One Health surveillance evaluation applied to ABR surveillance in Vietnam

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Outline

- Research context and question
- Method
- Result

Working definitions

I. **Research context and question**

II. *Method*

III. *Results*

Surveillance
Ongoing collection of data about a health event in a specific population to study its evolution in time and space and to inform appropriate decision to mitigate the related risk *(adapted from Hoinville et al., 2013)*

One Health surveillance system:
System in which **collaborative** efforts exist across **at least two sectors** (among human health, animal health, and environment) in the surveillance process to produce and disseminate information with a purpose to improve any of human, animal or environmental health. *(Bordier)*

Evaluation of a surveillance system/component
The **determination of its merit** by confronting the results to the standards, targets, criteria or a counterfactual system. *(Calba et al., 2013)*

One Health surveillance

I. **Research context and question**

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Why do we want to do One Health surveillance?

- More efficient approach to tackle health hazard issues at the human-animal-environment
  - Generate knowledge
  - Early warnings
  - Information from public health policy and implementation of control strategies
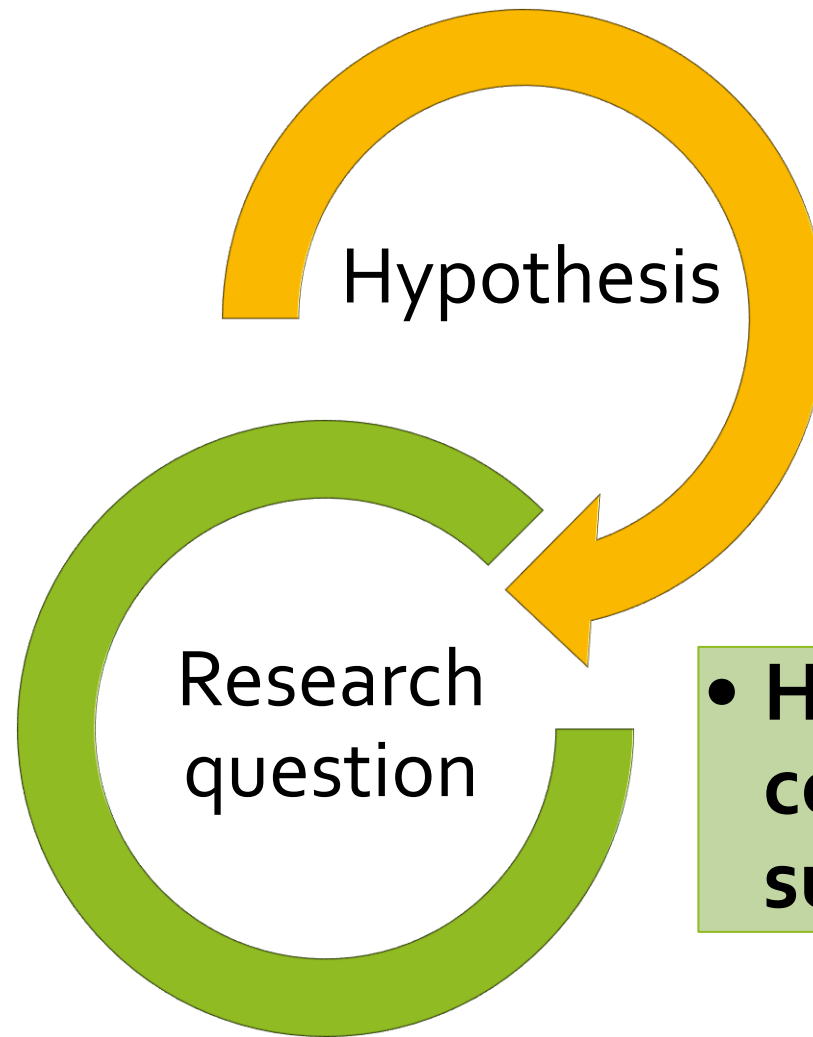- More cost effective (economy of scope)

The reality...

- Resource demanding
- Difficult to operationalize
- Ecosystem health often put aside

Research framework

I. **Research context and question**
II. *Method*
III. *Results*

Hypothesis

Research question

- Difficult to identify the appropriate collaborations.
- No clear evidence of the impact of collaborations on surveillance value
- No tools to evaluate the appropriateness of collaborations and their impact on the surveillance value

- **How to evaluate collaborations in a OH surveillance system?**

Research methodology

I. Research context and question
II. **Method**
III. *Results*

Evaluation matrix

- Define the attributes
  - Based on conceptual framework + attributes OASIS/Risk Sur
  - Refined by elicitation of expert opinion
- Define methodology to measure attributes + targets/standards for the evaluation

Application- Evaluation of ABR surveillance in Vietnam

- Defining evaluation question
- Choosing the relevant attributes to answer the question
- Assessing the chosen attributes
  - Interviews and literature review
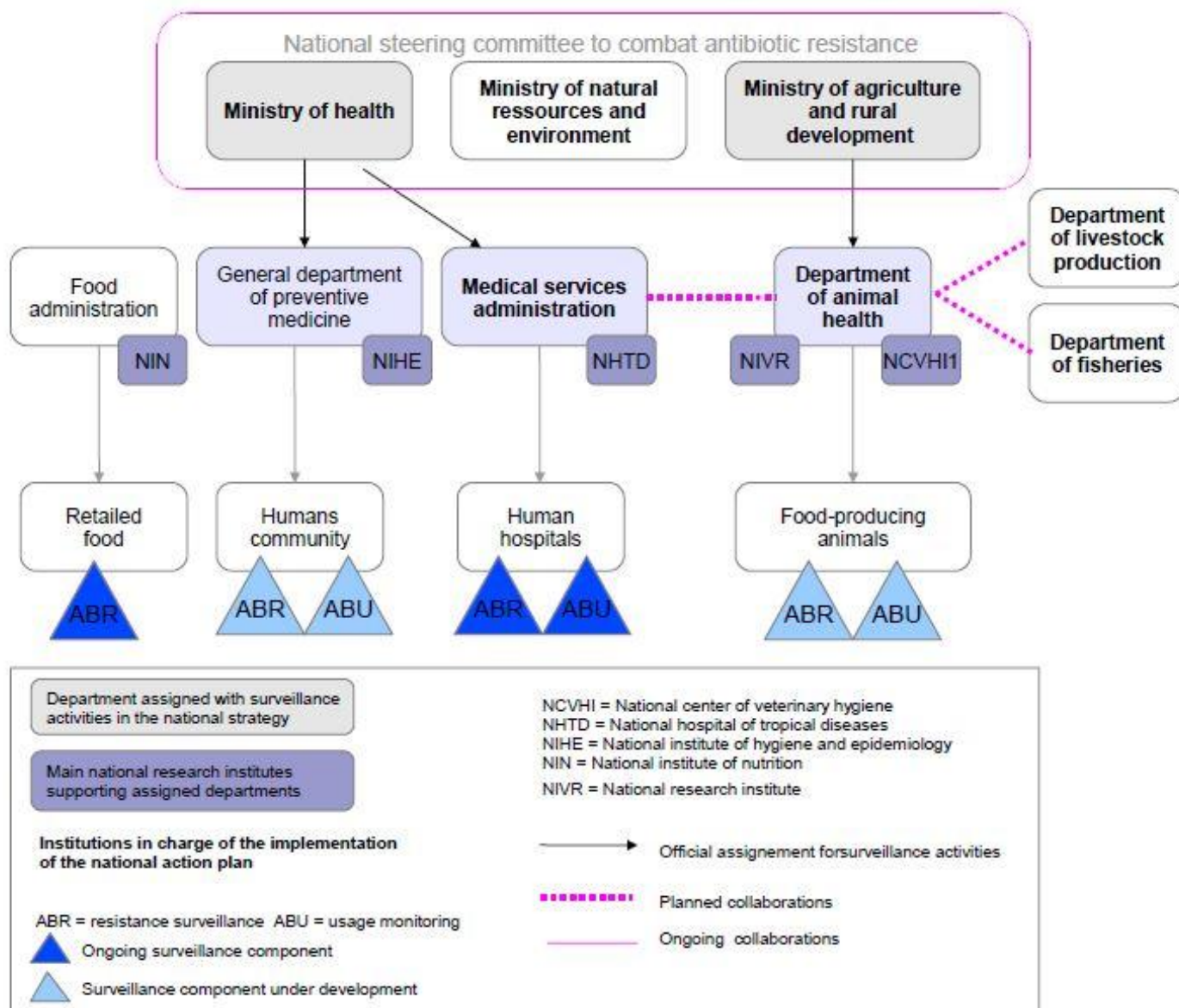
Figure by M. Bordier

Surveillance of ABR in Vietnam: a One Health surveillance system?

I. *Research context and question*

II. **Method**

III. *Results*

Conceptual framework

I.   *Research context and question*

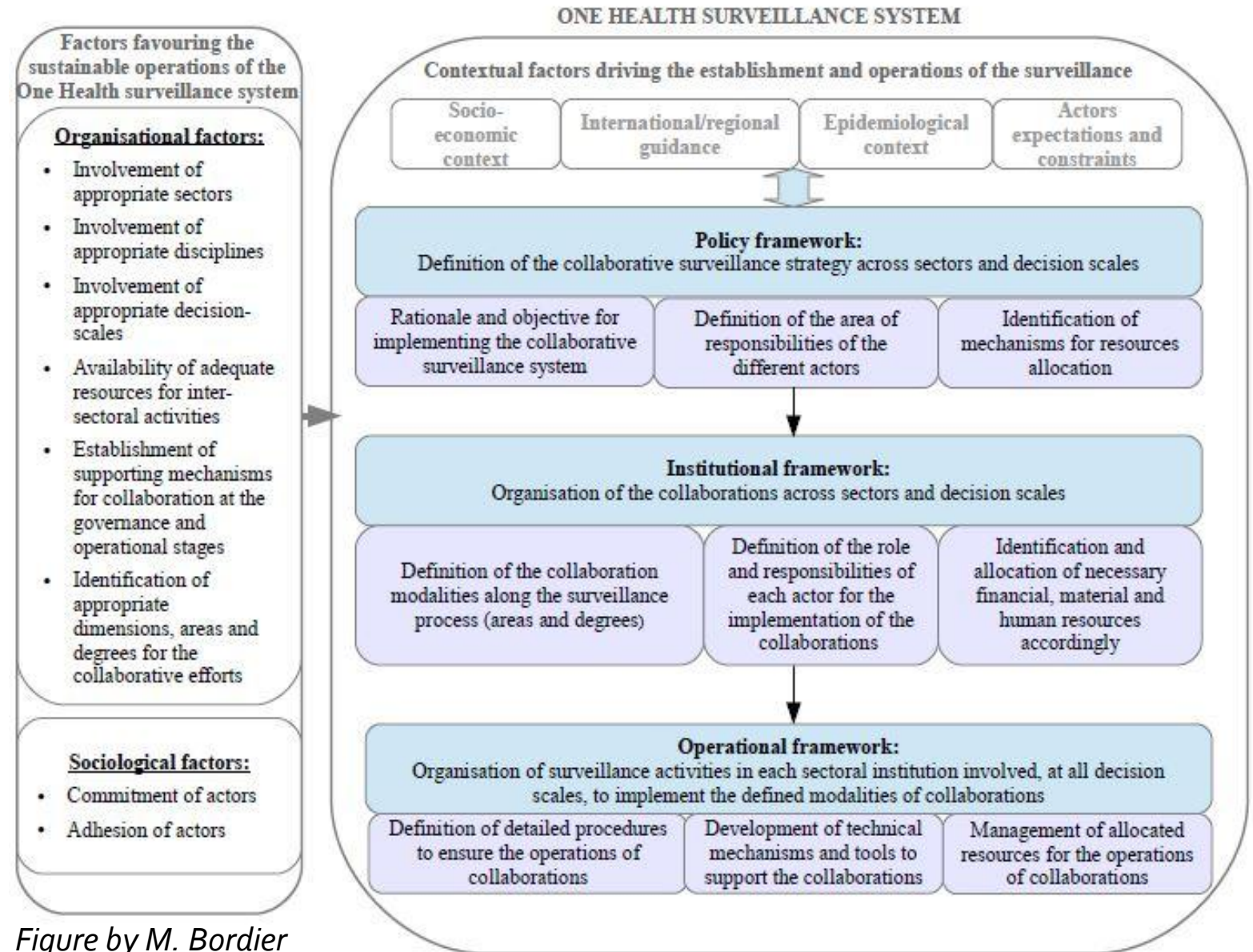II. *Method*

III. **Results**

Figure by M. Bordier

Attributes defined by OASIS and Risk Sur (in 5 groups)

I. *Research context and question*

II. *Method*

III. **Results**

Name	Group	Definition
Governance	Formalization at the policy level	Level of detail, precision and formalization of the objectives at the policy level
Operations	Data collection	The use of appropriate data sources and collection methods including automation of data collection where appropriate and the existence of a case definition and data collection protocol including an appropriate sampling strategy
Function	Acceptability and engagement	Willingness of persons and organizations to participate in the surveillance system, the degree to which each of these users is involved in the surveillance.
Effectiveness	Timeliness	This is usually defined as the time between any two defined steps in a surveillance system, the time points chosen are likely to vary depending on the purpose of the surveillance activity.
Surveillance value	Benefit	The benefit of surveillance quantifies the monetary and non-monetary positive direct and indirect consequences produced by the surveillance system and assesses whether users are satisfied that their requirements have been met.

(Hendrikx et al., 2011) (Calba et al., 2013)

Attributes for collaboration

I. Research context and question

II. Method

III. Results

Name	Risk Sur/ OASIS definition for the evaluation sectoral surveillance system	Definition for the evaluation of collaboration in a OH surveillance system
Formalization at the policy level	Level of detail, precision and formalization of the objectives at the policy level	Formulation of the **rationale and objectives of the collaborative surveillance effort** as well as the a**rea of responsibilities of the surveillance actors** and the dimensions of the collaboration in document(s), and **endorsed by all** the actors from different sectors and decision scales involved.
Data collection	The use of appropriate data sources and collection methods including automation of data collection where appropriate and the existence of a case definition and data collection protocol including an appropriate sampling strategy	Implementation of **appropriate collaborative activities** for the data collection (ex: data standardization to allow inter-sectoral comparison and combination of data) and **availability of related resources** (financial, technical, human), to meet the collaborative surveillance objective and to comply with the collaborative modalities defined at the institutional level

New attribute	Definition for the evaluation of collaboration in a OH surveillance system
Data exchange	Implementation of appropriate collaborative activities for data exchange (ex: compatibility of information systems across sectors) and availability of related resources (financial, technical, human), to meet the collaborative surveillance objective and to comply with the collaborative modalities defined at the institutional level

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Expert opinion elicitation

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- **Assessing the chosen attributes**
  - **Interviews and literature review**

Thank you !

Bibliographie

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- Figure 1 "One Health": https://www.wur.nl/upload_mm/5/a/6/f2983a5c-a8f7-485c-8af3-47d2bc25a160_onehealth.jpg