PHOTO BY CARLOS E. SANTA MARIA / SHUTTERSTOCK

Mission Critical

Combating infectious diseases is a matter of life and death—so experienced project managers need to be on the front lines.

BY MATT ALDERTON

The deadliest Ebola virus outbreak in history began in December 2013, when a 2-year-old boy in the village of Meliandou, Guinea became fatally ill after contact with a fruit bat. By December 2014 Ebola had spread via land to other West African nations, as well as via air to the United States and a few European countries.

Scrambling to respond to the outbreak, governments and aid organizations quickly launched containment and treatment projects. But as of late December, more than 7,500 people had died from Ebola—more than a third of all the confirmed cases.

The sudden public health crisis was a grim reminder to the global health community of the downside of an increasingly connected world: easy avenues for deadly pathogens to move across continents and oceans. "In the public health sector, the new challenge is figuring out how to improve cross-border collaboration in order to reduce the risk of disease," says Francis Kasolo, PhD, director of disease prevention and control, Africa regional office, World Health Organization, Brazzaville, Republic of Congo.

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The answer is evident as organizations work to stop Ebola's spread, Dr. Kasolo says: better project management. "If your project management is poor, it doesn't matter how many resources you invest or how many people you employ. You will not succeed."

As economies grow increasingly interconnected, countries urbanize and cross-border movement accelerates, the stakes are high—and growing. Ebola is just one of many persistent threats around the globe. Middle East respiratory system (MERS), tuberculosis, malaria, hepatitis, HIV/AIDS, measles, meningitis, avian flu and even polio remain virulent, emphasizing the need for skilled practitioners in the public health sector. With global health

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funding in 2013 at an all-time high of US$31.3 billion, according to the Institute for Health Metrics and Evaluation, there's no shortage of projects requiring skilled oversight.

URGENT NEEDS, VARIED STAKEHOLDERS

Projects combating infectious disease threats are by nature urgent. That fact intensifies the need for savvy and sophisticated project managers, says Nick Ford, PMP, senior program manager, IntraHealth International, a not-for-profit based in Chapel Hill, North Carolina, USA.

"In an emergency situation—like what's happening right now with Ebola—multi-million-dollar projects can be started up and closed down within a year," he says. "Because that urgency accelerates and magnifies all the usual challenges you have with projects, a project team led by an experienced and effective project director is incredibly important."

To successfully plan and execute cross-border emergency public health projects, it's crucial to have steady support from governments in affected areas. "Relationships with ministries of health are really important," Mr. Ford says. "They have to take ownership in your project because it's their healthcare system and population."

Even when they're not funding a project, governments act as a kind of executive sponsor by greenlighting initiatives. As such, government officials need to be confident in the project team's expertise and ability to succeed.

Documenting and analyzing prior project successes is a good place to start, but often not enough to attract project funding and approval. "If you want to scale up your public health interventions, you need to identify external partners who have experience doing similar projects," Dr. Kasolo says. "You have to demonstrate that you can implement projects successfully and that the outcomes are good."

Because global health projects typically involve a wide array of stakeholders—public and private, governmental and nongovernmental—clear and regular communication is paramount for channeling competing interests and achieving project objectives. "You have to explain at every stage what is going to happen and keep reminding [stakeholders] of the project's benefits," Dr. Kasolo says. "When you're silent, the rumor mill starts, and that's when everything blows up."

When an infectious disease poses a widespread threat, fear is a natural response. Suspicion of help from unfamiliar organizations or foreign project team members—sometimes fueled by misinformation disseminated through social media—can follow.

An Ebola training center operated by Médecins Sans Frontières in the Netherlands, Amsterdam

This makes buy-in from the communities targeted for health interventions (for example, vaccinations) a must-have for success. "Acceptability by the community for which the projects are planned is the primary thing," Dr. Kasolo says. "The community itself has to understand why your project is being introduced. It has to see the need."

To illustrate that need, project teams must engage influencers, such as community organizers. "Very good social organizers can work with the community to explain in the simplest terms what the project is all about," Dr. Kasolo explains.

PREVENTIVE PROJECTS

Unsurprisingly, projects unrolled rapidly in response to deadly infectious disease outbreaks garner lots of media attention. Yet sector experts and practitioners emphasize that the deeper solution to such public health threats comes through developing a robust healthcare infrastructure.

"When outbreaks like Ebola happen, we recognize quickly that they happen in countries that are among the most vulnerable in the world, with very weak health systems," says Ken Himmelman, chief program officer, Partners in Health, Boston, Massachusetts, USA. "These kinds of epidemics can't help but be more profound in health sectors that themselves are fragile."

"Doctors and nurses in the field could use more training on how to manage and lead projects. Good stewardship of resources, good tracking of data, good management of teams—those are all really important skills."

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To strengthen the health sectors of vulnerable countries, some public health organizations aren't just deploying vaccine-administering teams or educating communities about sanitation practices that prevent infection. They try to address systemic challenges by executing projects that build lasting infrastructure (clinics, even hospitals) and develop healthcare workforces.

"A lot of times, projects focus only on improving the quality of healthcare services. That's important, but it's people who are delivering those services," says Mr. Ford, whose organization conducts projects to recruit, train and retain local healthcare workforces in developing countries. "Governments need enough healthcare workers deployed in the right places and trained properly to staff their facilities without having to import workers."

Ultimately, to prevent the next outbreak of Ebola or another infectious disease, the healthcare workers who form the backbone of any country's public health infrastructure need not only clinical competencies, but project management skills. "Doctors and nurses in the field could use more training on how to manage and lead projects," Mr. Himmelman says. "Good stewardship of resources, good tracking of data, good management of teams—those are all

The Pan American Health Organization/World Health Organization brought 400,000 doses of oral cholera vaccine to Haiti in July 2014.

PHOTOS COURTESY OF THE PAN AMERICAN HEALTH ORGANIZATION

CASE STUDY

Combating Cholera

PROJECT Cholera Vaccination Campaign

LOCATION Haiti

ORGANIZATIONS Pan American Health Organization/World Health Organization, Haiti Ministry of Public Health and Population, U.S. Centers for Disease Control and Prevention, UNICEF

When the first Haitian fell victim to cholera in October 2010, it caught everyone off guard. "It was a surprise because cholera hadn't existed in the country for at least the last 100 years," says Jean-Luc Poncelet, MD, Haiti representative, Pan American Health Organization (PAHO), which is a regional office of the United Nations' World Health Organization (WHO). "Because it was new, it made a huge impact there."

Unfamiliar with the infectious disease, doctors and nurses didn't know how to diagnose or treat it. Along with poor water sanitation systems, that made Haiti ripe for transmission. By July 2014, the outbreak had sickened more than 703,000 people and killed over 8,500. In support of the Haiti Ministry of Public Health and Population's plan to eradicate cholera by 2022, PAHO carried out a vaccination project in 2014. (The United Nations Central Emergency Response Fund paid for the vaccines.) Along with projects to secure clean water supplies and foster good sanitation practices, "vaccination is a very useful tool in the elimination of cholera transmissions," says Dr. Poncelet, who is based in Port-au-Prince, Haiti.

Project planning commenced in May and execution began in August, with 370 vaccination teams consisting of 1,222 health workers and community agents fanning out across the country. By mid-September—less than three weeks later—200,000 people in three of Haiti's nine national districts had been immunized against cholera.

"When you execute a campaign like this one, you have to mobilize the population in a massive way," Dr. Poncelet says. "It's a complex operation." Project management skills proved especially valuable in three areas, he adds: procurement and distribution, stakeholder management and evaluation.

Procurement and distribution: The global supply of cholera vaccines is extremely limited, making resource acquisition a major challenge facing the PAHO project team. To claim its share of vaccines, the team detailed the urgency of Haiti's cholera crisis to vaccine producers and leveraged relationships within WHO and other organizations to bring additional pressure to bear. "You have to plead your case to the producer to release the vaccine, and you have to make sure you don't get pushed aside because of competing interests in other countries where cholera exists," Dr. Poncelet says.

Along with procuring the vaccine, the project team also had to determine the optimal way to distribute it. The Ministry of Public Health and Population and the team identified the most vulnerable communities and then the team recruited, trained and deployed vaccination teams of appropriate sizes. "Locality by locality, you must detail how many people are part of the team, who will bring the cold box with the vaccine, who is going to make connections with the local authority and who is going to make the population aware of what is being done," Dr. Poncelet says.

Stakeholder management: Although Haiti's government directs all anti-cholera efforts, it partners with numerous nongovernmental organizations to execute projects. "It's a very fragmented way of working," Dr. Poncelet says. "You have many different entities working with different views on what must be done, and you have to get them all to agree on a time frame and on what resources should be invested where."

With so many stakeholders involved, success hinges on strong executive sponsorship—one voice in the crowd rising above the rest. "When you have good leadership, you ensure that different partners are on the same wavelength, and you realize that in a matter of months you can perfectly organize a campaign," Dr. Poncelet says. "The government's leadership made the difference."

Evaluation: Public health projects, like those in every other sector, must stay on schedule and within budget. When the goal is containing or eradicating a disease, however, the project must also achieve health outcomes. After the project's vaccination phase ends, detail-oriented project managers prove their value by collecting and analyzing data.

"Ensuring the campaign's scientific quality and impact is a big challenge," Dr. Poncelet says. "In the long term, the objective is to eradicate cholera. In the short term, though, you first have to eliminate transmission." That means carefully tracking infection patterns to understand the changing dynamics of an outbreak. Since the completion of PAHO's vaccination project and the implementation of sanitation measures in affected areas, he adds, "the number of cholera cases has started to decrease, so we are controlling the epidemic."

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CASE STUDY

A Systemic Solution

PROJECT Calabar Specialist Hospital

LOCATION Calabar, Cross River State, Nigeria

ORGANIZATIONS Cross River State government, UCL Healthcare Services Ltd., CURE Management Services, the World Bank's International Finance Corporation

To combat infectious diseases, nations need capable doctors and nurses and medical supplies. But that's not enough. Adequate healthcare facilities—the clinics, hospitals and treatment centers providing beds and sterile environments—are also vital to contain and eradicate threats.

As the Ebola virus spread in Guinea, Sierra Leone and Liberia last year, the countries' health infrastructure was quickly overrun by need. Outside organizations, including the U.S. military, stepped in to set up makeshift treatment facilities.

Public health officials in Nigeria—which successfully contained its Ebola outbreak last year—are aware of the gaps in the country's network of public hospitals and healthcare centers that provides most people with care. In Cross River State in the country's southeast, that network is particularly deficient: There were just 0.5 hospital beds per 1,000 people in 2011, compared to 8.2 in Germany and 2.9 in the United States. And there are just 0.21 doctors per 10,000 patients in the state—one-fifth the sub-Saharan African average.

"In the Nigerian healthcare system, disparities often exist between local care and international care," says James Cohick, COO, CURE Management Services, a healthcare management firm based in Mechanicsburg, Pennsylvania, USA.

By addressing those disparities, the Calabar Specialist Hospital project will likely save lives. In October 2013, the Cross River State government launched a US$40 million project to build a 105-bed hospital in Calabar, the state capital. It selected the World Bank's International Finance Corporation to facilitate the project and UCL Healthcare Services—the lead organization of a consortium of multinational partners, including CURE Management Services—to design and build it. The hospital was scheduled to open in early 2015, and UCL is contracted to operate the facility through 2023.

PHASING IN QUALITY CARE

The project was unique from the start. The first public-private partnership (PPP) health project between a state government and a hospital care provider in Nigeria, it combines public-sector funding with private-sector management to achieve optimum care at minimum cost. Sponsors hope the hospital will serve as a regional model for how PPP projects can improve clinical care and expand the capacity of health systems.

"Politicians don't always honor the commitments made by their predecessors, so continuity of relationships is really important."

—James Cohick, CURE Management Services, Mechanicsburg, Pennsylvania, USA

A rendering of the Calabar Specialist Hospital

Before the facility even begins accepting patients, the project offered lessons learned to public health practitioners. From the start, the project team encountered unexpected changes in the original real estate plot and public-side funding levels. "The private side of the PPP had to act very quickly to raise a significant amount of money," Mr. Cohick says.

Given these unexpected developments, flexibility and teamwork were essential. "The most important thing wasn't the plan; it was the planning," he says. UCL Healthcare Services proved especially valuable: "When the project's funding structure changed, UCL coordinated with its partners to effectively approach banks and investors—both within and outside of Nigeria—in response to the challenge."

Local partners will remain critical going forward. Stakeholders want local Nigerian leaders to be integral to the future of the hospital and Cross River State's healthcare system. For that reason, the project team has worked hard to involve the local medical community. Because the facility is a referral hospital—it will provide secondary specialist care to patients referred by primary physicians—strong connections to doctors and other medical professionals in the area will generate the patients it needs to succeed.

This kind of on-the-ground support is especially important when the project sponsor is a government with regular leadership changes due to term limits. "Politicians don't always honor the commitments made by their predecessors, so continuity of relationships is really important," Mr. Cohick says.

The quality of care provided by the new hospital will ultimately be the measure of benefits realized by the project, however. To bolster that quality, the project team took a phased approach to launching medical services. Although the hospital eventually will specialize in pediatric health, specialty surgery and maternal care, it is launching with just ambulatory healthcare and supporting diagnostic services. After reviews to confirm mastery of those operations, the team will implement additional specialty services throughout 2015 and beyond.

"Ideally the triggers for launches won't be a date on the calendar, but measurable milestones of how well we're doing things," Mr. Cohick says. "That allows us to start small, get the quality right, and then expand our volume from there."

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CASE STUDY

Partnering for Prevention


From left, Alyssa Davis, Phone Si Hein, MD, and Kyi Kyi Ohn, MD, all of Save the Children, Yangon, Myanmar

PROJECT Control and Prevention of Malaria (CAP-Malaria)

LOCATION Myanmar, Cambodia, Thailand

ORGANIZATIONS U.S. Agency for International Development, University Research Co., Save the Children

More than 1.3 billion people in Southeast Asia are vulnerable to malaria, a potentially fatal disease transmitted by mosquitos in tropical and subtropical climates. Thanks to prevention efforts and antimalarial medicines, rates of infection have declined dramatically since 1999 in Myanmar, Cambodia, Laos, Thailand and Vietnam. Unfortunately, new drug-resistant strains of malaria have emerged in remote and impoverished areas of these countries. Left unchecked, they could travel from small villages to large cities and then spread throughout the region.

To contain the spread of drug-resistant malaria, the U.S. Agency for International Development (USAID) funded a five-year, US$24 million containment and prevention project in the border areas of Myanmar (formerly Burma), Thailand and Cambodia, where cross-border migrant workers and other hard-to-reach populations have an elevated risk of contracting and then spreading the disease. To execute the Control and Prevention of Malaria (CAP-Malaria) project in Myanmar, USAID's principal implementing agency University Research Co. (URC) turned to Save the Children, a United States-based not-for-profit.

Set to conclude in 2016, the CAP-Malaria project comprises encouraging at-risk communities to take preventive measures such as using insecticide-treated bed nets; training local healthcare workers to diagnose and treat the disease; collecting and analyzing data to track outcomes; and advocating for long-term solutions that national health systems can adopt.


Chanthaburi, Thailand

PHOTO COURTESY OF CAP-MALARIA PROJECT

Given this wide-ranging scope, "project management is fundamental," says Phone Si Hein, MD, project manager, Save the Children, Yangon, Myanmar. "It's through effective project management—managing our resources and people effectively—that we're able to improve the quality of care."

BUILDING TRUST

From the beginning, the Save the Children team encountered significant challenges. First, to proceed with the project, approvals and contributions were required from all stakeholders. That meant not just USAID and URC but also national, provincial and local government bodies had to sign off on the plan—along with nonstate armed ethnic groups at odds with Myanmar's government that are active in the border region.

"Previously, nonstate actors did not trust government or government-affiliated organizations, so we needed to coordinate with those two sides and build trust among those partners," says Dr. Hein.

The challenge of developing those relationships in the communities vulnerable to malaria was exacerbated by armed conflict, rainy-season flooding and obstruction by village leaders. Along with difficulty securing government approvals, those factors delayed the project's start by six months. But the team eventually cultivated consensus among all stakeholders.

"The team met with Myanmar's national ministry of health first. Then, with approval and guidance from them, we went to the state health director to discuss our program. After that, we had a meeting with the nonstate actors in the area," says Kyi Kyi Ohn, MD, head of health programs, Save the Children, Yangon, Myanmar.

In some cases, two or three "anti-resistance" meetings were required. In all cases, local healthcare workers were critical. "Because our project is a community-based project, we have to recruit local volunteers for case management," Dr. Hein says. "Without them, we cannot gain trust."

While most public health projects suffer from a lack of resources, Save the Children has contended with an abundance: There are so many organizations executing anti-malaria projects in the southeast region of Myanmar that avoiding duplication can be a challenge. The organization has had to pull out of several villages mid-project to make room for other initiatives newly endorsed by local communities.

In such an environment, adaptability is a big part of achieving project objectives. "Part of ensuring health outcomes is constantly re-evaluating, reassessing and readjusting our activities to see the changes we want," Dr. Ohn says. For example, after the team noticed that the government and some armed ethnic groups were still not on the same page regarding the project, it conducted coordination meetings with ethnic health organizations to discuss problems accessing villages to conduct prevention activities.

As with many public health projects, it may take years to determine whether it achieved its objectives of long-term and sustainable positive health outcomes. But it's already yielding results in the form of best practices.

"Throughout, we've seen the importance of what might be considered soft skills, like communication and relationship building. But they're not soft at all—they're fundamental, and all project managers working in public health need them," says Alyssa Davis, thematic adviser-health, Save the Children, Yangon, Myanmar. "If we want to achieve public health goals, we need to apply lessons learned at scale through partnerships that go beyond borders." **PM**

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