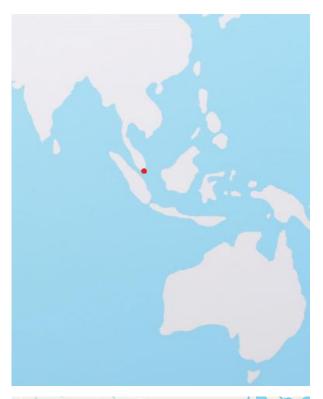


Collaborative surveillance: The Singapore Experience

EIOS Global Technical Meeting 2024 12 December 2024

Mr Guanhao Chan Public Health Intelligence, Ministry of Health, Singapore











Singapore

- Urban city-state of just 734km²
- Tropical climate on Equator
- Population: 6 million
- Population density: 8,207 persons/km² (2nd most dense country in the world)
- Urban environment with close proximity to wildlife areas.
- International trade, travel, and movement hub for people, animals and animal products, as well as vectors
- Lacks natural resources imports more than 90% of its food from more than 180 countries and regions.
- Highly vulnerable to public health threats mediated by climate change, global travel and international trade.

Integrated Surveillance System by MOH



Mandatory notifications
Sentinel and syndromic surveillance



24/7 hotline for anecdotal reports

Severe Illness and Death from Possibly Infectious Causes



Virological surveillance for viruses such as COVID-19, dengue, influenza, and enteroviruses



National seroprevalence surveys on herd immunity and to evaluate effectiveness of immunization programmes



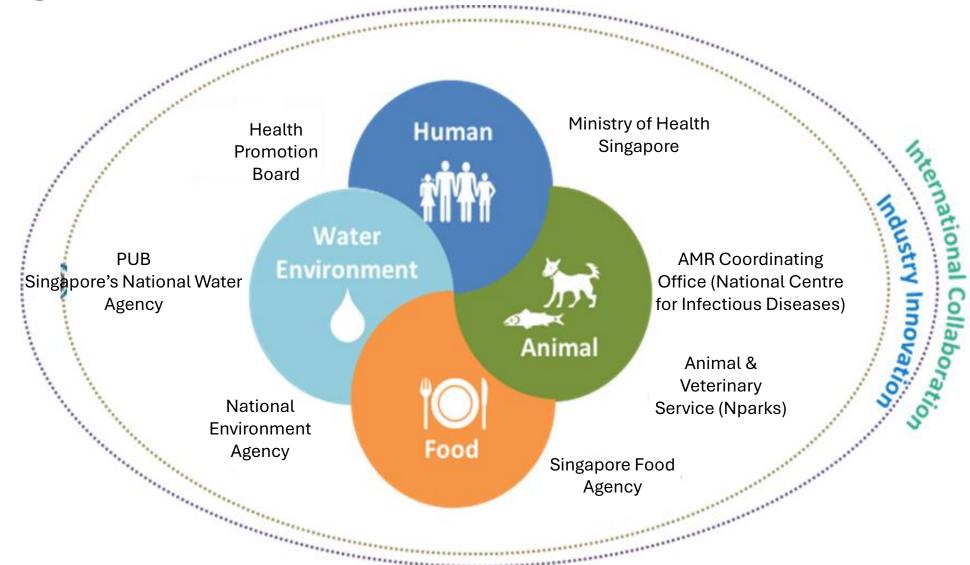
Horizon scanning and risk assessment International networks



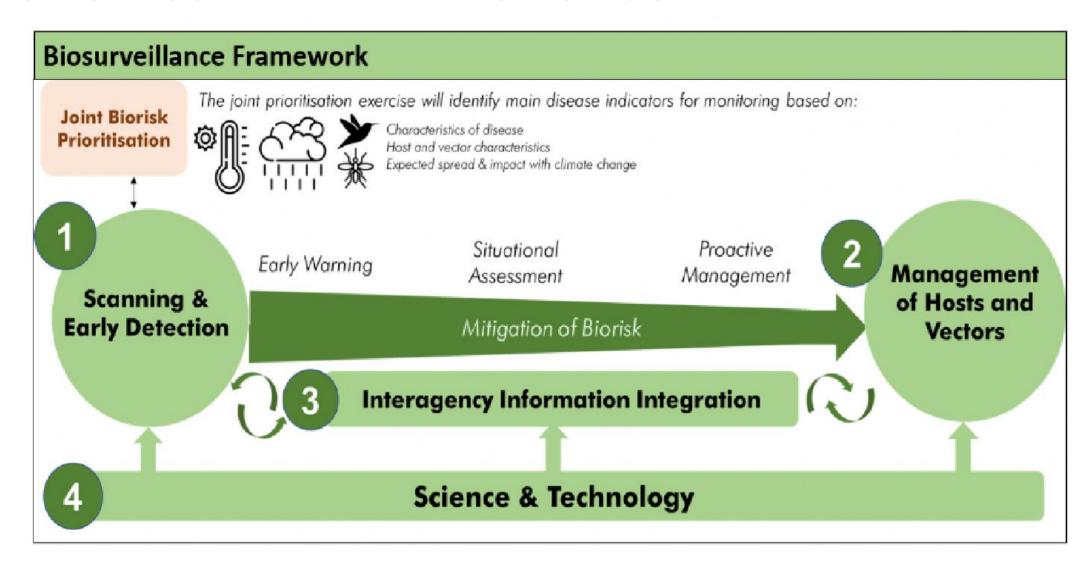
Non-intrusive surveillance strategy to complement clinical testing

Provides information which allows MOH to make timely and effective public health actions

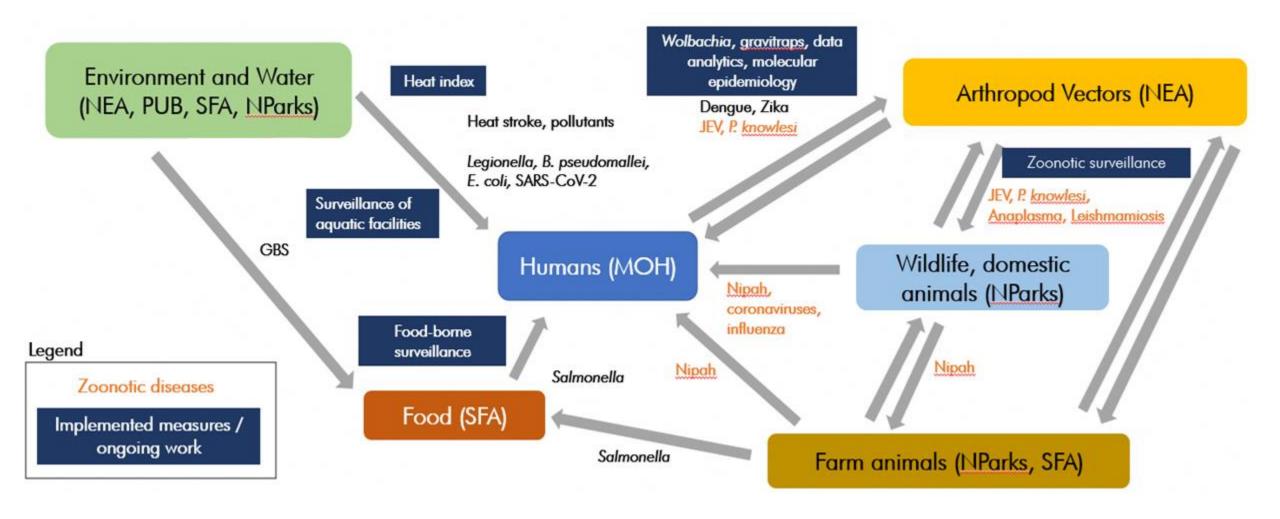
Singapore One Health Framework



One Health Bio-surveillance



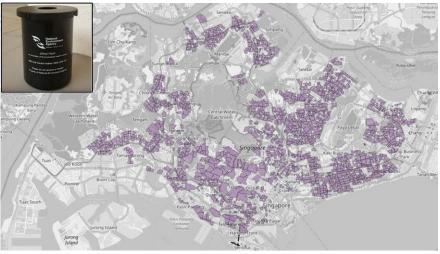
One Health Bio-surveillance



Other One Health surveillance collaborations

- Genomic surveillance
- Wastewater testing
- One Health Zoonotic Disease Prioritization
- National Strategic Action Plan on AMR
- Animal-borne and food-borne disease research studies





One Health Intelligence and Risk Assessment

- Promoting EIOS as a common system and platform for intelligence gathering
 - First on-boarding workshop conducted in April 2022
 - Next workshop to be conducted in Q1 2025
 - Formation of One Health Intelligence Team
- Cross-sectoral exchange of horizon scanning reports
- Joint Rapid and In-depth risk assessments of globally emerging public health threats with a humananimal-environment interface



NParks Horizon Scan Report 31 Oct – 13 Nov, 2024

- 1. Highlights
- 2. News on animal and zoonotic diseases of interest
 - A. Avian Influenza
 - B. Rabies
 - C. Other Diseases

1. Highlights

DAILY HEALTH DIGEST

Friday, 15 November 2024

- A. Notable Disease Emergence and Resurgence
 - 1. AFRICA: Mpox clade 1b spreads to more African countries
- 2. MULTI-COUNTRY: Measles cases surge worldwide, infecting 10.3 million people in 2023

Advancing One Health and Collaborative Surveillance

- Newly-established One Health Office as part of interim Communicable Diseases Agency
- Review of longer term One Health plans which include surveillance and data priorities
- Inter-laboratory networks
- Incorporate OH data sharing processes within existing IT platforms for more integrated assessments and actions
- Planned development of national surveillance strategy including the use of AI-mediated surveillance modalities
- Research grant programmes for One Health biosurveillance