



3. The Next Steps for More Effective Control of Zoonotic Diseases in the GMS

'Zoonoses' are diseases caused by viral, bacterial, parasitic and other infections that can transmit between humans and animals. Zoonoses impact human and domestic animal populations, as well as wildlife and the environment. Several major zoonotic diseases are endemic in the Greater Mekong Subregion (GMS) and are important public, livestock and environmental health issues, particularly affecting poor and marginalized populations in low-resource settings. Some food-borne diseases are zoonotic and may be acquired from contact with animals or animal waste. Other zoonoses are 'emerging infectious diseases' that were not previously known in human or animal populations and can cause national or international public health emergencies, such as COVID-19. Yet others are 'emerging' in new areas and/or populations, such as leptospirosis that has occurred more frequently and infects substantially more people in parts of the GMS since the late 1990s.

The GMS is within a global hotspot for zoonotic disease occurrence and emergence. There is a significant risk of disease spread in humans, animals and animal products via formal and informal movements across extensive land borders, and the region is challenged by the small number of joint solutions across sectors and/or countries to common health problems.

GMS countries have made significant investments in surveillance for zoonotic diseases, and collaboration and coordination between human health, animal health and environment sectors both nationally and regionally. This has resulted in significant progress in the control of key zoonoses and development of some of the policy, institutional and operational collaboration mechanisms that support a One Health approach. However, each zoonosis brings unique challenges to surveillance and control efforts that vary depending on individual country contexts, and are changing as livestock and agricultural production systems and urban and rural human settlements develop and evolve. All GMS countries have lists of priority zoonoses, although not all these diseases, or other endemic zoonoses, are the focus of ongoing management, particularly outside of specific outbreaks.

Many endemic zoonoses are 'neglected tropical diseases' that may slip under the radar of current surveillance and health systems, with safe and effective treatments not always readily available for all communities at risk. Ongoing investments in workforce, diagnostic laboratory capacity and information technology are required to support disease surveillance and control measures. There is a need to further strengthen coordination and collaboration across sectors and between countries so that existing sectoral objectives are supported alongside efforts to prevent, control or eradicate zoonoses.

National and international health agencies recognize that effective prevention, control and elimination of zoonoses requires cross-sectoral 'One Health' collaboration across human health, animal health and environmental health sectors. Successful prevention and response to zoonotic diseases require:

- Continuous communication between the human health, animal, agriculture and environment sectors at local and national levels
- Knowledge sharing with affected communities, national and international stakeholders
- Integrated prevention strategies focusing effective resources at critical points for the maintenance and transmission of disease

- A prepared emergency response plan with well-defined roles and responsibilities
- Timely sharing of data and information from zoonotic disease surveillance across all sectors
- Integrated rapid response teams with combined public health and animal health staff
- Joint awareness campaigns and risk communications strategies
- Supporting research to identify risk factors for human or animal infection, and assess the effectiveness of prevention, treatment and control interventions

COVID-19 has disrupted some of these activities, as resources were pivoted to responding to the pandemic. On the other hand, some investments in the COVID-19 response have, or potentially can, strengthen the GMS's capacity to respond to zoonoses across the human, animal, agriculture and environmental sectors. More broadly, investments to support a post-pandemic 'green' recovery in the GMS need to align development priorities within specific sectors, including improving human, animal and environmental health, food security, biodiversity preservation and a clean environment, with opportunities to strengthen the ability to prevent and respond to zoonotic diseases.