



PHOTO: JULIUS KASUJJA

# Local Surveillance and Preparedness to Contain Outbreaks

*The MSH Approach to Improving Global Health Security*

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When disaster strikes, there is often little warning, and delays in response can result in more lives lost and greater economic, social, and political costs. For this reason, **local areas need to be prepared to stand on their own.**

Local preparedness is the key to stopping outbreaks at the source. Despite international progress around global health security, many communities remain extremely underprepared and vulnerable to infectious disease outbreaks.

Management Sciences for Health (MSH) works shoulder-to-shoulder with countries to build strong and sustainable health systems and effectively support local populations to prepare, detect, and respond to disease outbreaks.

INFECTIOUS DISEASE OUTBREAKS DEVASTATE COMMUNITIES AND COST THE WORLD **\$60 BILLION** A YEAR IN RESPONSE EFFORTS—MATCHING THE TOLL OF WARS AND NATURAL DISASTERS IN TERMS OF ECONOMIC IMPACT AND LIVES LOST.<sup>1</sup>

### MSH'S APPROACH TO GLOBAL HEALTH SECURITY

Our unique approach ensures active prevention and constant readiness by working with national, district, and community stakeholders to increase their capacity to identify threats and lead an effective local response—stopping outbreaks at the source.

We work with countries to build resilient health systems that, in the event of an outbreak, continue to provide essential quality care and services. We invest in local leadership and increase efficacy and accountability mechanisms for a rapid multisectoral response—resulting in lives saved and economies protected.



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# COMMUNITY EVENT-BASED SURVEILLANCE

*Identifying events indicative of potential epidemic emergencies at the earliest possible stage*

## Animal health is human health

More than 70 percent of emerging infectious diseases originate from animal sources, jumping to humans and sickening populations.<sup>2</sup>

Under the global One Health approach, MSH builds transparent and sustainable early warning surveillance systems that allow those working with human and animal populations at the community level to report unusual or unexpected events to the appropriate authorities. We equip communities to identify and report suspected cases and mobilize to contain outbreaks before they have a chance to spread.

## Real-time reporting, swift response

Immediate reporting of unusual human and animal health events using predefined triggers is key to quickly responding to potential public health emergencies before a situation spirals out of control.

MSH enhances and deploys early warning systems that instantly track and report suspicious events from a range of stakeholders at the community level, including local leaders and health and animal workers. We integrate community event-based surveillance systems with existing national information platforms, putting community-level data at the fingertips of national authorities.

Through an organized system of village lookouts—groups trained to identify community events that may constitute a potential risk to public health and to quickly sound the alarm—communities work with national and district authorities to investigate and respond to emergencies. Our package on event-based surveillance at the community level includes the following components:

### Shorter Response Time



Case detection reduced from weeks to hours

Designed as a permanent routine surveillance system rather than a temporary response to outbreak

### Integrated Human and Animal Surveillance Systems



Both human and animal events are reportable

Community health workers, animal health workers, and village leaders have a formal obligation to report

### Linked to National Information System



Instant alerts are sent to all relevant authorities, increasing system-wide accountability

Puts community-level data at the fingertips of national authorities

### Verifiable Electronic Record



By linking the electronic system to the community level, we establish a track record—a system that can be traced back and used to support decision-making, investigate, and respond more quickly

# TOOLKITS FOR EPIDEMIC EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

*Strengthening the skills needed for an effective and efficient multisectoral response and preparing communities and health systems so that essential services remain in place when battling an outbreak*

## Continuity of essential health services

The added stress of an emergency response on fragile health systems can further jeopardize the delivery of essential health services, leaving children without immunizations, women without maternal care, and those who suffer from chronic diseases without access to lifesaving medicine.

MSH helps local authorities build resilient health systems that are ready to withstand and adapt to disease outbreaks, protecting the foundation—including infrastructure and workforce—that ensures continued service delivery and keeping local populations safe. Our work prepares decision-makers at the district and national levels to rapidly and effectively establish proper control measures, maintain high-priority services, and ensure enough flexibility to cope with changing environments and unexpected emergencies.

## Effective governance in times of urgency

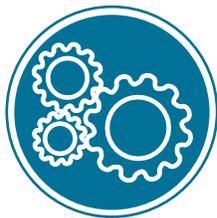
In the face of an epidemic, those responsible for protecting public health need to act rapidly, decisively, and on the basis of evidence.

MSH prepares leaders at all levels of the health system to effectively plan, allocate resources, and establish coordinating mechanisms, enabling rapid decision-making and trustworthy crisis communication at the local, district, and national levels.

Our integrated toolkit prepares local and national authorities for disease outbreaks and builds skills for immediate action and response. Key focus areas of our work enhance local leadership and improve system sustainability:

### Effective governance

- Enabling resource mapping to understand who can be mobilized to respond—including veterinarians, doctors, and volunteers—and what resources are available, including transport, facilities, and supplies.
- Supporting formalized disaster response teams and alignment with other district stakeholders for a coordinated, effective response to crisis.



### Continuity of essential services

- Prioritizing essential services and supporting decision-making in a crisis situation so that resources can be effectively deployed to save the most lives.
- Planning for succession and delegation of authority across sectors so that the chain of command is clear and essential services remain in place.

### Communications planning

- Developing district profiles and risk analyses to guide local planning.
- Supporting risk communications to build trust, credibility, and public engagement.



### Disease containment

- Developing guidance for local verification, investigation, and health care triage.
- Defining individual and community-level actions to limit disease spread.

## PUTTING LOCAL READINESS INTO ACTION

MSH's approach to global health security ensures local engagement and action. Our work represents an important step forward in how we think about epidemic preparedness and response.

### *Examples of our work in health security*

MSH builds on the US Government's efforts under the Global Health Security Agenda (GHSA) through USAID's Medicines, Technologies, and Pharmaceutical Services (MTaPS) program, launched in September 2018. A key component of the program's work focuses on supporting nine GHSA countries to improve infection prevention and control and optimize antimicrobial use in human health, with the potential to work on animal health in the future.

In **Rwanda**, MSH partners with the Ministry of Health to strengthen the electronic surveillance and outbreak management system built on the national District Health Information Software platform (DHIS2). Our work with the government and a range of multisectoral actors will extend the system to the community level and advance the module to include real-time information flow via SMS or email alerts and interoperability with animal disease information systems.

In **Madagascar**, MSH supports local participatory leadership development, strengthens community networks and coalitions, and establishes oversight and accountability mechanisms such as coordination and planning committees to support effective emergency preparedness plans and cross-sectoral action when outbreaks happen.

Following the Ebola epidemic in West Africa in 2014, MSH helped **Benin, Guinea, Mali, and Sierra Leone** strengthen governance structures for effectively managing essential medicines and supplies. MSH has built the capacity of regional, district, and health facility groups—such as drug and therapeutics committees—to establish logistics, information, and monitoring systems, including dashboards for early warning and stock status monitoring.

In **Vietnam**, MSH assists the government in improving its emergency operations center network by supporting the National Institute for Hygiene and Epidemiology in the accreditation of its laboratories.

In **Malawi**, MSH supported the government's response to the cholera outbreak in 2018 through the development of preparedness and response plans in all 16 districts; the procurement and delivery of essential supplies, including vaccines and water filtration systems; and the facilitation of case management trainings and sensitization meetings with community members.

In **Côte d'Ivoire**, MSH worked across government sectors—regional and district health offices; hospitals; health centers; and the water, sanitation, agriculture, animal, and fishery sectors—to improve epidemic preparedness and build leadership, management, and governance practices under the One Health approach. Through its flagship Leadership Development Program, MSH increased cross-sectoral collaboration, supported the development of epidemic prevention and response plans, and improved surveillance systems.

MSH promotes global health security as an international priority and contributes to strategic leadership discussions at the highest political levels as the Chair of the Global Health Security Agenda Consortium and through contributions to the Advisory Group of the World Health Organization's Joint External Evaluation Alliance and the Coalition for Epidemic Preparedness Innovations. As a founding member of the No More Epidemics campaign, MSH has brought together partners from the business community, academia, and civil society to work with national and local governments and multilateral institutions, enhance cooperation, and ensure that we are all better protected from epidemics.

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<sup>1</sup> <http://cepi.net/mission>

<sup>2</sup> <https://www.oie.int/doc/ged/d14089.pdf>