

ONE HEALTH ATLAS

François Roger
Marie-Marie Olive
Marisa Peyre
Dirk Pfeiffer
Jakob Zinsstag, eds



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COVID-19: institutionalizing One Health

Thierry Lefrançois

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. However, health is still viewed through the prism of human diseases, and the WHO’s definition does not include activities that promote the long-term health of animals, the environment, or a territory. For a more comprehensive vision of health, we need to rethink our approach to One Health by more effectively integrating the environment to account for the health of all living organisms in a given ecosystem. There is an urgent need to move on from a limited vision of health to a more integrated, holistic vision.

The COVID-19 crisis revealed the need for integrated approaches, and especially the One Health approach, which entails multi-sectoral, multi-disciplinary and multi-stakeholder organization on all levels (local, national, regional and global).

One Health emphasizes the need for better communication between researchers and policy makers, which the COVID-19 pandemic made clear. Communication can be improved by:

- Rethinking world governance of health to incorporate the One Health approach;
- Supporting the establishment of regional One Health networks, with a focus on emergence zones, to conduct concrete research on and surveillance of new diseases;

- Organizing, at a national level, inter-ministerial collaboration through a comprehensive and concerted approach to prevent, detect early and manage crises (Figure 1). Joint efforts must be made to prevent and monitor major emergence risks and connect all sectors and stakeholders from the outset to manage health crises by lifting administrative barriers and facilitating information and data sharing (Figure 2). Cooperation between scientists and decision-makers is an essential link in the chain, as is better coordination between the French Ministries of Health, Agriculture, Ecological Transition and Foreign Affairs.

A One Health approach calls for a paradigm shift when it comes to training health professionals and decision-makers on complex issues to give them actionable skills in a variety of contexts (biodiversity, climate change, ecological transition, etc.). The One Health approach could become the standard for many other medium- and long-term societal challenges.

The pandemic showed the necessity of coming together and implementing institutional changes, transdisciplinary research and concrete actions in the field, drawing on the social fabric and developing new training and education methods for a variety of stakeholders (including decision-makers) to enhance preparedness for future emerging infectious diseases and adopting a One Health approach.

References

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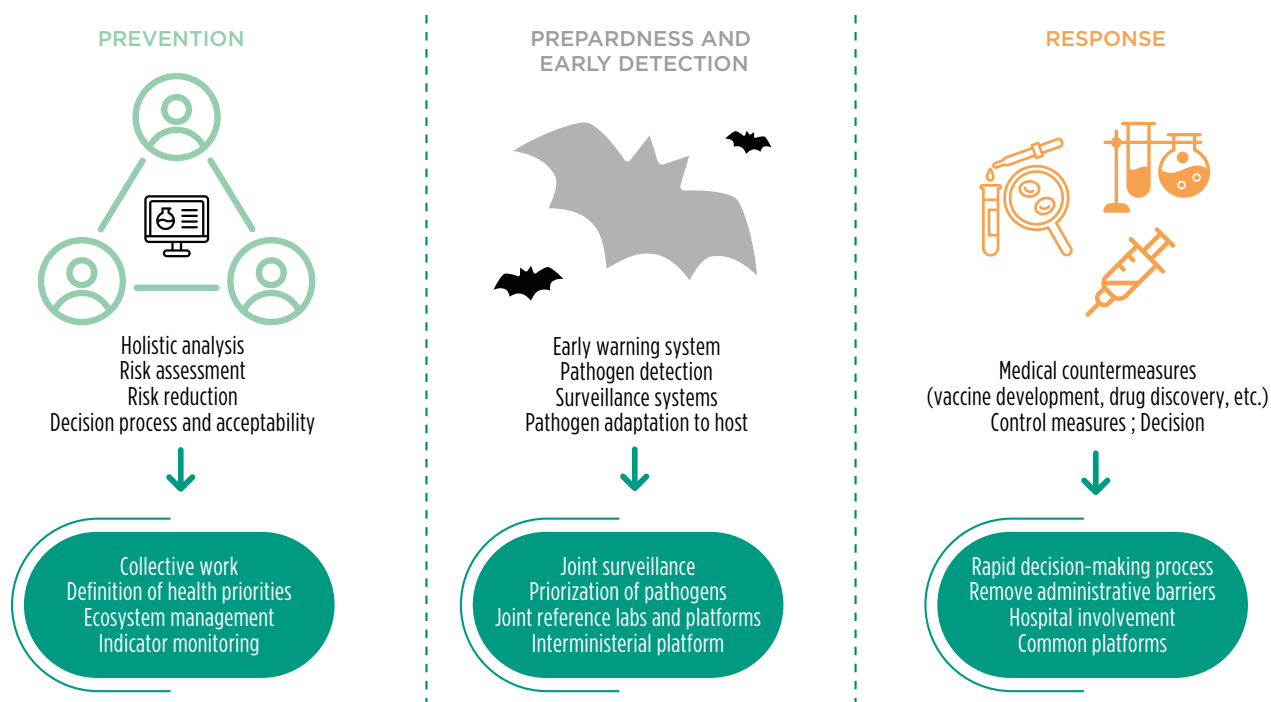


Figure 1. An ambitious roadmap for each step of a pandemic crisis (© Patricia Doucet and Delphine Guard-Lavastre).

The origin of SARS-CoV-2 remains uncertain. Two main hypotheses are considered: a natural spillover from wildlife, supported by the presence of susceptible animals at the Wuhan market and parallels with past zoonoses; and an accidental laboratory leak, suggested by the virus's unique features and proximity to the Wuhan Institute of Virology. While no conclusive evidence supports either theory, most scientific assessments still favour a natural origin.

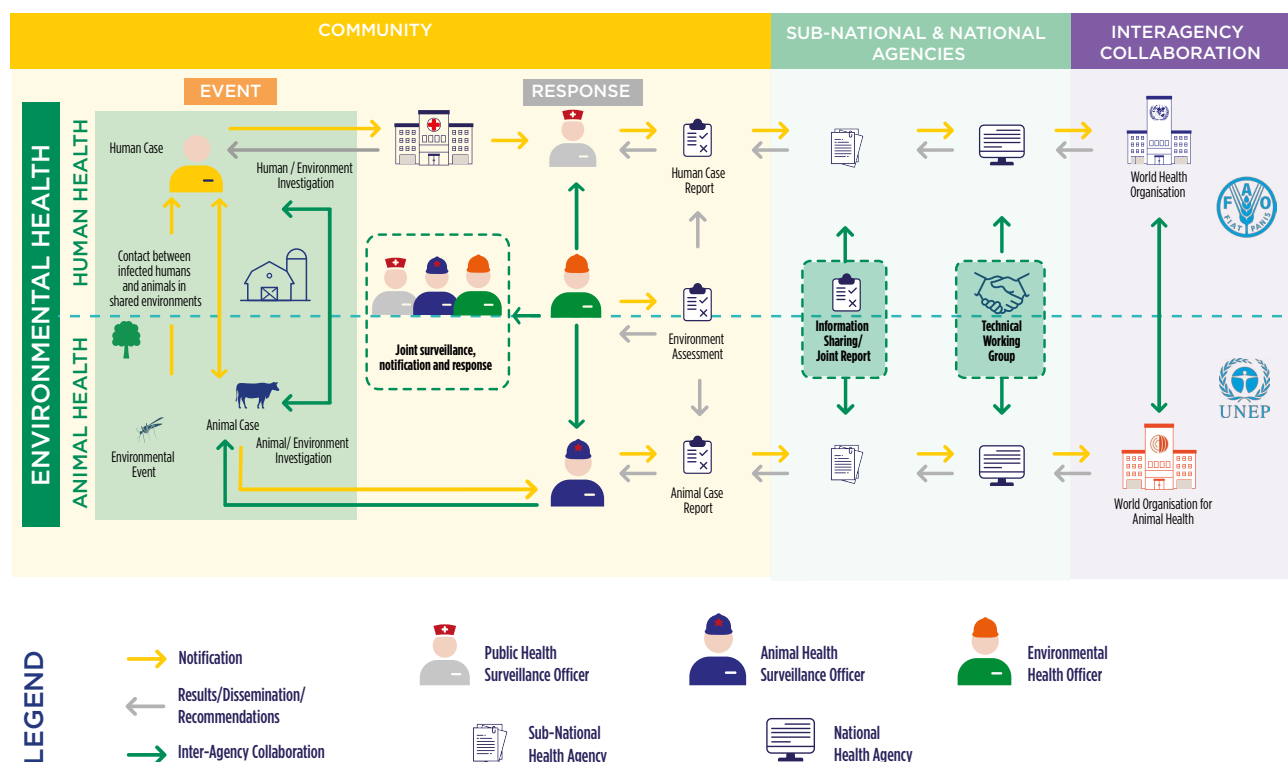


Figure 2. Operationalizing event-based surveillance through a One Health approach.

This diagram shows how human, animal and environmental health sectors can coordinate to detect, investigate and respond to health events. It emphasizes timely data sharing, joint risk assessment and interagency collaboration across governance levels to improve early warning and crisis response, as demonstrated during the COVID-19 pandemic. Adapted from Ghai *et al.* 2022.