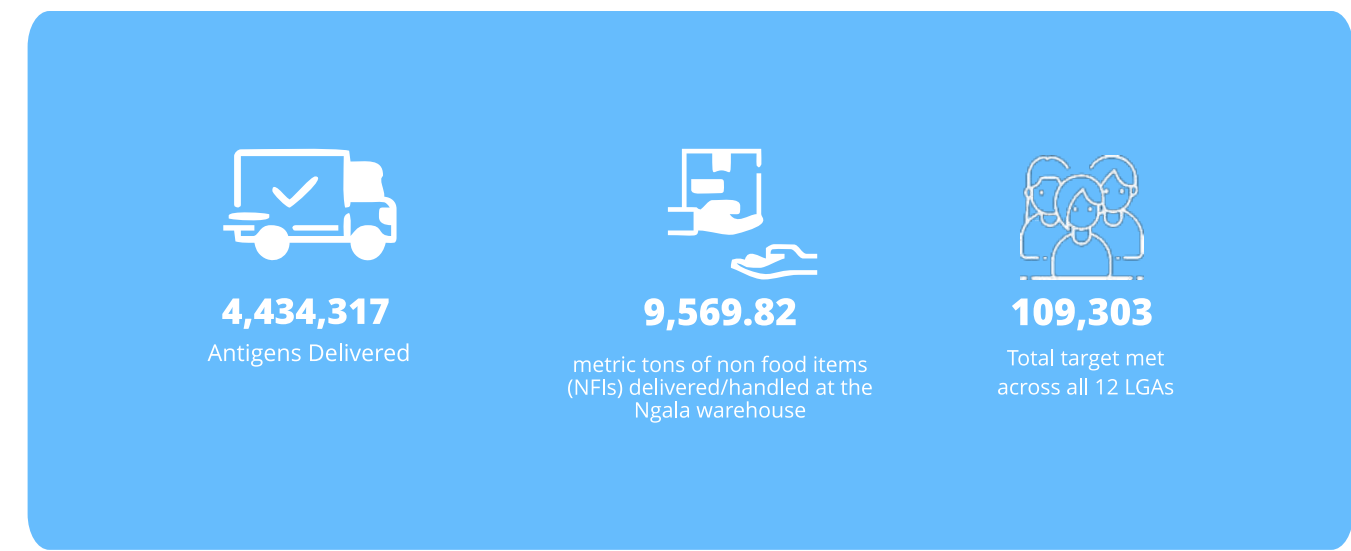
John Igwe,
NCDC Power Lead

Summary of Projects and Achievements

4,434,317
Antigens Delivered

9,569.82
metric tons of non food items (NFIs) delivered/handled at the Ngala warehouse

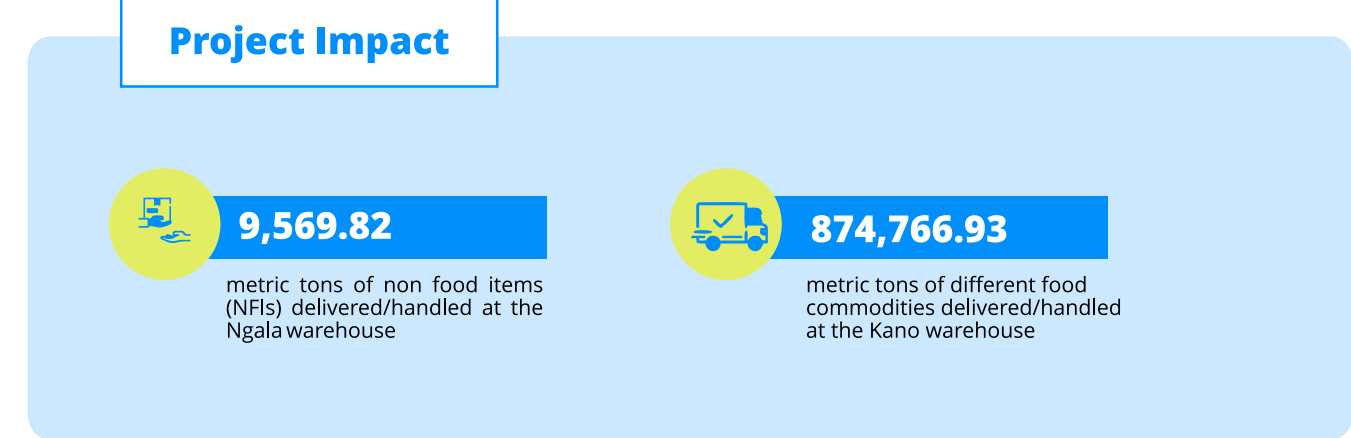**109,303**
Total target met across all 12 LGAs

eHealth Africa provides an enterprise-level team of project logistics professionals that manages everything to do with the logistics through complex supply chains. We collaborate with partners to deliver, even in hard-to-reach areas. Our accomplishments throughout the continent include vaccine deliveries, Metafridge deliveries, commodities and pharmaceutical deliveries.

Warehouse and Logistic Project (Kano and Borno)

The World Food Programme (WFP)/Log Sector provides food and Non-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. This project provided food aid to over 1.2 million beneficiaries every month. Specialized nutritious food for children under 5, pregnant and lactating mothers was also part of the food assistance provided.

Project Impact

9,569.82
metric tons of non food items (NFIs) delivered/handled at the Ngala warehouse

874,766.93
metric tons of different food commodities delivered/handled at the Kano warehouse

Project Logistics

Sokoto Vaccine Direct Delivery (VDD)

"eHealth Africa has effectively supported Sokoto State over the Years to deliver vaccines and other RI commodities to the required service point. Using eHA's DVD monthly dashboard produces a seamless process of reporting delivery data timely. The eHA team should continue to make concerted efforts to work with the state and raise key issues noticed at health facilities during delivery".

Musa Umar, partner with Sokoto Solina Centre
for International Development and Research

Vaccine Direct Delivery is our third-party logistic service that handles the delivery of routine immunization for state primary healthcare development agencies. We usually base delivery operations on Bi-weekly or Monthly delivery to health facilities that are equipped with Solar-powered refrigerators at the ward level. eHealth Africa handled the deliveries of vaccines and dry goods from the state/zonal cold store to health facilities at the ward level and collected delivery data and the number of children immunized back to the state. eHA also covered the picking of waste materials from health facilities back to the state cold store (reverse logistics).

Activities like timely delivery, a physical count of vaccine at hand and getting to see the status of SDDs (Solar Direct Drives) in the facility came to a halt as we can't get to the facility because of the insecurity in the state. We have to rely on the facility staff to give us the numbers, but at end of the day, we still deliver the vaccines. As for vaccine delivery, we came up with a solution by having the facility staff meet us halfway to get the vaccines.

Project Impact

3,268 Successful Deliveries

4,434,317 Antigens Delivered

1,232,705 Number Of Children Immunized

2,426,806 Dry Goods Delivered

Accelerating Nutrition Results in Nigeria (ANRiN)

Nigeria has the second-highest number of under-five child undernutrition in the world, with about 2 million children suffering from severe acute malnutrition. The ANRiN Project, funded by the World Bank, is addressing this issue and taking a double-pronged approach towards reducing malnutrition in Nigeria.

eHealth Africa, leading a consortium, is delivering an integrated community-based Basic Package of Nutrition Services (BPNS) and Adolescent Health Services (AHS) in two half-states of contiguous LGAs based on population and economic characteristics in Kaduna State.

In a fair and sustainable manner and through a mix of counseling and service delivery, the ANRiN project aims to increase the utilization of quality, cost-effective nutrition services for pregnant and lactating women, adolescent girls and children under five years of age in twelve geographically representative, high-malnutrition burden states of Nigeria.

Story of Change #3 - ANRiN Project Rekindles Faith in Family planning among Adolescent Women in Kaduna communities.

Hasiya Abdullahi with her set of twin after granting interview to eHA-ANRiN Communications team in Kaduna

"They (Service providers) visited me at home, sensitized and counseled me about family planning and all its benefits and how it can help me and my family to live a very happy and healthy life. They really enlightened me and I became convinced and decided to take up the family planning method. In doing that, I had to discuss with my husband also to convince him and he consented" .

- Hasiya Abdullahi

18-year-old Adolescent woman, Hasiya Abdullahi happily shares a story of how she used contraceptives for the first time to prevent unplanned pregnancies after several birth complications that resulted in miscarriage and death of her 2 children. Married at 15, Hasiya, had no experience with family planning or child spacing methods.

Although Hasiya has heard a lot about family planning, she never considered uptake due to fears of complications and side effects caused by misinformation. " I first heard about the different methods of family planning in the health facility where we used to visit for immunization after delivery. I was not really aware of how it works, but in our community, I have heard so many scary stories regarding family planning. These stories were very frightening" Hasiya recalls. "Because of the frightening nature of the stories I heard, I decided not to use the family planning methods because I was told that if I use the method I will become sick, appear skinny with a protruding tummy, and that I will also lose blood." She adds.

Misinformation, religious belief, spousal disapproval, myth and wrong perceptions remain a major barrier to the uptake of family planning services, especially in Northern Nigeria. Knowledge about family planning continues to increase in Nigeria over the years, but most adolescent women do not make use of family planning services. Hasiya says that "a lot of women have all sorts of beliefs about family planning, including my sisters"

Maternal health outcomes in Nigeria have continued to be of great concern. According to the World Health Organization, the Maternal Mortality Rate (MMR) in Nigeria is 814 per 100,000 live births as a prime contributor to this disturbing figure with its Maternal mortality ratio estimated at 1,025 deaths per 100,000 live births (NBS 2012).

Thanks to the Accelerating Nutrition in Nigeria (ANRiN) project being implemented by an eHealth Africa-led Consortium across 12 LGAs in Kaduna state, Adolescent women of a reproductive age like Hasiya Abdullahi are accessing better information and counseling about family planning through aggressive community outreach programs and other peer-to-peer campaigns at home, leading to demand for and uptake of Adolescent Health Services in targeted communities.

Through a cohort of highly trained service providers and community health extension workers, Hasiya and 23,019 other Adolescent women have been reached and provided with Adolescent Health Services in 6 of the 12 LGAs that the eHA Consortium is implementing the ANRiN project (Kaduna North, Kaduna South, Chikun, Kachia, Zango and Jema'a)

Of all the options she was provided during counseling including use of female and male condom, pills, injectables, implanon, Jadelle, and Intra-uterine Contraceptive Device (IUCD), Hasiya says she chose implanon which was inserted into her left arm at the nearest health facility she was escorted to by the service providers. "And since they inserted the implanon, I have not witnessed any complications. I was not sick, and I did not see any side effects" she said. "I adopted the family planning method after giving birth to my set of twins. Now I noticed that they are quite healthier than the rest because I can now take proper care of them now that I am not pregnant and breastfeeding at the same time.

"I am really happy because a few years back, I gave birth to one of my children and conceived again almost immediately after the childbirth. This affected the baby who became very sick and even lost his life in the process because I couldn't take proper care of the baby and manage the unplanned pregnancy at the same time.

"But now my set of twins are healthy because I adopted family planning which allows me to give them the best of care without getting pregnant immediately"

Hasiya is now an AHS champion enlightening other women on the benefits of family planning in her community. "With what I witnessed, I use my own experience as an example to sensitize other women who do not believe in the method. I recently told my sisters about this and both of them have also taken up family planning" a visibly elated Hasiya stated.

The changes witnessed by Hasiya and many other Adolescent women who have been reached through the ANRiN project is a testament to the work of community outreach and mobilization effort of service providers. eHA and its consortium partners prioritize regular training for service providers to improve their skills and provide them with job aids and other work tools and has also set up an e-learning platform that serves as a knowledge base for the service providers.

One thing that stands out in this ANRiN project is the component that makes it community based. Service providers are resident in the communities where the project is implemented. They adopt house to house visits to bring the service to beneficiaries' door steps. This increases access and uptake of services.

Adolescent Health services, a component of the ANRiN project was initially piloted in 2 out of the 12 LGAs the eHA led consortium is implementing and this has since extended to 5 other LGAs. The project is funded by the World Bank in partnership with the Kaduna state government as part of effort to increase management and control of micronutrient deficiency, improve maternal nutrition, decrease low birth weight and associated morbidities, increased awareness and utilization of adolescent health services and increased capacity of health workers in the delivery of AHS.

ANRiN
ACCELERATING NUTRITION RESULTS IN NIGERIA
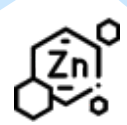
Project Impact

109,303
Total target met across all 12 LGAs

30,448
Children (12-59 months) reached with Albendazole (Deworming) tablets.

26,636
Children 6-59 months reached with Zinc/ORS for for diarrhea

6,022
Children (6-23 months) reached with micronutrient powders

1,034
Women reached with modern contractive

30,574
Children (6-59 months) reached with Vitamin A supplementation

4,173
Pregnant women have been reached with malaria prophylaxis

4,337
Pregnant women have been reached with IFA supplements.

5,822
MIYCN counseling for pregnant and lactating women

Community Grand Entry Rally at Kaduna North. From Left to Right; Project Manager; Stephanie Okpere, PIU Manager; Dr zainab Muhammed, SWODEN CEO; Maimuna Muhammed

eHA ANRiN Commodity delivery process in Kaura LGA, Kaduna State.

eHA-ANRiN service provider in action, providing MNCH counseling to a mother.

eHA-ANRiN service provider in action, providing MNCH counseling to a mother.

eHA-ANRiN service provider in action, providing vitamin A supplementation to a child.

Summary of Projects and Achievements

Developed data-based systems for safe blood supply to target populations.

Data collection, analysis and validation on vaccine acceptance, equity, and broader trust in government.

Energy surveys of households and enterprises across 247 non-urban enumeration areas of three geo-political zones in Nigeria.

At eHA, we specialize in Data Collection solutions, Geospatial Data Analytics, Data Management and related Capacity Building. Our Field teams have diverse and in-depth training on data collection, surveys, field activity monitoring, and evaluation with significant experience in implementing large-scale complex data collection activities.

Blood Information System for Crisis Intervention and Management (BISKIT)

The BISKIT project is a research project in a consortium with multiple implementation partners. We developed an information system that contains medical, technical and logistical data across key organizations and regions in South Africa. In close exchange with local authorities and transfusion centers, we tasked the BISKIT project team with designing a decision support system that ensures a safe blood supply to target populations. It provided the responsible stakeholders with organizational and coordinative recommendations for action that enable the targeted mobilization of healthy donors and ensure the supply of safe blood products in the event of a crisis. BISKIT's primary aim is to ensure the consistent supply of target populations in South Africa with safe blood and blood products in the event of a crisis.

Data Management

Project Milestones

— Developed an information system for data-based decision making before, during and after a crisis
— Provided an information system user interface (demonstrator)
— Delivered crisis management plans, including recommendations for crisis communication strategies
— Offered capacity building on the use of the demonstrator and the respective crisis management plans

COVID 19 Data & Logistics

This project provided critical support to Nigeria to improve the data, information and logistics systems required to scale up preparedness and response in the COVID-19 pandemic. While Nigeria continues to put in place measures to mitigate the spread of the infection, strong data, information and logistics systems will be key to effective epidemiological analyses, forecasting and improved risk communication and logistics planning.

eHealth Africa continues to support the NCDC in the effective identification and testing of suspected COVID-19 cases, with the development of a laboratory information management system (LIMS) and management and distribution of COVID-19 related commodities and supplies, through the LoMIS (Logistics Management Information System) application. In addition, eHA collaborated with the NCDC to improve the capacity of health workers to practice effective infection prevention control (IPC) through the updating and development of accessible written and audiovisual e-Learning training materials and assessments and also supported the Kano State government in the effective management of incoming reports of COVID-19 cases.

Project Successes

— Configuration of 2 additional test kits and 4 additional PCR equipment on the SENAITE LIMS
— Capacity building of NCDC ICT team on system administration and management of SENAITE LIMS
— Migration of the LoMIS application to Python Django framework to sustain NCDC requirements of the system and ensure sustainability after transitioning to the NCDC

Kano PHC M&E/TA Connect

The Kano PHC M&E systems assessment project assessed the existing primary healthcare monitoring & evaluation systems in Kano state. The idea is to identify gaps in the Kano PHC M&E system, validate findings with key stakeholders in the state and provide a costed work plan to address the challenges.

During this project, we implemented a stakeholder mapping and engagement activity, carried out a desk review and secondary assessment of existing and relevant M&E documents in the Kano state PHC system. We implemented a rapid systems assessment using a mixed-method approach to identify the bottlenecks towards a functional and effective M&E system. eHA has since shared its findings and the approach to address these issues with all the relevant parties.

Vaccination Attitudes and Acceptance in Nigeria Project (VAAN)

We carried out a data collection and management exercise funded by the Massachusetts Institute of Technology (MIT). The research aims to investigate questions of vaccine acceptance, equity, and broader trust in the government, particularly about the COVID-19 vaccine, and to understand both where and how vaccine resistance is generated. The research will also seek to understand how the nature of the vaccine delivery program might build or undermine trust in the government for the future. To achieve the objectives of the survey, a data collection and enumeration activity will be conducted in selected communities. The data collected will be analyzed and validated, and we will present the findings to serve as a source for decision-making. eHealth Africa managed all planning and implementation activities, including the provision of personnel, planning, and operational logistics of this project.

Data for Action

The Analysis/Visualization training conducted in December for Kano and Kebbi data officers has improved participants' analysis skills, which they now use on a weekly basis to present reports. It also aided the identification of issues bordering on occupation grouping variables which the Kebbi state team promised to review and streamline. The Kano training was held from 1st to 4th December while that of Kebbi was held from 13th to 16th December. The participants were excited and pleased with the impact and requested additional sessions to strengthen their capacity in terms of analysis and reporting and GIS data usage. They also requested the creation of a WhatsApp group to foster communications and quick resolution of issues or challenges. Group assignments for producing specific reports around VPDs and the five epidemic-prone infections being tracked were given to the participants. Participants included data officers from the State Board and Ministry of Health. A participant from the Ministry of Health - Abbah Shehu commented thus - "We have learned a lot on this training and eHA has built our capacity in terms of data cleaning, analysis, data visualization, etc". Another data officer from the State Board in Kebbi also commented as follows; "With this training, it is obvious that there are issues with the occupation groupings that need to be addressed"

Project Successes

— The total # of persons trained on data analysis and visualization in Kano and Kebbi are 8 and 11, respectively.
— 93% average score at post-test on how to use the data product among trained personnel in Kano
— 98% average score at post test on how to use the data product among trained personnel in Kebbi

Seasonal Malaria Chemoprevention (SMC) eTracking

The World Health Organization (WHO) engaged eHA to support Seasonal Malaria Chemoprevention (SMC) Cycle 4 campaign with geographic information system (GIS) eTracking across all the 21 Local Government Areas (LGAs) of Adamawa State, and 4 selected LGAs of Yobe State. During implementation, we deployed GIS Tracking to support the Cycle 4 Campaign of the SMC 2021 Round in both states. Global Positioning System (GPS) tracking devices were given to the Community Drug Distributor (CDD) teams to track their movement from one settlement to another. Settlement visitation status was analyzed and reported daily while visitation status of wards that return after the activities was analyzed post-campaign. Settlements coverage was reported daily during LGA and state evening review meetings. Commodity tracking was also piloted in the 4 LGAs of Yobe State. A dashboard was created to monitor drug distribution during the campaign. At the end of the campaign, comprehensive lists of missed settlements were generated and shared with relevant stakeholders for follow-up together with a post-implementation feedback analysis and final report. We conducted the campaign in both states between the 13th and 21st of October 2021. The project goal was achieved and closed on November 30.

Project Metrics

Output	Target	Achieved
# of micro plan templates developed for Adamawa	21	21
# of micro plan templates developed for Yobe	4	
# of micro plan templates shared for Adamawa	21	21
# of micro plan templates shared for Yobe	4	4
# of LGA teams trained for Adamawa	21	21
# of LGA teams trained for Yobe	4	4
# of Commodity Drugs Distributor (CDD) teams tracked for Adamawa	8271	7354
# of Commodity Drugs Distributor (CDD) teams tracked for Yobe	1207	652
# of Geo evidence provided for Adamawa	21	21
# of Geo evidence provided for Yobe	4	4
# of post-implementation analysis for Adamawa	1	1
# of post-implementation analysis for Yobe	1	1

Kano Connect

The 'Kano Connect' platform serves as a tool to access all relevant data, Geo-database of health facilities and services, for improved planning forecasting and decision making for Routine Immunization, and other related programs in Kano State. eHealth Africa provides system monitoring and evaluation, capacity building, system design, and technical support. This project focuses on improving communication, data management, reporting, and analysis to improve the quality of healthcare service delivery amongst health workers, and also the Routine Immunization Supportive Supervision (RISS) visibility.

LoMIS

Logistic Management Information Systems (LoMIS) is a suite of offline-capable mobile and web applications "LoMIS Stock" and "LoMIS Deliver" which address challenges with the supply/distribution of health commodities to last-mile health facilities. The LoMIS Suite applications provide critical solutions to ensure the availability of health commodities, effective vaccine management, and enable broader health system policy decisions through the use of real data for insight and execution at the community, state, and national level.

Health Telematics Infrastructure (HTI)

The Health Telematics Infrastructure (HTI) project is expected to improve HIV and TB diagnosis and treatment through the design, implementation and evaluation of a new health telematics system adapted to local healthcare needs. It serves the people living in the catchment area of St. Francis Referral Hospital in rural Tanzania, supporting rural patients in Kilombero and Ulanga districts.

HTI is an SMS system that quickly facilitates the transfer of information from samples to laboratory diagnosis to treatment and follow-up plans. It bridges the gap between rural populations and the centralized hospital, allowing patients to quickly have access to their results and treatment plans, without the financial, logistical, and time burdens of travel. With HTI, we have connected centralized services with secure data transfer to rural healthcare workers and patients. Instead of patients moving to facilities, samples and information are transported and managed by the HTI system. The goal of the project is to reduce treatment drop-outs and improve the health outcomes of patients living with TB and HIV in rural Tanzania.

This is a proof-of-concept project that can be expanded to other locations once the system is fully functional and optimized. We are also including a white paper on data protection in the African and EU contexts and a connection to DHIS2 as components of the project.

Project Milestones

- Development of the HTI system
- TeleHub integration
- DHIS2 integration
- Published a white paper on data protection

PeopleSUN

eHealth Africa (eHA) implemented detailed energy surveys of households and enterprises across 247 non-urban enumeration areas of three geo-political zones in Nigeria. The enumeration areas included North Central Zone (FCT, Kogi, Nasarawa, Niger), North West (Kaduna, Kano, Katsina, Zamfara), and South-South (Akwa Ibom, Delta, Edo, Rivers). The duration of the assignment was four (4) months. Quantitative data collected in this project will be used to model household and enterprise daily electricity consumption and expenditure across non-urban electrified regions of Nigeria and add these to the growing list of spatially explicit data layers available for the country.
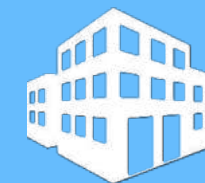
Physical Infrastructure

Summary of Projects and Achievements

Strengthened government's ability to combat cVDPV2 and other vaccine-preventable diseases and reduce their spread.

POCRs set up to combat cases of Vaccine-Derived Poliovirus 2 (cVDPV2) in Central African Republic, Niger, Somalia, Ethiopia and Tanzania.

Facility adaptable to address other vaccination challenges through better coordination, collaboration, and country ownership of routine immunization.

Reliable infrastructure is the backbone for any successful health project, and field support is vital to build and maintain such systems. 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.

Immunization Coordination Centers (ICCs)

eHA worked with the Voluntary Service Overseas (VSO) to strengthen the ability of governments to successfully combat cVDPV2 and other vaccine-preventable diseases in their countries and reduce the spread of these diseases. In order to strengthen governments' ability to fight vaccine-preventable diseases, eHA upgraded and/or set up functioning emergency operation centres (EOC) focused on the eradication of polio and providing routine immunization services. Ensuring the EOCs are functioning requires there to be good operational management and country ownership. eHA strengthened existing and set up new Emergency Operations Centers in nine African countries, ensuring effective partner collaboration with federal/local government ownership and commitment.

Project Milestones

- Remote readiness & needs assessment in 9 African countries
- Develop walk-through videos (English and French) of existing functional EOCs in Nigeria for learning among project countries.
- Facility renovation/upgrades to civil works, as required
    - Reliable power systems
    - Reliable high functioning network capacity
    - Procurement of office furniture, as required
    - Procurement and set up of IT and communications equipment, including printers, plotters, screens, laptops and mobile data collection devices
    - Procurement and installation of internet/Wi-Fi, network, and other required services
    - Deployment of infrastructure and tools to support field operations
    - Deployment of logistics system to support supply chain management for outbreaks
- Facility Management
    - Provision of training on maintaining power/network systems
    - Provision of training on the use and maintenance of IT and communications equipment
    - Provision of training on infrastructure and tools supporting field operations
    - Campaign planning and monitoring tools
    - Disease surveillance systems
    - Provision of training on the use of logistics systems to support outbreak supply chain management
- Operational and Financial Management SOPs for ICCs staff use
- Final operational and financial report

Photo Spread

Success Story - Strengthening Polio Outbreak Response in Africa

In August 2020, the Africa Regional Certification Commission declared Africa free of wild poliovirus (WPV). This is a culmination of years of committed investments by various partners into the eradication of WPV in Africa. For four years no case of WPV was reported by any country within the continent. But the continent is still at risk of an outbreak, this time, from the circulating Vaccine Derived Poliovirus type 2 (cVDPV2).

According to a WHO global update, 21 countries in Africa face a heightened risk of cVDPV2 outbreak from 18 genetically distinct variations of the virus. The heightened risk of an outbreak is due to low population immunity against poliovirus type 2 (PV2) and low vaccination coverage. This is alongside the existence of known viruses that have persisted for over one year, large-scale population migration, and poor public health systems worsened by the outbreak of other infectious diseases in the region. The situation requires all partners to sustain efforts towards vaccination, immunization and controlling transmission. Hence investments in immunization and vaccination coordination apparatus across target countries remain a critical success factor if vulnerable children will be protected from cVDPV2.

According to Dr Ibrahim Kone, focal person for the introduction of the novel oral polio vaccine (nOPV) at the World Health Organization in Brazzaville, *"Usually, when we respond to an outbreak, it is mandatory to set up an EOC. And an EOC is an amazing tool. Because the EOC gets together different stakeholders; the government, EPI colleagues, WHO, UNICEF, the Gates Foundation and other stakeholders. It is a space where we share monitoring information, we divide ourselves into thematic groups, surveillance, finance, M&E, communications etc'. It is like the pieces of a puzzle that come together. I believe this EOC is like the puzzle coming together'.*

The polio Rapid Response Team (RRT) of the global polio eradication initiative (GPEI), led by the Bill and Melinda Gates Foundation (BMGF) responded, articulating nine countries with weak systems and needing support to strengthen their immunizations campaigns under the Expanded Program on Immunization (EPI). To this end, the RRT sought to set up immunization coordination centres (ICC); a technology-enabled space where polio vaccination and immunization campaigns can be planned, deployed and analysed. ICC facilities are situation rooms where outbreak response can also be planned, coordinated and monitored. With high-tech equipment, EPI and supporting health system teams can remotely articulate a response plan to ensure that identified locations are managed and children protected.

Polio Outbreak Control Rooms (POCRs)

We implemented the Polio Outbreak Control Rooms (POCR) project to combat the growing cases of circulating Vaccine-Derived Poliovirus 2 (cVDPV2) in several African countries. We established a phased project to provide each African government with the ability to fight the Poliovirus, address broader vaccination challenges and ensure better coordination, collaboration, and country ownership of routine immunization. As a multi-country project, we deploy to identified countries to ensure facility setup and management of control rooms.

Project Milestones

— Facility and equipment need assessment in target countries, POCR built/renovated in target countries.
— Conducted facility management training,
— Handed over POCR to Government.
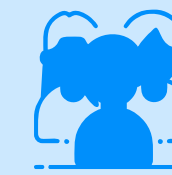
Photo Spread

Our Innovations
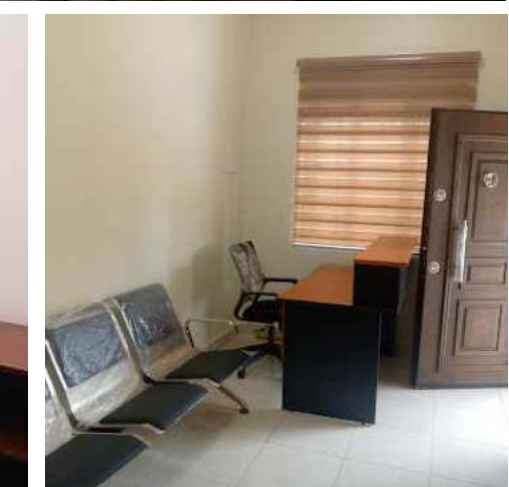
eHA Academy

700+ application

275 applicants assessed

35 women trained

The eHA Academy is the brainchild of eHealth Africa which has been involved in training of tech programs that build the capacity of young Africans in software development since 2016. Launched in Conakry, Guinea with an eight-week curriculum in software development and network engineering courses, the academy was redesigned in 2020 to primarily focus on building capacity of youth in the top requested skill-sets in software engineering and development.

It is well known that there is gender disparity in the tech industry, with women being severely underrepresented. As part of eHA Academy's 2021 cohort, young women can have successful careers in the software and web development ecosystems across Africa and around the world.

The all-female cohort of the eHA Academy was a very successful one. This cohort saw over 700 applicants, 275 writing the application test and 35 passing the requirements. The cohort started with 35 students and graduated 15 young aspiring African women with 6 of them joining internships across strategic partner organizations.
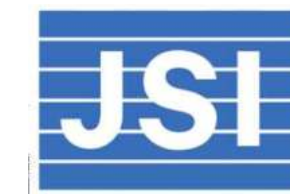

The eHA Data Portal

The Data Portal is a collected catalog of a wide variety of geospatial data and other datasets in the countries and regions eHealth Africa has worked in. We developed this to serve the data access, routine analysis and informed decision-making needs of the government, private sector, donors, partners, and individuals. The data is accessible to all for non-commercial use.

THANK YOU TO OUR 2021 PARTNERS

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