



Report on WP2Epi,

**Task T2.1: “Inventory and
Requirement analysis,
mapping the field”**

JIP1 - ORION - AI1 - 1st Call

Responsible Partner: FLI, BfR



GENERAL INFORMATION

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Report on WP2Epi, Task T2.1: Inventory and Requirement analysis, mapping the field

Subtasks 2Epi.1.1: Literature research; Development of a questionnaire to collect information from all project partners

Mapping the field:

- 1) Literature research: We gathered information on data sources, where information on surveillance systems could be found (e.g. EFSA, EU, ECDC, literature review) or obtained (government, institute, questionnaire). For this purpose, we screened the World Wide Web (Google, Google Scholar, PubMed) for results of surveillance systems and we asked all partners within WP2Epi to fill in the Excel sheet described below.
- 2) Surveillance overview: To get an overview on surveillance systems within the WP2Epi partner's countries, we developed an Excel sheet and asked the partners to list the surveillance systems they are working with. For this purpose, we looked in more detail at the existing tools *SurF*, *RiskSur* and *SERVAL*, to see if they could be used to create a schema for our inventories. Our Excel sheet was inspired by the scheme of the *RiskSur* Tool (<https://www.fp7-risksur.eu>).

Results:

Partners reviewed and answered the surveys preliminarily, but pointed out the need to align terminology across sectors before a more complete inventory can be achieved, as discussed further below.

- 1) Information on existing data sources and descriptions of surveillance systems
The screening of the World Wide Web showed that there are many publications available as reports on websites of national institutes in local language. Hence, it was more promising to gather information directly from the partners on available data sources in their own countries. In total, six partners gave feedback on data sources/descriptions using an Excel sheet. The majority of the datasets are listed as results from previous surveillance systems (304), there are only 18 entries on the description of surveillance systems (Figure 1). Out of the 322 entries, 237 include information on zoonoses. The list showed that many of the reports are official reports in local language and are published on the website of the responsible authority.
- 2) For the list on Surveillance Systems, we received answers from 5 partners with 294 entries, 171 reported hazards and 194 established surveillance systems. In total, 75 systems are classified as zoonosis, 63 are classified a "no zoonosis" and the other entries are not classified or uncertain (Figure 2).

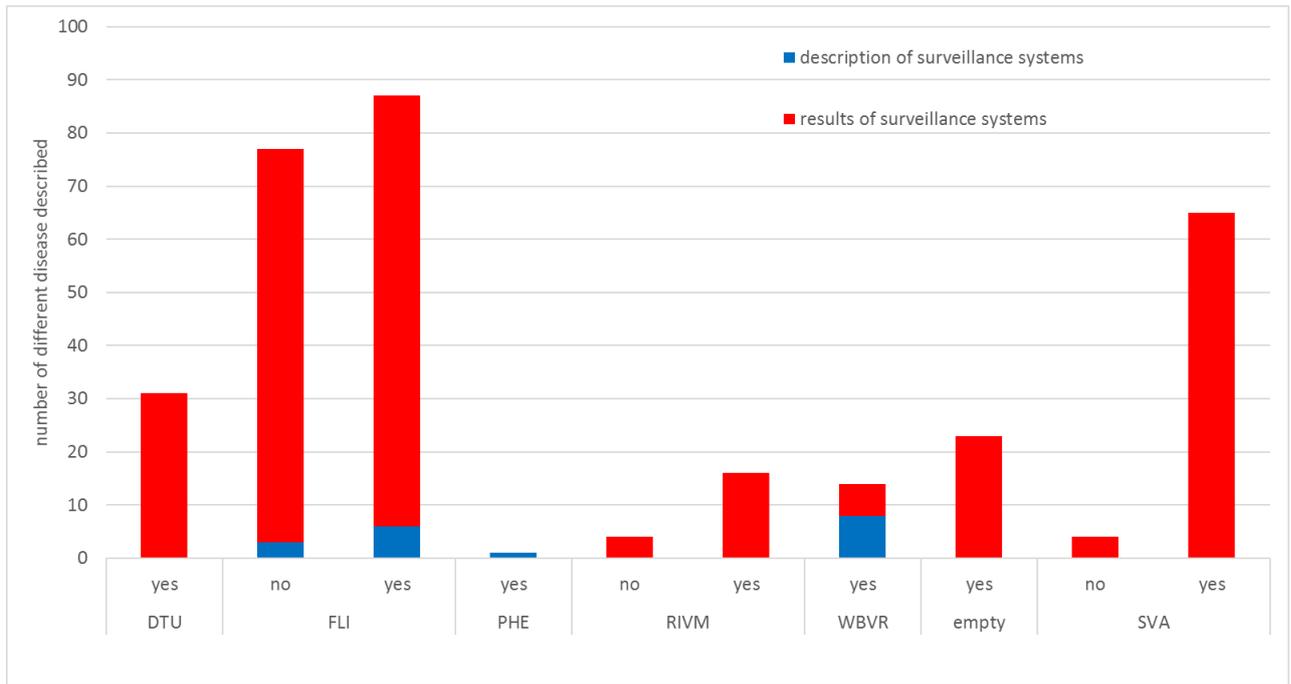


Figure 1: Number of different diseases described by available data sources entered to the Excel sheet in the first screening, ordered by partners and zoonosis (yes or no). One data source (e.g. report) can cover several diseases.

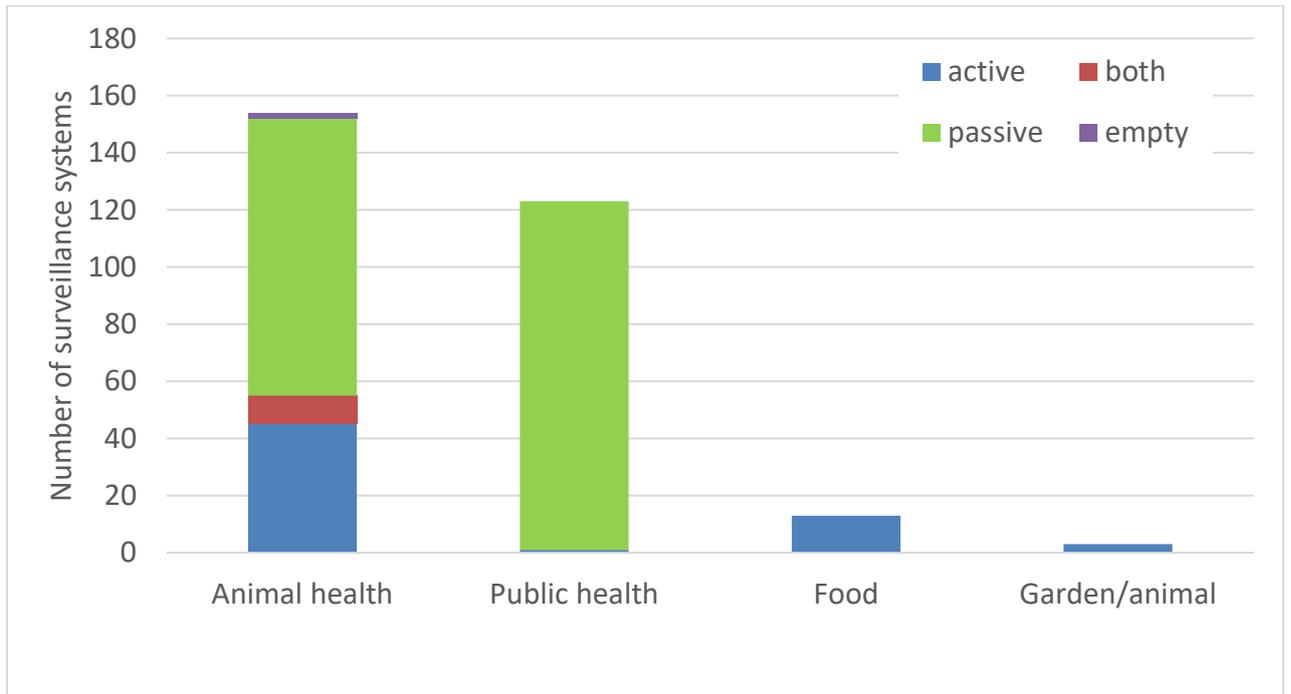


Figure 2: Number of Surveillance Systems identified in the first screening ordered by sector and type of the surveillance system.

We presented the results on the first meeting in April and discussed the Excel lists. The most important issue was that the definitions of terms are interpreted differently between partners, countries and sectors. For example, the terms “active surveillance” and “passive surveillance” were more commonly used in the Veterinary Sector but not in the Public Health sector (Figure 2). For that



reason, we decided first to align the terminology before setting up a common database. Hence, we worked closely together with WP1 to define the terms that will be used in the knowledge base.

Despite the problems with definitions, the results showed that the *RiskSur* scheme, which originally had been developed for animal health surveillance, could be suitable to inventory not only animal health, but also public health and food safety surveillance systems, when making some modifications for that purpose.

Furthermore, it was discussed that the inventory on existing data, methods and the description of surveillance systems will need to be developed in different ways. Subsequently, the decision was made to split the scheme design into three subgroups:

1. Surveillance systems
2. Surveillance data sources
3. Methods and Tools used for surveillance

Nevertheless, at the end there should be an option to link between these three tables.

Subtask 2Epi1.3 Follow up discussions and decisions

1) Description of surveillance systems

In the following months, we mainly worked on defining terms that will be used in the inventory and compared these definitions between sectors. . Additionally, we held a webinar to explain the surveillance system in different sectors in order to increase the understanding of other sectors. Overall, the description of the surveillance systems should be useful for WP3 as a basis to evaluate the different surveillance systems.

As this process was quite complex, we decided to create separate lists for each sector and to combine it afterwards. For the subgroup on Surveillance Systems, a **second screening** round was started. Partners were asked to describe their surveillance activities in the appropriate language for their sector. In total, four answers were received for this call. Furthermore, an alignment between RISKSUR, member states annual reports to ECDC, and to EFSA were compared. It became evident that the general structure of the surveillance process is similar across sectors (animal health, public health and food safety), but the terminology used can vary a lot. As a result, we decided that in year 2 we would carry out a more extensive inventory of surveillance programs in all three sectors, circulating spreadsheets that are aligned with the terminology in each domain specifically. Afterwards, however, the results of the inventories will be combined, based on the similarities identified while still ensuring preservation of the dissimilarities. This is possible due to the tight cooperation of WP1 and WP3, which investigated and will document, respectively, how differences in terminologies across sectors can be aligned.

The final scheme is developed and agreed with WP3 and uploaded to the repository. In the next months, we will use the pilot studies to check if the tool is suitable to all different surveillance systems and will be adopted accordingly. Furthermore, the answers will be used to evaluate which entities are allowed for each field. This topic will be discussed with ECDC and EFSA in order to be able to exchange data between systems.

2) Data sources / Methods & Tools



The preliminary screening showed that there are many reports available but it is hard to list it in a unique way because there are different publication types, e.g. scientific publications, reports, data on websites, databases. Hence, we decided to use a common system, which can list all different data sources and be used to collect relevant information for the repository. It was finally decided to use the Zotero reference management tool (*Zotero*, <https://www.zotero.org>) to collect available information. The fields of the reference manager will be extended by fields necessary to link the data to the surveillance systems. To collect the data in a unique way, it was decided to collect the data for Methods & Tools with the same reference management tool (*Zotero*). We created groups in Zotero for Data Sources and Methods & tools and gave access to all partners. The next step is to define the fields that are necessary to link between Data sources, Methods & Tools and the description of surveillance systems.

As a follow up of our first survey (see above), we set up a second survey that was then carried out as a part of the ORION M9 survey (Subtask 2Epi1.3). In total there were 11 responses from 6 countries. Five responses were submitted by the sector animal health, four by the public health sector and two from institutes covering all fields (animal health, public health and feed & food). In all countries, reports on surveillance systems are available and, for eight cases, they are publicly available. Regarding the tools and methods, we received seven answers with information on tools. The answers are very detailed; some responders reported the use of the following software: SAS, STATA, Excel and R. For the methods, responders referred to general methods, e.g. descriptive statistics, with several responders stressing that the used method is purpose driven. Hence, the challenge will be to create a list with all purposes in the field of surveillance systems (e.g. sample size calculation, early detection, descriptive statistics, prevalence estimation) and collect the tools according to the purpose.

Due to the small number of replies, it will have to be decided if the survey will be revised and distributed to all OHEJP partners again