

Mapping Nepal's Infectious Disease Surveillance Systems, Stakeholders and Challenges

Aavashana Dahal, Samikshya Singh, Dr.Ghanshyam Gautam

HERD International, Nepal

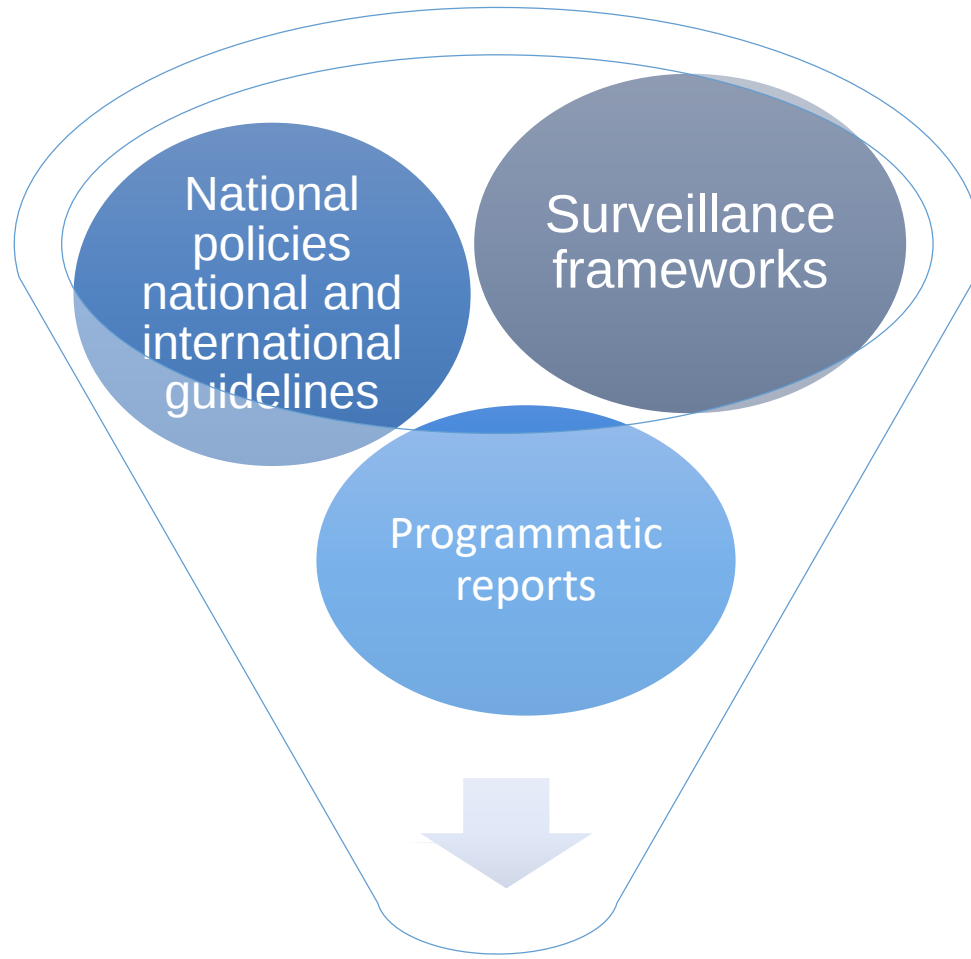
Outline of presentation

- Background and objective
- Key disease surveillance practices in Nepal
- Key actors in disease surveillance
- Key takeaway

Background

- ❖ Infectious disease surveillance is crucial for early detection, response, and containment.
- ❖ Nepal's diverse geography, socio-economic disparities, and open borders pose unique challenges, demanding an integrated system.
- ❖ While multiple surveillance systems exist, there is limited evidence on how well these systems engage stakeholders, interact with each other, hindering comprehensive monitoring and response.
- ❖ This study maps Nepal's key surveillance systems and stakeholders, outlining their roles within the existing framework.

Methodology



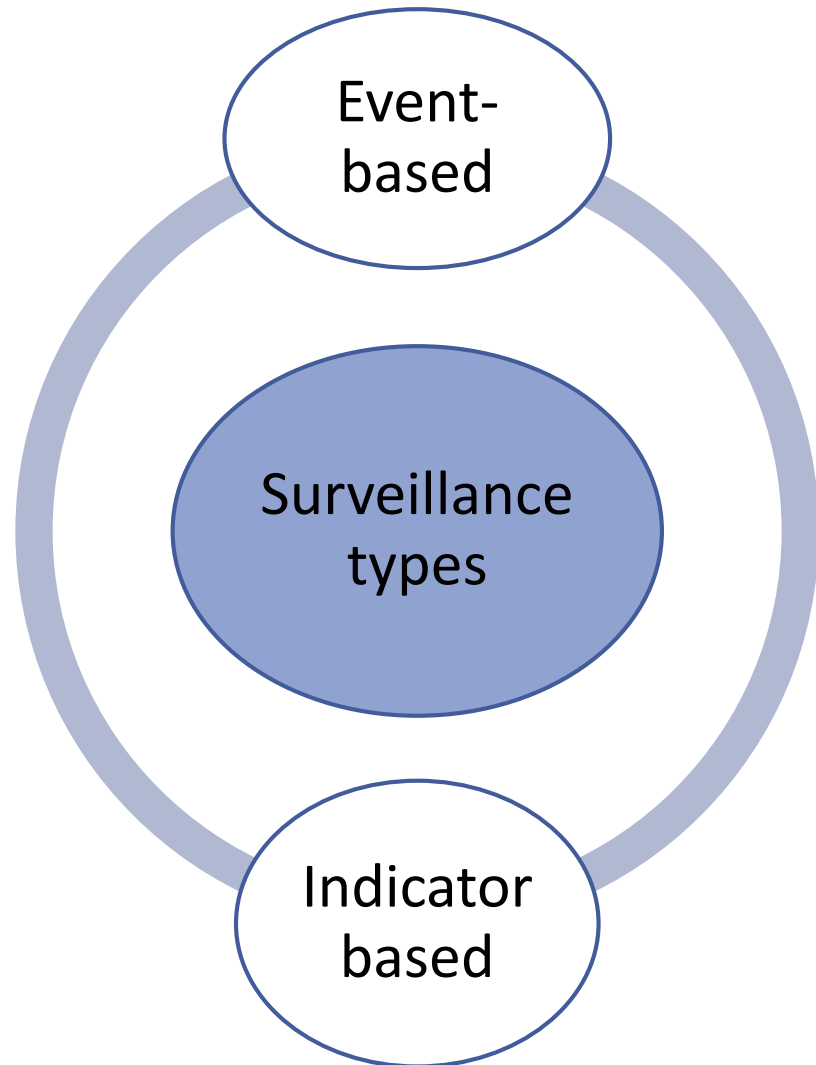
Systematic review

Keywords: Disease surveillance, surveillance systems, infectious diseases

Thematic Analysis: Identified key stakeholders and roles

Outcome: Informed discussions with government and partners on improving surveillance practices and frameworks

Findings



Key policy frameworks

Infectious Disease Act, 1964 Public Health Service Act, 2018

National Health Policy, 2019

Digital Nepal Framework, 2019

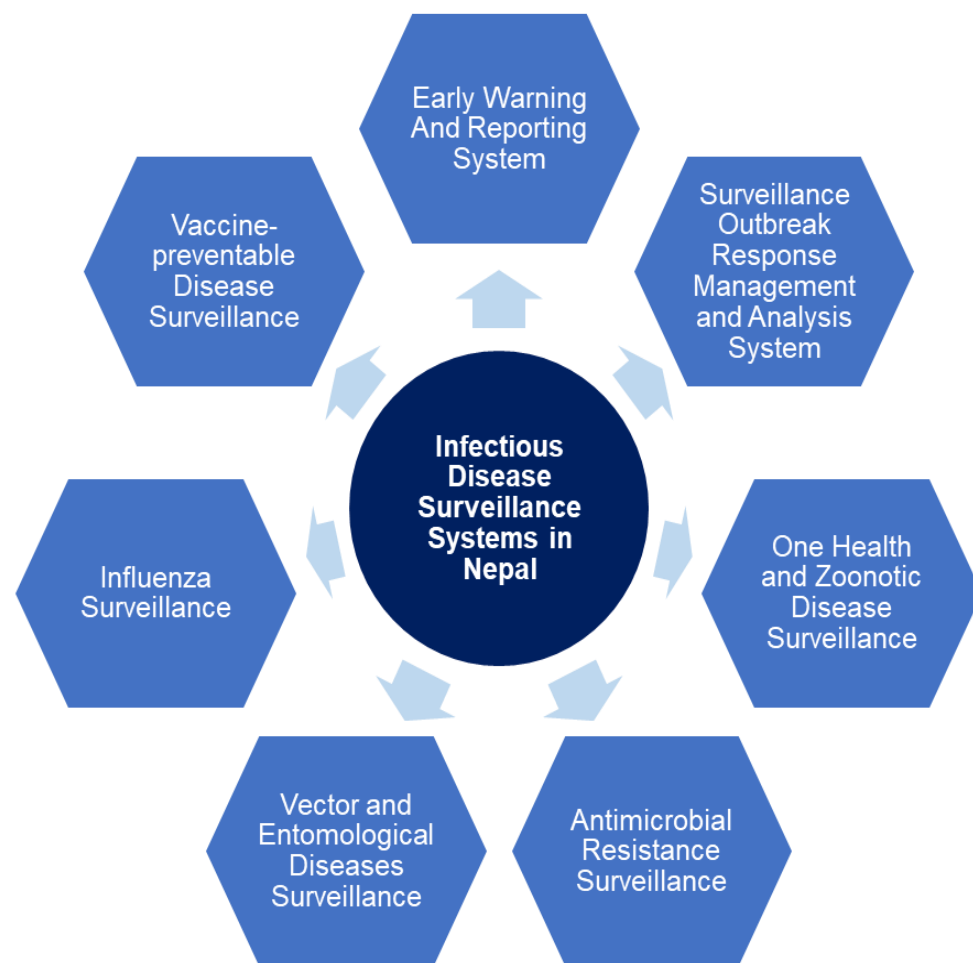
Health Sector Emergency Response Plan 2020 COVID 19 Pandemic

Nepal Health Sector- Strategic Plan, 2023 to 2030

16th five-year periodic plan, 2024/25 to 2029/30

Findings...

Key disease surveillance systems



Surveillance Systems	Diseases/Syndromes/Micro-organisms Under Surveillance
EWARS	Priority diseases/syndromes: Acute gastro-enteritis, Cholera, SARI. Malaria, Dengue and Kala-azar
SORMAS	40 infectious diseases but capable of capturing all 52 diseases
One Health and Zoonotic Disease Surveillance	Avian influenza, Rabies, Nipah, and zoonotic disease
AMR Surveillance	Escherichia coli, Klebsiella Species, Salmonella Species, Pseudomonas aeruginosa, Acinetobacter species, Staphylococcus aureus, Streptococcus pneumoniae
Vector and Entomological Surveillance	Malaria, Lymphatic Filariasis, Dengue, Zika, Chikungunya, Kala-azar, Scrub Typhus, and Japanese Encephalitis
Influenza Surveillance	ILI and SARI
VPD Surveillance	AFP, measles/rubella syndrome, neonatal tetanus, and AES

Key Actors in Disease Surveillance

Hospitals & Health Facilities

First point of contact for case detection and notification. 134 hospitals act as sentinel sites under EWARS. Notify RRTs, report to HMIS, conduct RDTs.

Laboratories

Central labs (NPHL, CVL, DFTQC) oversee AMR & surveillance. Provincial/hospital labs support testing and quality assurance.

Individuals & Rapid Response Teams (RRTs)

Individuals report via toll-free (1115) & assist in contact tracing. RRTs investigate outbreaks and submit reports.

Government

Local: Develop disaster preparedness plans, manage RRTs & PHESCs, and ensure health facility readiness. Provincial: Bridge between local & federal levels, oversee sentinel sites, and manage response coordination.

Key actors contd..

Epidemiology and Disease Control Division (EDCD)

Leads infectious disease surveillance, policy development, and capacity building.
Oversees EWARS, SORMAS, HMIS, and digital surveillance (DHIS2).
Coordinates RRT mobilization, epidemiological research, and lab testing with NPHL.

Integrated Health Information Management System (IHIMS)

Ensures disease data integration within HMIS and promotes interoperability with SORMAS & EWARS.
Strengthens data validation and reporting mechanisms.

Federal Ministries & Development Partners

MoHP, MoALD, NDRRMA lead policy, strategy, and resource mobilization.
WHO, UNDP, USAID, FAO support capacity-building, legal frameworks, and cross-sector collaboration

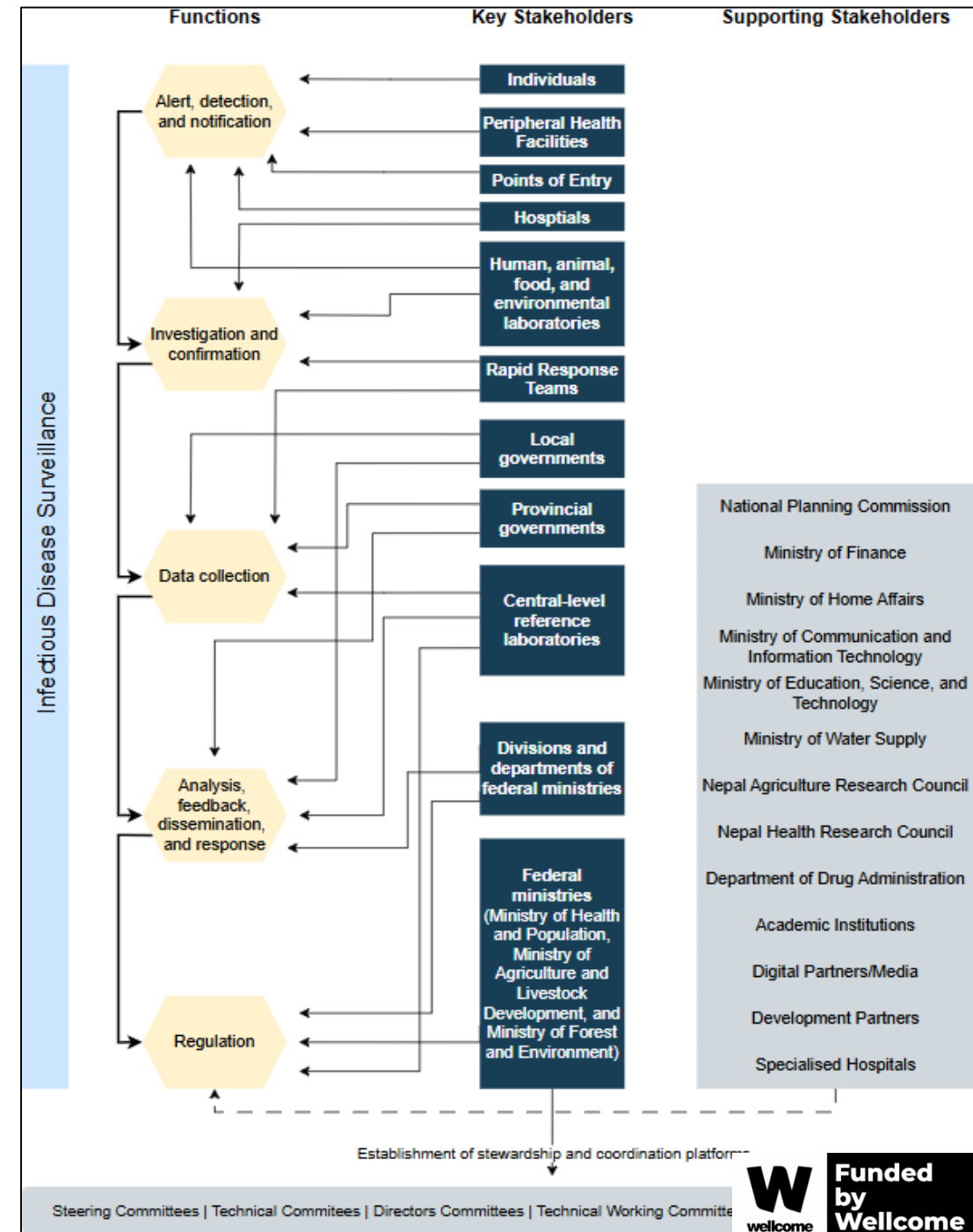
Key actors contd..

Other Key Stakeholders

Media
Point-of-Entry, FCHVs
Digital Partners
National Statistics Office (NSO)

Potential future role of NSO

- ❖ Establishing a centralised data hub,
- ❖ Conducting in-depth analysis,
- ❖ Updating national data profile.
- ❖ Incorporating surveillance variables into national censuses and surveys,
- ❖ Building statistical capacity of health professionals
- ❖ Establishing a multisectoral coordination mechanism for data



Key takeaway

This study highlights the need for a unified approach to surveillance, leveraging existing systems and stakeholder networks to enhance early detection, response, and resource allocation, contributing to improved public health outcomes in Nepal

The Pandemic Preparedness Toolkit could be one of the platform, where NSO and MoHP can collaborate together for pandemic preparedness and response.

THANK YOU!

HERD International
Bhaisepati, Lalitpur, Nepal
PO Box Number 24144
Office: +977-01-5914875, 5914873
Web: www.herdint.com



Aavashana Dahal is a MERL Officer, holding a Master's in Public Health and Wellbeing from the University of West London. She excels in translating research into actionable policy, having led advocacy efforts and developed materials to engage stakeholders on SRHR issues.