



Standing Shoulder-to-Shoulder

MAKING A DIFFERENCE IN THE WEST AFRICA EBOLA EPIDEMIC

Cover: Health care workers at the Centre de Sante, a public health clinic in Conakry that provides a wide variety of services to those in need. In response to the Ebola outbreak in Guinea, CRS trained more than 3,000 health care workers so they understood when and how to use protective medical equipment. The training also included critical information on proper hygiene measures, such as effective hand washing and sanitation.

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This report is dedicated to the health workers who lost their lives, and to those who survived and continue to serve their communities by providing and advancing essential health services.



Abbreviations

CAPS	Community Association for Psycho-Social Services
CDC	Centers for Disease Control
CRS	Catholic Relief Services
EVD	Ebola virus disease
FLT	First-line trainer
IFRC	International Federation of Red Cross and Red Crescent Societies
IPC	Infection prevention and control
KSKS	Keep Safe and Keep Serving
MSF	Médecins Sans Frontières
MoH	Ministry of Health
MoHSW	Ministry of Health and Social Welfare
MPCHS	Mother Patern College of Health Sciences
NCDC	National Catholic Health Council
NGO	Nongovernmental organization
PPE	Personal protective equipment
PSS	Psychosocial support
QA	Quality assurance
RRT	Rapid response team
SMART	Social Mobilization and Respectful Burial Through Faith-Based Alliance consortium
WASH	Water, sanitation and hygiene
WHO	World Health Organization

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A complex emergency requires the availability of transportation for surveillance, community mobilization and meetings, burial team missions, ambulance runs and more. CRS assumed responsibility for ensuring the efficient procurement, insurance and roadworthiness of 267 vehicles and 164 motorcycles in Sierra Leone.

Photo by Michael Stulman/CRS

Executive Summary

West Africa's first Ebola victim was Emile, a two-year-old Guinean boy who died on December 28, 2013. As Guinea had never before seen Ebola, his illness went unrecognized, and the deaths of his sister and mother followed quickly thereafter. Mistaken for malaria, typhoid or witchcraft, Ebola gathered momentum for three months, moving from Guinea's forest region into urban areas, and into Liberia and Sierra Leone. In March 2014, blood samples identified the presence of Ebola, and Guinea's outbreak was officially declared.

While similar announcements in Liberia and Sierra Leone were made soon after, the expectation was that this outbreak would burn itself out, as outbreaks in other settings had.

This time, however, the Ebola virus continued to intensify. The countries stricken in this outbreak had exceptionally poor health infrastructure and disease surveillance capacity, as well as a sociocultural context that contributed to the spread of infection. Infections were not limited to the isolated, rural locations that had kept outbreaks in other countries in check.

Near the end of June 2014, Médecins Sans Frontières, or MSF, declared that this "unprecedented" outbreak was "out of control"¹ and that it had reached the limits of its ability to respond. Its urgent plea for international assistance and resources went largely unheeded until early August when the World Health Organization declared Ebola a "public health emergency of international concern,"² catalyzing the largest Ebola response ever mounted.

CRS, through its longstanding partner relationships, was uniquely positioned to respond in several specific, tailored ways to this urgent, complex situation. This document provides a glimpse into eight CRS interventions across the region that contributed to conquering the outbreak:

1. From fear to life-saving community action in Sierra Leone
2. Building a culture of safety among Guinea's health care workers
3. Strength in numbers: Bringing Catholic hospitals together in Liberia
4. A great improvement: Reopening St. Joseph's Hospital in Liberia
5. Logistics and fleet management the backbone of Sierra Leone's national response
6. A safe and dignified process: Helping Sierra Leone bury its dead
7. The unsung heroes: Supporting burial workers in Sierra Leone
8. Addressing stress, fear, loss and grief among children in Sierra Leone

Reviewing the experience of these interventions and with the added value of hindsight, this document articulates how CRS reinforced future health system resilience while addressing immediate needs, even during a complex emergency. Bringing hope and solidarity alongside technical expertise and resources contributed not only to ending the Ebola epidemic but to the ongoing transformation of health systems in all three countries.

Introduction

THE LARGEST, MOST COMPLEX EBOLA OUTBREAK IN HISTORY

The largest Ebola virus disease (EVD) outbreak in recorded history began in December 2013 in Guinea, spreading to neighboring Liberia in March 2014, and to Sierra Leone in May 2014.

Inexperienced, unprepared and completely under-resourced,³ actors involved in the initial response focused on containment, with the establishment of treatment centers, improved surveillance and contact tracing. Infection rates, however, rose exponentially as new clusters emerged rapidly and unpredictably.

Reports of this very infectious, highly fatal virus with no viable vaccine and no known cure caused widespread fear. Early efforts to spread the word about the dangers of Ebola inadvertently reinforced fear and hopelessness, and served to fuel the outbreak. Some people said, “If I will surely die, why should I seek treatment?”⁴ Those in contact with infected persons began to evade screening programs and patients absconded from treatment centers.⁵

Health workers, fearful and lacking protection, refused to place themselves (and their families) at risk, which forced many clinics and hospitals to close. Basic health services suffered, and maternal-child health services and malaria control efforts slowed to a trickle. In Liberia, 62% of health facilities, both private and public, closed their doors to the public.⁶

In contrast to previous outbreaks that were primarily rural and localized, the situation in West Africa was no longer an outbreak—it was an epidemic, affecting nearly the entire territory of the three most affected countries, in both rural and urban areas.⁷ By July 2014, the West Africa outbreak was threatening to reverse hard-fought recent gains in health, governance, security and economic development across the region.

A Public Health Emergency of International Concern⁸ was declared by the World Health Organization (WHO) in August 2014, which drove the desperately needed release of funding and technical expertise, along with the political clout necessary to carry out a concerted response. The declaration was maintained until March 2016, by which time 28,616 cases had been confirmed in nine countries,ⁱ 11,310 people had died,⁹ and 23,588 children had lost one or both parents, or their primary caregiver.¹⁰ Without a doubt, this event was of a magnitude far greater than its predecessors: The very worst of all prior outbreaks had occurred in 2000 in Uganda, where a total of 425 infections were identified and 224 people died.¹¹

i. Cases in this outbreak were confirmed in Nigeria, Senegal, Guinea, Liberia, Mali, Sierra Leone, Spain, the United Kingdom, and the United States.

A BACKDROP OF POVERTY, FRAGILE HEALTH SYSTEMS AND CRUMBLING HEALTH INFRASTRUCTURE

Health services across the region were notoriously under-resourced and characterized by the public's limited access to primary care.

The West Africa Ebola epidemic of 2014-2016 put into stark relief the global consequences of failing to sufficiently address the destructive effect of years of conflict and civil war in the three most profoundly affected countries. **In fact, it was the glaring weaknesses in health systems in these countries that allowed the disease to become a full-blown epidemic.**

Across the region, an acute shortage of skilled health workers meant that diagnostic capacity and clinical management were grossly substandard. Most health facilities operated without functional triage and isolation spaces, and with inadequate sources of water for hygiene and disinfection. Personal protective equipment (PPE) and supplies required to implement standard infection prevention and control (IPC) measures were almost non-existent, and health workers did not know how to use them. Health managers lacked relevant expertise and an adequate communication and transportation infrastructure needed to support surveillance, training and monitoring activities, let alone to transport laboratory samples, supplies, patients or the bodies of those who had succumbed to the disease.

Adding to the complexity in all three countries, a significant proportion of health services are provided by private for-profit, private non-profit and traditional providers. Operating without government support in both rural and urban areas, many services are unlicensed and unregulated. Without access to government trainings, supplies or supervision, there was no consistent approach to management of the health emergency, and untrained service providers unwittingly contributed to the spread of infection and case fatality rates.

Ebola virus disease is introduced to humans through direct contact with the blood or other bodily fluids of infected animals—such as fruit bats, chimpanzees or gorillas—or when preparing meat from an infected animal. Ebola then spreads between people via direct contact, through broken skin or mucous membranes, with the blood, secretions or other bodily fluids of infected people, and with contaminated surfaces and materials, such as bedding and clothing.

Infection with Ebola is often fatal if untreated. The interval from infection to the onset of symptoms is 2 to 21 days. Humans are not infectious until they develop symptoms, which include fever, fatigue, muscle pain, headaches and a sore throat. Impaired kidney and liver function can lead to internal and external bleeding. It may take up to three days after the onset of symptoms for the virus to reach levels detectable by available laboratory tests.

Early supportive care with rehydration and symptom management improves survival. Because corpses have high viral loads, ceremonial washing and touching of the body during burial preparation are often responsible for multiple chains of transmission.

—WHO Ebola Virus Disease Factsheet

Bringing Ebola-related public health measures to communities was at least as fraught as providing clinical services: **fear, poverty and lack of education were key contributors to the epidemic.** The three afflicted countries are among the poorest in the world, scoring among the bottom 12 on the Health Development Index.¹² Large populations, historically marginalized and suspicious of their governments, relied on rumors and myths to guide protective and care-seeking behaviors. Information dissemination, case confirmation, contact tracing and safe burial efforts were often met with hostility and evasion.

As land borders closed and several airlines suspended international flights,¹³ the evacuation began of international volunteers, and the staff and families of aid organizations, diplomatic missions and the private sector.¹⁴ Several international NGOs suspended operation completely. International medical insurance carriers were unable to guarantee such a complex evacuation.¹⁵ The chaotic environment and high risk of infection made it difficult to recruit skilled international staff because, until October 2014, there was no formalized mechanism for the medical evacuation of those who might contract Ebola. Neither was there any assurance of access to a sophisticated treatment site that might offer a better chance of survival.

CRS STEPS UP WITH RELEVANT EXPERTISE

Recognizing multiple evolving demands, each requiring specific technical support, CRS mobilized much-needed human resourcesⁱⁱ not only from within the agency but also from its global Catholic network. CRS, from the springboard of its longstanding relationships and its programming footprint in all three countries,^{16,17,18} conducted rapid assessments and analyses to home in on critical gaps and identify the best responses with partners. In Sierra Leone and Guinea, CRS' strong relationship with the health ministries and within the NGO community provided easy access to information and prompt entry with rapid decision-making.

CRS' response to Ebola demonstrates its ability to step into an evolving crisis to provide what is needed, where it is needed through partnerships that ensure contextual relevance and effectiveness.

Leveraging its relationships with the faith community, and acknowledging the heightened risk, fear and distrust surrounding this epidemic, CRS engaged influential leaders and community members to serve as change agents in their own communities. Empowering them with relevant information and methodologies, CRS supported these community leaders to carry out front-line activities that promoted life-saving changes in attitudes and behavior in the affected areas.

Putting core values into action, CRS demonstrated compassion and esteem for communities of all faiths by supporting the deployment of "safe and dignified" burial teams. Trained burial teams served the most heartfelt need of their communities: the need for reassurance that their lost loved ones would be buried with respect and in accordance with the long-held traditions of their faith. Not only did this approach help bereaved families gain some measure of comfort and closure, but the safe handling of still-infectious bodies was credited as being vital to breaking the chain of infection.¹⁹

Alongside gaining the trust and cooperation of communities, CRS introduced targeted approaches to strengthen health systems to ensure the delivery of safe, prompt and effective health care. This entailed rolling out a rigorous IPC training and quality control package in Guinea; tackling significant water, sanitation and hygiene interventions in Guinea and Liberia; creating a network of Catholic health facilities in Liberia to better resource and coordinate their activities; and guiding the phased reopening and restoration of Liberia's largest Catholic Hospital, St. Joseph's, which had been overrun by the epidemic.

Maintaining close communication and productive relationships with local governments, U.N. agencies, the NGO community and other stakeholders, CRS ensured the coordination of activities and consistent messaging. Across the region, the operations, procurement, logistics and finance teams provided crucial behind-the-scenes support that allowed programming to run at full capacity under extraordinarily difficult circumstances.

Addressing the psychosocial needs of orphaned and vulnerable children with knowledge gained over decades of work with HIV-affected families around the world,ⁱⁱⁱ CRS supported a range of innovative, participatory activities to tackle the distress, stigma and grief experienced by children, families and members of burial teams. Employing existing materials whenever possible ensured a speedy response time and best use of limited resources.

ii. CRS' key areas of service include emergency response and recovery, agriculture, health, education, finance, water and sanitation, justice and peacebuilding, and partnership and capacity strengthening. Each service area employs staff with decades of technical expertise and field experience.

Doing What Was Needed, Where it Was Needed

CRS' cascade model for community change agent training ensured that every targeted community gained direct access to consistent, resonant messaging from multiple familiar, trusted sources.

CRS' regional response to Ebola showed its ability to step into an evolving crisis to provide what is needed, where it is needed.²⁰ As an agency, CRS operates from the strength of its relevant technical experience and through the lens of partnership, threading compassion and respect through each intervention. What follows are snapshots of what it was like to work under intense pressure and daunting circumstances.

1. FROM FEAR TO LIFE-SAVING COMMUNITY ACTION IN SIERRA LEONE

In the early days of Sierra Leone's Ebola epidemic, information dissemination strategies relied on top-down methods—such as radio jingles, posters and megaphone rallies—to raise awareness and gain community cooperation in the response. But these methods failed to convey respect for important cultural norms and practices, and visiting mobilizers were greeted with suspicion, indifference, contempt and even violence. A lack of appreciation of long-held cultural beliefs and practices, a lack of dialogue and a unilateral approach to information-sharing resulted in widespread rejection of guidance around infection control measures, illness reporting, care-seeking, quarantine procedures and safer burial practices.

Drawing on decades of experience in epidemic and emergency situations, and observing the failure of initial public health messaging methods, CRS initiated its response with a barrier analysis²¹ to illuminate the specific behaviors, rooted in misinformation, fear and stigma, that motivated hazardous practices. Using the study results and leveraging access to existing Ebola communication materials, CRS created an approach that consistently promoted lifesaving Ebola-prevention behaviors through a set of relevant and engaging activities.

A multimedia toolkit was created, geared to fostering purposeful dialogue that would transform social norms in a respectful and sustainable way. The toolkit's main feature was the video, *Ebola, A Poem for the Living*,^{iv} describing a child's struggle with Ebola, which stimulated discussion around personal and community beliefs, attitudes and practices.

iii. CRS has more than two decades of experience delivering programming for vulnerable children that ensures that they and their caregivers have love, care and protection by supporting the holistic needs of children and their families.

iv. CRS acquired the rights to use this film produced in December 2014 by United Methodist Communications and Chocolate Moose Media.

In partnership with authorities in targeted communities, CRS recruited and trained more than 200 influential religious leaders, business leaders, women's group leaders, teachers and youth to serve as first-line trainers, or FLTs. These trusted community gatekeepers would lead the movement to shape protective behaviors in their own communities by training peer leaders at the village level, and thus supporting rapid,

lasting uptake of key messages. Each FLT trained and supported 20 to 30 peer leaders, efficiently expanding the workforce to more than 5,000 knowledgeable, trusted community change agents.

FIVE CONSISTENT BEHAVIOR CHANGE MESSAGES

1. Call 117 when someone in the household is sick or has died.
2. Do not touch or wash the body of a deceased person.
3. Wash hands with soap and water.
4. Avoid unsafe burials.
5. Go to a health facility if a household member is unwell.

The combination of travel and public assembly bans, public transport disruption, quarantine and fear kept many people

in their homes, and forced community change agents to rely heavily on home visits. Consulting with local authorities to develop activity plans, the peer leaders sensitized community members by going from house to house and, when possible, during normal day-to-day interactions, national mobilization exercises and as part of religious services. Importantly, community change agents presented themselves with humility, respect and patience to ensure their messages de-escalated tensions and were well-received.

Maforiki Cemetery in Port Loko, Sierra Leone, contains the graves of over 1,000 Ebola victims. A variety of government organizations and NGOs, including CRS, collaborated in Port Loko for over a year to effectively respond to the Ebola outbreak. CRS managed the fleet of vehicles responding to the crisis and trained people in safe and dignified burial procedures.

Photo by Laura Elizabeth Pohl for CRS



Over nine months, CRS-supported community change agents in Sierra Leone reached more than 580,000 people in the targeted districts (Table 1). They also held bi-monthly community dialogue sessions to discuss experiences, report myths and explore strategies to address community issues. These meetings ensured that challenges were addressed promptly and that relevant adaptations were made as the crisis evolved.

TABLE 1: COMMUNITY CHANGE AGENT REACH IN SIERRA LEONE					
District	No. of trained community change agents		No. of individuals reached directly	No. of community dialogue sessions held	No. of individuals reached through community sensitization
	First-line trainers	Peer leaders			
W/A Rural	25	750	12,500	40	337,440
Port Loko	30	1,050	2,000+	48	
Bombali	35	900			
Bombali	50	1,000	89,860	0	140,000
Koinadugu	70	1,400			
Totals:	210	5,100	104,360+	88	477,440

Faith leaders contributed significantly to easing community tensions by visiting quarantined households, modeling the recommended behaviors, endorsing the valuable efforts of burial teams, and attending burials to offer prayers and support to bereaved families. And they reinforced the newly established by-laws aimed at protecting Ebola survivors, burial teams and children orphaned by Ebola from stigma and discrimination.

While the majority of change agents worked in their home communities, four special rapid response teams (RRTs) were trained to support emerging hotspot communities. CRS coordinated the dispatch of these teams to new Ebola outbreaks where they provided the initial household contact and sensitization around key behaviors. CRS also recognized the value of a pre-emptive approach with at-risk communities; and so deployed these teams to build relationships where active cases had not yet been identified.

Rapid response teams reached 91 hotspot communities through emergency deployments, while forging relationships in hard-to-reach communities, assisting them to remain Ebola free and ensuring they were prepared should a swift response be necessary (Table 2).

TABLE 2: RAPID RESPONSE TEAM REACH IN SIERRA LEONE				
No. of rapid response teams	No. of communities reached by emergency deployment	No. of communities reached by standard deployment	No. of households reached	No. of individuals reached through household visits
4	91	455	20,138	140,512

Gradually, communities assumed ownership of their role in the Ebola response at the individual and household levels, embracing behaviors that reduced exposure and supporting individuals suspected of infection to seek prompt and effective care.

2. BUILDING A CULTURE OF SAFETY AMONG GUINEA'S HEALTH CARE WORKERS

Guinea's Ebola outbreak was formally identified on March 23, 2014, when it became apparent that multiple unrecognized chains of transmission had festered for months.²² Fear gripped the country, triggering attacks on Ebola treatment centers, hospitals and even health personnel.²³ Unprepared for its first-ever Ebola outbreak, the government of Guinea and its international partners were slow to mount a coordinated response.²⁴

Guinea's health system was profoundly under-resourced and among the weakest in the world. Response efforts were hampered by widespread stock-outs of IPC supplies and PPE, and by gravely substandard water, sanitation and waste management infrastructure. Inadequate understanding of IPC, exposure to undiagnosed patients and cadavers, and lack of triage and isolation areas and procedures put health care workers and other patients directly at risk.²⁵ Unable to protect their patients or themselves, and with over half of health care worker Ebola infections ending in death,²⁶ staff began refusing to report to work.

“ Before the Ebola period, there was a total lack of respect for protocols. Gloves were not available in large quantities. Bleach was also insufficient. This is why there were many victims even among staff. Four among us died because preventive measures were not respected. We almost closed the health center because patients were afraid of us and we were afraid of them.”

—HEALTH CARE WORKER, SÉRÉDOU HEALTH CENTER

Wherever public health service is complemented by the provision of private services, coordination and standardization are often challenging and heavily politicized, even under normal circumstances. In Guinea, private health service providers—both faith-based and for-profit—were initially excluded from government support, and continued to provide services as best they could without access to life-saving information, supplies or equipment. They continued to provide regular health care services in the absence of sufficient infection control measures, and without the knowledge or resources to triage, diagnose and treat Ebola infection. Some provided incorrect information to patients, and many staff were exposed to infection. Infectious patients were released into the community while others received ineffective treatment. Unregulated and unsupported, this large and important constituency of health providers was inadvertently impeding containment efforts and contributing to the spread of infection.

CRS began its engagement in October 2014 through a two-pronged approach, focused on 1) establishing an IPC training and quality assurance program for health care workers (both clinical and non-clinical)^v to ensure safety and restore public confidence; and 2) creating and upgrading the WASH capacity of selected health centers to support IPC adherence in the long term. CRS' response to Ebola had to be more than reactive; it was imperative that the highest priority be given to systemic, structural solutions that would have a long-term, protective effect on the provision of health services.

v. Non-clinical health care workers included administrators, drivers, cleaners, security guards, burial teams, community mobilizers and others.

Supporting the immediate need for a large-scale training rollout, CRS identified 80 candidates for a four-day training-of-trainers course, led by master trainers from the Centers for Disease Control, World Health Organization and Guinea's Ministry of Health. Some 42 high-performing graduates were then retained to facilitate the IPC training rollout. Over the following 12 weeks, CRS facilitated the rapid deployment of this training team to targeted prefectures, where they delivered emergency two-day trainings to 3,673 front-line doctors, nurses, midwives, health technicians and sanitation workers from both public and private hospitals (Table 3).

TABLE 3: NO. OF HEALTH CARE WORKERS WHO RECEIVED THE INITIAL TWO-DAY EMERGENCY TRAININGS DURING THE FIRST 12 WEEKS

Prefecture	Public	Private, including clandestine	Military	Mixed*	Other	Total
Nzérékoré	787	286	1	2	4	1,080
Macenta	355	49	0	0	0	404
Kérouané	115	0	4	0	0	119
Conakry	1,117	929	24	0	0	2,070
TOTAL	2,374	1,264	29	2	4	3,673

*"Mixed" refers to health care workers working in both private and public facilities.

“CRS knew that just training and handing out supplies to health care workers would not be enough. We knew that we had to keep health care workers safe today, but at the same time we had to reinstate the systems and mechanisms that would help us avoid future similar disasters.”

—DIANKA DIABY, DEPUTY HEAD OF PROGRAMS, CRS GUINEA

Some of Guinea's private health facilities are referred to as “clandestine,” meaning that they are not only unlicensed and illegal, but also provide health services in secret, unmarked locations known only to their patients. CRS took a proactive stance and included the staff of clandestine health facilities in its training rollout and supply-chain network. This inclusive approach was key to attaining the training coverage levels required to interrupt all remaining chains of infection and, as quickly as possible, achieve and sustain “a resilient zero.”²⁷



A nurse at a triage center at St. Joseph's Catholic Hospital in Monrovia, Liberia. Catholic Relief Services helped fund this center and others like it in Liberia during the Ebola crisis.

Photo by Laura Elizabeth Pohl for CRS

“*The training sites always attracted huge crowds and the highest demand always came from private and clandestine health facilities. They wanted the training just like the other health care workers. They knew they were at risk because they were untrained and unequipped, and that their patients were like a pool of ongoing infection, triggering new outbreaks everywhere. As CRS, the right thing to do was to respond.*”

—DIANKA DIABY, DEPUTY HEAD OF PROGRAMS, CRS GUINEA

CRS trainers strove to meet the specific needs of trainees from widely varied educational and professional backgrounds, with a range of language proficiencies. By dividing trainees into compatible groups based on literacy levels, language groups or job categories, trainers were able to customize both content and approaches. CRS emphasized hands-on practice with supplies and equipment as well as practical problem-solving exercises that required trainees to apply IPC principles in various scenarios. For many trainees, their prior exposure to PPE and IPC supplies was minimal and they were reluctant to adopt a single-use approach to such precious commodities.

CRS complemented training efforts by distributing PPE and IPC materials to 200 health facilities. Tangible items included medical, maternity and rubber gloves; medical face masks; single-use gowns and waterproof aprons; waste-management kits and sharps boxes.

“*The most important change is the hand-washing ... Before the training, we lost seven of our colleagues. After the training and the practice, there have not been any more staff deaths in the hospital. It is a big success for us.*”

—HEALTH CARE WORKER, MACENTA PREFECTURAL HOSPITAL

Health care workers' newfound knowledge instilled a sense of confidence and improved the relationships between providers and patients, and between communities and health facilities. Evidence of a culture of safety began to restore the communities' trust in health facilities and, gradually, patients began seeking care for the more common—but often urgent—needs that had been overshadowed by Ebola, such as childhood illness, safe deliveries and malaria.

“ Before the training, during the epidemic period, I was scared of coming to the clinic. After the training, I had courage; I knew that I was protected. The fear that was everywhere had disappeared.”

—HEALTH WORKER, VOTRE FAMILLE PRIVATE CLINIC

KEY IPC PRACTICE AREAS

1. Solid and clinical waste management and disposal.
2. Environment and surface cleaning/decontamination.
3. Treatment of medical instruments and equipment.
4. Screening, triage and patient flow.
5. Preparation and preservation of chlorine solutions.
6. Hand hygiene.
7. Procedure for putting on and removing personal protective equipment.
8. Injection/test safety and management of sharps.
9. Support of activation/reactivation of hygiene and security committees.
10. PPE stock management.

Over the next several months, gaps were identified in the original two-day emergency IPC curriculum. WHO and Guinea's health ministry then developed a comprehensive five-day training in IPC for Ebola and other infectious diseases, as well as a three-day training on screening and triage protocols. CRS identified 16 individuals for a two-week national trainers course provided by WHO, and supported the rollout of the updated training program to over 1,000 front-line health care workers.

To promote the sustainability of its IPC investment, CRS introduced quality assurance (QA) personnel to monitor 10 key IPC practices and

provide direct support to health care workers. The QA model was gradually refined and expanded to include 50 QA monitors, supporting 77 facilities and overseen by eight QA supervisors.

While the on-site coaching and distribution of supplies enabled immediate behavior change in the short term, the QA monitoring and supervisory activities were credited with institutionalizing essential IPC practices and a culture of safety in the long term. The changes instilled through training and QA support demonstrated that even cash-strapped facilities were able to implement and maintain the IPC activities critical to the safety of staff and patients.

“ Now, if you go through consultation rooms or others, you will see disinfectant everywhere. Nobody deals with a patient without washing their hands anymore.”

—HEALTH CARE WORKER, MACENTA PREFECTURAL HOSPITAL



Members of a decontamination unit wash a vehicle used to transport Ebola victims.

Photo by Laura Elizabeth Pohl for CRS

3. STRENGTH IN NUMBERS: NETWORKING KEEPS HOSPITALS OPEN IN LIBERIA

It is estimated that half of all Liberia's health care facilities are privately owned²⁸ and independently operated, in isolation from each other and outside the purview of the Ministry of Health and Social Welfare (MoHSW). At the onset of the Ebola outbreak, these facilities—including faith-based and for-profit—were excluded from the emerging national response and left without guidance or support. Liberia's 18 Catholic hospitals were among those sidelined from the government's response. They had never been formally coordinated at a national level, were not bound by any uniform structure or set of standards, and were not formally acknowledged by the MoHSW.

Between March and July 2014, the three diocesan health coordinators, along with their colleagues at the Mother Patern College of Health Sciences (MPCHS),^{vi} scrambled to apply temporary solutions. They procured and distributed basic IPC materials and basic information. Facilities became increasingly crippled, however, under the weight of the mounting crisis. A pervading sense of helplessness arose as patients—fearful of coming to health facilities—died not only of Ebola, but also of malaria, diarrhea or complicated deliveries. In August 2014, the deaths of the director and eight staff members of St. Joseph's Catholic Hospital, the largest Catholic health facility in the country, heralded the need for a more strategic response to the unfolding crisis.

The situation had exposed the urgent need for a platform from which these hospitals could advocate for their needs, share their limited resources and coordinate their responses.

vi. Mother Patern College of Health Sciences is one of the five colleges within the Stella Maris Polytechnic, under the Catholic Archdiocese of Monrovia. MPCHS awards degrees in nursing, social work, laboratory technology, and biology, as well as a certificate in health care systems management.

Offering solidarity and strength in numbers, the National Catholic Health Council (NCHC) was formally launched in August 2014 as a management and coordinating structure for all Liberia's Catholic health facilities. To effectively serve its membership, the NCHC rapidly assembled its own operations and monitoring capacity. It renovated office space and hired essential staff to support training, resource mobilization, financial management, data analysis and advocacy efforts. Its most pressing mission was to ensure that Catholic health facilities remained open and were able to safely provide essential services during the Ebola outbreak. NCHC's approach was two-pronged: 1) to inculcate IPC practices through training, mentoring, monitoring and the provision of supplies; and 2) to create triage and isolation spaces in several facilities.

To kick-start critically needed IPC training, the NCHC deployed an international IPC specialist to provide correct information and address mounting fear and stigma. Simultaneously, CRS developed a training of trainers to extend and reinforce the initial emergency trainings and introduce the supervision and monitoring structure. Several selected MPCHS professors were trained in Liberia's Keep Safe, Keep Serving (KSKS)^{vii} protocol to guide health facilities in the rapid identification, isolation and care of Ebola patients as they awaited transfer for treatment. Support from CRS and other partners helped the NCHC distribute essential IPC materials and supplies to member facilities, and provide salary supplements for health workers.

Operating from the NCHC secretariat, the master-trainer teams rolled out trainings and provided supportive supervision to diocese-level IPC supervisors. IPC supervisors were responsible for cascading trainings and the supervision of member facilities while the NCHC team provided round-the-clock support. A common sense of purpose, care and concern underscored all communications.

Members of a decontamination unit disinfect themselves after cleaning a vehicle used to transport an Ebola victim.

Photo by Laura Elizabeth Pohl for CRS



vii. The Keep Safe and Keep Serving protocol was developed by the Guinea National IPC Task Force and adopted by the Government of Liberia.

“*The emphasis was on keeping health workers safe. Trainers would go in and say ‘Our priority is to keep you safe.’ When a health worker heard that, they felt good.”*

— SISTER
BARBARA
BRILLIANT,
ACTING
DIRECTOR,
NCHC

As trainings were rolled out, work began on rehabilitating essential infrastructure to support the implementation of IPC protocols. Without a triage procedure or a safe space to isolate suspected Ebola cases, facilities were often forced to place suspected Ebola patients in their emergency rooms until an ambulance arrived to transfer them to an Ebola treatment unit. At the height of the epidemic, this process often took days, rendering this high-demand space out of use and forcing staff to make difficult decisions.

Representing several health facilities under a unified banner, the NCHC was able to efficiently generate multiple resource streams for the construction of triage stations at its member facilities. Permanent isolation spaces, called community care centers, were constructed at several sites while others were fitted with temporary isolation or holding tents. Between October 2014 and December 2015, 361,758 people—including 1,104 health care workers—were processed through the safe, updated triage procedures at NCHC facilities. An international consultant and local team assessed urgent WASH needs and identified skilled labor to implement a comprehensive plan. Upgrades ensured each facility had a functioning incinerator, ash and placenta pits, and functioning toilets. Safe, reliable water access was prioritized across all NCHC member facilities, resulting in well rehabilitation at 10 facilities, and the construction of rainwater harvesting systems and water towers at two facilities.

The formalization of NCHC created a mechanism to bring Catholic health facilities under the umbrella of government, ensuring consistency and standardization of trainings, care protocols and public messaging. NCHC provided a responsive member network to relay government messages quickly and accurately to the public. A celebrated turning point occurred in March 2015, when the faith-based and private health facilities were included in the MoHSW/CDC funding algorithm alongside those run by government, allowing NCHC health facilities to access MoHSW funding subsidies.

“*There was concern about keeping routine health services open, accessible and safe, such as for management of childhood illness, malaria treatment and safe childbirth. CRS helped NCHC with hospital infrastructure and operations upgrades while they were doing Ebola triage and referral. That was what our partners wanted, and that’s where our expertise was.”*

— JENNIFER POIDATZ, VICE PRESIDENT, HUMANITARIAN RESPONSE DEPT, CRS

NCHC membership positioned Catholic health facilities for life-saving IPC and WASH upgrades, delivered crucial trainings and materials, and reduced the transmission of Ebola at health facilities. Health workers were able to “keep safe and keep serving,” and public confidence was gradually restored. NCHC’s ongoing monitoring and surveillance training ensures that facilities remain prepared and responsive to potential threats. Facility-level IPC focal points have maintained a rapid-reporting system for alert cases and a standard reporting structure for submission of routine data to the MoHSW.

The NCHC continues to support its member facilities individually and collectively. The common values, vision and mission of the health facilities, demonstrated by activities carried out in a standardized, quality manner, indicate a steadily growing sense of agency.

4. A GREAT IMPROVEMENT: REOPENING ST. JOSEPH'S CATHOLIC HOSPITAL IN LIBERIA

Coordinated NCHC support ensured Catholic facility health workers “kept safe and kept serving” when many other health facilities across the country were forced to close.

St. Joseph's is a nationally renowned, full-service referral hospital with a proud history built on five decades of service. Prior to the 2014-15 Ebola epidemic it was financially self-sufficient, with 140 in-patient beds, three operating theaters and top-quality maternity facilities. But St. Joseph's was unprepared for the scale and urgency of the Ebola outbreak. By July 2014, the mandatory quarantine of several staff, the evacuation of foreign doctors and the exodus of fearful and traumatized staff members severely curtailed delivery of both Ebola-related and routine services. On August 4, 2014, after the deaths of nine hospital staff, including the hospital's director, St. Joseph's was forced to close.

For the next four months, CRS stepped in to support the interim management team, appointed by the Catholic Archdiocese of Monrovia, while the facility was properly disinfected, and triage and isolation spaces were constructed. During this time, CRS organized IPC trainings for both clinical and non-clinical staff, and procured essential IPC and PPE equipment and supplies.

CRS' timely, strategic responses enabled St. Joseph's to reopen safely on November 24, 2014, with limited staffing addressing the community's most urgent needs while long-term rebuilding and renewal efforts continued. The phased reopening allowed CRS to support the management team to address multiple clinical and operational challenges. Action plans were guided by the six building blocks of WHO's Health Systems Strengthening (HSS) Framework,²⁹ underpinning substantial commitments of financial and technical assistance for both immediate actions and longer-term developments.

REVITALIZATION ACHIEVEMENTS GUIDED BY WHO HEALTH SYSTEMS STRENGTHENING FRAMEWORK

1. Health service delivery

- Constructed triage and isolation spaces.
- Introduced a waste-management system and hand-washing stations.

2. Health workforce and human resource development

- Hired a hospital director and social worker.
- Recruited and trained key clinical and non-clinical staff.
- Supported salaries for more than 80 hospital staff, including hazard stipends.
- Organized IPC trainings for all staff.
- Organized technical trainings in ambulance management, critical care and basic life support.
- Organized in-service trainings in neonatal intensive care.

3. Information systems

- Established electronic medical records system.
- Installed fiber-optic internet connection.
- Provided IT equipment (laptops and electronic tablets) for monitoring, evaluation and supply chain management.

4. Medical products and technologies

- Supported development and improvements to supply chain management system.
- Supplied PPE, IPC supplies and equipment.
- Provided and installed high-end lab equipment and trained users.

5. Health care financing

- Established financial management system.
- Developed and piloted charity care system.

6. Leadership, governance and stewardship

- Trained all staff on HR protocols including attendance timesheets.
- Led refresher trainings for HR director.

CRS invested heavily in providing in-service training as well as brokering and supporting high-end training opportunities in both clinical and non-clinical areas. It supported staff salaries and hazard-pay allowances, and covered other critical operating expenses often overlooked by donors, such as generator fuel, security expenses and airtime allowances for communication. CRS provided IPC supplies and advanced PPE such as anti-fogging goggles and ice-pack-laden cooling vests; and installed biomedical and laboratory equipment in the pediatric, newborn and maternity wards. The expansion of services and new triage protocols ensured that staff could place patients according to their symptoms, identify higher-risk cases and handle each patient with confidence.

CRS support was pivotal in developing a health management information system and for the improved technical capacity in supply chain management. St. Joseph's is moving toward becoming the first hospital in Liberia with computerized information systems, despite the transition from paper being slowed by unreliable internet connectivity and the lack of bio-technicians.

To safeguard the financial viability of St. Joseph's operations, CRS focused on improving financial management through the training and mentoring of finance, human resources and procurement teams. A new project officer position now ensures professional management of donations from different sources. Experienced consultants provided extensive support for developing St. Joseph's five-year strategic plan, as well as planning the pilot of a charity care model that would subsidize health-service costs for the hospital's poorest patients.

Since its reopening, St. Joseph's Catholic Hospital has gradually reached full operating capacity, with over 120 beds and more than 170 staff. The targeted HSS strategies and efforts have transformed how the hospital operates and delivers patient care. Patients, fearful during the outbreak, were greatly encouraged when they witnessed the return of staff, the on-site trainings and the presence of international doctors and foreign partners.

Reinvigorated through partnership, St. Joseph's has emerged as a more resilient health care facility, better prepared to address future health system and emergency challenges.

“CRS has been a very good, healthy partner; a partner that is not only there to give to you, but to teach you how to stand alone tomorrow. Now, in terms of other outbreaks, we'll be able to manage them.”

—BR. PETER DAWOH, HOSPITAL DIRECTOR



A health care worker takes a woman's temperature at an Ebola checkpoint near Port Loko, Sierra Leone. At the height of the Ebola outbreak, checkpoints like this one—where people washed their hands and had their temperatures taken—helped stop the spread of the disease.

Photo by Laura Elizabeth Pohl for CRS

5. LOGISTICS AND FLEET MANAGEMENT THE BACKBONE OF SIERRA LEONE'S NATIONAL RESPONSE

The scale and urgency of the outbreak quickly exceeded the limited resources and logistical capacity of the district health management teams responsible for all aspects of the response. Lack of office space, equipment and supplies, along with unreliable electricity, limited internet capability and poor mobile phone coverage hampered coordination. Lack of vehicles, slow fueling and poor maintenance of ambulances and hearses resulted in inefficient vehicle use, inconsistent decontamination, delayed burials, incomplete surveillance data collection and the further spread of disease.

Bringing decades of emergency experience to this complex situation, CRS responded to the need for functioning infrastructure for a British Army emergency response team. CRS helped establish command and control centers—the nerve centers of the response—by sourcing furniture, equipment, communications infrastructure, generators, stationery, office supplies and service contracts for command center staff and burial teams. Command centers rapidly evolved into functional workspaces for military and civilian personnel, ensuring that emerging demands—ranging from increasing Wi-Fi access to the provision of food, water and lodging for staff—were met.

“ CRS staff in their own right became the unsung heroes of the command center. It was them that kept us afloat, kept us moving—whether it be the fuel, the maintenance, or the support with food and water.”

— MICK ROBINSON, OPERATIONAL TEAM ADVISOR , UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT

A complex emergency requires the availability of transportation suitable to every activity—surveillance, community mobilization and meetings, burial team missions, ambulance runs and more. As part of the SMART^{viii} consortium, CRS responded to the urgent need for a sophisticated, national fleet management strategy. Keeping the fleet running, fueled and decontaminated was a project in itself. CRS assumed responsibility for ensuring the efficient procurement, insurance and roadworthiness of 267 vehicles and 164 motorcycles.

Maintenance and decontamination teams were hired and organized to work around the clock to service, repair and refuel vehicles to ensure their availability for urgent activities on challenging terrain.

“ Before this time, corpses decomposed for four to five days without being buried because there were no hearses to collect them. But with our fleet management intervention, we ensured that all corpses were buried within 24 hours, which helped reduce the transmission drastically.”

— YAYAH KAMARA, MAKENI SITE OPERATIONS MANAGER, CRS

viii. The consortium (Social Mobilization and Respectful Burial Through Faith-Based Alliance) provided national leadership in delivering the Safe and Dignified Burials and Fleet Management projects. World Vision was the prime recipient; CRS and CAFOD were sub-recipients.

6. A SAFE AND DIGNIFIED PROCESS: HELPING SIERRA LEONE BURY ITS DEAD

By October 2014, Sierra Leone was experiencing an average infection rate of five people per hour³⁰ with 400 to 500 confirmed new cases per week.³¹ The work of collecting dead bodies and ensuring their burial fell to a small number of volunteer workers. District health management teams were responsible for all aspects of the response, including the safe burial of increasing numbers of Ebola victims. But the scale of the epidemic outstripped the teams' ability to coordinate the myriad services needed to ensure the safety of staff, volunteers and communities. Delayed burials caused even further spread of the disease.

Logistical burdens were compounded by socio-cultural missteps and controversy. To reduce the spread of Ebola caused by the unsafe handling of corpses, the government mandated that all deaths be treated as potential Ebola cases; thus, funeral practices had to comply with specific safe-burial procedures. These government-mandated Ebola procedures stood in stark contrast to the time-honored rituals of burial carried out by family members and religious leaders as a final demonstration of love and respect.

While funeral rituals to honor the dead differ between Muslims and Christians, it is common in West Africa to wash the deceased and distribute their personal property. However, the official Ebola response procedures called for the dispatch of burial teams who would arrive, often four to seven days after the victim had died, wearing full-body protective equipment. Teams entered homes, sometimes forcibly, and sprayed chlorine across the victim's body and all potentially infected surfaces before putting the corpse into a body bag for removal to a mass grave at a centralized location. The use of standard black body bags caused alarm and anger among families whose faith dictated burial in a white shroud. Burial teams then publicly burned mattresses, clothing and other contaminated objects that could not be disinfected, before finally placing the household under isolating quarantine. Families were often left unsure of the location of the victim's final resting place, and grave markers were not consistently used.

“ *When it all started, the bodies were packed in plastic and taken straight to the cemeteries. There was no way to bring the corpse to the church. There was no way of inviting the religious leaders even to go to the hospital or cemeteries. Everything was done in haste and there was no respect for the human being.”*

— REV. FR. WILLIAM SONNY BROWNE, CATHOLIC FAITH LEADER, PORT LOKO

As grieving families were denied their sacred rituals, communities became increasingly reluctant to comply with official burial practices. Their resistance manifested in violent opposition to burial teams. Efforts to raise awareness about dangerous practices failed to change individual behaviors around caring for the dead; and traditional funerals continued in secret, where at least 20% of new infections occurred.³²

Responding to this urgent and complex emergency, CRS brought culturally sensitive expertise to the table. As part of the faith-based SMART consortium, CRS hired 750 burial and cemetery workers and, through a collaboration with WHO, the CDC, MSF and the International Federation of Red Cross and Red Crescent Societies, trained the workers on an updated version of WHO Standard Operating Procedures for safe and dignified burials.³³

The updated protocol specifically articulated the IPC-appropriate measures and included guidance for including families in decision-making and engaging the community in prayer during burial. Burial teams were configured according to the size of the district and the vehicle fleet, and with the roles and responsibilities of each member clearly defined. CRS' sensitivity to gender roles in the burial process and its commitment to gender equity in hiring ensured that each team included at least two women for the handling of female victims.

BURIAL TEAM ROLES

1. **Technical team leader** to ensure safety and adherence to infection control practices.
2. **Spokesperson** to communicate the burial process with the bereaved family.
3. **Sprayer** to disinfect the corpse, household and equipment with chlorine.
4. **Body carriers** to bag and transport the body from the home to the grave.
5. **Drivers** to drive the team's hearse and personnel transport vehicles.

NB. Each burial team eventually included at least two female members.

“As women we were employed to be part of the burial team in order for us to attend to a woman who had died. The female members in the burial team were allowed to enter the room first. We attended to her, and then we let the men enter the room.”

— BURIAL TEAM MEMBER, BOMBALI DISTRICT

The burial teams' work was profoundly grim and backbreaking work. These unsung heroes played a huge role in breaking the chain of infection and protecting affected communities from further stress and loss.

CRS' longstanding relationships in the faith community and its respect for local authority also ensured that burial teams were supported by community representatives, headmen or paramount chiefs who would help them locate the household and initiate the burial process. On arrival at the home, the team spokesperson met with the family wearing ordinary clothes (in contrast to their teammates, who wore full protective gear) to understand the family's specific requests for managing the burial.

With the permission and cooperation of the family, burial team members were able to wash, dress and perfume the body according to the family's instructions, place the required body bag into a traditional coffin, facilitate the observation of safe burial prayers and rituals, transport and bury the body, and ensure the grave was clearly marked.

From October 2014 to November 2015,^{ix} the SMART consortium carried out 36,533 burials, of which 3,956 were confirmed Ebola deaths.³⁴ Ensuring the burial of Ebola victims within 24 hours of reporting, in a safe and dignified manner, transformed the overall Ebola response and outbreak. CRS' robust systems and reliable internal controls ensured an optimal fleet of burial vehicles and prompt, reliable payment of burial teams. Notably, throughout the burial teams' work, no burial workers became infected and no Ebola transmissions were recorded—an unambiguous testament to the teams' adherence to protocols, refresher trainings, spot-checks and supervision.

ix. Standby burial teams continued to carry out burials until March 31, 2016.



CRS trained more than 3,000 health care workers to understand when and how to use personal protective equipment. The training included critical information on proper hygiene, such as effective hand washing and sanitation. While health workers at Ebola treatment units were at the highest risk, health workers around the country were particularly vulnerable as any may have come into contact with an Ebola-infected person who was unaware of their status. Photo by Michael Stulman/CRS

7. THE UNSUNG HEROES: SUPPORTING BURIAL WORKERS IN SIERRA LEONE

At the height of Sierra Leone's epidemic, burial workers were working seven days a week and faced intense stress both on the job and at home. They were engaged in the most sensitive part of the response, from both a medical and social perspective. Poor infection control practices and limited access to PPE placed them at personal risk. Their own families and communities responded with fear, often rejecting and isolating them from tangible support. Where official Ebola control procedures violated cultural burial customs and traditions, the burial team's efforts were frequently misunderstood and actively resisted by the households they aimed to serve.

“ No sooner had I started working as a sprayer in the burial team than my house was isolated and later I was driven from my community for fear of spreading the disease. The entire Muslim community banned me from entering any mosque. I was later forced to stay in the cemetery area.”

— IMAM AND BURIAL TEAM MEMBER³⁵

Therefore, it was not surprising when burial workers began reporting multiple manifestations of distress. They described nightmares, hopelessness, isolation, poor concentration, intrusive thoughts and memories, sleep difficulties and crying easily.

Drawing on its experience with volunteer caregivers and emergency responders in other contexts, CRS, with our SMART consortium partners, facilitated the engagement of Christian and Muslim faith leaders, who drew on Biblical or Quranic foundations to provide counseling on resilience and courage.^x As burial teams gathered for breakfast before setting off to work, they met with spiritual leaders who reaffirmed their value and the importance of their efforts and helped teams discuss issues of distress. This “care for the caregiver” approach was critical to maintaining motivation and resilience under extremely strenuous circumstances.

As the epidemic began to wane, CRS identified the need to shift psychosocial support toward preparing burial workers for the daunting prospect of reintegrating into their home communities. CRS worked with the Community Association for Psychosocial Services (CAPS) to develop a two-week intervention to enable burial workers to debrief their experiences and to inculcate the value of their contribution in bringing Ebola under control. A series of structured group counseling sessions used an interactive methodology to focus on stress reactions and management, and to build coping skills and resilience strategies. CAPS posted teams of trained counselors in the targeted districts where they facilitated workshops with all 26 burial teams. Sharing experiences in this safe, constructive environment fostered increased self-awareness and the adoption of positive coping mechanisms.

In May 2015, the Bond Humanitarian Service Award was awarded to the SMART Alliance Safe and Dignified Burial team for their courageous service and contribution to curbing the EVD epidemic.

“Most [burial team members] were talking about the trauma of burying more than 20 corpses a day. We gave them some techniques to handle stress and our counselors [helped them] understand that their reactions to these situations were the reactions of a normal human being.”

— EDWARD BOCKERIE, DIRECTOR, CAPS

In preparation for the challenges they knew they would be facing, participants ended the training with goal-setting exercises, articulating concrete plans for successful community re-entry and “life after Ebola.”

A burial team departing from Kabala, Sierra Leone. CRS supported the District Medical Office with the safe and dignified burials of Ebola victims in three districts in Sierra Leone. CRS also supported the grave diggers in three designated cemeteries.

Photo by Donal Reilly/CRS



x. Preliminary training workshops were provided by Channel of Hope and administered by World Vision through the SMART consortium partnership.

8. ADDRESSING STRESS, FEAR, LOSS AND GRIEF AMONG CHILDREN IN SIERRA LEONE

“Playing games and cards, using drawing, singing and dancing, heals faster and more sustainably than one-on-one counseling. Traditional counseling methods rely too much on talking. We needed practical things.”

—ALFRED THULLAH,
PROGRAM
MANAGER,
CARITAS MAKENI

Undeniably, Ebola-affected families and children experienced overwhelming psychological stress. Alongside the loss of family, friends, community members and trusted service providers, some suffered the loss of their homes and personal belongings, burned to reduce the risk of infection. Those infected with Ebola suffered weeks of illness and clinical isolation, only to face discrimination and social isolation when they recovered. School closures across Sierra Leone left children without structure, stability, stimulation or peer socialization. Orphans taken in by extended family struggled to integrate into their new families, often competing for food and basic necessities. Rapid assessments raised concern about girls forced into early marriage, child labor and a growing number of orphans on the streets.

CRS has several decades of experience working with the orphans and vulnerable children of the HIV pandemic as well as children in distress in other settings. Bringing this expertise to bear alongside Caritas and other local partners in Sierra Leone, CRS introduced a range of innovative, participatory activities to tackle the distress, stigma, grief and fear experienced by children and their families. With IsraAID, CRS developed the training guide, *Psychosocial Support Manual for Children in School* to help community volunteers and teachers provide psychosocial support. The guide was supported by a five-part video series produced in local languages. The films carefully presented Ebola-related scenes to help children identify and cope with the psychological impacts of the epidemic.

As the materials were being finalized, CRS partner Caritas selected 112 psychosocial support (PSS) volunteers to serve their respective communities. CRS facilitated a 60-hour intensive training course that prepared them to provide a set of 10 carefully sequenced PSS sessions. Each team served multiple groups of children within a chiefdom, working in pairs to allow one volunteer to respond to the needs of specific children while the other continued to facilitate group activities. Children met twice a week for 90 minutes with the same two-person PSS team and participated in child-focused activities that encouraged creativity, imagination and play while promoting healing and resilience. The interactive methods were welcomed by both children and volunteers, and the new skill set was a revelation to many volunteers.

Over the next several months, trained PSS volunteers conducted 1,838 sessions, reaching nearly 7,000 children (Table 4).

District	No. of trained PSS volunteers	No. of PSS sessions Facilitated	No. of children reached
Bo	40	110	1,120+
Port Loko, Bombali, WA/Rural	72	1,728	5,800

Learning Across the Region

As each of the three most-affected countries struggled to simultaneously address the varied challenges as they emerged, CRS responded by putting in place tested processes and systems. Leaving the front-line clinical response to health emergency professionals from MSF, CDC and WHO, CRS appropriately stepped in to fill non-clinical gaps with operations strength and relevant programming expertise.

RESPONDING TO THE EBOLA EPIDEMIC WAS THE RIGHT THING TO DO

At the agency level, demonstrating solidarity and bringing critical international expertise to where it was most needed was a natural fulfillment of CRS' mission. At the country level, this show of commitment deepened and expanded crucial relationships. At the onset of the epidemic, however, CRS' particular role was not immediately obvious; and there was a natural tension between its responsibility to keep staff safe and its mission to serve where help is most needed.

Looking back, there is unanimous affirmation that doing what we could was the right thing to do. CRS had the expertise needed to fill glaring gaps in the otherwise clinical-care-focused response. The demand for operations support—fleet management and procurement—was immediately evident in all three countries, and CRS was able to provide this much-needed service.

Against the odds, and with CRS support, health care workers successfully put protective measures in place, communities modified long-held unsafe practices, and triage was safely and effectively provided. Health care workers regained confidence in their abilities, and patients, no longer fearful or suspicious, came forward for the care they needed.

“ We were able to get started with private funds, and because we had networks on the ground, especially through our malaria programming, we were quick. Once the response was really rolling, there was a lot of money coming in (from many sources) but not enough implementers to do the work. We were there, we were needed, we had the ability to get the job done and we were really proud of what we accomplished.”

— SUZANNE VAN HULLE, SENIOR TECHNICAL ADVISOR, CRS

CRS learned that an evolving disaster is different from a disaster that has already happened; and that health emergencies have many features in common with the more familiar humanitarian crises. Affected populations in West Africa suffered not only the direct impacts of an Ebola epidemic, but also food shortages, loss of income, disruption of local economies, loss of agricultural productivity, and psychosocial distress, and the children in these three countries lost a year of schooling. Operations and logistics skill sets were needed, alongside programming that responded quickly to emerging cues.

CRS' MANDATE TO SERVE WAS HONORED WITH SAFETY IN MIND

The West Africa epidemic went on much longer than expected, unfolding over almost 18 months. Between heavy workloads and concern for their own families, staff were under double pressure that took its toll as the months wore on. They grieved when friends and colleagues died but were unable to offer condolence in the traditional ways. Normal channels of social support—prayer in a church or mosque, family gatherings, socializing with friends—dwindled, as people stayed in their homes for protection. Even hugging a distressed friend or colleague was frowned upon. Offices that remained open were heavily chlorinated and dotted with hand-washing stations, with a hospital-like smell that clung to people's clothing. Food prices rose and public transportation options were limited.

Despite the hardship, country office and partner staff were strongly motivated to serve; were reassured by the presence of CRS leadership, in whom they entrusted their safety, despite the frightening, precarious context; and were proud to be part of the solution.

“*Our staff wanted to be of service to their countries, to be part of the solution, even when it meant risking their own lives. Our job as an organization was to help them serve in the safest, most effective way possible.*”

—MICHAEL GHEBRAB, FORMER COUNTRY REPRESENTATIVE,
CRS SIERRA LEONE

To guide international staff deployment and country office activities on safety and security implications of service, CRS developed Ebola Virus Disease Staff Health Procedures,³⁶ a framework for decision-making and actions based on risk factors and clinical presentation. It included steps for risk mitigation when traveling to Ebola-affected countries, as well as protocols for infection control in CRS offices, managing an exposure to Ebola, and medical evacuation.

To bolster morale, CRS offices provided lunch allowances, hazard pay and other incentives, and adjusted working hours to accommodate frequent delays in public transportation. Team meetings and information sessions allowed staff to share their concerns and present the myths circulating in their communities to senior staff members, who stayed up-to-date through close contact with WHO and MSF colleagues. In Sierra Leone, CRS was instrumental in gaining medical coverage for NGO staff through the UN clinic in Freetown, a welcome safety net at a time when job roles required staff to risk their own health on a regular basis. When it was over, not a single member of staff had contracted Ebola, and staff turnover was limited.

CRS was part of a Cash Transfer Working Group emergency food security program that aimed to reduce food insecurity in the aftermath of Ebola for the most vulnerable households in Kenema district through direct cash distributions and training on hygiene, nutrition, agriculture production, and financial literacy.

Photo by Elie Gardner for CRS



“ I could see staff responding to a higher call. Almost everyone stepped into a new role to get the job done. For example, to pay burial workers, we had to move into remote areas carrying hard cash. It was the reliability of staff that made it work. They took the risk, they delivered the money, and we never had a single incident.”

— MICHAEL GHEBRAB, FORMER COUNTRY REPRESENTATIVE,
CRS SIERRA LEONE

THINKING LONG-TERM HELPS SECURE FUTURE HEALTH SYSTEM GAINS

The ability to view this emergency through the lens of long-term commitment to local partners and to tackling the root causes of suffering set CRS apart. In general, the pandemic created a frenzy of activity, characterized by rapid scale-up (and equally rapid pull-out), and the swift implementation of lift-and-drop Ebola containment strategies. While effective in the short term, these efforts lacked vision, leaving behind lives saved but failing to prepare the region for the next—inevitable—crisis.

CRS' history in Sierra Leone began in 1963; and, in Guinea and Liberia, CRS programming and partner relationships date back to 2000. Over several decades, CRS has provided humanitarian assistance during civil wars and natural disasters as well as multi-sectoral development programming in health, education, agriculture and peacebuilding. Long-term engagement supported CRS' rapid access to accurate information and participation in high-level decision-making.

Guided by partner priorities, CRS tackled several critical health system gaps and, with a relatively narrow resource stream, effected significant, lasting changes. In Guinea and Liberia, the creation of triage spaces, waste management systems and WASH infrastructure continues to have a positive influence on *health service delivery* and has created momentum for similar follow-on work. In all three countries, *health workforce and human resource development* interventions focused on establishing a culture of safety to restore confidence in the health system among both health workers and the general public.

In Sierra Leone, an extensive network of community volunteers, without whom the epidemic would still be raging, is now more skilled and better respected—truly, *human resources for health*. In all three countries, trained staff and managers continue to implement up-to-date, auditable systems for human resource management, finance, procurement, logistics and supply-chain management for lasting improvements in *health care financing and information systems*. In Liberia, the reopening of St. Joseph’s Hospital provides a vivid example of what a comprehensive health sector strengthening approach can achieve.

CRS has demonstrated that future health system resilience can be reinforced while addressing immediate needs, even during a complex emergency. Bringing hope and solidarity alongside technical expertise and resources contributed to the ongoing transformation of health systems in all three countries.

“ CRS proved that we are not an agency that runs away when disaster strikes, but we stay the course. We stand with the people, shoulder-to-shoulder, and we make a difference.”

— MICHAEL GHEBRAB, FORMER COUNTRY REPRESENTATIVE,
CRS SIERRA LEONE³⁷

FAITH LEADERS FOUND THEIR PLACE AS HUMAN RESOURCES FOR HEALTH

The epidemic in West Africa showed the world that Ebola was as much a social issue as a health issue and required early, genuine engagement with communities.³⁸ Involving faith leaders from the outset—as CRS always does—helped establish a sense of purpose and shared accountability. This epidemic reaffirmed that faith leaders, with the trust of their communities and unparalleled access to the most remote locations, are especially influential in shifting deep-seated misconceptions and harmful practices, and motivating health-seeking behavior.^{39,40}

These trusted, respected individuals were able to motivate urgently needed changes in behavior quickly and effectively—when government efforts had failed—and will help sustain the influence of the activities even after the Ebola programs have closed. Through this epidemic, it became clear that faith leaders are a key element of human resources for health and must be purposefully engaged to ensure the provision of effective services.

The Way Forward

The extent to which health system vulnerabilities were revealed and exacerbated by the Ebola pandemic clearly signals the need for significant change. Systems and services that were weak before the outbreak disintegrated rapidly under its weight, irrefutably demonstrating each country's precarious situation. Basic clinical service infrastructure—including water and sanitation—is still lacking. Many health facilities still do not have integrated laboratories or even access to testing, except for malaria and typhoid. Training and resources for health workers are needed in every service discipline. There are gaps in data, supply chain and transport management, and in financial management, including the payment of health workers.

In short, much work remains to be done in West Africa.

“*If you want to stop these kinds of disease outbreaks effectively, invest in basic health services everywhere, and ensure that people understand the risks to their health, because such dangers are always lurking.*”

—DAVID NABARRO, FORMER SPECIAL ENVOY FOR EBOLA, WHO⁴¹

During the Ebola response, CRS identified several specific health systems gaps to which new health system strengthening efforts can be tailored. Existing partnerships were strengthened as new ones were forged, paving the way to future opportunities to work together. Each of the most-affected countries now has in place a post-Ebola development plan, and CRS is working alongside governments to complement implementation efforts.

Water, sanitation and hygiene emerged as a major priority in all three countries, and CRS' ongoing work in this area will help prevent and mitigate the effects of future disease outbreaks. CRS continues to provide leadership in malaria control efforts in Guinea and Sierra Leone, and holds other important grants in the region that support work in neglected tropical diseases and child immunization.

CRS has seen that when outbreak-related or emergency preparedness capacities are not included in health planning, *all* health services are at risk. Moreover, an inclusive approach toward private health providers not included in government-led responses—especially those that are unregulated—can be instrumental in the achievement of epidemic control and safety at the population level.

“*Ebola showed us how important global health security work is. It reinforces that we're all connected, and that a weak link anywhere is a risk everywhere.*”

—DR. TOM FRIEDEN, DIRECTOR, CDC⁴²

CRS also observed that while containment, providing health services and maintaining security were understandably the highest priorities during the epidemic, these efforts weighed heavily on other sectors. Some 2 million children were affected by year-long school closures, with few options to help families trying to keep children safe and occupied at home. Women, through their roles as primary caregivers and in preparing bodies for burial, were disproportionately infected, which affected the growing, trading and cooking of food. Several mining operations closed as workers left affected areas; farmers abandoned their fields, threatening food shortages; informal employment and other productive livelihoods declined; and cross-border commerce was stifled.

Beyond supporting and strengthening health systems lies not only the post-emergency work of getting families and communities back on their feet, but the task of lifting each of these three countries permanently out of poverty. With government and Catholic partners, CRS is working in multiple ways to address household food security and nutrition, education, livelihoods development and improved agricultural production. In addition, CRS is a key player in governance and peacebuilding in these post-conflict countries.

Is there a vaccine on the horizon?

With heightened urgency fueling Ebola vaccine research, the WHO Global Ebola Vaccine Implementation Team now envisions that one of several vaccines currently under development will be part of the response to the next outbreak.

Likely to provide good short-term protection, it will be given first to high-risk individuals such as health care workers and front-line workers. Next, it will be used to protect case contacts.

Unfortunately, the vaccines developed to date tend to make some people ill for one or two days with fever, aches and fatigue, which could affect acceptability.

Conclusion

The Ebola outbreak profoundly changed how Ebola is viewed, from being seen as a rare event in Central Africa to a major, destabilizing public health and humanitarian crisis. It lasted more than 18 months, and caused more deaths than the previous 25 outbreaks combined.⁴³ Seven documented clusters have occurred following control of the epidemic, related to viral persistence in survivors.⁴⁴ All three countries were forced to start the 42-day countdown clock more than once before declaring themselves Ebola-free and embarking on the 90-day period of enhanced surveillance that defines a Resilient Zero. Through this process, evidence emerged that Ebola can remain concealed in body reservoirs such as the eyes, breast milk, vaginal secretions and semen, for as long as 18 months. The CDC maintains a presence in the countries affected by the epidemic to build public health capacity to respond to public health threats and prevent another epidemic.

Although the hardest-hit countries—Guinea, Liberia and Sierra Leone—were proclaimed Ebola-free in early 2016, further outbreaks are inevitable.⁴⁵ Of equal importance, multiple new public health threats are emerging. Crimean Congo hemorrhagic fever, Ebola and Marburg viruses, Lassa fever, MERS and SARS coronavirus diseases, and Nipah and Rift Valley fever have been identified by WHO as emerging pathogens likely to cause severe outbreaks in the near future, and for which few or no medical countermeasures exist. In the poorest countries, where health systems are underdeveloped and surveillance and containment responses are slow, the need for continued vigilance and preparedness remains an urgent priority.

Strategic, multi-level approaches and persistent commitment are needed to ensure continued progress toward the strengthening of health systems, services and infrastructure in these countries. Through reliable health service provision, the trust and cooperation of the communities they serve can be maintained. Most importantly, and at the heart of CRS' mission, lasting solutions to the development gap are needed to prevent future outbreaks.

Endnotes

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