Mission

eHA’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.
Vision

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

Values

- Impact and Quality
- Innovative Problem Solving
- Passion
- Honesty
- Growth and Learning
- Ownership
Our Impact in 2016

“Our work with eHealth Africa confirms its much-deserved reputation as an organization focused on providing information and communication technology solutions to improve health.”

Scott McNabb, Emory University

389,121 children under five and 568,909 women given free medicines at Health Camps.

Guinea’s Integrated Community Health Pilot reached over 30,000 beneficiaries.

13,275,911 doses of lifesaving vaccines delivered to Kano and Bauchi states’ Health Facilities through Vaccine Direct Delivery program in Nigeria.

637 Ebola survivors are being treated at the Military 34 Clinic in Sierra Leone.

By the end of 2016 zero new Ebola cases were reported.
Health Delivery Systems

Improving quality and availability of healthcare for underserved populations, primarily through data management and logistics support to enable better decision-making.

Objectives:

1. Improve quality of healthcare for underserved populations
2. Expand availability of health care for underserved populations
Partnering with the Kano State Government in Nigeria, eHA distributed more than 1,416 Android phones to Healthcare Workers (HCWs), each equipped with Open Data Kits (ODK) that make it easy for users to submit data via questionnaires. This project enabled the Kano State government to collect, track, and act on key health performance indicators.

In 2016 eHA transitioned the Kano Connect application to the Nigerian government for its own programming.
Health Education and Training (HEAT)

There is a shortage of qualified HCWs in approximately 33,000 villages throughout Guinea, and training is often insufficient. In 2016, eHA supported the improvement and standardization of Guinea’s HCW training programs.

“The most exciting thing for me about translating medical documents is the fact that I am educating myself first, and also helping others to have a healthy life.”

Abdourahamane Hinna DIALLO, Participant, Medical Translator Program. Secretary in Charge of Communication and Information, Medical Translators Association of Guinea.

Supported by the Ministry of Health (MOH) in Guinea, eHA recognized this healthcare training shortfall and conducted detailed research on training curriculums that were evidence-based to improve the quality, effectiveness, and relevance of the training materials. Open University (UK)’s Health Education and Training (HEAT) program was selected, as its curriculum updates included innovative eLearning technology.

eHA facilitated the lengthy and detailed process of translating the HEAT curriculum from English to French, in collaboration with Translators Without Borders. The result is a standardized French curriculum, now ready to be deployed to all HCW schools in Guinea.

HCWs graduate from Guinean training schools annually

Guinean medical translators trained to translate medical curriculums

First association for professional translators and interpreters established in Guinea

Health Delivery Systems / Guinea
Since 2013 eHA has been helping to reach settlements that are chronically missed in healthcare delivery through the Microplanning & GIS Data Collection project. Target population numbers are necessary to determine the amount of vaccines required, the number of HCWs needed to administer vaccines, and the cost of transportation to get the vaccine and HCWs where they need to go.

To improve microplanning for polio eradication and vaccination coverage for under 5 children in Nigeria, eHA teams have worked with Oak Ridge National Laboratories and other partners to provide inputs and validation for an imagery-based population model, which the Nigerian government is using to plan health interventions and health service delivery. This project has been crucial for improving vaccination coverage, and ensuring every last child receives the polio vaccine.

Through the Health Camp Boxes project, eHA is helping the Nigerian government to better supply remote regions with essential healthcare products. Health Camp Boxes work with government partners to provide health boxes stocked with medicines and medical supplies across Kano state.

In addition to supplies that treat illnesses, these Health Camp Boxes also provide Rapid Diagnostic Tests (RDTs) for malaria. Health Camp Boxes have been instrumental in improving access to essential healthcare supplies in hard-to-reach regions and building trust in the health system.
The Integrated Community Health Pilot (ICHP) implemented connected reforms across the Timbi Touni subprefecture of Guinea, including:

— Infrastructure & Supplies
— Connectivity & Digitalization
— Capacity Building
— Community Engagement

Working with the Timbi Touni community, eHA implemented evidence-based and locally-adapted solutions to improve health infrastructure and medical supplies, connectivity, the digitization of health data, and HCW capacity.

30,000 beneficiaries received healthcare due to ICHP

Integrated Community Health Pilot (ICHP)

eHA is driven by the philosophy that improving the overall basic standard of healthcare for populations, as opposed to only focusing on specific diseases, can lead to population-wide health improvements that achieve value for money.

2 new health facilities designed and built

7 health facilities renovated and expanded

All 9 health facilities receiving solar electricity systems and solar water pumps, which brought the first warm running water to the newly installed sinks, toilets, and showers

9 HCWs trained and equipped to be Health Facility in-charges through medical, sanitation, and technology trainings and the provision of locally appropriate tools
Logistics Management Information System (LoMIS)

This project was implemented to improve timely availability of life-saving vaccines and reduce stock outs in underserved communities. As a result, health facilities are able to run regular vaccination clinics for children under five. LoMIS has been highly praised, and was presented at several conferences, including the Health and Humanitarian Logistics Conference in Atlanta and the 9th Global Health Supply Chain Summit in Dar es Salaam, Tanzania.

Through the LoMIS project, eHA provides reliable vaccine delivery service in Kano and Bauchi States (and recently extended support to Sokoto State).

13.3m
antigens delivered to health facilities throughout Nigeria

Over
600,000
vaccines delivered through Nigeria

Less than
5%
stock out rate for priority vaccines in Kano (reduced from 90% in January 2015)

600,000
km traveled by eHA vehicles to health facilities in Kano, Bauchi, and Sokoto.
VaxTrac

In Sierra Leone, vaccine-preventable diseases constitute over 30% of the causes of death among children under the age of 5. Recognizing that high quality immunization data is key to improve vaccination rates, eHA is providing support to the VaxTrac electronic immunization registry system. Through this project, eHA deploys the technology needed to collect and disseminate digital immunization records for children, facilitating near real-time data transmission. VaxTrac provides a prepopulated list of defaulters or caregivers for use during outreach session planning and defaulter tracking.

10 sites implementing VaxTrac and transmitting near real-time data to the national level
3,739 patients registered in VaxTrac software in the first 1.5 months
11,008 doses registered in the VaxTrac software in the first 1.5 months
Recognizing the need for leadership and management skills among those in charge of health facilities, eHA is supporting training for Community Health Officers (CHOs). Additionally, eHA modified and implemented an electronic version of the Service Ability and Readiness Assessment (SARA) tool to assist CHOs to track and provide data on whether health posts have the necessary materials to provide basic health care. Information collected through SARA can be analyzed quickly by computer systems and CHOs can then make quick and informed decisions about which supplies they require in order to effectively and continuously serve the community.

“From becoming good leaders to building effective interpersonal relationships to improving quality of care, health care delivery in Sierra Leone will benefit from this training.”

Scott McNabb, Research Professor at Emory University

CHOs trained on the use of the SARA tool via the Kobocollect app

188 clinics assessed using the SARA tool in the Bo and Kambia districts of Sierra Leone

Community Health Officers’ (CHOs) Training
02 Public Health Emergency Management Systems

eHA is developing tools to prepare for and respond to public health emergencies, including Ebola and Polio, to lessen their impact on affected populations. Our teams are developing context-specific technological tools and smarter operations to improve emergency management.

Objectives:

1/ Improve preparedness for potential public health emergencies
2/ Respond effectively to active public health emergencies
To enhance the effectiveness of mass immunization and increase the percentage of tracked settlements across Nigeria, eHA, in partnership with the Bill & Melinda Gates Foundation (BMGF) and Novel-T, operationalized a GPS guided vaccination tracking and monitoring system to serve as an accountability tool for vaccinators during campaigns. Using our own geospatial technology, eHA has enhanced the effectiveness of vaccination campaigns across Nigeria. As a result, more children in remote communities are reached with life-saving vaccines.

Over 10,000 unnamed settlements identified

3,410 urban settlements and 2,373 hamlet settlements were tracked across Nigeria over 10 campaigns in 2016

17% increase in coverage by vaccination teams in Borno state between October and December 2016

eHA has built and equipped Emergency Operations Centers (EOCs) across West Africa, as part of our goal to strengthen our partner governments’ capacities to respond to public health emergencies. eHA is providing operational and human capacity support to EOCs in Nigeria, Liberia, and Sierra Leone.

eHA is continuing to provide support to 8 Polio EOCs in Nigeria, including the National EOC in Abuja and state EOCs in Bauchi, Borno, Kaduna, Kano, Katsina, Sokoto, and Yobe. eHA is also supporting the National EOCs in Sierra Leone and Liberia, as well as the county EOCs in each of Liberia’s 15 counties. These EOCs provide the infrastructure needed to support country-level emergency preparedness and management functions to thwart potential public health emergencies and have successfully supported responses to other outbreaks, including meningitis and cholera.
Working with the Ministry of Health and Sanitation (MoHS) and DFID, eHA identified ways to build on its success with the 117 Call Center which was established as the emergency death and illness reporting line during Sierra Leone’s Ebola outbreak. Now a sustainable mortality surveillance mechanism, 117 collects data on potential public health emergencies. The continuation of the 117 Call Center and the expansion of its decentralized dispatching services will provide life-saving response services to Sierra Leoneans. Its function is expanding to become an integral part of the country’s health information systems strategy including tracking, reporting, and providing vital strategic recommendations to the MoHS and its partners.

“117 alert hotline played an instrumental role in responding to the unprecedented Ebola outbreak in Sierra Leone... eHealth Africa [has] demonstrated remarkable flexibility, technical edge, and efficient delivery in implementing the 117 project.”

-Amit Bhandari, DFID Sierra Leone
Sierra Leone Trial to Introduce a Vaccine against Ebola (STRIVE)

eHA provided support to an Ebola vaccine trial in Sierra Leone, designed to protect frontline HCWs who experienced high risk of infection.

Our teams have been providing operational assistance to follow-up reporting for all vaccine recipients since the beginning of the trial period. eHA also provides resources needed to enroll, vaccinate, and follow-up with trial participants over the course of the study.

Through this project, eHA has supported the protection and needs of frontline responders from infection and has contributed to the continued development of this innovative vaccine in the midst of this public health emergency.

Over 8,600 HCWs and frontline responders vaccinated against Ebola
As the number of new Ebola cases began to decline, eHA provided support to the Survivors’ Clinic at Military 34 Hospital. eHA regularly procured supplies and resources to allow the clinic to offer ongoing care to Ebola survivors in response to the disease outbreak. With eHA’s support, the clinic also expanded the ophthalmology services it was able to offer its patients.

National Institute of Allergy and Infectious Disease (NIAD) Ebola/ ZMapp Follow Up

Following the outbreak of Ebola, eHA provided critical technical and operational support to a Zmapp study on developing treatments for Ebola patients. The Zmapp study evaluated Ebola therapeutics in the wake of the 2014 outbreak in West Africa. The results of the study were published in 2016. This treatment is now the standard of care for treating Ebola patients.

eHA contributed logistical support such as office space and supplies for the Research Coordinator, who contacted enrolled patients to report new health issues. The results of this study have contributed to one of the most promising treatments for the deadly Ebola virus.

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Military 34 Hospital Survivors’ Clinic

637 patients received at the clinic

71% of Ebola survivors in Sierra Leone’s Western Area attended the clinic

18% of Ebola survivors in Sierra Leone visited the clinic

37 Ebola survivors enrolled in follow-up study in Sierra Leone
Kano Monitoring & Reporting (End-Game Strategy)

Using an innovative solution called N-household verification, eHA is helping to reduce the number of children missed by polio vaccination campaigns. This is done through developing records of children left out of campaigns and verifying their households, so that missed children can receive vaccinations between rounds, during “mop-up” rounds.

To improve the quality of Immunization Plus Days (IPDs) and eradicate polio in Kano State, Nigeria, eHA has partnered with the Kano State government, Kano Emirate Council, UNICEF, and WHO, to ensure that all children missed during IPDs are tracked and vaccinated in order to minimize the potential resurgence of wild poliovirus in the Kano state.

9,977 additional children vaccinated as a result of N-household verification

Over 95% of missed children in Kano received vaccinations in “mop-up” rounds between campaigns

Over 90% vaccine coverage in 43 out of 44 LGAs in Kano
Hard-to-Reach

800,193

doses of oral polio vaccine administered as part of the Hard-to-Reach Project

34,244

doses given to children who would otherwise have been missed

eHA provided integrated health services to underserved communities in hard-to-reach locations. To facilitate our partners’ weekly outreach sessions in 6 Nigerian States, eHA used a weekly central tracking system to collect data on immunization rates and provision of services. With this system, eHA is improving the health system’s ability to provide services in areas that may otherwise have been missed.
Disease Surveillance Systems

Objectives:

1/ Build technology tools for field-level surveillance data collection
2/ Build technology tools for visualization and interpretation of datasets for disease detection, outbreak prevention and national response
3/ Provide operational support for disease detection and prevention

eHA is providing technological tools and operational support to collect and analyze data from the field level, including hard-to-reach communities. Our teams are contributing to the detection and ultimate prevention of disease outbreaks throughout West Africa.
Across West Africa, paper-based surveillance has been shown to generate many incomplete, incorrect, and late reports, which consistently delay investigation and response to potential disease outbreaks. As a result, eHA has contributed to the development of an electronic Integrated Disease Surveillance and Response (eIDSR) software system, and has trained health facility, district staff, and partners in its use. With the adoption of this system, Sierra Leone’s Ministry of Health will have achieved electronic capture of weekly and monthly diseases monitoring at the DHMT level. The software’s simplified data analytics and visualizations makes it clear and simple for health decision makers to understand the state of population health and take action to improve it.
Auto-Visual AFP Detection and Reporting (AVADAR)

In response to the outbreak of polio in Nigeria in January 2016, eHA has operationalized the use of a new AVADAR application to improve polio surveillance region-wide. AVADAR is designed to detect true Acute Flaccid Paralysis (AFP) cases, for the purpose of identifying and responding to potential cases of polio. eHA is supplying mobile phones equipped with the AVADAR app to Community Informants in specific districts of Nigeria, and is instructing them in the app’s use. As a direct result, Nigeria saw a 38% increase in wards reporting true AFP cases in 2016.

AFP surveillance is one of the four cornerstone strategies of polio eradication. The goal of AFP surveillance is to identify all cases of polio through a system that targets any case of AFP as a potential case of polio.
Recognizing that effective disease detection, investigation, control, and prevention require a public health workforce well trained in the principles and practice of field epidemiology, eHA is conducting the Field Epidemiologists Training Program (FETP) throughout Sierra Leone. In this way, eHA is helping to build epidemiologic capacity among frontline Ministry of Health staff, allowing them to conduct effective surveillance, case investigation, outbreak investigation, and response.
Partnering with the Ministry of Health in Liberia, eHA is working to improve near real-time information capabilities on disease surveillance by developing dynamic health information systems.

eHA’s software developers have created an Interoperability architecture to promote information sharing across government ministries via data visualization and interpretation tools. eHA has begun development of a Data Source Registry, Health Facility Registry, and an Offline Tracker application. Furthermore, eHA has constructed and maintained a Strategic Information and Analytics room housed at the MOH. The purpose is to strengthen the Liberian MOH’s ability to detect, investigate, and respond to disease outbreaks, even in remote regions.
In August of 2016 eHA launched the inaugural eHealth Academy in Conakry, Guinea. The eHA team constructed an 8-week curriculum in software development and network engineering. The courses were staffed with expert instructors, bringing international software design and development expertise to Guinea.

The Academy was offered free of charge to all participants who were successfully admitted into the program. The tailored curriculum was designed to improve the capacity of West African software developers to take over maintenance of eHA’s surveillance tools and systems beyond the culmination of our programs.

“Coming from the eHealth Academy to work for eHealth Africa is a great journey with constant learning and improvement... With their experienced developers and the ability of eHA to see the bigger picture I am confident about what the future has in store for eHA.”

Abdoulaye Bah, Jr. Software Developer, eHA
Build and operate effective labs and lab networks in West Africa

Develop and deploy tools & technologies needed to collect and disseminate lab data

In each of our countries of operation, eHA is creating laboratory systems to work in conjunction with surveillance tools to classify and confirm potential health threats.
Laboratory Support

Laboratory and Diagnostic Systems / Liberia

eHA continues to support Liberia’s MOH in strengthening the capability of laboratory and diagnostic systems. This support improves timely reporting of collected specimens throughout the lab system. In addition, eHA supported Lab Desk Officers and the development of an Access Database to improve the efficiency of reporting systems. With the absence of new Ebola cases in Liberia, eHA is supporting the development of new diagnostic reporting systems in the labs, which produce data regarding cases of a variety of infectious diseases beyond just Ebola.

eHA is also supporting internet connectivity at five priority labs - Bong, Tappita, Redemption, the Eternal Love Winning Africa laboratory (ELWA), and the Liberian Institute of Biomedical Research (LIBR).
05 Nutrition and Food Security Systems

Objectives:

1/ Developing technological tools to provide nutrition stakeholders, from producers to processors to consumers, with effective data.

2/ Ensuring that the most vulnerable populations in West Africa, especially women and children, have access to nutritious food.
Orange-Fleshed Sweet Potato Project

In partnership with the International Polio Center (CIP), eHA has introduced orange-fleshed sweetpotato (OFSP) in Northern Nigeria for the purpose of diversifying the diets of local populations to incorporate more nutritious foods.

This pilot project targeted 5 of Nigeria’s LGAs, aiming to improve small farmers’ and Extension Agents’ knowledge of nutrition and Good Agricultural Practices (GAP), as well as the production and preparation of OFSP.

With the ability to thrive in marginal soil and its broad agro-ecological adaptability, sweet potatoes have a tremendous impact on combatting food insecurity across Nigeria.

260 farmers trained on GAP

6 small scale businesses created for Decentralized Vine Multipliers that used net tunnel technology to grow OFSP

6 Extension Agents trained on GAP

651 women trained in family nutrition

20 Extension Agents trained on Nutrition and OFSP utilization
Our Stories

Manuel Loistl

Originally from Karlsruhe, Germany, Manuel Loistl had never been to Africa when he arrived in Freetown to work as Information Systems Manager with eHA. Manuel appreciates the fact that he gets to shape the healthcare systems of multiple West African countries every day.

Jenneh Mambu

Jenneh Mambu has worked with eHA since its Liberia office opened in 2014. An integral member of eHA’s Emergency Management Preparedness Team, Jenneh values the life-saving difference she was able to make in sensitizing her community members to the dangers of the Ebola Virus.

Maseray Emma Sesay

Maseray Emma Sesay joined eHA’s Freetown office as a cleaner, and was quickly promoted to Receptionist, then Administrative Assistant, and now works as a Project Assistant on the 117 Call Center project. Maseray relates “this act of recognizing little beginnings has given me zest for more improvement, and I hope to learn and grow here at eHA.”

Sidney Bamidele

During his time in eHA’s Kano office, Sidney Bamidele moved from the role of a Project Field Officer to a GIS trainee, and is now the Assistant GIS Technician responsible for cleaning and managing spatial and nonspatial data. Sidney enjoys the challenges that come with the job, and has valued opportunities to travel to other eHA country offices.

Blessing Abah

Blessing Abah joined eHA in 2014 to work on the Health Camps project in Nigeria. From temporary staff to Operations Assistant to House Supervisor and, most recently, to AVADAR team member, Blessing values the opportunity eHA has given her to grow professionally.

5 countries with eHA offices
Representatives from eHA spoke at a variety of conferences, including the Future of Health Conference 2016 in Abuja, Nigeria, the Health and Humanitarian Logistics Conference, in Atlanta, Georgia, and the 3rd German-African Healthcare Symposium in Berlin, Germany.

Furthermore, our Berlin team hosted two public events: ‘Global Health Security – Focus Africa’ and ‘Digitizing healthcare in underserved communities: A leap in Africa’s development?’. Both events offered a discussion and networking platform for Germany-based experts and stakeholders from academia, politics, media and the public sector working in the field of international cooperation and digitization. Contributors and speakers represented institutions such as Charité Berlin, Hasso Plattner Institute, European Leadership in Cultural, Science and Innovation Diplomacy, Technical University of Berlin and Young Leaders for Health.

In 2016, eHA contributed to the exchange of ideas and knowledge through 14 publications and presentations, including journal articles published in Spatial Information Research and Africa Health.
Donors

Bill and Melinda Gates Foundation (BMGF)
Centers for Disease Control and Prevention (CDC)
CDC Foundation
Kano Emirate Council
Leidos
The Paul G. Allen Family Foundation
Department for International Development (DfID)
United Nations Children’s Fund (UNICEF)

Partners

AFCOM
Association Pour la Sante Communautaire a Timbi Touni
Bayero University Kano (BUK)
Clinton Health Access Initiative (CHAI)
Dahag
Emory University
German Development Cooperation (GIZ)
Global Alliance for Vaccines and Immunizations (GAVI)
International Potato Center (CIP)
IntraHealth
John’s Hopkins University
Ministries of Health in Nigeria, Sierra Leone, Liberia, and Guinea
National Institute of Allergy and Infectious Diseases
Novel-T
Program for Appropriate Technology in Health (PATH)
Sierra Leone College of Medicine and Allied Health Sciences
Translators Without Borders
VaxTrac
Village Reach
World Health Organization (WHO)
### Operating Revenue

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<tr>
<th>Source</th>
<th>Revenue ($)</th>
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<tr>
<td>Private Grants &amp; Contributions</td>
<td>14,619,991</td>
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<tr>
<td>US Government Contracts</td>
<td>9,725,970</td>
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<tr>
<td>Private Contracts</td>
<td>5,681,806</td>
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<td>US Government Grants &amp; Contributions</td>
<td>4,506,777</td>
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<tr>
<td>Management Fee &amp; Indirect Income</td>
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<td>Non-US Government Contracts</td>
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<tr>
<td>Miscellaneous Revenue</td>
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<td><strong>Total</strong></td>
<td><strong>40,469,624</strong></td>
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### Nature of Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Revenue ($)</th>
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<tr>
<td>Polio Eradication</td>
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<td>Health Delivery Systems</td>
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<td>Emergency Preparedness &amp; Response</td>
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<td>Integrated Disease Surveillance</td>
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<td>Lab Systems Strengthening</td>
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<td>Nutrition &amp; Food Security</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>40,469,624</strong></td>
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2016 Financials