



World Organisation
for Animal Health



SEACFMD EPIDEMIOLOGY NETWORK MEETING

Outbreak Investigation Questionnaire Result

Karma Rinzin
WOAH SRRSEA

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Key Parameters for Outbreak Investigation

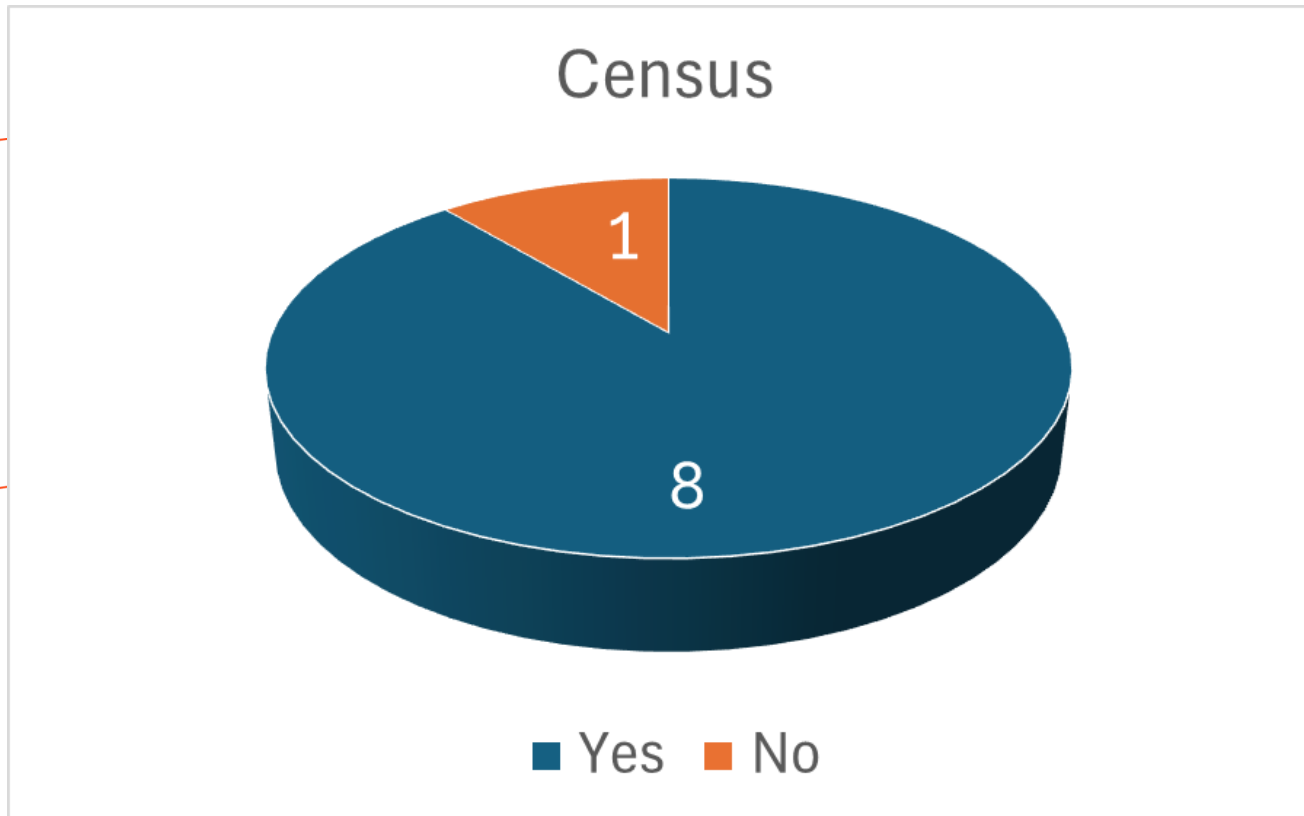
- Case definition
- Epidemiological Unit
- Census – Population at risk
- Diagnosis tests
- Surveillance
 - Passive surveillance
 - Active surveillance
- Vaccination and PVM





Census

LIVESTOCK CENSUS – DENOMINATOR



$$\text{Prevalence} = \frac{\text{Number of existing cases}}{\text{Size of population}}$$

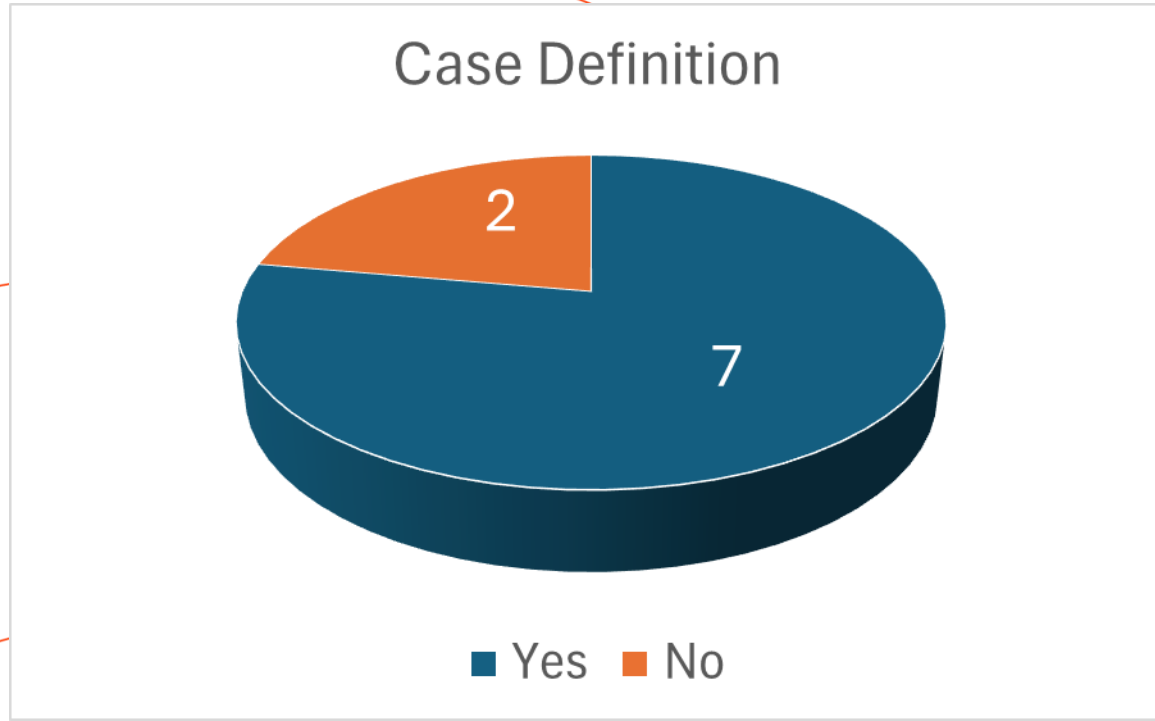
For any other purpose?

$$\text{Incidence risk} = \frac{\text{Number of incident cases}}{\text{Number of individuals initially at risk in a defined period}}$$



Case definition

CASE means an individual animal infected by a pathogenic agent, with or without clinical signs



Can we come up with a common Case Definition?



Epidemiological Unit

An outbreak is a *series of disease events clustered in time and space*.

An **outbreak** means the occurrence of one or more *cases* in an *epidemiological unit*.

Epidemiological Unit means a group of animals with the same likelihood of exposure to a pathogenic agent.

Country	Epi Unit
Cambodia	Farm/household/village
China	Farmers/Units/zones based on respective biosecurity level
Indonesia	Farm or household
Lao PDR	None
Malaysia	case by premise
Mongolia	None
Myanmar	village
Thailand	Village
Vietnam	Commune level

Can we agree with common Epidemiological Unit?



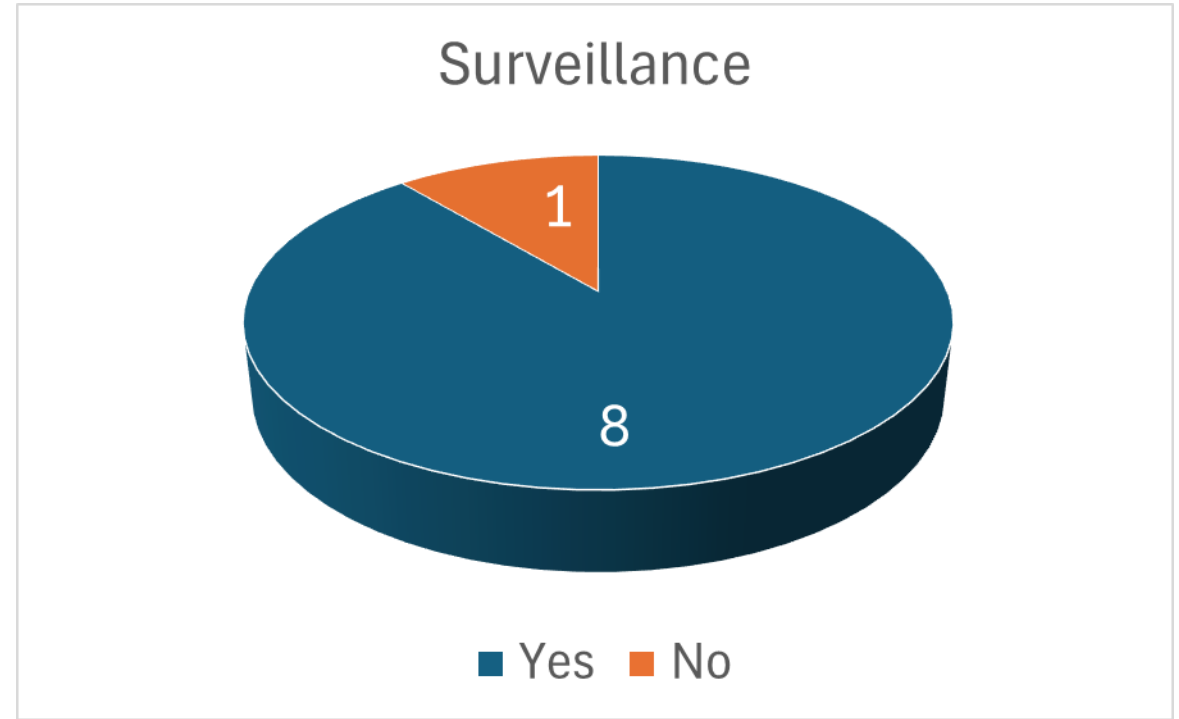
Diagnostic tests – All Yes

- Detection and identification of the agent/antigen
 - Virus isolation
 - Molecular tests
 - LFD
- Detection of immune response
 - ELISA (SP & NSP)
 - VNT
 - AGID
- Apparent prevalence
- True prevalence
- Sensitivity
- Specificity
- False Positive?



Surveillance

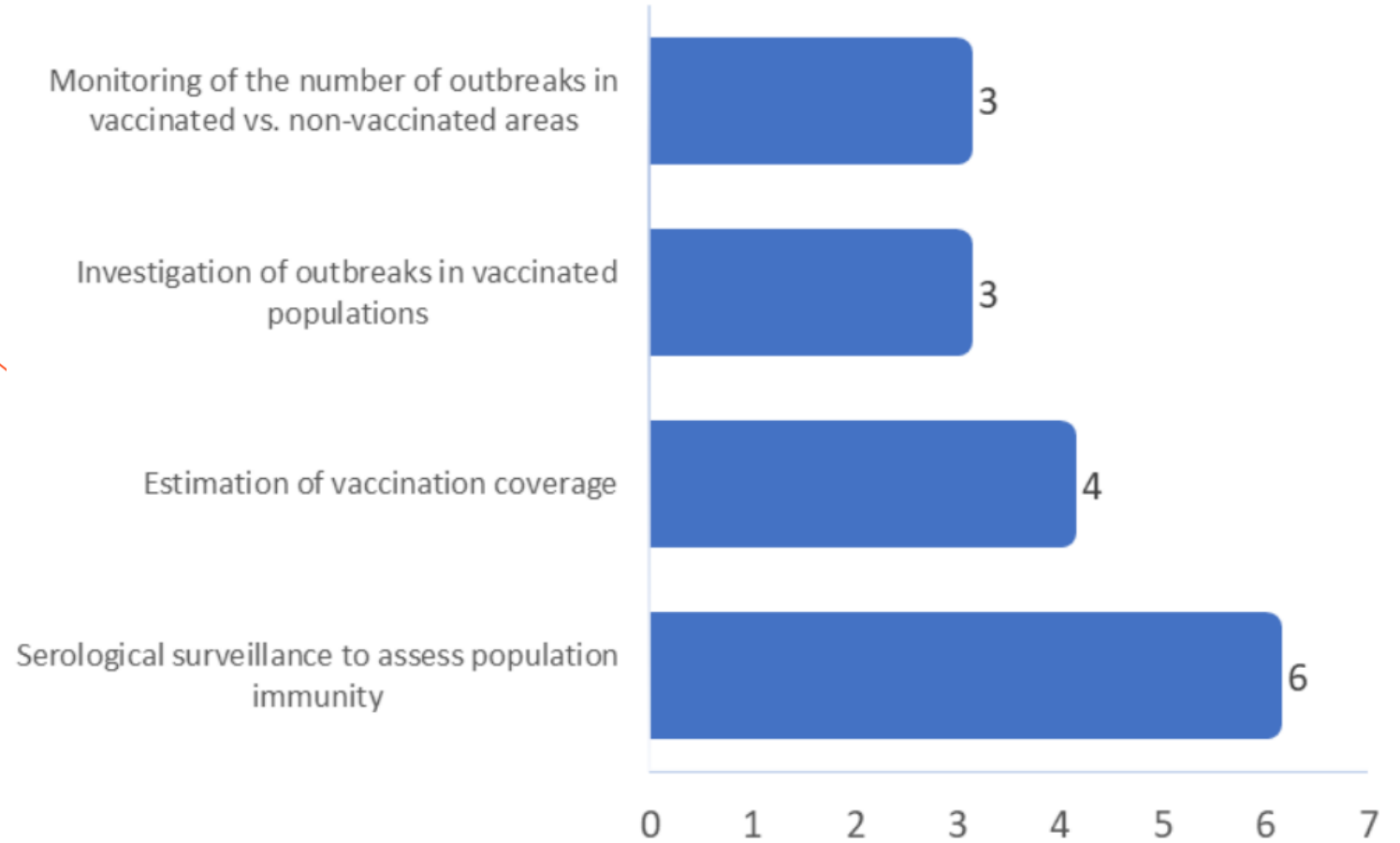
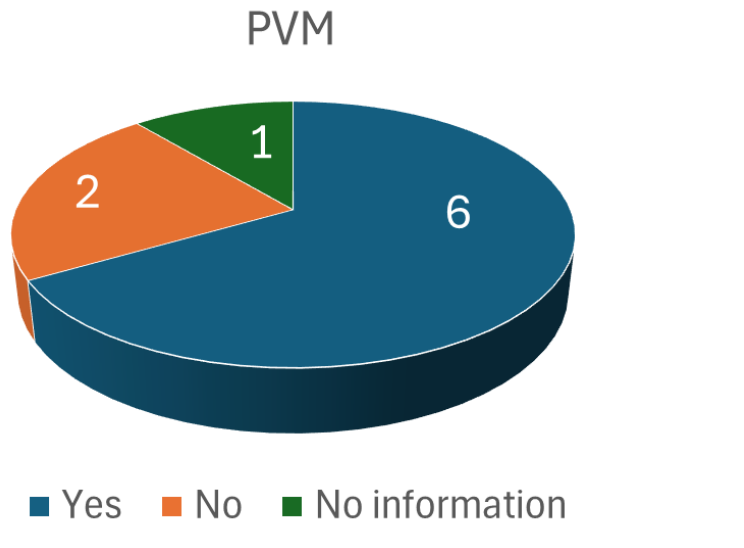
- Passive surveillance – sensitivity?
- Active surveillance – to assess prevalence, to prove freedom from disease





Vaccination

- All 9 Members conduct vaccination





Thank You