



Enabling decision-making using multisectoral data for the One Health approach in Burkina Faso

Strengthening Governance and Leadership for Better Data Quality and Use through Integrated Software and Systems

Introduction

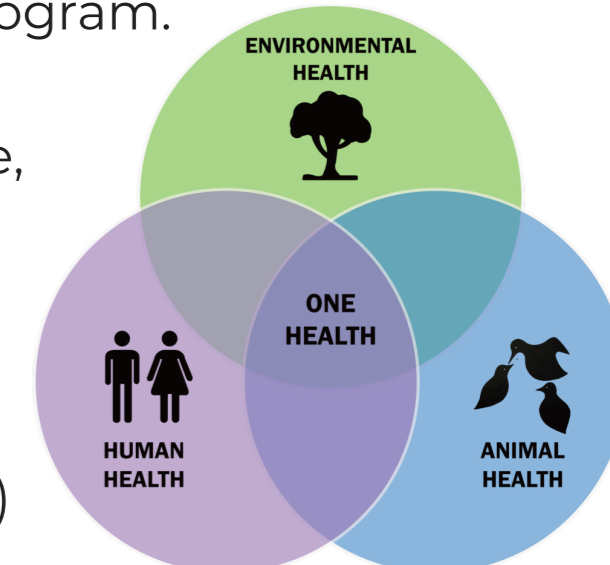
After outbreaks of Ebola and other infectious diseases that have affected West Africa, Burkina Faso needed an information system to help them create a comprehensive and effective response to key human and zoonotic health threats. To address this need, USAID supported the development of a One Health information system for the country and continues its support through the Country Health Information Systems and Data Use (CHISU) program.

What is One Health?

A collaborative and multisectoral approach to achieving optimal health outcomes which recognizes the interconnection between people, animals, plants, and their shared environment.

Who is involved in One Health activities?

People at all levels of society, including community agents, traditional and religious leaders, three One Health government ministries—Ministry of Health, Ministry of Animal Resources and Fisheries, and Ministry of Environment, Green Economy and Climate Change—and other contributing ministries (including the Prime Minister's office and Ministry of Higher Education, Scientific Research, and Innovation) and agencies.



Objective

To improve joint investigations and multi-sectoral collaboration through improved information systems and data use.

Methods



Governance and leadership

- Support to the One Health Executive Secretariat (ES-OH) to finalize regulations, reinforce thematic technical commissions, and coordinate International Health Regulations Joint External Evaluations.
- Development of joint investigation protocol which outlines the standards for multisectoral visits by the three One Health ministries to the site of the public health event to determine the causes and mitigation measures.
- Support for conducting joint investigations since 2021.



Systems and software

- Support administration and maintenance of the One Health information system (OHIS), including expansions in functionality like adding COVID-19 reporting in 2020.
- Customization of joint investigation forms in the OHIS enables harmonized reporting on zoonosis investigations.
- Support for interoperability between One Health applications, for example, getting the OHIS and RapidPro community data management system to capture priority zoonoses and to exchange data.
- Providing tablets and internet connectivity for stakeholders to access and use OHIS.
- Customization of alerts for events to provide targeted information based on user roles.



Data quality and use

- Development of image boxes for community agents' use to aid them in describing and identifying signs and symptoms of priority human and zoonotic diseases to prevent them from spreading.
- Training and supervision on disease surveillance according to the One Health approach at the regional, district, and point of delivery/community levels across all relevant ministries.
- Training on data use for decision makers at regional and central levels how to interpret data on zoonoses and public health events in the OHIS.

Results

More interconnected systems. CHISU's systems approach enabled data exchange between applications through an interoperability layer. This allowed rapid adaptation for the COVID-19 response, incorporation of community data through RapidPro, and quicker and more efficient access to data for stakeholders.

Greater capacity at all health system levels.

Community level: community-based health workers, volunteer village extension workers in animal and fishery resources, and eco-guards/trackers raise awareness about unusual health events and contribute to the notification of these events.

District, regional, and provincial levels: training of trainers for additional community-level training and supervision.

Central level: ES-One Health and decision makers from relevant ministries use the OHIS and make sense of the data and data visualizations, especially for joint investigations.

Increased public awareness of health threats. After the joint investigation into the deaths of two people from rabies, CHISU supported the launch of a preventive vaccination and awareness campaign in Sabou. Following the investigation into the fish mortalities in the Mouhoun River, traditional and religious leaders raised awareness in their communities about the risks of handling and eating dead fish—and press releases and a radio program were used to raise public awareness as well.

Stronger multisectoral responses to public health events. After cyanide contamination of the Mouhoun River, the Boromo district health team disseminated awareness-raising messages on the health risks associated with consuming the water and dead fish, animal resources personnel incinerated cattle carcasses and suspended fishing activities, and the national water and sanitation agency stopped pumping water from the river and suspended supply service to the town of Boromo.

Conclusion

Coordination must be multisectoral

Burkina Faso's experience using the One Health approach illustrates the importance of involving stakeholders from beyond the health sector to address pressing health threats.

Interoperable systems are crucial for seeing the big picture

Information system strengthening that creates multi-use platforms, such as the interoperability layer, makes the health system more flexible and resilient by providing a holistic view of human and zoonotic disease threats.

Communications must be creative

For public awareness and community surveillance in areas with security challenges, community actors make it possible to maintain these types of activities. In addition, radio messages and TV spots were disseminated to help reach the population located in peripheral areas with security issues.

Community engagement is key

Partnering with a variety of community members—including community health workers, traditional and religious leaders, volunteer village extension workers in animal and fishery resources, and eco-guards/trackers—was vital for reaching as many people as possible.

Investigations conducted

5 joint investigations into unusual health events in Boromo and Sabou districts

Rabies vaccination campaign

330 people attended campaign launch in Sabou | **1,450** animals vaccinated in Boulkiemde province

One Health information system use

1,538 community agents trained and actively using the system | **147** health events notified using OHIS | **119** reports on suspected cases of priority human illness | **147** confirmed cases of priority human illness

Discussion

The One Health approach is strengthened through better information but challenges remain, including:

Political instability

Supervision meetings and training of community agents (from the three ministries) in CHISU's target regions was difficult due to significant security challenges.

Financial resources

Implementing and scaling up the One Health multisectoral surveillance approach requires significant financial resources and other partners' support.

Staff turnover

Government staff at central and subnational levels in Burkina Faso are highly mobile, a barrier to the ownership and continued success of the One Health approach. Successors have to be trained to ensure the sustainability of activities.