



UPDATES FROM THE FIELD

WORKING FASTER AND SMARTER TOWARD GLOBAL HEALTH SECURITY

DIRECTOR'S MESSAGE

FASTER, BETTER, SMARTER



Since 2013, when the Division of Global Health Protection (DGHP) was established, we've held true to our mandate by working with ministries of health and other partners around the world to build country capabilities to prevent, detect, and respond to health threats. We've leveraged our resources and built on our strong foundation of global health security work to expand our capacity building efforts to more countries, improve emergency response capabilities, and forge stronger partnerships.

Our leadership, credibility, and long-standing relationships have helped us to make significant strides toward a world safer and more secure from global health threats. We have learned many lessons from the West Africa Ebola epidemic. We've strengthened our response capacity by establishing a Global Rapid Response Team (Global RRT) with more than 400 highly trained, multidisciplinary staff ready to deploy anywhere in the world. We've expanded our Field Epidemiology Training Programs (FETPs), established a multi-level training curriculum, and now have a network of over 10,000 well-trained disease detectives in more than 65 countries. Our Global Disease Detection Operations Center has been monitoring and reporting on more than 30-40 outbreaks daily, and our laboratory experts and country offices have helped discover 11 new strains and pathogens that had never been previously identified in those countries. To ensure that we are staying on track and achieving our health security objectives, DGHP has supported WHO in conducting more than 55 Joint External Evaluations that helped to assess and identify the most urgent gaps in public health systems around the world. More than 70% of those assessments were conducted with CDC participation.

Our investments in many parts of the world such as Liberia, Guinea-Bissau, Senegal, and Uganda have proven to be invaluable. These countries, as well as many others, are now able to respond faster and better to recent outbreaks because they have more efficient surveillance and reporting systems, stronger laboratory diagnostics, trained disease detectives, and more coordinated emergency response and management systems.

While we have made incredible gains, we know that there is still much more to be done and we must continue to move forward strategically and creatively to improve global health security. The recent Ebola outbreak in the Democratic Republic of the Congo is a reminder to all of us that this dangerous pathogen still poses a threat. None of us know when the next pandemic will occur, but what we do know is that we must be prepared for it.

I thank you for your passion and commitment to this work, and hope you will enjoy reading about our successes and impact we are making on global health security. Together we can make a difference for America and the world.

CAPT Nancy Knight, MD

*Director, Division of Global Health Protection
Center for Global Health, CDC*

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IN THIS ISSUE

DIRECTOR'S MESSAGE

- 01** FASTER, BETTER, SMARTER

HIGHLIGHTS OF INVESTIGATIONS

- 02** FETP RESPONDS TO EBOLA OUTBREAK IN DRC
04 FASTER, SMARTER OUTBREAK RESPONSE IN LIBERIA
06 DISEASE DETECTIVE DISCOVERS FIRST ZIKA CASES IN GUINEA-BISSAU
08 AROUND THE WORLD: DISEASE DETECTIVES ON THE SCENE

ENHANCED SURVEILLANCE AND REPORTING

- 10** VIETNAM UPDATE: COMMUNITY-BASED SURVEILLANCE YIELDS RESULTS
11 DATA INSPIRES LIFESAVING ACTION IN SIERRA LEONE
12 PROGRESS IN PAKISTAN: GROWING RESPONSE TO VACCINE-PREVENTABLE DISEASES
14 REACHING ACROSS BORDERS IN BENIN

SNAPSHOT: EXPANDING LABORATORY CAPABILITIES

- 15** GUINEA FORGES CRITICAL LINKS TO LABORATORIES

EMERGENCY RESPONSE AND PREPAREDNESS

- 16** UGANDA'S RAPID RESPONSE TO AVIAN INFLUENZA
17 QUICK ACTION FROM SENEGAL'S EOC HELPS CONTROL INFLUENZA OUTBREAK
18 INVESTING IN PEOPLE: TRAINING GUINEA'S EMERGENCY RESPONSE MANAGERS

INQUIRIES: Send story inquiries to:
dghpcommunication@cdc.gov

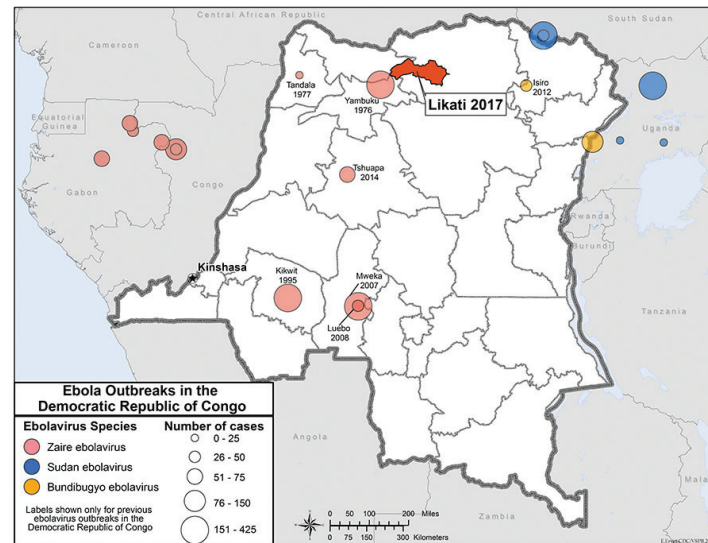
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Center for Global Health

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Despite this area being very remote, the country's ongoing commitment to prepare against outbreaks has helped them in the response. The country's health workers and laboratories were able to quickly identify the outbreak – a positive public health milestone for the country. Additionally, this particular outbreak occurred near a training site for the country's newly established Frontline Field Epidemiology Training Program (FETP-Frontline), which is supported by CDC and is part of a longstanding partnership to train disease detectives who can swiftly respond to threats.



A group of men are gathered outdoors under a thatched roof. One man in a blue cap and plaid shirt stands on the left. A man in a military uniform stands in the center. A man in a dark vest is bent over, pointing at a document held by another man. A man in a striped shirt stands on the right. The background shows lush greenery and a dirt ground.

A group of men are standing in front of a white UNHCR aircraft. The aircraft has the registration 'RA-25553' and UNHCR logos. One man is wearing a blue cap with 'VZW' and a patterned blue shirt. Another man is wearing a white cap with 'IMP 2017' and a brown patterned shirt. A third man is wearing a blue jacket and a blue cap. The aircraft has 'UNHCR' and 'RA-25553' written on it. The background shows a grassy field and trees.

The recent Ebola response in DRC was coordinated by the World Health Organization (WHO) with support from the Ministry of Health, CDC, UNICEF, and other international partners. CDC's in-country team has provided leadership and support in response to Ebola and other epidemic-prone diseases, including yellow fever, monkeypox, cholera, measles, and polio.

PAGE 3 | 20

FASTER, SMARTER OUTBREAK RESPONSE IN LIBERIA

In 2014-2015, Liberia suffered more than 10,000 cases of Ebola and over 4,800 Ebola-related deaths. It took the country months to mount an effective response to the epidemic, as needed public health systems had to be built in the face of the expanding crisis.

During and following the Ebola response, CDC worked closely with Liberia to develop public health resources that did not previously exist, including emergency operations centers, enhanced laboratory capacity, stronger surveillance systems, and a CDC office with in-country staff providing technical support to the Ministry of Health. Liberia's new systems were put to the test when, in April 2017, the country faced a cluster of unexplained illnesses and deaths.

AN UNKNOWN THREAT

On April 25, health officials in Sinoe County noted an unknown illness among 14 individuals. Eight of them had died. All of the cases reportedly developed symptoms following their attendance at a funeral event. The incident was quickly detected and reported through the country's surveillance and response systems – the first step in identifying when and where an outbreak might be occurring.

Within 24 hours of learning of the outbreak, Liberia's Ministry of Health mobilized 14 CDC-trained Liberian disease detectives to investigate the report. Samples from the patients were collected and tested at the National Reference Laboratory, ruling out Ebola as the cause.

Disease detectives and surveillance officers – trained by the country's new Field Epidemiology Training Program – tracked and investigated cases while closely monitoring those who might be at risk. Health workers provided care and treatment and encouraged the community to report new cases as the cause of the outbreak was being investigated.

ALL HANDS ON DECK

Through Liberia's emergency operations center, the Ministry of Health activated its incident management system to coordinate the many efforts needed to stop the outbreak. The national Rapid Response Team and partners, including CDC staff, sprang into action to support the county-led response.

Disease detectives and surveillance officers – trained by the country's new Field Epidemiology Training Program – tracked and investigated cases while closely monitoring those who might be at risk. Health workers provided care and treatment and encouraged the community to report new cases as the cause of the outbreak was being investigated.

Laboratory testing of specimens sent to CDC soon confirmed that the country was facing an outbreak of meningococcal disease (meningitis).

RAPID RESPONSE GETS RESULTS

Because Liberia had the ability to respond rapidly and effectively, the outbreak was detected and controlled within a matter of weeks, limiting the outbreak to 31 cases and 13 deaths, with the last case reported on May 7, 2017.

CDC works with Liberia's Ministry of Health and partners to improve the country's ability to prevent, detect, and respond to outbreaks. Much of this work is done through the Global Health Security Agenda. CDC focuses on building core public health systems to enable fast and effective response: surveillance, laboratory, workforce development, and emergency operations. These systems – and the people who are now trained to use them – are key to ensuring national and global health security for people in Liberia and around the world.

The work featured in this story was accomplished through collaboration between Liberia's Ministry of Health, CDC's Center for Global Health, CDC's National Center for Immunization and Respiratory Diseases, and other international and country partners. CDC support included emergency management; in-country and headquarters laboratory support; epidemiologic investigation; and communication support.



A CDC team works through case data with the FETP advisor in the county health team's Emergency Operations Center.



County Incident Management System daily meetings provide updates to partners and media.

DISEASE DETECTIVE DISCOVERS FIRST ZIKA CASES IN GUINEA-BISSAU

CDC-trained disease detectives like Vitor Inhane learn to quickly put the pieces together to figure out what's making people sick in a community and prevent more people from becoming ill. While conducting a malaria study in Guinea-Bissau, Inhane did just that, helping to identify the country's first four cases of Zika virus infection.

A graduate of Guinea-Bissau's Frontline Field Epidemiology Training Program (FETP-Frontline), Inhane was studying severe cases of malaria in the Bijagos region, where he is responsible for surveillance. Knowing that the symptoms of malaria are often the same as other mosquito-borne diseases like dengue, chikungunya, and Zika, he proposed additional testing to check patients for these diseases. The testing uncovered four sick patients infected with Zika virus.

GEARING UP TO FIGHT ZIKA

Laboratory testing is often the only way to distinguish one illness from another, especially when they have similar symptoms and are found in the same areas. Until a few years ago, Guinea-Bissau had limited experience with laboratory diagnostics. Samples from Inhane's group had to be sent to the Institut Pasteur in Dakar, Senegal, for confirmation. With Zika now on Guinea-Bissau's radar, the government has been working to improve its own laboratory capacity.

National surveillance for Zika is planned once the country's laboratories are able to effectively tackle the work. Following this investigation, further tests showed that the Zika virus sequence identified in this outbreak had no relation to the outbreak in the Americas, but showed a close relationship with strains known to circulate in other parts of Africa.

The presence of the Aedes species mosquitoes that carry Zika has been confirmed in some regions of the country, and several small entomologic studies have begun. An emergency operations center has already been established in Guinea-Bissau, and a contingency plan for a national response to Zika has been developed.

Zika infection during pregnancy can cause serious birth defects so some pregnant women suspected of having Zika are currently being monitored. An investigation of cases of microcephaly—a birth defect that can be caused by Zika virus infection during pregnancy—is also underway.

A STRONG WORKFORCE MAKES A DIFFERENCE

The rapid international spread of the Zika virus demonstrates the need for global vigilance and the importance of quickly identifying the virus wherever it occurs. Since March 2016, CDC has been collaborating with Guinea-Bissau's National Institute of Public Health to support its ability to quickly identify and track infectious diseases like Zika.

As this example shows, a robust public health workforce of highly trained disease detectives is key to rapidly identifying, tracking, and stopping the spread of diseases. To increase the number of surveillance officers in the country, Guinea-Bissau's FETP-Frontline program was launched in March 2016. To date, 70 staff have been trained and have investigated outbreaks of diseases such as cutaneous anthrax, meningitis, rabies, and measles, among others. Inhane graduated with the first cohort of FETP-Frontline, in May 2016.

Disease detective Victor Inhane conducts Zika case investigation in a Guinea-Bissau community.



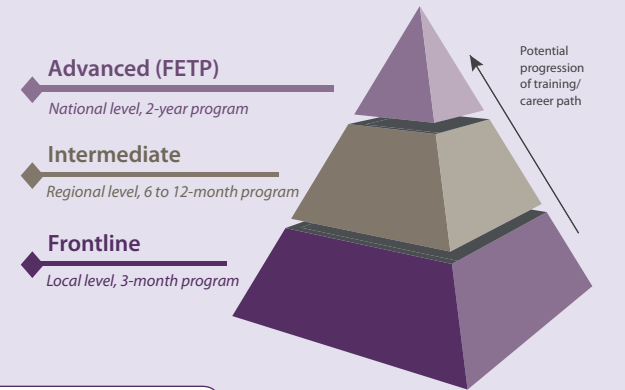
Disease detective Victor Inhane conducts Zika case investigation at a local hospital in Guinea-Bissau.

AROUND THE WORLD: DISEASE DETECTIVES ON THE SCENE

CDC trains disease detectives to provide faster, smarter response to outbreaks. With program engagement in more than 65 countries, CDC supports the development of Field Epidemiology Training Programs (FETP) around the world. These programs build a skilled workforce of disease detectives who can find and stop outbreaks at the source, before they spread globally. The shaded countries on the map below indicate where CDC supports or has supported FETP programs.



FETPs offer three levels of experience-based training – frontline, intermediate, and advanced – depending on the needs of a country’s public health system.



VIETNAM UPDATE: COMMUNITY-BASED SURVEILLANCE YIELDS RESULTS

Sometimes, the most valuable resources in detecting an outbreak are the people closest to it. Arming community health workers and other local leaders with the information they need to make decisions about when and how an illness should be reported is an important measure in controlling outbreaks before they have a chance to spread.

INFORMATION CLOSE TO THE SOURCE

The goal of event-based surveillance is to detect unusual events that might signal an outbreak, even before it is known what kind of disease is responsible. Event-based surveillance typically monitors for clusters of people with similar looking illness, such as a group of people all connected socially who develop severe respiratory disease around the same time. Information for this type of surveillance can come from many different sources, including reports in the media or rumors on an internet blog.

More importantly, members of the public can also be engaged in reporting public health events. For example, if a teacher notices an unusually high number of children absent from school with similar symptoms and reports it to a local health official, the teacher is participating in event-based surveillance. Pharmacists, community and religious leaders, and traditional healers can all be important sources of event reports.

In 2016, with support from CDC, Vietnam’s Ministry of Health launched a pilot of event-based surveillance in four provinces. This program extends into the local community and for the first time actively engages community health volunteers and other community leaders in the detection of outbreaks.

A NEW PROGRAM GETS RESULTS

As part of the program, community health workers were given guidelines and supporting materials such as job aids, logbooks, and reporting tools. From October 2016 to March 2017, healthcare staff from the four provinces reported a total of 1,934 signal events, of which 1,917 were screened, 1,292 were verified, and 134 real events of infectious disease outbreaks were detected. Of these outbreaks, 120 outbreaks were large clusters that resulted in rapid response and control by preventive medicine staff.

Notable outbreaks have been detected through the pilot surveillance system, including numerous foodborne outbreaks; hand, foot, and mouth disease; mumps; diphtheria; and chickenpox.

This program significantly decreases the time to reporting of outbreaks, enabling a faster response that can minimize the impact of disease and save lives. There are plans to expand the system to the entire country in the coming year, empowering local communities to be more aware and informed as they take action against disease.

Lessons learned from the final evaluation of the pilot phase will inform Vietnam’s national event-based surveillance guidelines in late 2017.



Doctors share event-based surveillance (EBS) materials during training.

DATA INSPIRES LIFESAVING ACTION IN SIERRA LEONE

Disease detectives know that data can save lives. This is why three CDC-trained disease detectives from Sierra Leone’s Frontline Field Epidemiology Training Program (FETP-Frontline) searched the country’s treasure troves of surveillance data on diseases like tuberculosis, Lassa fever, and acute flaccid paralysis (which is associated with polio). Here’s how they turned the numbers they found into meaningful action.

LASSA FEVER AFFECTS THE VULNERABLE

In Sierra Leone’s Kenema district, an FETP trainee analyzed surveillance data from 2016 and found high rates of Lassa fever in three chiefdoms. Even more concerning, he discovered that women and children under the age of five were most affected and suffered a much higher case fatality rate: 50-100% higher than expected. The Kenema District Health Management Team is now building a robust Lassa fever database and working with the Ministry of Health and Sanitation to review the current Lassa fever case definition to make it more sensitive. Capturing cases of Lassa fever early helps protect everyone – including women and children – from this deadly disease.



Disease detectives use data to track down cases of Lassa fever and prevent the spread of the virus in Sierra Leone.

ADDRESSING GAPS AFTER EBOLA

When Ebola struck Sierra Leone, focus shifted to fighting the deadly epidemic, stretching the country’s already limited resources even further. As can happen when health systems are overwhelmed by an emergency, the country’s collection and analysis of data on acute flaccid paralysis (AFP), one of the main indicators for polio, was severely impacted. An FETP trainee analyzed national AFP data to identify gaps in surveillance and discovered that the key indicators were not being met. Steps are now in place to routinely evaluate reporting against national indicators to identify potential patients with AFP and help keep the country polio-free.



A Sierra Leone FETP trainee investigates a case of acute flaccid paralysis in his community to help monitor for polio.

TUBERCULOSIS DATA SPARKS CHANGE

When analyzing tuberculosis (TB) data collected from 2012-2016 at the Sierra Leone Correctional Center, one FETP trainee discovered that 61% of the inmate population they tested had the disease. Prison authorities took this new information and made changes: the court system was encouraged to speed up trials to minimize overcrowding; a TB clinic was established, including a separate block for infected inmates; and social distancing was maintained in the facility to prevent the spread of the disease.



Staff walk through a tuberculosis hospital in Sierra Leone.

PAKISTAN: GROWING RESPONSE TO VACCINE-PREVENTABLE DISEASES

Over the past two years, Pakistan has significantly increased its ability to investigate and respond to outbreaks of deadly but preventable diseases like measles, pertussis, and diphtheria. The key to their success has been through building a skilled workforce of disease detectives and responders who are also tapping into their local communities.



Dr. Asif, Technical Surveillance Officer with the Disease Surveillance and Response Unit at Karachi, conducts an outbreak investigation of chickenpox in Kimari Town, May 2017.

CONNECTION MAKES A DIFFERENCE

Disease detectives are trained through Pakistan’s Field Epidemiology and Laboratory Training Program (FELTP) and stationed in Disease Surveillance and Response Units (DSRU) located all over the country.

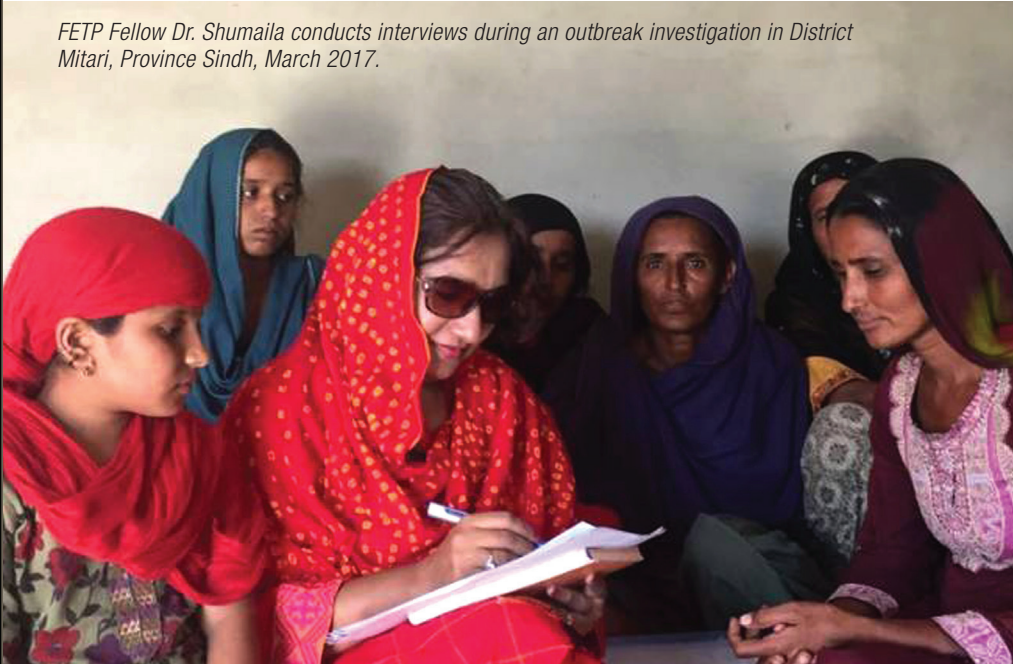
Much of the difference in the country’s ability to tackle outbreaks is because these FELTP fellows use all the local resources available to stop outbreaks. This not only includes provision of vaccines and special vaccine campaigns, but also involving communities and their leaders in controlling the outbreaks. The results of their efforts are showing.

In 2015, Pakistan’s disease detectives conducted a total of 38 outbreak investigations. In 2016, nearly twice as many outbreaks were investigated: 70 overall, 49 of which involved vaccine-preventable diseases. As of the first quarter of 2017, the number of investigations is already at 61 outbreaks — 43 for vaccine-preventable diseases – and growing.

In fact, 90% of outbreaks investigated by disease detectives in the DSRUs also involved resources from local health departments. This is a major step toward making the country’s programs sustainable and preventing future pandemics.

VACCINES PROTECT CHILDREN

The results of these investigations have enabled Pakistan to control the outbreaks and initiate vaccination campaigns in the areas where they’re needed most.



FETP Fellow Dr. Shumaila conducts interviews during an outbreak investigation in District Mitari, Province Sindh, March 2017.



Dr. Shumaila does an active case search during a measles outbreak investigation in District Sukkur, Province Sindh, February 2017.

“Most of these outbreaks are measles, but nearly all other diseases are there too,” notes Jawad Asghar, Resident Advisor of CDC’s FELTP in Pakistan. He points out that in 2016, field investigations led to about 29,500 children receiving lifesaving vaccines, with about 17,000 more in the first three months of 2017.

REACHING ACROSS BORDERS IN BENIN

Standing near the border crossing between Benin and Togo, a recent graduate of Benin’s Field Epidemiology Training Program-Frontline course (FETP-Frontline) – which trains disease detectives in Benin – stopped briefly outside a building to exchange contact information with her Togolese counterpart. To the untrained eye, this small gesture might have gone unnoticed, but it meant so much more than it appeared.

At that moment, the region was facing a Lassa fever outbreak. Four cases had been identified, and the disease was crossing borders, affecting not only Benin, but also neighboring Togo, Burkina Faso, and Nigeria.

FACING THREATS TOGETHER

In western Africa, countries are working together to determine the best ways to catch diseases at the busy checkpoints and along the porous borders where people come and go. This is especially critical in a country like Benin, whose geography connects it to its neighbors in long swaths from north to south, and where people are constantly on the move. It’s all too easy for an outbreak to slip in and take hold unnoticed.

In Benin, public health leaders are taking this threat seriously, and CDC is working alongside them to help. To get ahead of disease, countries must look at how people connect with each other, where they go, and what they do when they get there. This way, when an outbreak happens, experts know where to begin looking for more cases. Piecing together this kind of information yields clues, and those clues lead to action that saves lives. It’s all part of a process called cross-border surveillance, and it’s one of the things CDC is training the country’s FETP-Frontline participants to do.

Ground crossing at Togo border post. (Photo Credit: Tohoun Aplahoue)



Sharing contact information across borders. (Photo Credit: Tohoun Aplahoue)

DISEASE DETECTIVES LEARN TO CONNECT

Around the world, CDC works with ministries of health to establish FETPs and train cohorts of disease detectives – experts who know how to monitor and analyze public health surveillance data, and who have the skills to track and respond to outbreaks before they become epidemics. So far, Benin’s FETP-Frontline has put 48 disease detectives into the field, ensuring that each of the border communes, or districts, has at least one graduate.

Because of Benin’s unique situation, CDC incorporated a specific module on cross-border surveillance into Benin’s FETP-Frontline curriculum. The module helps participants understand that the most important part of keeping safe borders is coordination – surveillance and response efforts must include working with neighboring countries to stop the spread of diseases.

When the recently trained disease detective from Benin reached out to connect with her neighbor, it was a clear signal that the lessons are taking hold and that participants are putting training into action in the global effort to stop outbreaks before they spiral out of control.

The work featured in this story was done through close partnership between Benin’s Field Epidemiology Training Program, CDC’s Division of Global Migration and Quarantine, and country partners, including the Ministry of Health and the Abidjan Lagos Corridor Organization.



GUINEA FORGES CRITICAL LINKS TO LABORATORIES

Laboratories are a critical link between a patient and their diagnosis – when people are ill, laboratories can confirm the reason. When local facilities don’t have the resources to test specimens from patients, they use a specimen referral chain to send samples to laboratories that may be far away, but which have the ability to run the necessary tests.

In Guinea, health facilities in rural areas didn’t have a working specimen referral chain to get samples from community health centers to laboratories; they had limited training and supplies to deliver biological materials safely. This meant that patients in Guinea had to travel to the nearest hospital, sometimes for hours or days, even to get routine examinations. When faced with this obstacle, many people did not seek treatment at all.

GETTING THE ANSWERS TO DISEASE OUTBREAKS

Laboratory confirmation of disease is important not just for treating patients, but for monitoring which diseases are present in the community and tracking their spread. Without a good specimen referral chain, the work of those trying to track diseases in communities is made more difficult. To conduct effective disease surveillance during an outbreak, the local health team in Guinea previously had to travel to the patient to personally collect the specimen, then package and ship the specimen to Conakry.

Fortunately, Guinea and its partners were able to improve the specimen referral chain to better serve patients and track diseases. Working closely with Guinea’s Ebola Coordination Cell and the Ministry of Health, International Medical Corps, a CDC-funded partner, provided 12 peripheral facilities with training, materials and equipment to safely collect, store, and transport biological specimens. Rural clinicians can now independently refer specimens to diagnostic laboratories, improving their ability to care for patients and identify disease outbreaks quicker and more accurately.

A health post in Forécariah, Guinea.



UGANDA’S RAPID RESPONSE TO AVIAN INFLUENZA VIRUS OUTBREAK IN BIRDS

When local fishermen in Uganda spotted a massive die-off of migratory birds, it raised an alarm for the country. In January 2017, in the Lake Victoria island and lakeshore districts of Kalangala, Masaka, and Wakiso, about 10,000 white-winged black terns died unexpectedly, and health experts needed to find out why.

Upon receiving news of the die-off, Uganda’s Public Health Emergency Operations Centre (PHEOC), which coordinates all health security matters for the country, immediately launched into action. CDC experts have been working closely with Uganda to strengthen the country’s ability to respond rapidly to emergencies. Because of these efforts, the PHEOC was able to quickly coordinate a response that brought together experts in human and animal health, disease detectives, laboratories, surveillance teams, and support from both Uganda’s government and global partners.

AVIAN INFLUENZA VIRUSES

Similar incidents in Europe, Egypt, and Tunisia, where the migratory birds begin their journey south, pointed to a possible outbreak of avian influenza. Avian influenza (or avian flu) viruses are influenza A viruses that occur naturally in wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species. Avian flu viruses do not normally infect humans. However, sporadic human infections with specific types of avian flu viruses have occurred, some of them with severe and even fatal consequences.

Flu viruses are constantly changing, and animal flu viruses can change and infect humans and gain the ability to spread easily between people, causing a pandemic. For this reason, monitoring for human infection and person-to-person spread of avian flu viruses is extremely important for global health security.

SUPPORT GETS FAST RESULTS

Upon being notified of the migratory bird outbreak, Uganda’s PHEOC quickly reached out to various experts and engaged the country’s National Task Force for Epidemics. The National Task Force called on rapid response teams from across all sectors, including disease detectives from the CDC-supported Field Epidemiology Training Program (FETP), as well as veterinary and public health students from Makerere University’s One Health Program, to investigate.

With support from CDC, Uganda’s expert laboratory teams were able to provide initial laboratory confirmation of the first outbreak of highly pathogenic influenza A(H5) virus in birds in East Africa within days of detecting the wild bird die-off. The response included guidance for management of dead or sick birds and enhanced surveillance in humans; no human infections were identified.

Uganda’s ability to coordinate this rapid response is one more inspiring result of the joint commitment between CDC and Uganda to strengthen global health security and move toward a safer, healthier world for Americans and all people alike.

The work in this story builds on almost a decade of the CDC influenza program’s collaboration with Uganda to strengthen surveillance, response, and diagnosis for influenza viruses. The recent response efforts were supported by partners including CDC’s Influenza Division and Uganda’s National Influenza Center, in collaboration with FAO, OIE, and the National Animal Diseases, Diagnostic, and Epidemiology Centre (NADDEC).

Scientists estimate that more than 6 out of every 10 known infectious diseases in people are spread from animals, and 3 out of every 4 new or emerging infectious diseases in people are spread from animals.



Sick bird at affected site of Kalanga District, Uganda.

QUICK ACTION FROM SENEGAL’S EMERGENCY OPERATIONS CENTER HELPS CONTROL INFLUENZA OUTBREAK

In March 2017, as the mid-term school holidays began in Senegal’s eastern region of Kedougou, the Ministry of Health received reports that children were falling ill. Some had died.

With knowledge gained from CDC-led emergency management trainings and simulation exercises, Senegal’s Emergency Operations Center (EOC) activated to coordinate the response, quickly deploying experts from the EOC, WHO, Institut Pasteur, and disease detectives from Senegal’s CDC-supported Frontline Field Epidemiology Training Program to investigate the cases. Laboratory testing soon confirmed H1N1 pandemic influenza as the cause.

The response team put control measures into place, including reinforced surveillance at health posts and targeted messaging to healthcare personnel and community leaders. They distributed critical materials on proper hand-washing, rapid referral of suspect cases, and a case report form to help with data collection and tracking.

The outbreak was contained in just 11 days, with 118 cases and 3 deaths. The fast, coordinated response demonstrates how Senegal’s EOC is continuing to move toward better priority disease reporting and management of complex emergencies.

A local health worker collects data and nasopharyngeal swab samples from children during a flu investigation.



INVESTING IN PEOPLE: TRAINING GUINEA'S EMERGENCY RESPONSE MANAGERS

At the height of the Ebola epidemic, Guinea began working toward creating an emergency operations center (EOC) to improve their ability to respond to emergencies quickly and to scale. EOCs are critical to coordinating rapid and lifesaving efforts against outbreaks.

Guinea recognizes that the most important resource in any EOC is people. This is why, as they work toward establishing and maintaining an EOC, the country is also working with CDC and other partners to train a team of experts who understand how to effectively and efficiently manage an emergency response.



LEARNING FROM CDC

Dr. Amadou Traore is one of seven staff hired to work full-time on building the country's EOC. To help him in his role as the EOC's Chief of Operations, Dr. Traore traveled to Atlanta in January 2017 to attend CDC's 4-month Public Health Emergency Management Fellowship. The fellowship provides participants from all over the world with an in-depth understanding of emergency systems and how they function.

Dr. Traore has already begun using knowledge gained from the fellowship to develop critical plans that will improve reporting, risk communications, and operations in the EOC. "It for sure will not be business as usual when I get back to my work in Guinea," he says of his experience.

PARTNERSHIP LEAPS LANGUAGE BARRIERS

Because French is Guinea's official language, six Guinea EOC staff traveled to Canada to receive emergency management training in French in March and May of 2017. CDC partnered with the International Organization for Migration and Public Health Agency Canada to offer the month-long trainings.

CDC had previously partnered with Public Health Agency Canada during the 2014–2016 Ebola response to provide French-speaking emergency responders to Guinea, and was able to leverage that existing relationship to coordinate the trainings, which covered the principles of emergency management; the Incident Management System; and roles and responsibilities before, during, and after an emergency activation.

TRAINING YIELDS FAST RESPONSE

Since the Guinea EOC team's creation in July 2016, the team has already been tested through three activations, all of which resulted in response times of 48 hours or less. Two activations were for investigations of yellow fever alerts, which were determined to be low risk. Now on their third activation, the Guinea EOC is currently coordinating the response to a measles outbreak first declared in February 2017.

CDC, the World Health Organization, and other partners have supported the Guinea EOC's development of investigation plans and logistics. The Guinea EOC is a model of how a public health emergency operations center can effectively and efficiently manage a public health emergency and has built confidence in the country's ability to respond to new public health challenges post-Ebola.

In an emergency, having people who know what to do saves lives.



Dr. Amadou Traore shadows Watch Officer Cassandra Rolle at the Watch Desk in CDC's EOC.



Sanitation and personal protective equipment training in Guinea (Photo Credit: Patrick Adams, RTI International).

Thank you to our partners, collaborators, and staff for your contributions and support in advancing health systems around the world and improving global health security.

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