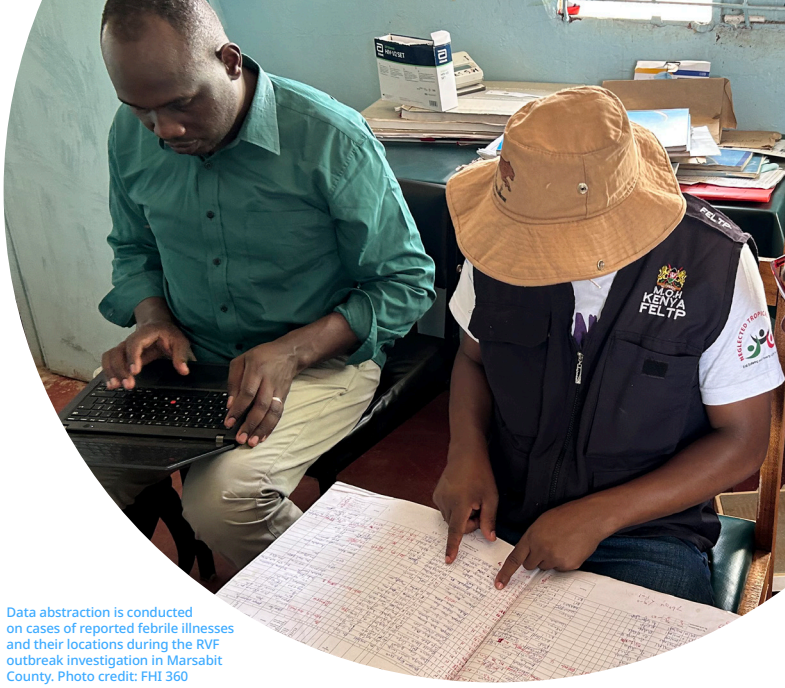
KENYA OUTBREAK RESPONSE

Enhancing Global Health Security (EGHS) is funded by the U.S. Centers for Disease Control and Prevention to support countries to strengthen capacity to prevent, detect, and respond to public health threats. FHI 360 is implementing these activities in Cambodia, Guinea, Haiti, India, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Malawi, Senegal, Tajikistan, Uzbekistan, and Zambia.



Data abstraction is conducted on cases of reported febrile illnesses and their locations during the RVF outbreak investigation in Marsabit County. Photo credit: FHI 360

Rift Valley fever (RVF) is among the many diseases that can be influenced by extreme weather events, which are increasing with climate change. When meteorologists forecasted heavy rainfall in northern and eastern Kenya from October to December 2023, the EGHS project supported the Kenya Ministry of Health's Division of Disease Surveillance and Response (DDSR) in preparing for an RVF outbreak.

Many Kenyans tend livestock for their livelihood, and the virus is transmitted from domesticated animals to humans through contact with infected animals and their bodily fluids as well as through bites from infected mosquitoes. In humans, RVF causes fever, weakness, and dizziness, and up to 10% of people will have severe symptoms including eye disease, hemorrhage, and swelling of the brain. In livestock, it causes severe disease, abortion, and death. Using a One Health approach, we assembled a team of human, animal, and environmental health practitioners to develop a multisectoral plan to address an outbreak.

PREPARING FOR AN OUTBREAK

With counterparts from the Division of Disease Surveillance and Response, **we facilitated training for 32 participants** who would form rapid response teams to address RVF in the eight counties at highest risk of an outbreak. The counties were Garissa, Wajir, Mandera, Tana River, Kilifi, Marsabit, Migori, and Homabay. Participants received the following training:

- Surveillance based on suspected cases of RVF
- RVF outbreak investigation
- Specimen collection in line with standard safety practices
- Risk assessment within communities
- Communication to the public and across the health system

ASSESSING RISK AS THE OUTBREAK BEGINS

The first suspected human case of RVF was identified on January 9, 2024, in Marsabit County. In response, we conducted a risk assessment to determine the preparedness of the health system, the risk level of community members, and the level of public knowledge about RVF.

To assess risk, we:

- Gathered data on health care capacity at the local level, such as number of staff, their training, their roles, and whether an incident management system was in place to coordinate the response

- Reviewed documents including health facility records for data quality and interviewed health workers to gain in-depth information on specimen collection and processing
- Conducted focus group discussions — four in Wajir County and two in Marsabit County — with community members including chiefs and elders to understand health behaviors that might put people at higher risk and gauge knowledge of RVF among the public

The assessment identified these challenges:

- County staff were unsure of roles and responsibilities
- Little collaboration occurred between animal and human health experts
- Information on activities and surveillance was not well documented and shared
- Specimens from human and veterinary laboratories were transported separately, which was inefficient

To address these challenges, we:

- Identified key contacts for laboratory testing and reporting
- Trained health staff to safely collect, package, and transport specimens, and use appropriate documentation to manage data
- Helped coordinate an integrated transportation system for human and animal specimens to decrease turnaround time
- Reviewed surveillance data on reports of symptoms for humans and animals to focus our search for possible cases
- Visited communities to provide information on safe disposal of infected animal carcasses
- Met with county health officials to share findings from our focus group discussions about health behaviors and potential health risks in the community

CONTINUING TO STRENGTHEN HEALTH SECURITY

Among future challenges, our work identified a need for improved event-based surveillance for both humans and animals. With earlier and more sensitive data collection, outbreaks can be stopped quickly through vaccination, which limits the health impact on animals and humans and economic impacts for pastoralists and marginalized populations. In addition, putting in place a surveillance system that brings together human and animal data would improve multisectoral coordination. Frequently, disease outbreaks are tied to the food supply and environmental conditions, and using a One Health approach increases efficiency by the sharing of knowledge and resources.

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