Annual EUSR Reports on Zoonoses and Food-borne Outbreaks and Antimicrobial Resistance

Customer feedback – Final report

23 July 2019

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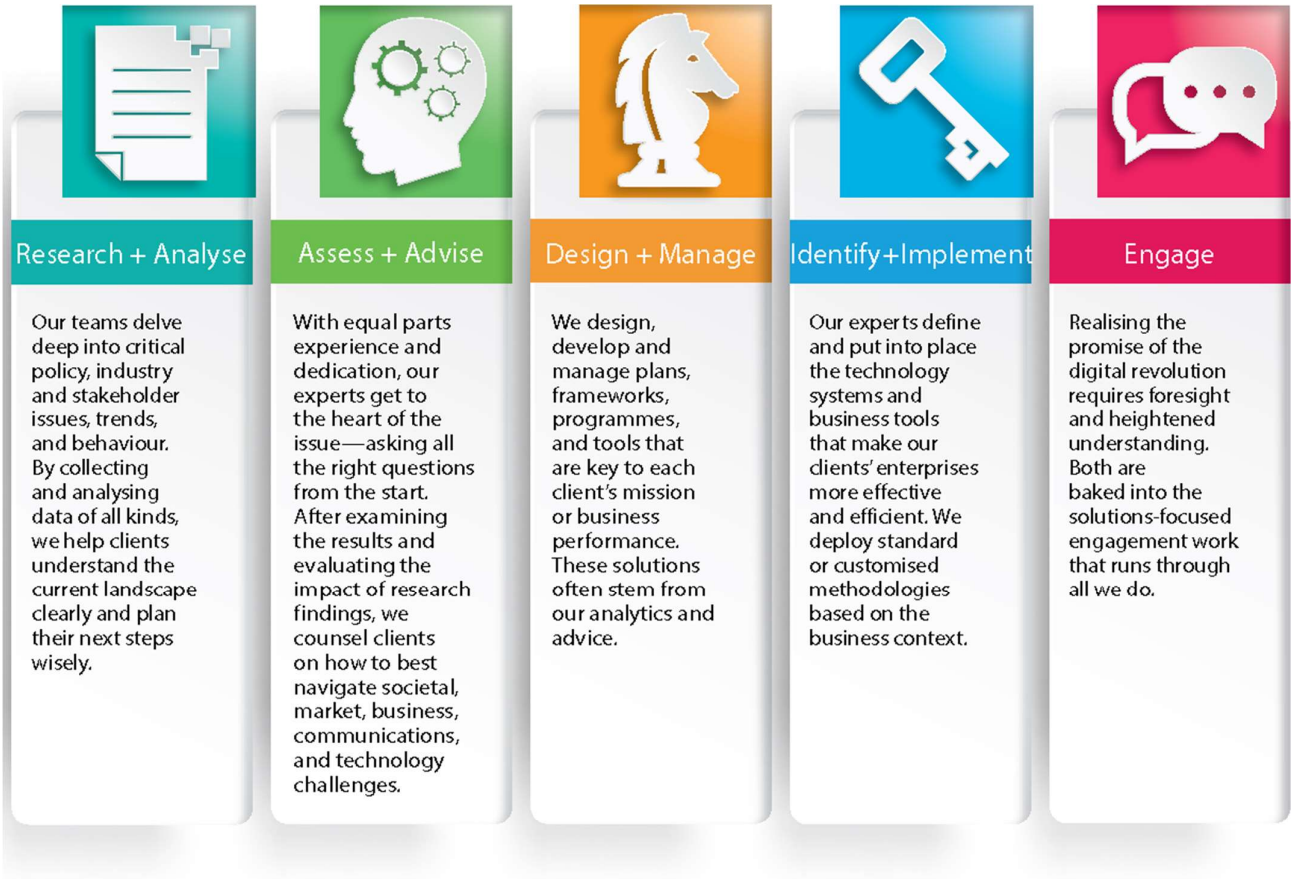

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Customer feedback

A report submitted by ICF Consulting Services Limited

Date: 23 July 2019

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Executive summary

EFSA monitors the occurrence of food-borne zoonoses, zoonotic agents and antimicrobial resistance in humans, animals and food in collaboration with the ECDC as defined in the Zoonoses Directive 2003/99/EC. As part of this responsibility, EFSA annually publishes two European Summary Reports (EUSRs) assessing the trends and sources of zoonoses, zoonotic agents and food-borne outbreaks (zoonoses) and antimicrobial resistance (AMR) in zoonotic agents.

This report brings together feedback from EFSA's stakeholders and customers on the efficacy, efficiency, relevance, added value, coherence and timeliness of the annual EUSR on zoonoses and food-borne outbreaks and of the annual EUSR on antimicrobial resistance in collecting data and supporting informed risk assessment and risk management.

This study applied a mixed-method approach to collate views from across various key stakeholders. An online survey and semi-structured interviews were carried out in April and May 2019 in order to obtain a mix of quantitative and qualitative feedback on the EU Summary Reports for Zoonoses and AMR. Respondents came from 34 different EU and affiliated countries and were associated with EFSA's Zoonoses Monitoring Data Network, EFSA's Advisory Forum, EFSA Panels, ECDC, DG SANTE and EU Reference Laboratories (EURLs) for food-borne pathogens.

Stakeholders were generally positive about all aspects of the reports. Both reports were considered to provide an adequate assessment of sources and trends of zoonotic agents and AMR by most respondents and to satisfy the needs of stakeholders. Although there are clear differences between the content of the report on zoonoses and the report on AMR, many stakeholders did not distinguish between the reports when interviewed. Survey results also indicate similar views regarding the two reports.

The EUSRs are considered to be an essential and unique source for the collation of national data. The EUSRs add value by providing a repository of information all in one place with a clear overview of trends. This subsequently reduces the burden on risk assessors to collate and analyse information themselves. The EUSRs are also considered to have encouraged co-ordination between risk assessors across MS and in some cases, motivated competition to improve risk assessment procedures. Although some stakeholders did not agree that the overview of national data was sufficiently detailed for comparative analysis but acknowledged the challenges of bringing together the available data and the steps EFSA are making to address these issues already.

Stakeholders were highly positive about the extent to which the EUSRs adhere to the Founding Regulation. Although, this close adherence was also identified as a potential challenge; limiting opportunities to expand the scope of the reports outside of the legislative requirements (i.e. incorporating emerging risks and providing more granular analysis).

In general, there was agreement among stakeholders that the EUSRs align with the One Health report approach and that they demonstrate alignment between ECDC and EFSA's joint objectives. The collaboration between ECDC and EFSA in bringing together data on humans, food and animals was considered one of the most valuable aspects of the EUSRs. Although, there were some appeals for improved comparability and a more integrated approach to reporting between EFSA and ECDC.

Overall, the size and format of the EUSRs are considered to be appropriate and necessary to provide a comprehensive analysis. Some noted that the reports could be improved with more interactive or visually engaging images while still remaining sufficiently detailed. Requirements of the report also vary depending on the type of stakeholders. Risk assessors and managers tend to be satisfied with the level of detail related to emerging trends and performance of each MS, while stakeholders within a communication or dissemination role indicated that the reports can be overly detailed for their purposes.

Stakeholders, DG SANTE, hold similar views to the wider stakeholder group. They too, tend to agree that the EUSRs are useful, adequate and relevant for their decision-making needs. They also

indicated a desire to receive more frequent information focused on emerging risks. However, there was a lack of interest in receiving more detailed, raw data reflecting a greater need for short summaries and interpretive analysis for further dissemination. This suggests a level of compromise may be necessary between the different customer requirements.

Recommendations to further optimise the EUSRs are outlined below. Some of these suggestions fall beyond the current scope and the requirements of the Zoonoses Directive.

- Continue work on harmonising data collection between Member States (e.g. through investment in IT tools) to achieve desired level of analysis;
- Improve integration of EFSA and ECDC data and conduct higher level strategic discussions to foster a One Health approach;
- Ensure the reports clearly signpost relevant content or sections for specific audiences (e.g. risk assessors and risk communicators);
- Increase use of plain language and summary of findings to improve accessibility (particularly among risk communicators);
- Focus on interpretive analysis and background information (e.g. communication of data limitations and analytical methods) to ensure data is being interpreted and used correctly by decision makers; and
- Consider requests for additional content such as emerging risks, alignment of findings with Scientific Opinions and benchmarking analysis for risk assessors and managers.

1 Introduction and background

EFSA's role, as set out in its Founding Regulation (Regulation No 178/2002/EC), is to collect and analyse data to allow for the characterisation and monitoring of risks which have a direct or indirect impact on food and feed safety.

Data collection and analysis support risk managers and risk assessors, both at EU and Member State (MS) levels. Stakeholders are able to assess the effectiveness of EU-wide and national food safety programmes and strategies to manage antimicrobial resistance (AMR). Data collection and analysis also enables EFSA, its scientific panels and other relevant stakeholders to carry out risk assessments by providing information on the situation at EU level. Particularly in the case of AMR, EU-level strategies and cooperation between MS are essential for lowering resistance.

EFSA monitors the occurrence of food-borne zoonoses, zoonotic agents and antimicrobial resistance in humans, animals and food in collaboration with the ECDC as defined in the Zoonoses Directive (Directive 2003/99/EC) and in accordance with Decision 1082/2013/EU on serious cross-border threats to health. As part of EFSA's responsibility (Article 9 of Zoonoses Directive), EFSA annually publishes two European Summary Reports (EUSRs): one assessing the trends and sources of **zoonoses and food-borne outbreaks** in the EU and one assessing the trends and sources of **antimicrobial resistance** in zoonotic agents.

The EUSRs are based on data collected and submitted by MS and produced in collaboration with the ECDC, combining the available data on humans, food, animals, feed and food-borne outbreaks. MS are required to monitor and report zoonoses data annually on eight zoonotic agents: *Salmonella*, *Campylobacter*, *Listeria monocytogenes*, Shiga toxin-producing *Escherichia coli* (STEC), *Mycobacterium bovis*, *Brucella*, *Trichinella* and *Echinococcus*. Additional data is collected on other viral, bacterial and parasitic zoonoses and zoonotic agents based on the epidemiological situation within the MS. MS are required to report annually AMR data on *Salmonella*, *Campylobacter* and (indicator) *Escherichia coli.*

Over time, the EUSRs have evolved and grown longer. The most recent iterations of the reports are around 250-300 pages. Both reports contain information on methodologies, the comparability and quality of data and assessments of the trends and sources of zoonoses, food-borne outbreaks and AMR. Reports include quantitative analyses around this data and in some cases, graphical representations of such analyses. Geographic analyses are also included for some examples.

While the EUSRs are widely cited and used, this customer feedback report intends to provide EFSA with a better understanding of the effectiveness and relevance of these reports and how they can be optimised to inform risk assessment and risk management.

This report brings together feedback from EFSA's stakeholders and customers on the efficacy, efficiency, relevance, added value, coherence and timeliness of the annual EUSR on zoonoses and food-borne outbreaks and of the annual EUSR on AMR in collecting data and supporting informed risk assessment and risk management.

The specific objectives of this study are to:

1. Evaluate **the fit-for purpose of the annual EUSRs** on zoonoses and food-borne outbreaks and on AMR and their added value to the operational work of EFSA and of relevant stakeholders, and specifically:
   a. evaluate the fit-for purpose of the EUSR on zoonoses and food-borne outbreaks and the EUSR on AMR in replying to the request from the European Commission for an

assessment of trends and sources of zoonoses, zoonotic agents and antimicrobial resistance (art. 9.2 of the Zoonoses Directive);

b. evaluate the extent to which the EUSR on zoonoses and food-borne outbreaks and the EUSR on AMR **satisfy the need of MS to make publicly available their national reports and summaries** (art. 9.1 of the Zoonoses Directive);
c. evaluate the extent to which the EUSR on zoonoses and food-borne outbreaks and the EUSR on AMR **fulfil the requirements of the EFSA Founding Regulation** about the collection and analysis of data to allow the characterisation and monitoring of risks which have a direct or indirect impact on food and feed safety (art. 22.4 of the Regulation No 178/2002/EC);
d. assess **the added value of the EUSR** on zoonoses and food-borne outbreaks and the EUSR on AMR in supporting EFSA and its scientific panels, MS, EURLs for food-borne pathogens, the EURL antimicrobial resistance – (established in accordance with Article 12 of Regulation (EC) No 882/2004) for carrying out informed risk assessments;
e. evaluate the fit-for purpose of the EUSR on zoonoses and food-borne outbreaks and the EUSR on antimicrobial resistance as **One-Health reports jointly produced with ECDC**.

2. Evaluate the **current size, format and frequency of the EUSR** on zoonoses and food-borne outbreaks and the EUSR on AMR and explore the possibility to change them.

3. Provide **recommendations on possible improvements** for the future shape of EUSR on zoonoses and food-borne outbreaks and the EUSR on AMR.

The remainder of this report is structed as follows:

- Chapter 2: the method used
- Chapter 3: key findings in relation to the above objectives
- Chapter 4: conclusions and recommendations

2 Method

This study applied a mixed-method approach to collate views from across various key stakeholders. An online survey and semi-structured interviews were carried out in order to obtain a mix of quantitative and qualitative feedback on the EU Summary Reports for Zoonoses and AMR.

To ensure that both the survey and interviews addressed the main objectives of the study, the team developed an initial framework, which set out the study objectives/questions and sub-questions against potential questions to be asked, to whom and within which data collection tool (i.e. the online survey and/or the interviews). This ensured that there would be no gaps between the two and that the questions asked were both distinct and complementary.

2.1 Online survey

A draft survey was developed based on the initial framework, addressing each of the relevant points in the framework. This was submitted to EFSA for review and revised accordingly.

The survey was structured so that respondents were first asked questions relevant to the report on zoonoses and food-borne outbreaks and then a similar set of questions relevant to the report on AMR. Questions were routed based on the respondents' associated groups and their familiarity with the reports. Respondents not familiar with either report were deemed ineligible to take part. Based on feedback received from stakeholders completing the survey, it appears that in some instances, responses came from several colleagues in the same organisation working in collaboration to provide a joint response. This is because some respondents had more familiarity with the EUSR on zoonoses and food-borne outbreaks while others in the organisation had more familiarity with the EUSR on AMR.

The sample size therefore differs slightly from question to question. Sample size is indicated in the charts presented in this report. Where the question refers to either the zoonoses and food-borne outbreaks report or the AMR report, the base size is all stakeholders who responded that they were either *"somewhat familiar"* or *"very familiar"* with the report in question, unless otherwise noted. The survey questionnaire is included in Annex 1.

Once a finalised version of the survey was approved by EFSA, the questionnaire was scripted using the online survey tool, SurveyGizmo, and tested for timing, routing and sense by the study team with input from EFSA. Final amendments were made based on the testing.

EFSA developed a list of key stakeholders to approach for the survey. EFSA then sent out an initial warm-up email to individual contacts as well as network member leads to help boost engagement. Invitees were drawn from several stakeholder groups relevant to EFSA and the EUSRs, including: EFSA's Zoonoses Monitoring Data Network, EFSA's Advisory Forum, EFSA AHAW and BIOHAZ Panels, ECDC, DG SANTE and EURLs. Invites were sent to 235 stakeholders in mid-March. Two reminder emails were sent to those who had not responded. The survey remained open until April 18th.

The survey received 113 responses, 5 of which were disqualified due to a lack of familiarity with the reports. This translates to a 48.1% response rate, which represents a high response rate considering similar consultations for EFSA and other EU institutions[1]. The high response rate was likely supported by the user-friendliness of the survey, the involvement

[1] As a guideline, previous EFSA studies had response rates of between 9% and 42% (e.g. The external review of grant and procurement projects; the Reputation Barometer and EFSA 2011-2016 Evaluation).

of targeted contact persons with relevant knowledge, and the good existing cooperation between EFSA and its stakeholders.

2.2 Interviews

A semi-structured topic guide was prepared based on the initial framework. This topic guide was sent to EFSA for review and revised based on comments received. It was structured around mostly open questions, suitable for different stakeholder groups. Stakeholders were asked about their own use of the reports, how they judged the effectiveness of different aspects of the reports and any recommendations for improvement. The full topic guide is included in Annex 2.

A short-list of potential interviewees was identified by EFSA from the survey stakeholder list. Individuals were then contacted by ICF. The study team carried out 23 telephone interviews with representatives from: EFSA's Advisory Forum, the AHAW Panel, the BIOHAZ Panel, DG SANTE, ECDC, the EURLs and the EFSA Zoonoses Monitoring Data Network. Interviews lasted between 30 minutes and 1 hour and most of the stakeholders interviewed were familiar with both the zoonoses and AMR reports.

2.3 Interpretation of data and limitations

Analysis and synthesis of evidence within this report consisted of triangulation of results from the survey (quantitative data) and interviews (qualitative data). Survey data was used to characterise overall stakeholder sentiment around the reports and identify common trends and patterns. Views collected in the interviews helped to provide additional context, explore the rationale behind stakeholder views and allow for qualification and validation of the survey results.

The majority of interviewees also participated in the survey. In many instances, interviewees who provided largely positive feedback through the survey nevertheless provided more critical commentary during the interview. This is partly due to the emphasis on recommendations and improvements within the interviews. Furthermore, the discursive nature of qualitative research, inherently, tends to illicit more open and honest responses than can be expressed through quantitative surveys. This does not necessarily imply opposing viewpoints. Interviews merely provide an explanation or interpretation of the survey findings. Findings should therefore be seen as complementary and are presented together in the report.

Although there are clear differences between the content of the zoonoses and AMR reports, many stakeholders did not distinguish between the reports when interviewed. Survey results were also largely similar between the two reports. As a result, findings across reports tend to be discussed in aggregate unless substantive variations are identified.

Survey results have not been systematically disaggregated by stakeholder group. This is because disaggregation did not generally show significant differences between groups. A more useful disaggregation is by type of responsibility. Interviews indicated that there were more significant differences between risk assessors, risk managers and risk communicators[2]. Risk assessors appeared more likely to use parts of the report related to specific zoonoses or food-borne outbreaks and were more likely to be interested in the raw data. On the other hand, risk managers and communicators seemed to place greater

[2] For the purposes of this report, risk assessors are defined as stakeholders responsible for collecting or analysing data or providing scientific advice. Risk Managers are defined as those responsible for making decisions or setting legislation about food safety. Risk communicators are those responsible for communicating food safety issues to wider stakeholders and the general public.

emphasis on the executive summary, abstract and top-level findings available from the report.

Based on the profile of interviewees, respondents were more likely to be risk assessors rather than risk managers or risk communicators. However, responsibilities of some respondents spanned all aspects of risk assessment, management and communication. Where possible, we have categorised interviewees based on their role and organisation. Survey data does not distinguish between these three groups and therefore any differences between them cannot be confirmed through quantitative findings.

DG SANTE are also a key stakeholder of EFSA. They make up a small proportion of the respondent profile (5 surveyed, 1 interviewed). While findings among different stakeholder groups do not vary substantively, where relevant, views among DG SANTE respondents have been isolated and analysed separately throughout this report. Findings should only be considered as indicative and not representative of all DG SANTE stakeholder views.

Recommendations for future improvements have been based largely on the qualitative feedback received through the interviews and from the open-ended questions in the survey. This is because the interview format allowed for a more detailed and open-ended discussion and was therefore more conducive to collecting recommendations. Recommendations draw on views across the stakeholder groups, however, only one interview has been conducted with a member of DG SANTE, who are EFSA's key stakeholder. Recommendations are therefore not necessarily underpinned by feedback from this group. The Recommendations should not be dismissed as a result of their qualitative nature but should be considered as indicative findings.

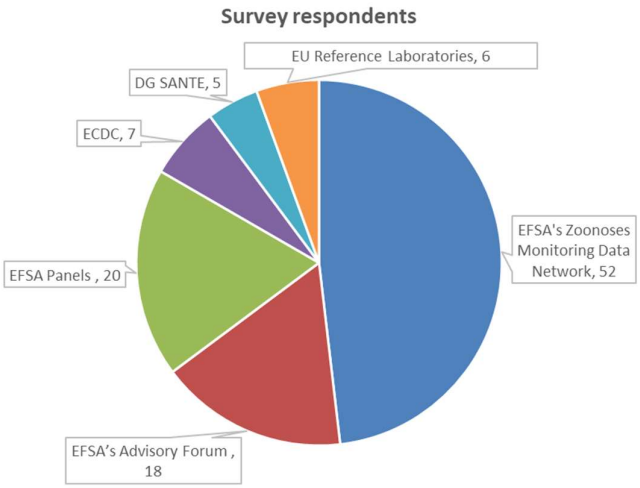
3 Key findings

3.1 Profile of respondents

The survey achieved a good spread of responses across countries and stakeholder groups, ensuring that feedback covered a variety of interests and perspectives. Survey respondents came from 34 different EU and EEA/EFTA countries. About half of the respondents were associated with EFSA's Zoonoses Monitoring Data Network.

The survey of 113 stakeholders was complemented with 23 interviews, which were purposely targeted to **stakeholders from different groups**[3]. The final sample was comprised of 108 complete responses. 38 stakeholders were invited to be interviewed and 23 took part in the interviews. The full respondent profile is shown in Figure 3.1. The respondent profile for the survey is broadly aligned to the profile of stakeholders who use the EUSRs, whereby members of the Zoonoses network make-up the largest proportion of EFSA's stakeholders. Figure 3.2 presents the response rates by group.

Figure 3.1 Survey[4] and interviewee respondents by stakeholder group



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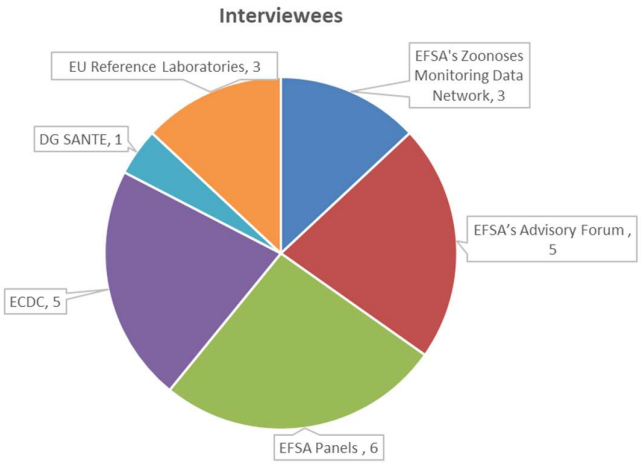
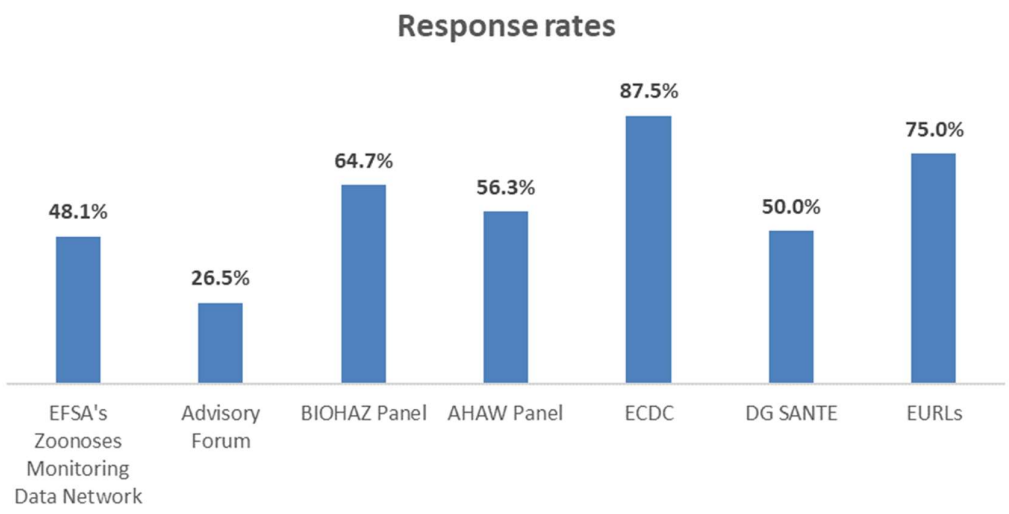


Base: All interviewees

[3] Five survey respondents were screened out of the survey due to lack of familiarity with both reports.

[4] Q1 "Which of the following groups or organisations do you belong to?"

Figure 3.2 Response rates by group



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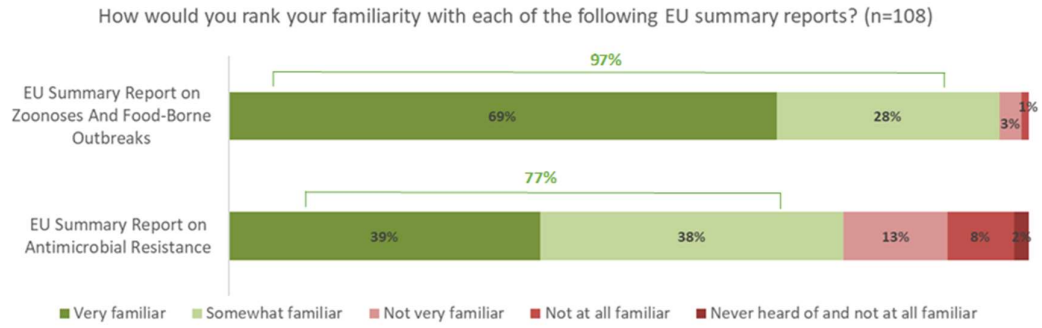
Most respondents were at least somewhat familiar with both the zoonoses and food-borne outbreaks and the AMR reports. Respondents tended to be more familiar with the report on zoonoses and food-borne outbreaks (104 out of 108) compared to the report on AMR (83 out of 108). Respondents were also more likely to consider themselves "very familiar" with the report on zoonoses and food-borne outbreaks compared to the report on AMR (see Figure 3.3). This pattern is reflected among interviewees: out of 23 interviewees, 13 were familiar with both reports, while 10 were familiar with only the zoonoses reports.

Figure 3.3 Familiarity with EU summary reports[5]



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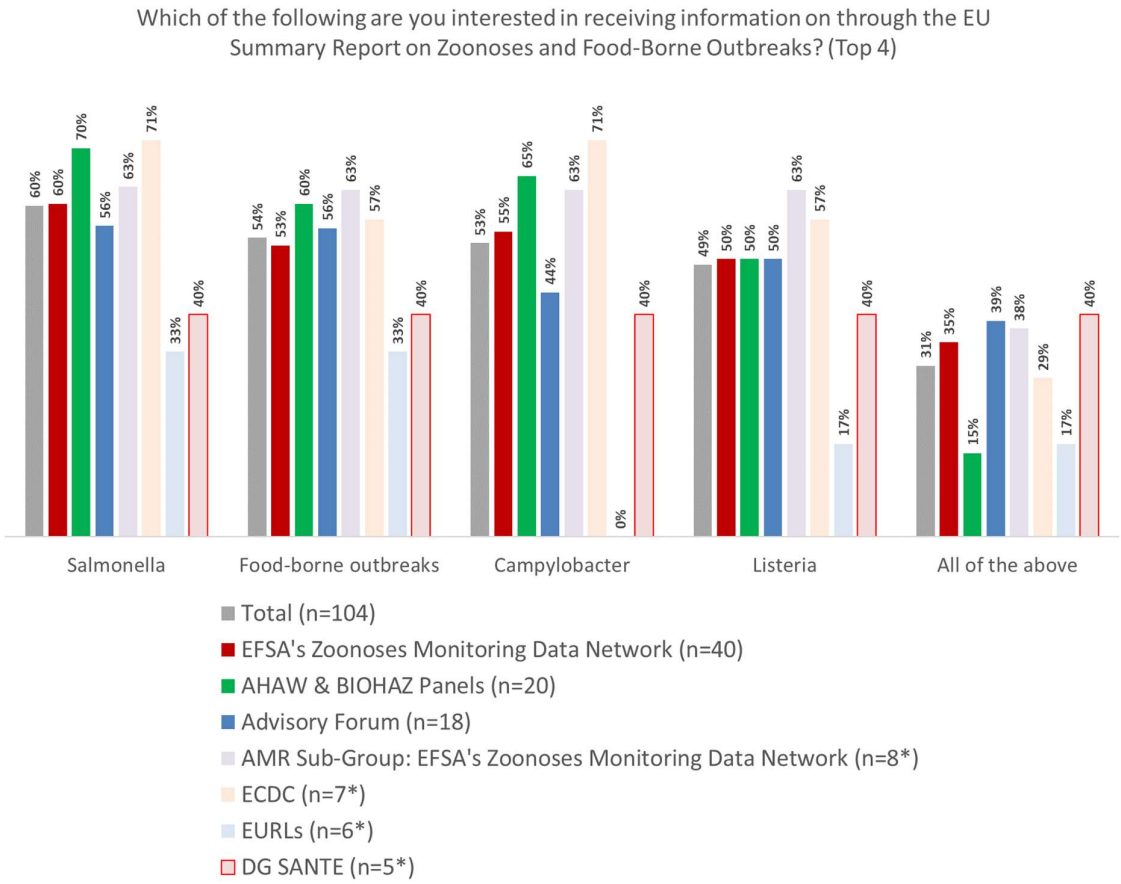
Key stakeholders: DG SANTE
DG SANTE stakeholders appear to be very familiar with the EUSRs, particularly the Zoonoses report. All five of the survey respondents from DG SANTE were familiar with the zoonoses report; three of whom were 'very familiar'. Three of these five were also familiar with the AMR report; although just one was 'very familiar'.

[5] Q4

Many of the respondents in both the survey and interviews indicated that **the reports are used primarily as a reference document to obtain information** on certain zoonoses, zoonotic agents or food-borne diseases. This is particularly the case for the zoonoses report because 31% of stakeholders surveyed were not interested in receiving specific information but were interested in all zoonoses and food-borne outbreaks (Figure 3.4). This appears to be driven by members of the Zoonoses network, including the AMR sub-group, and the Advisory Forum, for whom 35%, 38% and 39% respectively report they are interested in all zoonoses information. In comparison, EFSA's Panel members tend to have more specific interests such as *Salmonella* and *Campylobacter*.

Figure 3.4 Areas of interest in Zoonoses and food-borne outbreaks report[6]



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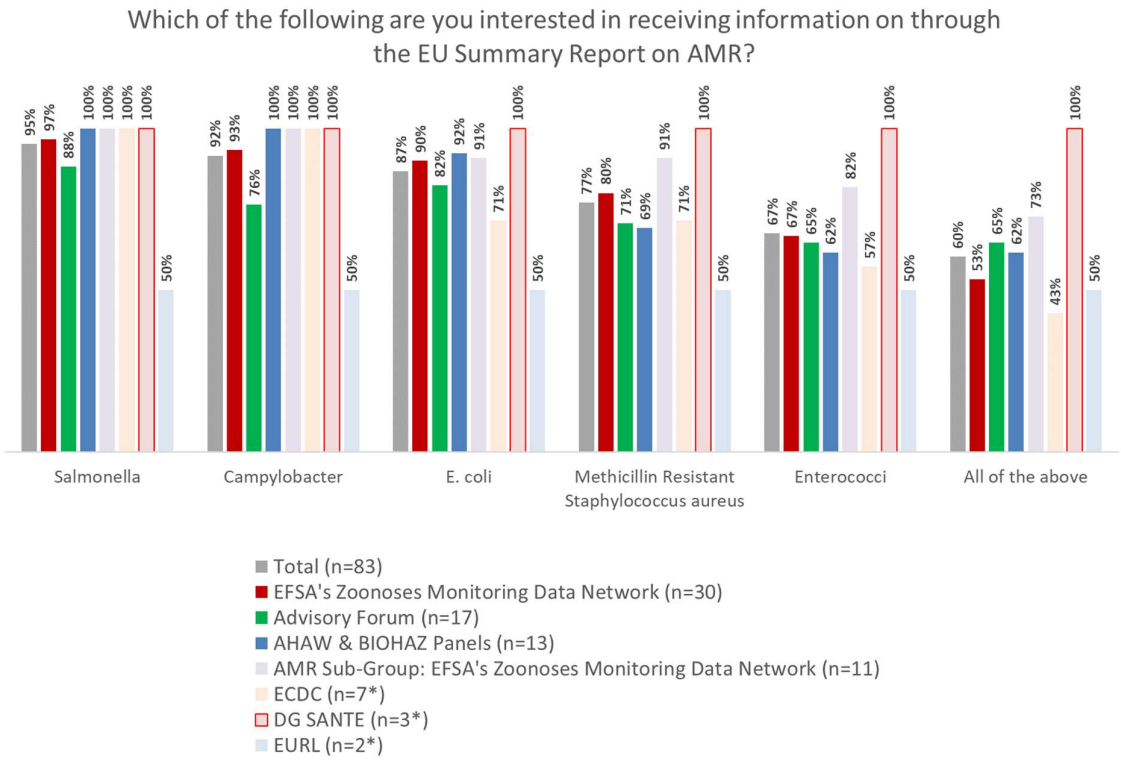
Users of the AMR report appear to have more shared interests; 60% were interested in receiving information on AMR in all bacterial agents addressed (see Figure 3.5). The way stakeholders used the report often reflected their respective roles. **Those in charge of risk assessment or development of analytical methods were more likely to focus on specific zoonoses**. Risk managers and risk communicators mainly focussed on key messages and a high-level review of findings.

[6] Q6 in Zoonoses questionnaire, multiple choice. Note: Figures with a base size denoted with an asterisk should be treated with caution.

Figure 3.5 Areas of interest in AMR report[7]



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3.2 To what extent are the EUSRs fit-for-purpose to assess trends and sources?

Both reports were considered to provide an adequate assessment of the sources and trends of zoonotic agents and AMR by most respondents, although stakeholders were less likely to agree that the summary reports provided an adequate assessment of sources. Stakeholders were also largely positive about the usefulness of the graphical representations and the quantitative analyses provided for both reports. Some stakeholders suggested further analytical detail and interpretative analysis would be desirable though acknowledged limitations in the data available.

Survey respondents largely agreed or strongly agreed that **the reports contributed to supporting the assessment of trends and sources according to Directive 2003/99/EC.** Almost 9 in 10 (88%) respondents agreed that **the zoonoses report provided an adequate assessment of trends**. A similar proportion of AMR report users agreed (85%) (see Figure 3.6). **The adequacy of source assessments is slightly lower** for both reports with the lowest score for the AMR (70%). The overall high levels of agreement across questions on the usefulness of the reports (see Figure 3.7) also suggests that the EUSRs are fulfilling their legislative requirements.

Key stakeholders: DG SANTE

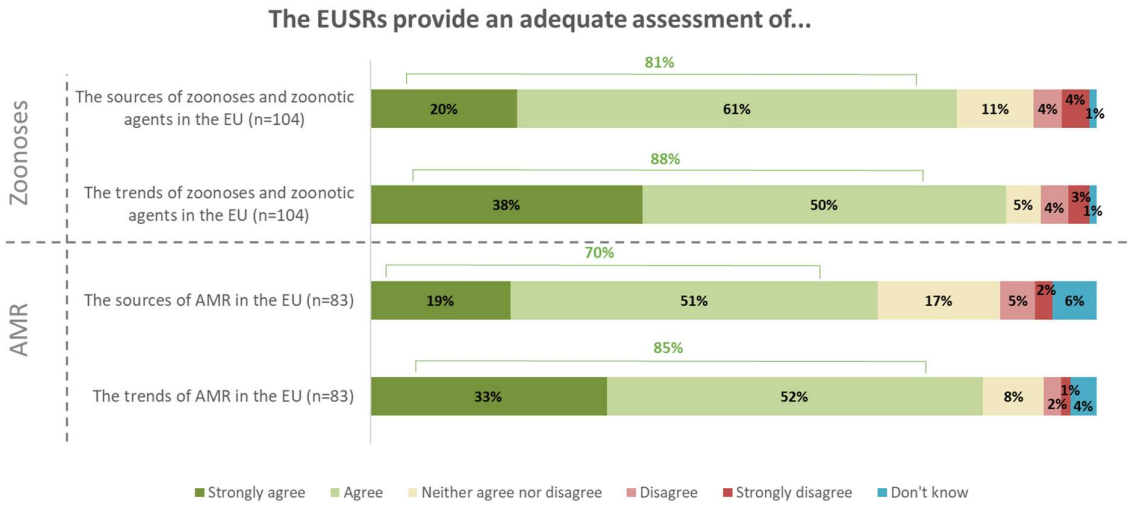
Consistent with the wider stakeholder group, respondents from the Commission tend to agree that the EUSRs provide an adequate assessment of trends and sources.

[7] Q7 in AMR questionnaire. Note: Figures with a base size denoted with an asterisk should be treated with caution.

Of the DG SANTE stakeholders surveyed, there was general agreement that the zoonoses report provides an adequate assessment of trends (four out of five agreeing, one out of five disagreeing) and sources (all five agreeing).

For the AMR report, only two of the three indicated agreement that the report provides an adequate assessment of trends, with one disagreeing. All three agreed that the report provides an adequate assessment of sources.

Figure 3.6 EUSR adequacy assessing sources and trends[8]



Base: All

This sentiment was reinforced during the interviews; stakeholders reported that the assessment of trends was comprehensive and adequate for their needs;

"The trends in themselves are useful and this is always something we look for as communications people to include in messaging." (source: ECDC interviewee, Risk Communicator).

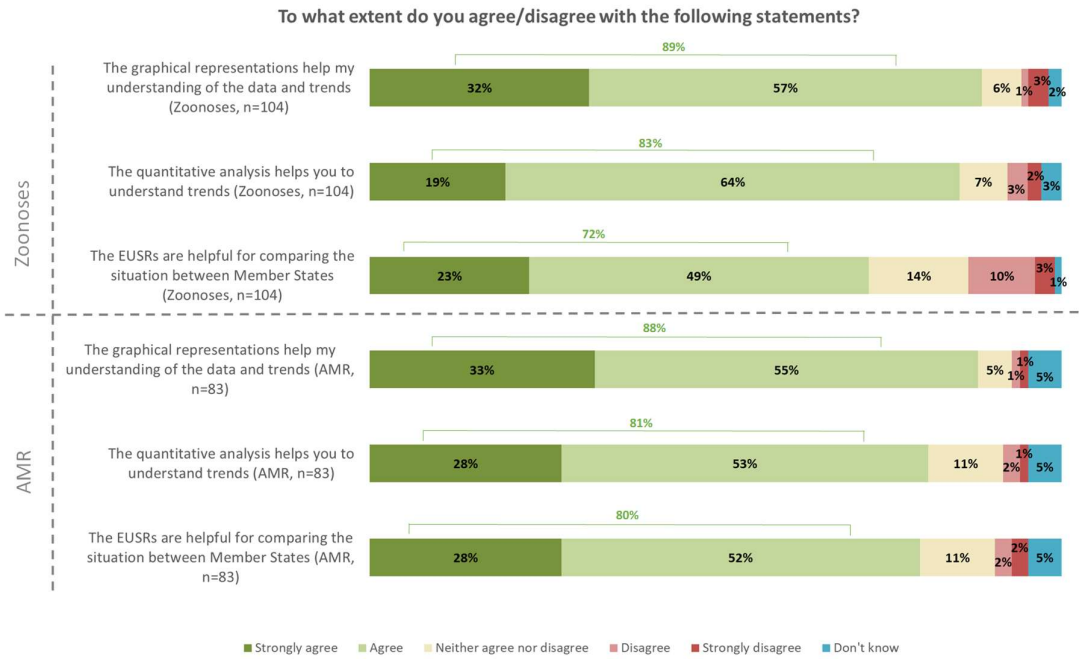
"EUSR data [on zoonoses and food-borne outbreaks] is the best available data for human trends, they do a very detailed analysis that is not available anywhere else." (source: ECDC interviewee, Risk Assessor)

Many interviews indicated **an appreciation for the sheer volume of data available for the zoonoses report** and the associated difficulty with presenting a complete and robust overview of the situation.

Respondents were largely positive about the usefulness of the graphical representations and the quantitative analyses provided in both reports (see Figure 3.7). The majority of respondents also agreed that the **reports were helpful for comparing between Member States**, although in the case of the Zoonoses report, a proportion of 28% did not agree on this point or had no opinion. Those who disagreed or had no opinion varied across the stakeholder groups. Responses from DG SANTE stakeholders reflected these results. No further explanation was provided in the survey, however, subsequent interviews indicated that lack of harmonised data was a key factor.

[8] Q5 Zoonoses Survey; Q1 AMR Survey

Figure 3.7 Usefulness of EUSR[9]



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Interviewees referred to **certain limitations in data sources** used to produce the reports, which **affected the ability to compare sources and trends across countries**. Stakeholders made particular reference to the Zoonoses report. Limitations were mainly due to divergences in national approaches to data collection and lack of harmonised data which impact the reporting of data. The lack of harmonised data was cited by even those stakeholders who were otherwise very positive about the reports. Interviewees reported that data gaps and small sample sizes could affect the adequacy of reports (such as the low number of food samples collected in certain countries).

Several stakeholders also pointed to the **need for greater strategic and interpretive analysis within both reports**. Interviewees from ECDC and EFSA's AHAW and BIOHAZ Panel in particular, felt that the analysis is overly descriptive and lacks interpretation. *"The AMR report should be suitable as a way to gain a quick understanding of the AMR problem for animals and humans. Right now, it is a very descriptive analysis and there is not so much interpretation. As it stands, the report is trying to capture it all and there is a huge amount of data, but it is difficult to grasp the essence." (source: ECDC, Risk Assessor, AMR report)*

The current presentation of data within the report was not felt to be sufficiently clear regarding the limitations of the available data, which may lead to misinterpretation of findings. For example, the presentation of data on a map may indicate a high level of a certain zoonoses within a country, despite only a small and non-representative sample having been tested. One interviewee from the BIOHAZ Panel stated that, given the uncertainty around the representativeness of data, *"too much analysis could over-validate it" (source: BIOHAZ Panel, Risk Assessor)*.

Risk assessors within ECDC and the BIOHAZ Panel suggested areas where more detailed analysis would be beneficial:

[9] Q9 and Q11 Zoonoses Survey; Q2 and Q4 AMR Survey

- For the zoonoses reports: details about the foods linked to food-borne outbreaks (such as the animal species used for meat production, or the processing technology used for milk); and details about the source of food (EU or third countries), to design appropriate risk management measures;
- For the AMR reports: an indication of where strains associated with particularly high resistance are spreading and whether they are linked to a specific animal species. Although the latter is already detailed in the report, indicating that animal linkages could be made more explicit for some readers.

Another solution to data limitations that stakeholders proposed included the IT infrastructure. Member State representatives advised **continuing investment in IT tools** that could speed up data collection and reporting to improve timeliness and cooperation, and conserve resources that could be better spent on analysis. Although, EFSA reported that they have already invested in new data collection tools and provided support in the form of training and funding to Member States.

Some of the above suggestions for improvement and further analysis currently fall beyond the scope and requirement of Directive 2003/99/EC. Furthermore, interviewees recognised that EFSA is already acting on a number of these issues and praised its efforts to increase harmonisation and quality of data.

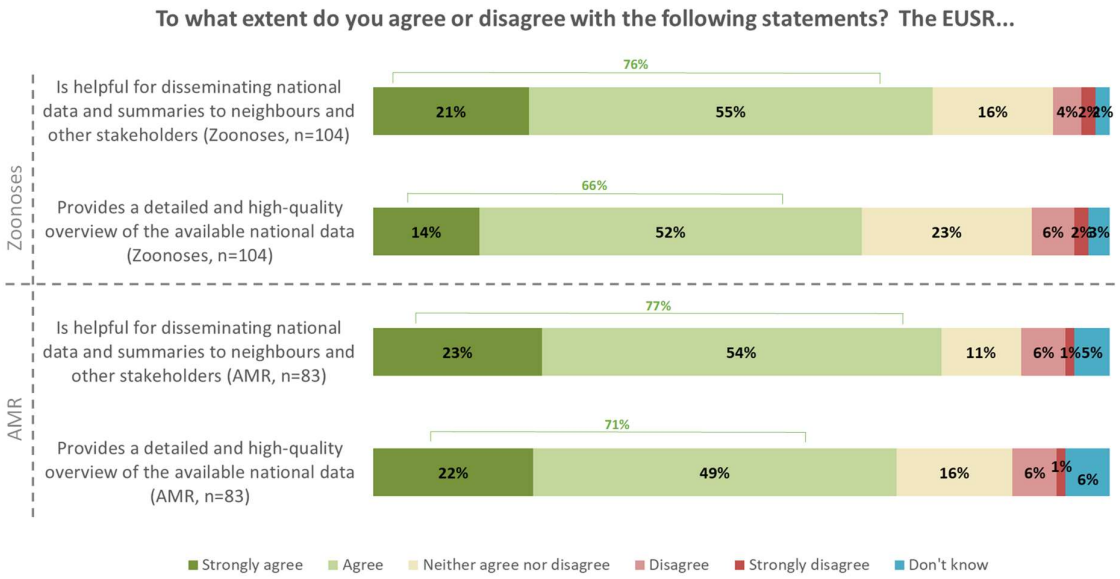
3.3 To what extent do the EUSRs satisfy the need of Member States?

The EUSRs are considered to be essential for the collation and dissemination of data though some stakeholders did not agree that the overview of national data was sufficiently detailed. Needs also vary depending on the type of stakeholders. Risk assessors and managers tend to be satisfied with the level of detail related to emerging trends and performance of each MS, while stakeholders within a communication or dissemination role indicated that the reports can be overly detailed for their purposes.

For both reports (Figure 3.8) , a majority of respondents (76% for zoonoses, 77% for AMR) agreed that the EUSRs were helpful for disseminating national data and summaries to neighbours and other stakeholders. This was confirmed by the overall positive sentiment within interviews, that the reports provided **an essential collation of available data**.

There was comparatively less agreement, though still high, that the reports provide **a detailed and high-quality overview of the available national data** (66% for zoonoses, 71% for AMR). For the zoonoses report in particular, this appears to be driven by members of the Advisory Forum and EFSA Panels (72% and 80% agreed respectively). A different pattern emerges regarding the AMR report; the Advisory Forum remained positive (82% agreed) however, less than half (46%) of members of the EFSA Panels agreed the reports provide high quality data. A substantive number of EFSA Panel members (31%) neither agreed nor disagreed that the AMR report provides a detailed and high-quality overview. Comparatively, members of the Zoonoses network appeared more positive regarding the AMR report; 83% agreed compared to 65% when considering the Zoonoses report. While figures must be viewed with caution due to small sample sizes, the trends indicate that, in general, there is greater satisfaction with the quality of data presented among the Advisory Forum.

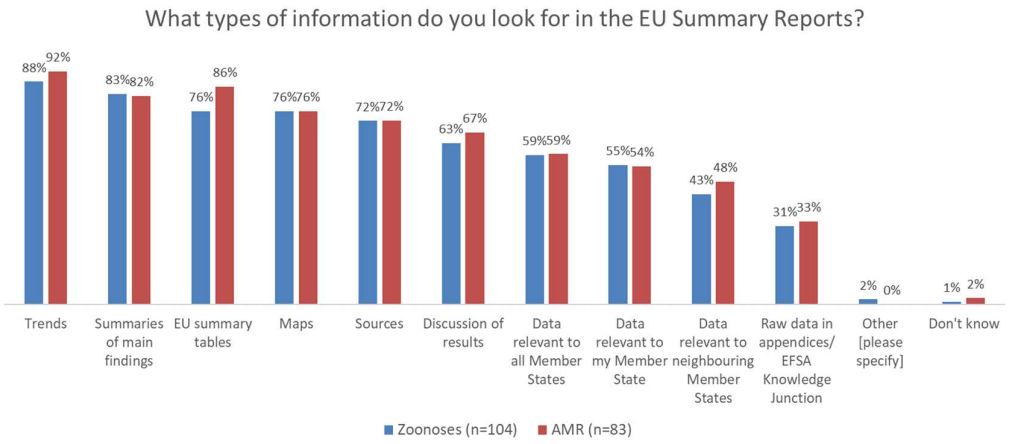
Figure 3.8 Suitability for meeting the needs of Member States[10]



Base: All

Stakeholders surveyed tend to look most at **information on trends, summaries of the findings, EU summary tables, maps, sources and a discussion of results**. There was notably less interest in receiving raw data, although this was still important to approximately a third of stakeholders (see Figure 3.9).

Figure 3.9 Types of information of interest[11]



Base: All

Key stakeholders: DG SANTE

Respondents from the Commission tend to agree that the EUSRs are helpful for disseminating national data and providing a detailed and high-quality overview of the available data.

[10] Q12 in Zoonoses Survey; Q5 in AMR Survey

[11] Q15 in Zoonoses Survey; Q8 in AMR Survey

Of the DG SANTE stakeholders surveyed, three of five agreed that the zoonoses report is helpful for disseminating national data and none disagreed. Three of five agreed that the report provides a high-quality overview of the available data, one disagreed and one neither agreed nor disagreed.

For the AMR report, all three agreed that the report was helpful for disseminating national data and two of three agreed that the report provides a high-quality overview of the available data. One of three disagreed on this point.

There was interest among DG SANTE stakeholders in various types of information included in the reports. Notably, there was no interest in receiving the raw data for either report, presumably as raw data is not generally used for DG SANTE's purposes.

Stakeholders' needs and their uses of EUSRs appear to vary in line with their roles and responsibilities. These varying needs often affected interviewees' level of satisfaction with the reports. Interviewees involved in risk management appear to be more satisfied with the level of detail in the reports while risk communicators highlighted greater issues with the accessibility of the report.

Risk managers and assessors tend to use the reports as a resource to compare data across Member States, identify main issues related to AMR and zoonoses, and set national control plans (such as food sampling plans). Nonetheless, some interviewees found it challenging, in certain cases, to navigate the information in the reports:

"Sometimes I have a hard time finding specific types of data within the report. For example, information on serotypes and their locations in humans, and the differences between sporadic cases and outbreak-related cases… you can probably piece things out by going to the Appendix, but I don't find these things very easy to find." (source: EFSA's Panel)

Recommendations among risk assessors to better highlight key messages are noted below:

- **Identify emerging risks:** in addition to those where reporting is mandatory. Although these are reported by EFSA elsewhere, having an overview of emerging risks related to zoonoses was cited as a potential helpful addition to the report;
- **Improve analytical and risk assessment methods:** learning how national data was analysed and aggregated. One interviewee, for example, stated that EUSRs on zoonoses and food-borne outbreaks assist them with the development of analytical methods:

"The EUSR on zoonoses and food-borne outbreaks provides an overview of the epidemiological situation at EU level, and also the contamination of different foods, and different categories of food involved in food poisoning outbreaks. This is essential for us to perform our duties in terms of analytical methods development – as we have to develop relevant methods to detect contaminants in different types of food matrices […] Thanks to EUSR reports, we can focus on the major causes of outbreaks." (source: EURL interviewee, Risk Assessor)

- **Ensure consistency and coherency with opinions:** in the framework of Panels' work, to assess whether Scientific Opinions are coherent with the EUSRs in terms of the status of diseases and pathogens;
- **Provide benchmarking analysis:** to provide a comprehensive view of the situation in EU in terms of zoonoses, and identify how countries are positioned compared to other Member States (as also pointed out by risk managers);

On the other hand, stakeholders involved in risk communication and science dissemination tended to use the reports as materials for lectures and presentations at science events, and for the preparation of summaries in their national language to disseminate within their organisation.

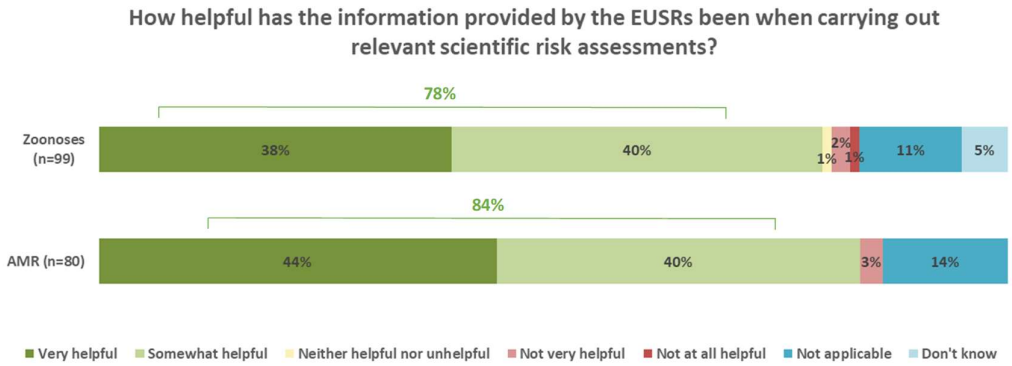
Reports were generally considered useful by risk communicators, although several interviewees involved in risk communication indicated that the reports were not written in an accessible style for non-scientific or specialist audiences, such as policymakers or students, which sometimes made it difficult to generate interest or get key messages across. One ECDC representative focusing on risk communication remarked that the reports are not very accessible for a lay person; evidenced by reportedly fewer downloads from their website compared with other publications. This suggests that there could be room to improve the visibility and usage of the reports, although a low download rate may also reflect the fact that contents of the report are less relevant to ECDC stakeholders. A working group has been set-up between ECDC communications and EFSA communication teams to discuss how communication around these documents could be improved.

3.4 To what extent do the EUSRs fulfil requirements of the Founding Regulation?

Stakeholders were highly positive about the extent to which the EUSRs are considered useful for conducting scientific risk assessments (and supporting EFSA in fulfilling its requirements to ensure consumer food and feed safety) as outlined in the Founding Regulation. However, close adherence to the Regulation was also identified as a potential challenge; limiting opportunities to expand the scope of the reports outside of the legislative requirements (i.e. incorporating emerging risks and providing more granular analysis).

Survey results indicated positive sentiment around the usefulness of the reports specifically related to carrying out scientific risk assessment. Only around 3% of respondents disagreed that the information provided is not helpful for this purpose (see Figure 3.10).

Figure 3.10 Usefulness for conducting scientific risk assessments[12]

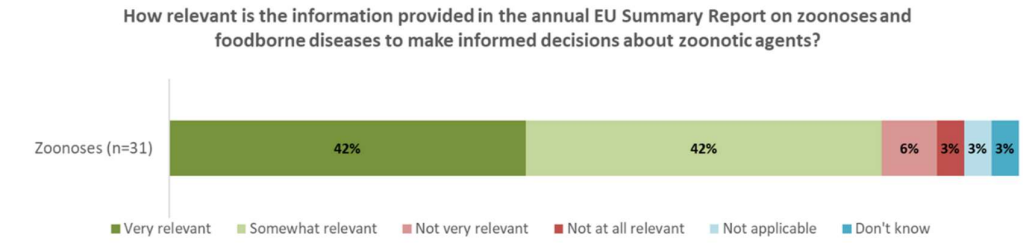


Base: ECDC, EFSA's Zoonoses Monitoring Data Network member, EFSA Panels, EFSA's Advisory Forum, EURLs

For risk managers, the survey also indicated a high degree of agreement that the EUSRs provide relevant information to develop strategies and make informed decisions related to AMR and zoonoses (see Figure 3.11 and Figure 3.12).

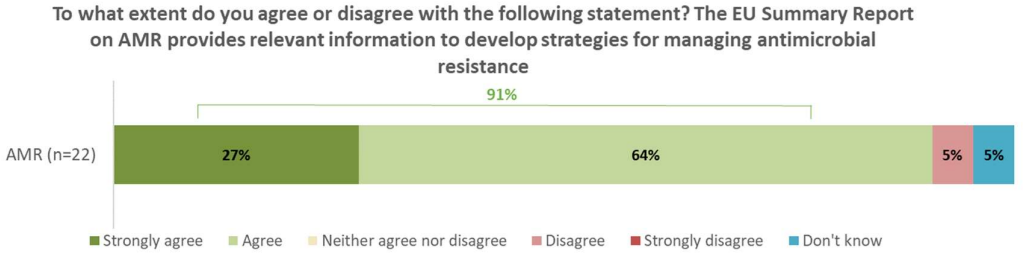
[12] Q16 in Zoonoses Survey; Q9 in AMR Survey

Figure 3.11 Usefulness for decisions about zoonotic agents[13]



Base: DG SANTE, ECDC's FWD-Net, EFSA's Advisory Forum

Figure 3.12 Usefulness for developing strategies to AMR[14]



Base: DG SANTE, ECDC's FWD-Net, EFSA's Advisory Forum

Key stakeholders: DG SANTE

DG SANTE stakeholders held differing opinions on the usefulness of the EUSRs for risk management though they are generally considered beneficial.

Of the five stakeholders surveyed on the zoonoses report, three found it relevant for making informed decisions about zoonotic agents, one did not find it relevant and one selected "don't know". Of the three stakeholders surveyed on the AMR report, two agreed that the EUSR provides relevant information to develop strategies for managing AMR and one disagreed.

Responses from the interviews also suggested that **the reports were fulfilling their legislative obligations**, and that they represented suitable tools for the characterisation and monitoring of zoonoses and zoonotic agents. This was consistent with the overall positive feedback on the adequacy of reports to assess trends and sources of zoonoses, zoonotic agents and antimicrobial resistance (as noted in section 3.2).

One interviewee felt that while the content of reports was **closely tailored to regulatory requirements**, legislative obligations may in fact be holding the reports back from achieving their potential. For example, these requirements may be limiting the possibility for EUSRs to explore certain issues which go beyond the scope of the Directive, such as emerging risks:

"The report deals with data that is mandatory to report. In cases of emerging risks, where we need to have an overview of what's going on, even if it's not mandatory, it would be helpful to have [this] overview" (source: EFSA's Advisory Forum interviewee, Risk Assessor).

[13] Q17 in Zoonoses Survey

[14] Q10 in AMR survey

While still recognising the potential challenges associated with availability and quality of data, some interviewees suggested that **the analysis of food-borne outbreak data could be more granular** to better support characterisation and monitoring of zoonoses and zoonotic agents in line with legislative requirements. For example, there were suggestions to include a detailed analysis of trends in salmonellosis and listeriosis by serotype sub-groups, and an analysis of food sampling data by food supply chain stage. One interviewee also suggested differentiating between different bacteria producing toxins, and the types of toxins concerned by the report:

"For bacterial toxins involved in food-borne outbreaks, it would be interesting to differentiate between the different bacteria producing toxins. […] It would be interesting to have an overview of the rate of food poisoning outbreaks due to Staphylococci toxins and so on. This could be useful because currently it is difficult to precisely identify the source of outbreaks, because symptoms are very similar in case of bacterial toxins ingestion. It would enable a better evaluation of source attribution" (source: EURL interviewee, Risk Assessor).

3.5 What is the added value of the EUSRs?

The EUSRs are reported to add value for stakeholders by providing a repository of information all in one place with a clear overview of trends. This subsequently reduces the burden on risk assessors to collate and analyse information themselves. The EUSRs are also considered to have encouraged co-ordination between risk assessors across MS and in some cases, motivated competition to improve risk assessment procedures.

Interviewees agreed that the **EUSRs provided useful data which added value** to their work. Positive feedback on the added value of EUSRs came particularly from interviewees involved in risk assessment, and namely members of the Advisory Forum, Panels and EURLs.

The following main benefits were cited during the interviews:

- **Comparative overview of EU data:** one of the main advantages to interviewees was the availability of comparable data from all EU countries in one place. They provide quick access to aggregated data, country level comparisons, and a clear overview of main issues and trends in terms of zoonoses and AMR;

  "It's very good to have an overview of EU data – for example, it's possible to get analyses of [extended-spectrum beta-lactamase] prevalence data, which is not available anywhere else." (source: interviewee from EFSA's Zoonoses Data Network, Risk Assessor).

- **Co-ordination and collaboration:** the reports encourage coordination between human health and animal health risk assessment and the food chain;

  "Most of the data wouldn't be accessible at all if EFSA didn't collate it in this way…interpreting how [data] might influence the situation at the EU level by comparing human, food and animal data and trying to show trends. For example…data from the reports highlighted an increasing problem with Salmonella associated with eggs, particularly with Poland…that led to investigations – without having that data at the EU level, individual countries might not have such a strong case" (source: interviewee from EFSA' BIOHAZ Panel, Risk Assessor)

- **Comprehensive reference document:** EUSRs were also considered as a *"sort of dictionary and repository of information on zoonoses" (source: EFSA's AHAW Panel interviewee, Risk Assessor);*

- **Reputational benefits:** reports were considered a highly-respected resource that could be cited and presented to decision-makers with confidence; and

- **Improved efficiencies:** when asked what the impact would be if the EUSRs were not published, stakeholders reported that this would create substantive burdens for risk assessors. Most of the data currently available from the reports would have to be requested from individual Member States on an ad-hoc basis. In absence of EUSRs, interviewees also felt that they would not be able to get comprehensive and harmonised data, given the different approaches to data collection across Member States, the use of national languages for the preparation of databases and reports, and the absence of an easy access to data in many countries. This was also highlighted in the interview with the **DG SANTE** stakeholder.

Some stakeholders familiar with both reports considered the AMR to be more "unique" and impactful than reports on zoonoses and food-borne outbreaks, as they felt that the zoonoses reports were more strongly affected by data issues:

"[EUSRs are] extremely useful – particularly the one on AMR, considering the current state of emergency. If you compare this with what they have in the US, I think the EU one provides a really nice summary especially considering the differences between MS. […]. The zoonoses [report] is less valuable. You could find a lot of this data elsewhere, and it suffers more from the heterogeneity between MS. It is harder to say what is going on in Europe based on this report." (source: EFSA's AHAW Panel interviewee, Risk Assessor)

"Particularly for the AMR reports, they are also good for showing [lower performing] countries […] and encouraging more prudent use of antibiotics." (source: ECDC interviewee, Risk Assessor)

3.6 To what extent do the EUSRs provide opportunities for collaboration and align with the 'One Health' report approach?

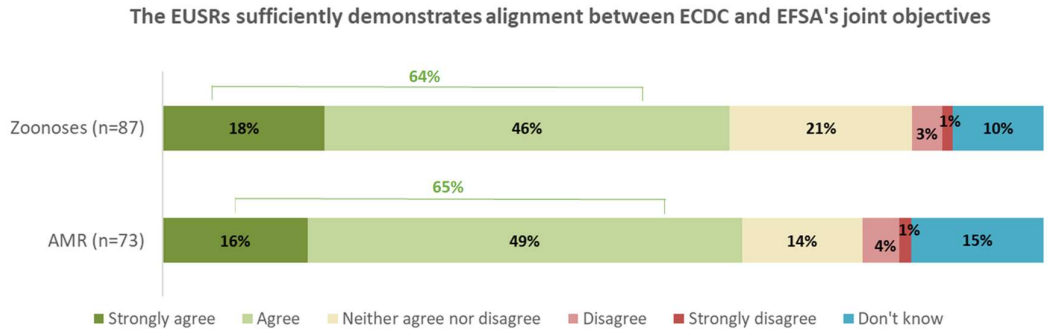
In general, there was agreement among stakeholders that the EUSRs demonstrate alignment between ECDC and EFSA's joint objectives, show good collaboration between the agencies and align with a 'One Health' approach. However, there were some appeals for improved comparability and a more integrated approach to reporting between EFSA and ECDC.

Respondents generally agreed that the reports demonstrated **alignment between ECDC and EFSA's joint objectives** (see Figure 3.13). For the Zoonoses report, this appears to be driven by respondents affiliated primarily with the Advisory Forum (87% agreed[15]). For the AMR report, both Advisory Forum members and EFSA panel members tended to be the most positive (73% and 77% agreed respectively[16]).

[15] Either strongly agreed or agreed

[16] Either strongly agreed or agreed

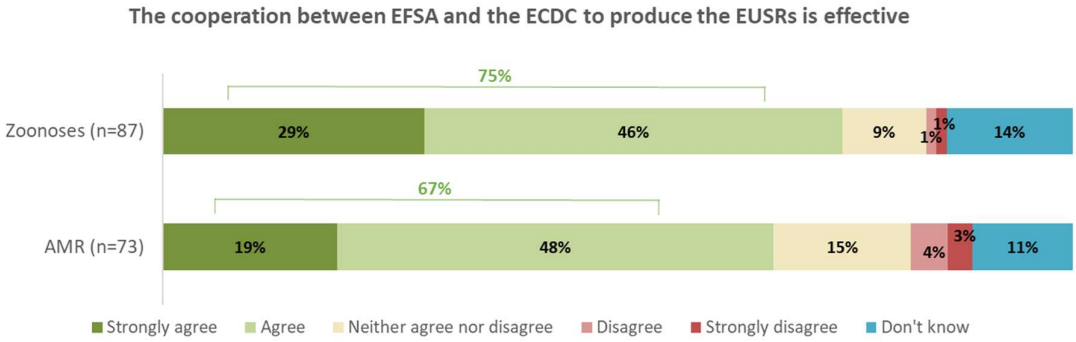
Figure 3.13 Alignment between ECDC and EFSA objectives[17]



Base: DG SANTE, ECDC, EFSA's Zoonoses Monitoring Data Network member, EFSA panels, EFSA's Advisory Forum

The **level of co-operation between ECDC and EFSA** was also generally thought to be **effective**. Three in four (75%) respondents agreed that the co-operation between EFSA and ECDC was effective for the zoonoses report. This was slightly lower for the AMR report (67%) (see Figure 3.14). Stakeholders interviewed appreciated the good collaboration between EFSA and ECDC in producing the reports. They also recognised the efforts made by the two institutions to bring together human, food and animal health data on zoonoses and AMR. The integration of human, food and animal health data were considered as one of the most valuable aspects of the reports.

Figure 3.14 Cooperation between EFSA and ECDC[18]



Base: DG SANTE, ECDC, EFSA's Zoonoses Monitoring Data Network member, EFSA panels, EFSA's Advisory Forum

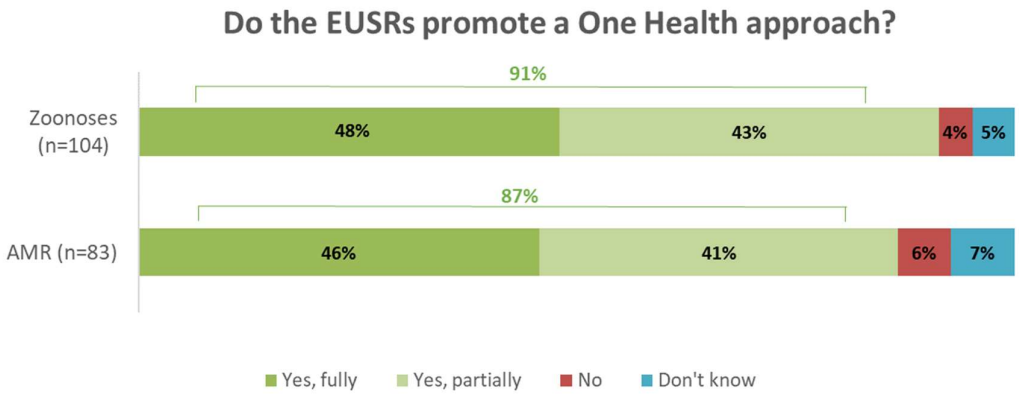
The 'One Health' approach: 'One Health' is an approach that brings together multiple sectors or disciplines to achieve better health outcomes for humans, animals and the environment. The EUSRs are produced in the spirit of a 'One Health' approach and the collaboration between EFSA and ECDC is meant to support this.

The 'One Health' approach was mainly discussed during interviews with ECDC representatives and Advisory Forum members. This might be due to higher awareness of the 'One Health' approach among these stakeholders.

[17] Q13 in Zoonoses Survey; Q6 in AMR Survey

[18] Q13 in Zoonoses Survey; Q6 in AMR Survey

Figure 3.15 One Health approach[19]



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There were, however, **mixed views on how far reports currently align with the 'One Health' approach**. Almost half of survey respondents agreed that the Zoonoses and AMR EUSRs fully promote a 'One Health' approach (48% and 46% respectively). A similar proportion felt that the EUSRs only partially promoted a 'One Health' approach. And, only a small percentage of survey respondents felt that the reports did not promote a 'One Health' approach (see Figure 3.15). Stakeholders, within ECDC in particular, felt that this required 'stepping back from the preliminary analysis and focusing more on implications' and emphasising the 'connection between humans, the animals and the food'. This was reinforced at a national level; one Member State representative stressed the value of integrating human and animal data at both a national and EU level.

Key stakeholders: DG SANTE

Among DG SANTE stakeholders, there was general consensus that the EUSRs either fully or partially support a One Health approach, with no stakeholders disagreeing with the statement.

For the zoonoses report, of the five stakeholders surveyed, three indicated that the report fully supports a One Health approach and two indicated that it partially supports a One Health approach. For the AMR report, of the three stakeholders surveyed, two indicated that it fully supports a One Health approach and one selected "don't know".

Some interviewees felt that there was **no overlap between EFSA's and ECDC's work** to produce the reports, and that the good communication between institutions resulted in an integrated approach to the presentation of human and animal data. Others identified scope for improvement. Notably, in both the survey and interviews, much of the disagreement on these points came from ECDC stakeholders.

One interviewee, for example, felt that EFSA and the ECDC should work on improving the comparability between food, animal and human data analyses (for example, by producing maps which compare data on human and animal diseases). In line with earlier comments calling for the reports to highlight headline findings and key messages (see section 3.3), some ECDC interviewees felt that the report could build on the existing analyses to better highlight commonalities in the data and extract messages that are relevant to the 'One Health' perspective:

[19] Q18 in Zoonoses Survey; Q11 in AMR Survey

"The report should [step] back from the preliminary analysis and [focus] more on implications and a 'One Health' approach. There should be less of a focus on presenting lots of numbers and talking at great length about the laboratory methodologies." (source: ECDC interviewee, Risk Assessor)

"The reports lack an analysis of how these different things interrelate. The report is currently just ECDC pages and EFSA pages with no real attempt to bring it together. You have to connect the dots yourself […]" (source: ECDC interviewee, Risk Communicator).

Some of the suggestions to better highlight **linkages between human and animal data** referred specifically to the type of analysis included in the EUSRs:

- Another interviewee from the BIOHAZ panel felt that the reports on zoonoses and food-borne outbreaks could benefit from the application of whole genome sequencing to further analyse linkages between clinical and food data on zoonoses.
- For the report on AMR, one ECDC stakeholder suggested that there should be a stronger focus on identifying patterns of resistances in humans and animals, and then on concluding on any connections between these patterns. Another suggested that the AMR report focusses on commonalities between human and animal data, while raw data on AMR might be published elsewhere.

Some interviewees from the ECDC and EFSA Panels felt that the added value of reports could be improved by further exploring the linkages between human and animal health data to inform risk management, consistent with the 'One Health' approach. They thought that there were some missed opportunities to explore linkages between human and animal diseases:

"[The value of EUSRs] should be to identify the links, interdependence, the transmission pathways between animals and humans or humans and animals, to identify the magnitude of those links and the trends in those, specifically to inform policy, veterinary public health and practice that should result in a reduction in the incidence or resistance." (source: ECDC interviewee, Risk Assessor)

Interviewees recognised that the resources and time available to prepare the reports currently limit the possibility to provide further depth analysis. A comprehensive analysis of human and animal data would therefore require careful planning. One ECDC interviewee suggested introducing **higher level strategic discussions** after preliminary analysis, to ensure that the report better addresses how the issues come together and presents key findings at a more strategic level. According to the interviewee, this could help to improve collaboration and alignment with a 'One Health' approach.

When asked whether there were any **synergies between the EUSRs and other reporting outputs**, the Joint Interagency Antimicrobial Consumption and Resistance Analysis (JIACRA) was identified. The production of the JIACRA I and II reports involved close interagency collaboration, representing a 'One Health' approach and elaborated from the AMR data already reported in the AMR reports. This may therefore provide further opportunity either for synergies between the reports, or a good practice example on interagency collaboration and applying a 'One Health' approach. This also indicates that signposting between EUSR and JIACRA may be beneficial for stakeholders in order to find specific information. The JIACRA report is produced every 3-4 years based on already published and validated data. However, the analyses and drafting of the JIACRA report requires approximately two years compared to the EUSR on AMR which is produced in only seven months.

3.7 Is there a need to change the current size, format or frequency of the EUSRs?

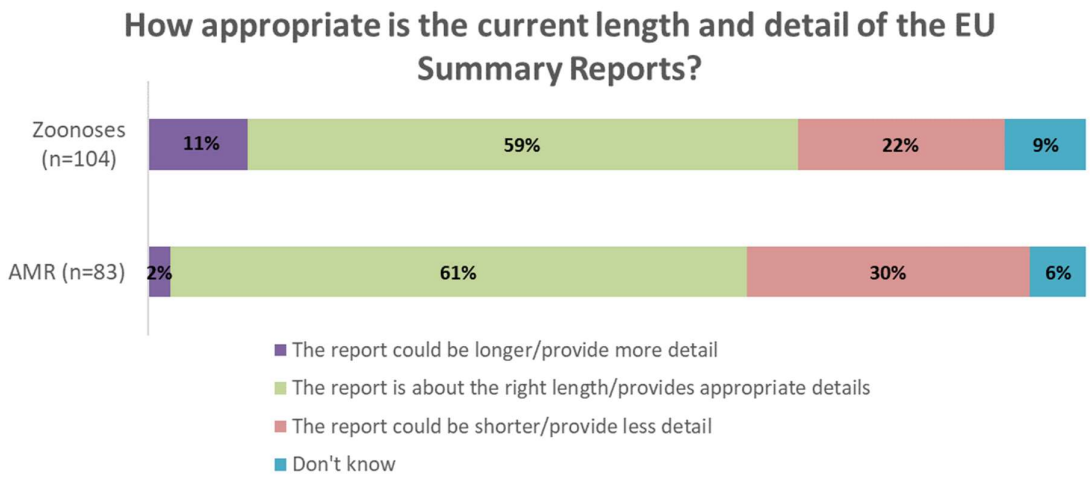
Overall, the size and format of the EUSRs are considered to be appropriate and necessary to provide a comprehensive analysis. Some noted that the reports could be improved with more interactive or visually engaging images while still remaining sufficiently detailed.

The majority of stakeholders surveyed agreed that the current **length of both reports is appropriate**. Of those who disagreed, there was more interest in a shorter report than a longer one, although a significant minority (11%) of respondents expressed a desire for additional details in the Zoonoses report (see Figure 3.16). ECDC and DG SANTE representatives appeared most interested in shorter reports. Among the ECDC stakeholders (7), all felt that the Zoonoses report could be shorter and nearly all (6) felt that the AMR report could be shorter. Among DG SANTE stakeholders, 2 out of the 5 respondents felt that the Zoonoses report could be shorter while 2 out of 3 respondents felt that the AMR report could be shorter. For the remainder of the stakeholder groups, the majority were satisfied with the length.

These sentiments were reflected in the interviews, and many interviewees appeared **ambivalent on the issue of length**. Although some risk assessors stated that the report was too long, their actual recommendations for improvement involved adding further details to the report rather than cutting down.

Many recognised that the report size is appropriate and justified by the need to achieve comprehensiveness of diseases, countries and agents covered by the analysis. Respondents were significantly more critical regarding the format, size and frequency of the reports as compared to the content or fit-for-purpose of the reports.

Figure 3.16 Length and detail of the EUSR[20]



Base: All

[20] Q19 in Zoonoses Survey; Q12 in AMR Survey

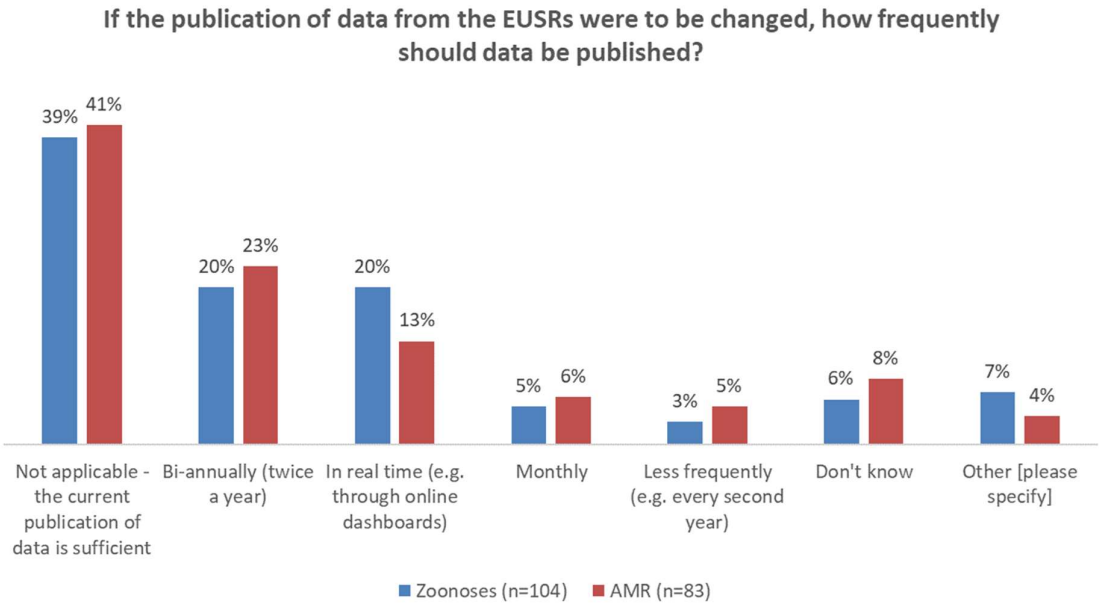
Around two in five (41% and 39%) stakeholders surveyed indicated that the current frequency of the EUSR publications were sufficient. However, a substantive number of respondents showed **interest in receiving more frequent publication** of data either twice a year or in real-time. Although there appeared to be more interest in receiving real time updates for zoonoses than for AMR (see Figure 3.17). Discussions with interviewees suggested that this may be because trends change more quickly within zoonoses and food-borne outbreaks than for AMR. More frequent publications are impracticable within the current legislative requirements due to the way in which data is reported and collected.

Key stakeholders: DG SANTE

Among DG SANTE stakeholders, there was also an interest in receiving more frequent information, particularly for the zoonoses report. Of the five stakeholders surveyed on the zoonoses report, two indicated an interest in bi-annual reports and two indicated an interest in real-time updates. For the three surveyed for the AMR report, interest was more divided; one responded that the current frequency is sufficient, one responded. “don’t know” and the third indicated an interest in real-time updates.

The DG SANTE stakeholder interviewed indicated that the current frequency of publication is sufficient, noting that greater frequency would put too much burden on Member States and anything less than annual might miss important trends and sources. This stakeholder did note, however, that an exception might be warranted for some emerging risks, where a more frequent publication of data could be beneficial.

Figure 3.17 Frequency of publication[21]



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Stakeholders interviewed highlighted that yearly publication of zoonoses data, for example, provides an overview of seasonality in the evolution of outbreaks. This was considered as an advantage to risk assessors. More frequent publications, on the other hand, could create an **excessive burden for those involved in data collection and reporting**. When they

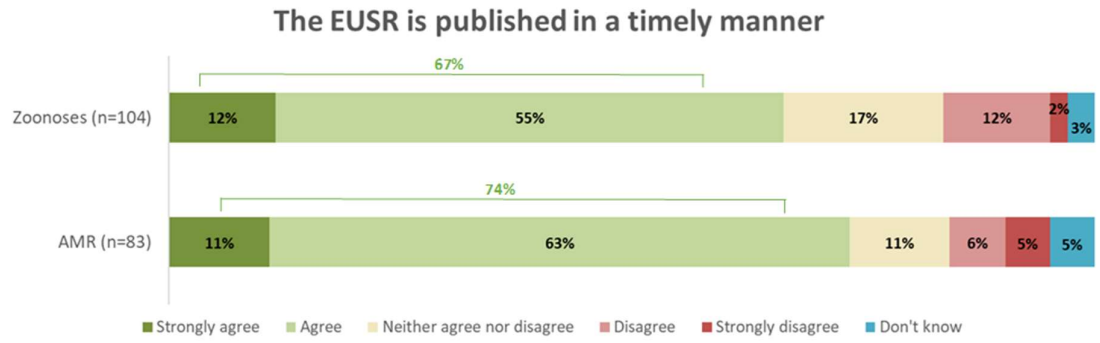
[21] Q20 in Zoonoses Survey; Q13 in AMR Survey

require urgent information on outbreaks, interviewees stated that they could rely on other existing data sources (such as the rapid alert system).

Survey results indicated that two thirds (67%) of stakeholders agreed that the EUSR for Zoonoses is **published in a timely manner**. This increases to almost three in four (74%) stakeholders in relation to the AMR report. However, almost a third (31%) for the Zoonoses report and almost a quarter (22%) of respondents for the AMR report either disagreed that the EUSR is published in a timely manner or selected "neither agree nor disagree" (see Figure 3.18). This was echoed by interviewees, many of whom expressed a desire to receive certain data earlier, such as data on emerging risks and unexpected outbreaks.

Stakeholders, however, acknowledged the level of effort required to produce the report including data validation and confirmatory testing of AMR data that is required before publishing the EUSR and therefore, **the time required for producing the report was not unreasonable**. Some also felt that the reasons for delayed publication were outside of EFSA's control. Furthermore, stakeholder views do not take into account the legal requirements of the EUSR publications. The zoonoses report, for instance, must be published 11 months after the data is collected from Member States. EFSA has adhered to these deadlines over the last few years. Improvements to the timeliness (i.e. frequency) of the publication for the Zoonoses report would require more harmonised analytical and monitoring approaches between Member States.

Figure 3.18 Timeliness of publication[22]



Base: All

Key stakeholders: DG SANTE

There was no consensus among DG SANTE stakeholders surveyed as to the timeliness of the report's publication. For the five stakeholders who responded on the zoonoses report, two agreed that the publication was timely, two neither agreed nor disagreed and one disagreed. For the three stakeholders who responded on the AMR report, one agreed, one selected "don't know" and one disagreed.

Rather than removing information from the report, several interviewees pointed to potential changes to the reports' format to improve its readability and user-friendliness. The main recommendations were to:

- **Annex legal and methodological information:** Move some details from the main body of the report into annexes or external documents and webpages. For example, an interviewee suggested to remove some detail from the section on *Escherichia coli* of the EUSR on zoonoses and food-borne outbreaks to align the length of the chapter

[22] Q22 in Zoonoses Survey; Q15 in AMR Survey

with that of other chapters (such as that on *Campylobacter*). Another suggested the removal of detailed sections on the legal basis for the reports, on methodologies for data collection and on laboratory analysis. The interviewee suggested to replace this text with a summary of main data biases and concerns.

- **Provide key findings and summaries only:** Include only summary/interpretive analysis in the report, by better highlighting key messages. Provide separate links or interactive databases to access the underlying "raw" data. These recommendations came especially from interviewees involved in risk management and communication. Some stakeholders suggested that this could be addressed by better highlighting key messages within the executive summary and abstract. For example, an interviewee commented as follows:

  "The abstract is often written first – before we have even thought about what the data means and because of this, it doesn't contain anything important. " (source: ECDC interviewee, Risk Assessor)

- **Replace text with graphics:** Reduce the length of the summary sections of reports, by replacing text with graphs/maps or images (including interactive online maps). The Surveillance Atlas of Infectious Diseases[23] was identified as a good example by ECDC interviewees as well as one EURL member. This was also mentioned by a **DG SANTE** stakeholder in the survey:

  "The development of a similar tool as the ECDC ATLAS would enable the reader to immediately find the information sought. If such tool had existed, the annual report could be shortened a lot with no need to have appendices as data would be available in the tool to the reader." (source: DG SANTE survey respondent, Risk Manager)

- **Provide links to raw data instead of in the report:** Links could be provided in combination with existing graphs to replace raw data and reduce the overall length of the report.
- **Make better use of formatting to highlight key messages:** This could include highlighted text and bullet points.
- **Break down the reports by chapters to be presented separately**: The report could be published and presented in separate documents to increase accessibility. An example was provided of the ECDC's Annual Epidemiological Reports (AERs)[24].

[23] Available at: https://atlas.ecdc.europa.eu/public/index.aspx

[24] Available at: https://ecdc.europa.eu/en/annual-epidemiological-reports

4 Conclusions and recommendations

Across all areas, the study indicated **high levels of satisfaction** with the EUSRs and a perception among stakeholders that the EUSRs provide **significant added value** and **fulfils the requirements of the Directive**.

The EUSRs provide a **sufficient assessment of trends** and a detailed level of quantitative and comparative analysis. In general, the reports appear to be used by most stakeholders as **a reference tool**, with users tending to focus on a summary of findings and the sections pertaining to the zoonoses areas of most interest to them.

The reports were considered by many stakeholders to be the only sources that brought together types of **information in a single place**, and that having this information was a **crucial resource** for risk assessment, management and communication. The collaboration between ECDC and EFSA in **bringing together human, food and animal health data** were considered one of the most valuable aspects of the EUSRs.

However, stakeholders also referred to limitations of the zoonoses report due to **divergences in national approaches** to data collection and **lack of harmonised data**. The close adherence to the Zoonoses Directive was also identified as limiting opportunities to expand the scope outside of legislative requirements. This subsequently impacts the level of analysis of zoonoses data included.

Nevertheless, most stakeholders expressed an **appreciation for the large effort required** to produce the reports and the challenge of bringing the available data together. This informed many of their responses, and many of the criticisms of the report came with an understanding that the data or resources may not be available to add or change some types of analyses.

Views around the scope of the reports—their level of detail, length and the type of information included— varied depending on stakeholder roles and responsibilities. Risk managers and assessors consider the reports to be a comprehensive and detailed resource to compare across Member States and identify key trends. It is these groups that tend to want more detail. Stakeholders suggest a **greater focus on emerging risks, improving analytical methods, ensuring coherency of scientific opinions and providing benchmarking and background information**. On the other hand, risk communicators felt that reports could be **written in a more concise, non-scientific manner** to aid their work producing materials for lectures and presentations.

Key stakeholders, DG SANTE, hold similar views to the wider stakeholder group. They too, tend to agree on the usefulness and relevance of the EUSRs. They also indicated a desire to receive more frequent information. In particular, more frequent publication of data related to emerging risks could be beneficial. However, there was a lack of interest in receiving more detailed, raw data. This most likely reflects the way in which they use and disseminate findings from the EUSR.

Based on these results, the following recommendations can be made for improving the EUSRs in terms of their efficacy, efficiency, relevance, added value, coherence and timeliness:

- **Continue work on harmonising data collection between Member States.** Current efforts to harmonise data collection are greatly appreciated by stakeholders and there is a general understanding that to conserve resources to conduct the level of analysis desired, more harmonisation will be needed. Improving the use of IT tools among Member States was cited as one way to help address this.

- **Further improve the collaboration between EFSA and ECDC.** Although there was overall little criticism of the reports by stakeholders, a number of the critiques of the EUSR came from ECDC stakeholders. There was a sense that there is greater potential for reports to show the interrelations between animal and human health than is currently being achieved. Improving this collaboration as well as conducting higher level strategic discussions after preliminary analysis would help foster a 'One Health' approach and would improve the suitability of the report for public health researchers, as well as those focused on animal health.
- **Ensure the reports clearly signpost relevant content or sections for different customer groups and their requirements.** Interviews with stakeholders made clear that the EUSRs are used by individuals for a range of purposes. As such, the EUSRs are a product for multiple audiences and therefore need to address multiple needs. Future revisions to the report should keep this in mind and changes to the format may help to address this. For example, guidance could be provided to stakeholders on how to navigate the reports and find information relevant to them. Additional content could also be considered such as emerging risks, alignment of findings with Scientific Opinions and benchmarking analysis for risk assessors and managers. The scope of the report may also be explored to provide a compromise between the needs of different customer groups. This could be in part addressed by some changes to the format and structure of the report.
- **Provide plain language information and use of summaries.** Particularly for risk communicators, the EUSRs represent a challenge due to the lack of plain language information. This creates inefficiencies for communicators to share their findings within the technical and scientific community and limits the accessibility of information for policymakers or among journalists or the general public.
- **Increase the amount of interpretive analysis.** Some ECDC and Panel stakeholders requested that the EUSRs should provide less descriptive and more interpretive analysis. This was particularly common among stakeholders who were not themselves involved in scientific research. More information on the implications of the data on trends, sources and key findings would also help to improve the accessibility of the reports. For the AMR report, this may already be addressed in part through the JIACRA report and other risk management activities.
- **Draw on other reports or outputs for inspiration.** Both the ECDC's Surveillance Atlas and the JIACRA reports were cited by stakeholders during interviews as good practice examples that could offer lessons for the EUSRs to improve readability and accessibility of the report.
- **Improve the communication of data limitations and analytical methods.** The lack of clarity about the uncertainty of some data was cited as a problem by some stakeholders. An improvement in the communication of uncertainty and the limitations of the data within the reports would ensure that data is being interpreted and used correctly while remaining clear and concise. It could also help build on and align with EFSA's recent work on the communication of uncertainty in scientific assessments.

Annex 1 Online survey questionnaire

A1.1 Introduction

The European Food Safety Authority (EFSA) wishes to evaluate the effectiveness, relevance and added value of the annual EU Summary Reports published on Zoonoses and Food-borne outbreaks and on Antimicrobial resistance.

This aim of this survey is to gather your views on the EU summary reports, considering your own use of the reports and your needs. You will be asked about different aspects of the EU summary reports and in some instances, to provide recommendations for improvement.

It should take approximately 15 minutes to complete the survey.

At ICF we care about your personal and sensitive data. This survey is designed to be compliant with the General Data Protection Regulation (2016/679). This information sheet details how your data will be handled by ICF. All the data gathered in this survey will be stored by ICF in compliance with the ICF Privacy Statement. The data will be anonymised and will only be presented in an aggregated manner.

We appreciate your contribution to our study and thank you in advance for your time.

Please click on the next button below to start the survey.

A1.1.1 About the respondent

The following questions ask about your role and familiarity with the EU Summary Reports.

1. *[Demographic] Ask all. Multi-code*

Which of the following groups or organisations do you belong to? Please select all that apply.

[ ] DG SANTE
[ ] ECDC
[ ] ECDC's Food and Waterborne Diseases and Zoonoses Network (FWD-Net)
[ ] EFSA's Zoonoses Monitoring Data Network
[ ] EFSA's Panel on Biological Hazards (BIOHAZ)
[ ] EFSA's Panel on Animal Health and Welfare (AHAW)
[ ] EFSA's Advisory Forum
[ ] EURLs for food-borne pathogens
[ ] EURL for Antimicrobial Resistance
[ ] Other [please specify]

2. *[Demographic] Ask all. Multi-code except none of the above*

Which country are you affiliated with? Please select all that apply.

[ ] Albania
[ ] Austria
[ ] Belgium
[ ] Bosnia and Herzegovina
[ ] Bulgaria
[ ] Croatia
[ ] Cyprus

[ ] Czech Republic
[ ] Denmark
[ ] Estonia
[ ] Finland
[ ] France
[ ] Germany
[ ] Greece
[ ] Hungary
[ ] Ireland
[ ] Italy
[ ] Kosovo
[ ] Latvia
[ ] Lithuania
[ ] Luxembourg
[ ] Malta
[ ] Montenegro
[ ] Netherlands
[ ] North Macedonia
[ ] Norway
[ ] Poland
[ ] Portugal
[ ] Romania
[ ] Serbia
[ ] Slovakia
[ ] Slovenia
[ ] Spain
[ ] Sweden
[ ] Switzerland
[ ] Turkey
[ ] United Kingdom
( ) None of the above

3. *[Demographic]* *Ask all. Randomise and multi-code except other, don't know, none of the above*

Which of the following types of publications related to food safety or epidemiology, if any, have you read in the last two years? Please select all that apply.

[ ] EFSA scientific reports
[ ] EFSA technical reports
[ ] EFSA external scientific reports (not written by EFSA)
[ ] Literature reviews
[ ] EFSA editorials
[ ] EFSA opinions of scientific committees or panels
[ ] ECDC surveillance reports
[ ] ECDC technical reports
[ ] ECDC guidance and toolkits
[ ] ECDC public health guidance and management reports
[ ] National country reports
( ) Other [please specify]
( ) None of the above
( ) Don't know

4. *[Relevance]* *Ask all. Single-code grid – randomise rows*

How would you rank your familiarity with each of the following EU summary reports?

	Never heard of and not at all familiar	Not at all familiar	Not very familiar	Somewhat familiar	Very familiar
EU Summary Report on Zoonoses And Food-Borne Outbreaks	( )	( )	( )	( )	( )
EU Summary Report on Antimicrobial Resistance	( )	( )	( )	( )	( )

Screen out respondents who are NOT "Somewhat familiar" or "Very familiar" with either report

A1.2 EU Summary Report on Zoonoses and Food-Borne Outbreaks

Ask questions in this section only if "Somewhat familiar or "Very familiar" with the EU Summary Report on Zoonoses and Food-Borne Outbreaks

A1.2.1 Fitness for purpose of the EU Summary Report on Zoonoses and Food-Borne Outbreaks

We would now like to ask some questions on how you use the EU Summary Report on **Zoonoses and Food-Borne Outbreaks** and to what extent the report fits your needs.

5. *[Effectiveness, relevance] Ask all. Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements:
"The EU Summary Report on Zoonoses and Food-Borne outbreaks provides an adequate assessment of…."

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The trends of zoonoses and zoonotic agents in the EU	( )	( )	( )	( )	( )	( )
The sources of zoonoses and zoonotic agents in the EU	( )	( )	( )	( )	( )	( )

6. *[Effectiveness, relevance] Ask all. Multi-code. Randomise except other, none of the above and don't know*
For which zoonotic agents do you think the EU Summary Report on Zoonoses and Food-Borne outbreaks is suitable to assess compliance with national or EU targets? Please select all that apply.

[ ] Salmonella

[ ] Tuberculosis due to mycobacterium bovis

[ ] Brucella

[ ] Trichinella

[ ] Rabies

[ ] Other [please specify]

( ) None of the above

( ) Don't know

7. *[Effectiveness, relevance] If "None of the above" or "Don't know" selected in Q6, move to Q8. Otherwise, single-code.*
To what extent do you agree or disagree that the EU Summary Report on Zoonoses and Food-Borne outbreaks is suitable for assessing whether the target(s) you selected have been met?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree
( ) Don't know

8. *[Effectiveness, relevance] Ask all. Multi-code.*
For which zoonoses do you think the EU Summary Report on Zoonoses and Food-Borne outbreaks is suitable to assess compliance with national or EU regulatory limits?

[ ] Salmonella

[ ] Listeria

[ ] Other [please specify]

( ) None of the above

( ) Not applicable

We would now like to ask you about the quantitative data and analysis in the EU Summary Report on Zoonoses and Food-Borne Outbreaks. This includes quantitative data as provided in tables, charts and other graphical representations.

9. *[Effectiveness] Ask all. Single-code.*
To what extent do you agree or disagree that the quantitative analysis provided by the Summary Report helps you to understand trends?

( ) Strongly agree
( ) Agree

( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree
( ) Don't know
( ) Not applicable

10. *[Effectiveness]* *Ask all. Open question*
Are there particular types of quantitative analysis that are more or less helpful? If not, please write n/a in the box below.

11. *[Added value; Effectiveness; Relevance, Added value]* *Ask all. Single-code grid – randomise rows*
To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The data in the EU Summary Report is helpful in comparing zoonoses and food-borne outbreaks between Member States	( )	( )	( )	( )	( )	( )
The graphical representations used in the EU Summary Report help my understanding of the data and trends	( )	( )	( )	( )	( )	( )

12. *[Added value, effectiveness]* *Ask all. Single-code grid – randomise rows*
To what extent do you agree or disagree with the following statements?
"The EU Summary Report on Zoonoses and Food-Borne Outbreaks…"

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know

Is helpful for disseminating national data and summaries to neighbours and other stakeholders	( )	( )	( )	( )	( )	( )
Provides a detailed and high-quality overview of the available national data	( )	( )	( )	( )	( )	( )
Contributes to supporting the assessment of trends and sources of zoonoses, and of food-borne outbreaks according to Directive 2003/99/EC	( )	( )	( )	( )	( )	( )

13. *[Effectiveness] Ask only if respond: DG SANTE, ECDC, ECDC's FWD-Net, EFSA's Zoonoses Monitoring Data Network member, EFSA's Panel on Biological Hazards (BIOHAZ), EFSA's Panel on Animal Health and Welfare (AHAW), EFSA's Advisory Forum at Q1. Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The cooperation between EFSA and the ECDC to produce the EU Summary Report on Zoonoses and Food-Borne Outbreaks is effective	( )	( )	( )	( )	( )	( )
The EU Summary Report on	( )	( )	( )	( )	( )	( )

Zoonoses and Food-Borne Outbreaks sufficiently demonstrates alignment between ECDC and EFSA's joint objectives						

A1.2.2 Information needs

The following questions ask about your use of the EU Summary Report on Zoonoses and Food-Borne Outbreaks.

14. *[Relevance] Ask all. Multi-code except all of the above and none of the above, randomise answer options.*

Which of the following are you interested in receiving information on through the EU summary report on Zoonoses and Food-Borne Outbreaks? Please select all that apply.

[ ] Campylobacter

[ ] Salmonella

[ ] Listeria

[ ] Shiga-toxin producing Escherichia coli

[ ] Yersinia

[ ] Tuberculosis due to Mycobacterium bovis

[ ] Brucella

[ ] Trichinella

[ ] Echinococcus

[ ] Toxoplasma gondii

[ ] Rabies

[ ] Q fever

[ ] West Nile virus

[ ] Tularaemia

[ ] Food-borne outbreaks

[ ] Microbiological contaminants (for which food safety criteria are laid down in EU legislation)

[ ] Other zoonoses and zoonotic agents

[ ] None of the above

( ) All of the above

15. *[Relevance] Ask all. Multi-code except don't know, randomise all options except other and Don't Know.*

What types of information do you look for in the EU summary report on Zoonoses and Food-Borne Outbreaks? Please select all that apply.

[ ] Summaries of main findings
[ ] EU summary tables
[ ] Raw data in appendices/ EFSA Knowledge Junction
[ ] Maps
[ ] Trends
[ ] Sources (of zoonoses and of food-borne outbreaks)
[ ] Data relevant to my Member State
[ ] Data relevant to neighbouring Member States
[ ] Data relevant to all Member States
[ ] Discussion of results
( ) Other [please specify]
( ) Don't know

A1.2.3 Added value of the EU Summary Report on Zoonoses and Food-Borne Outbreaks

The following questions seek to understand whether the EU Summary Report on Zoonoses and Food-Borne Outbreaks adds value to your work as a risk assessor or manager.

16. *[Added value]* *Ask only if respond: ECDC, ECDC's FWD-Net, EFSA's Zoonoses Monitoring Data Network member, EFSA's Panel on Biological Hazards (BIOHAZ), EFSA's Panel on Animal Health and Welfare (AHAW), EFSA's Advisory Forum, EURLs for food-borne pathogens, EURL for Antimicrobial Resistance, 'Other' at Q1. Single-code.*

How helpful has the information provided by the EU Summary Report on Zoonoses and Food-Borne Outbreaks been when carrying out relevant scientific risk assessments?

( ) Very helpful
( ) Somewhat helpful
( ) Neither helpful nor unhelpful
( ) Not very helpful
( ) Not at all helpful
( ) Don't know
( ) Not applicable

17. *[Added value]* *Ask only if respond: DG SANTE, ECDC's FWD-Net, EFSA's Advisory Forum, 'Other' at Q1. Single-code.*
How relevant is the information provided in the annual EU Summary Report on zoonoses and food-borne diseases to make informed decisions about zoonotic agents?

( ) Very relevant
( ) Somewhat relevant
( ) Neither relevant nor irrelevant
( ) Not very relevant
( ) Not at all relevant
( ) Don't know
( ) Not applicable

18. *[Effectiveness]* *Ask all, single code*

One Health is an approach that brings together multiple sectors or disciplines to achieve better health outcomes for humans, animals and the environment such as EFSA and the European Centre for Disease Prevention and Control (ECDC).
In your view, does the EU Summary Report on Zoonoses and Food-Borne Outbreaks promote a One Health approach?

( ) Yes, fully
( ) Yes, partially
( ) No
( ) Don't know

A1.2.4 Frequency and format of the reports

Finally, we would like to ask you some questions on the length, the detail and the format of the report, as well as the frequency and the timeliness of publications.

19. *[Efficiency] Ask all, single-code*
How appropriate is the current length and detail of the EU Summary Report on Zoonoses and Food-Borne Outbreaks?
( ) The report is about the right length/provides appropriate details
( ) The report could be longer/provide more detail
( ) The report could be shorter/provide less detail
( ) Don't know

20. *[Efficiency] Ask all, single code*
If the publication of data from the EU Summary Report on Zoonoses and Food-Borne Outbreaks were to be changed, how frequently should data be published?
( ) In real time (e.g. through online dashboards)
( ) Monthly
( ) Bi-annually (twice a year)
( ) Less frequently (e.g. every second year)
( ) Other [please specify]
( ) Don't know
( ) Not applicable – the current publication of data is sufficient

21. *[Efficiency] Ask all, multi-code, randomise except other, DK.*
Which, if any, of the following formats of the report would be suitable for your needs? Please select all that apply.
( ) Accessible online
( ) Downloadable pdf report
( ) Email attachment
( ) Paper copy
( ) Other [please specify]
( ) Don't know

22. *[Effectiveness; Efficiency] Ask all. Single-code grid – randomise rows*
To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The EU Summary	( )	( )	( )	( )	( )	( )

Report on Zoonoses and Food-Borne Outbreaks is published in a timely manner						
I am alerted to the publication of the EU Summary Report on Zoonoses and Food-Borne Outbreaks in a timely manner	( )	( )	( )	( )	( )	( )

23. *[Efficiency]* *Ask all, open question*

What recommendations, if any, do you have for adjustments to the length and detail, publication frequency or format of the report? If none, please write n/a in the box below.

A1.2.5 Wrap up

[All] *Ask all, open question*

24. Do you have any additional recommendations for improving the production, content, format or dissemination of the EU Summary Report on Zoonoses and Food-Borne Outbreaks? If not, please write n/a in the box below.

Thank you for time!

-THANK AND CLOSE SURVEY-

A1.3 EU Summary Report on Antimicrobial Resistance

Ask questions in this section only if "Somewhat familiar or "Very familiar" with the EU Summary Report on Antimicrobial Resistance

A1.3.1 Fitness for purpose of the EU Summary Report on Antimicrobial Resistance

We would now like to ask some questions on how you use the EU Summary Report on Antimicrobial Resistance (AMR) and to what extent the report fits your needs.

1. *[Effectiveness, relevance] Ask all Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements:
"The EU Summary Report on Antimicrobial Resistance provides an adequate assessment of…."

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The trends of AMR in the EU	( )	( )	( )	( )	( )	( )
The sources of AMR in the EU	( )	( )	( )	( )	( )	( )

We would now like to ask you about the quantitative data and analysis in the EU Summary Report on Antimicrobial Resistance. This includes quantitative data as provided in tables, charts and other graphical representations.

2. *[Effectiveness] Ask all. Single-code.*

To what extent do you agree or disagree that the quantitative analysis provided by the Summary Report helps your understanding of trends?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree
( ) Don't know

3. *[Effectiveness] Ask all. Open question*
Are there particular types of quantitative analysis that are more or less helpful? If not, please write n/a in the box below.

4. *[Added value; Effectiveness; Relevance, Added value]* *Ask all. Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The data in the EU Summary Report is helpful for comparing the situation as regards antimicrobial resistance between Member States	( )	( )	( )	( )	( )	( )
The graphical representations used in the EU summary report helps my understanding of the data and trends	( )	( )	( )	( )	( )	( )

5. *[Added value, effectiveness]* *Ask all. Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements?
"The EU Summary Report on Antimicrobial Resistance…"

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Is helpful for disseminating national data and summaries to neighbour Member States and other stakeholders	( )	( )	( )	( )	( )	( )
Provides a detailed and high-quality	( )	( )	( )	( )	( )	( )

overview of the available national data						
Contributes to supporting the assessment of trends and sources of antimicrobial resistance according to Directive 2003/99/EC	( )	( )	( )	( )	( )	( )

6. *[Effectiveness] Ask only if respond: DG SANTE, ECDC, ECDC's FWD-Net, EFSA's Zoonoses Monitoring Data Network member, EFSA's Panel on Biological Hazards (BIOHAZ), EFSA's Panel on Animal Health and Welfare (AHAW), EFSA's Advisory Forum. Single-code grid – randomise rows*

To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The cooperation between EFSA and the ECDC to produce the EU Summary Report on Antimicrobial Resistance is effective	( )	( )	( )	( )	( )	( )
The EU Summary Report on Antimicrobial Resistance sufficiently demonstrates alignment between ECDC and EFSA's joint objectives	( )	( )	( )	( )	( )	( )

A1.3.2 Data needs

The following questions ask about your use of the EU Summary Report on Antimicrobial Resistance.

7. *[Relevance] Ask all. Multi-code except all of the above and none of the above, randomise answer options.*

Which of the following are you interested in receiving information on through the EU Summary Report on Antimicrobial Resistance? Please select all that apply.

[ ] Campylobacter

[ ] Salmonella

[ ] E. coli

[ ] Enterococci

[ ] Methicillin Resistant Staphylococcus aureus (MRSA)

( ) All of the above

( ) None of the above

8. *[Relevance] Ask all. Multi-code except don't know, randomise all options except other and DK.*

What types of information do you look for in the EU summary report on Antimicrobial Resistance? Please select all that apply.

[ ] Summaries of main findings
[ ] EU summary tables
[ ] Raw data in appendices/ EFSA Knowledge Junction
[ ] Maps
[ ] Trends
[ ] Sources (of Antimicrobial Resistance)
[ ] Data relevant to my Member State
[ ] Data relevant to neighbouring Member States
[ ] Data relevant to all Member States
[ ] Discussion of results
( ) Other [please specify]
( ) Don't know

A1.3.3 Added value of the EU Summary Report on Antimicrobial Resistance

The following questions seek to understand whether the EU Summary Report on Antimicrobial Resistance adds value to your work as a risk assessor or manager.

9. *[Added value] Ask only if respond: ECDC, ECDC's FWD-Net, EFSA's Zoonoses Monitoring Data Network member, EFSA's Panel on Biological Hazards (BIOHAZ), EFSA's Panel on Animal Health and Welfare (AHAW), EFSA's Advisory Forum, EURLs for food-borne pathogens, EURL for Antimicrobial Resistance, 'Other' at Q1. Single-code.*

How helpful has the information provided by the EU Summary Report on Antimicrobial Resistance been when carrying out relevant scientific risk assessments?

( ) Very helpful
( ) Somewhat helpful

( ) Neither helpful nor unhelpful
( ) Not very helpful
( ) Not at all helpful
( ) Don't know
( ) Not applicable

10. *[Added value]* *Ask only if DG SANTE, ECDC's FWD-Net, 'Other', Members of EFSA's Advisory Forum Members. Single-code.*

To what extent do you agree or disagree with the following statement?
"The EU Summary Report on AMR provides relevant information to develop strategies for managing antimicrobial resistance"

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree
( ) Don't know
( ) Not applicable

11. *[Effectiveness]* *Ask all, single code*
One Health is an approach that brings together multiple sectors or disciplines to achieve better health outcomes for humans, animals and the environment such as EFSA and the European Centre for Disease Prevention and Control (ECDC).
In your view, does the EU Summary Report on Antimicrobial Resistance promote a One Health approach?

( ) Yes, fully
( ) Yes, partially
( ) No
( ) Don't know

A1.3.4 Frequency and format of the reports

Finally, we would like to ask you some questions on the length, the detail and the format of the report, as well as the frequency and the timeliness of publications.

12. *[Efficiency]* *Ask all, single-code*
How appropriate is the current length and detail of the EU Summary Report on Antimicrobial Resistance?
( ) The report is about the right length/provides appropriate details
( ) The report could be longer/provide more detail
( ) The report could be shorter/provide less detail
( ) Don't know

13. *[Efficiency]* *Ask all, single code*
If the publication of data from the EU Summary Report on Antimicrobial Resistance were to be changed, how frequently should data be published?
( ) In real time (e.g. through online dashboards)
( ) Monthly
( ) Bi-annually (twice a year)
( ) Less frequently (e.g. every second year)

( ) Other [please specify]
( ) Don't know
( ) Not applicable – the current publication of data is sufficient

14. *[Efficiency] Ask all, multi-code, randomise except other, DK.*
Which, if any, of the following formats of the report would be suitable for your needs?
( ) Accessible online
( ) Downloadable pdf report
( ) Email attachment
( ) Paper copy
( ) Other [please specify]
( ) Don't know

15. *[Effectiveness; Efficiency] Ask all. Single-code grid – randomise rows*
To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
The EU Summary Report on Antimicrobial Resistance is published in a timely manner	( )	( )	( )	( )	( )	( )
I am alerted to the publication of the EU Summary Report on Antimicrobial Resistance in a timely manner	( )	( )	( )	( )	( )	( )

16. *[Efficiency] Ask all, open question*
What recommendations, if any, do you have for adjustments to the length and detail, publication frequency or format of the report? If none, please write n/a in the box below.

A1.3.5 Wrap up

17. *[All] Ask all, open question*

Do you have any additional recommendations for improving the production, content, format or dissemination of the EU Summary Report on Antimicrobial Resistance? If not, please write n/a in the box below.

Thank you for time!

-THANK AND CLOSE SURVEY-

Annex 2 Topic Guide for interviews

Introduction (Ask all)

Thank you for agreeing to take part in this interview. The European Food Safety Authority (EFSA) has commissioned ICF to conduct a study on the fitness for purpose of the EUSRs (European Union Summary Reports). Specifically, these are scientific reports describing trends in zoonotic diseases and antimicrobial resistance as well as the sources of the disease from animals and food. The key aim of this study is to provide EFSA with a better understanding of how it can optimise these reports for their intended users.

As a member of [organisation[25]], we are keen to speak with you to discuss your views and insights regarding whether the EUSRs are still fit for purpose and meet the requirements of EFSA's objectives as well as any recommendations for areas for improvement. The interview should last about 45 minutes, but may be a little longer or shorter, depending on your responses.

Your participation in this interview is voluntary and you can change your mind at any time. Please be assured that all comments made during the course of the interview will be treated in the strictest confidence. Your responses will not be attributed to you and will only be reported in aggregate. We will retain your contact details for quality purposes and this data is typically destroyed within three months of the end of the evaluation.

[ASK PERMISSION TO RECORD]

INTERVIEWER – Ensure that you are familiar with the key content within the different reports and that you are aware of the organisation's remit in relation to EFSA role and competencies.

[25] To be adapted depending on the interviewee's organisation - DG SANTE, National Food Safety Agency, EFSA, ECDC EURLs, EFSA Panels, ECDC, National Food Safety Agencies

Role and responsibilities *(5 mins)*

1. Could you please introduce yourself *[if necessary: and your organisation]?*
    a. What is your level of engagement with EFSA?

2. How familiar are you with each of the following EU summary reports? *(only ask if interviewer doesn't have this information already)*
    a. Zoonoses and Food-borne outbreaks
    b. Antimicrobial resistance

Relevance and effectiveness *(15 minutes)*

3. How often do you use the reports? What for?

4. Which parts of the EU summary reports are most useful to your work?

5. a) To what extent are the following aspects in the EU summary reports adequate?
[Interviewer to ask about relevant points, depending on the interviewee's familiarity with the topics]
    - Assessment of trends of zoonoses and zoonotic agents (e.g. cases of Salmonella, E. coli)
    - Assessment of sources of zoonoses, of zoonotic agents and of food-borne outbreaks (e.g. potential food and animal sources for human infection)
    - Assessment of trends of AMR (e.g. resistance to ampicillin, sulphonamides and tetracyclines)
    - Assessment of sources of AMR (e.g. potential sources of bacteria in meat and animals)

    b) Are there any improvements to be made in any of these areas? If yes, which ones and for which zoonoses?

    c) How could the quality of the assessment in each of these aspects be improved, if at all?

6. How could EU summary reports be improved to better support the assessment of trends and sources of zoonoses, zoonotic agents, food-borne outbreaks and antimicrobial resistance according to Directive 2003/99/EC, if at all?
[If needed: explanation of EFSA's role: providing data to allow the characterisation and monitoring of risks which have a direct or indirect impact on food safety]

7. How could EU summary reports make better use of the data provided by the Member States, if at all?

8. *[Question for risk managers and risk assessors : DG SANTE, National Food Safety Agencies, EURLs, EFSA Panels, ECDC]:*
What additional information on zoonotic agents and on food-borne outbreaks (and any specific zoonotic agents) would be useful to support informed decision-making?
    a. Is there any data or analysis provided that is unnecessary (*that could be done without*)? If yes, which?

9. *[Question for risk managers and risk assessors : DG SANTE, National Food Safety Agencies, EURLs, EFSA Panels, ECDC]:*
What additional information (in the EU summary reports) would be useful in the development of strategies for managing antimicrobial resistance?
    a. Is there any data or analysis provided that is unnecessary (*or that could be done without*)? If yes, which?

10. [*Question for risk assessors and risk managers : DG SANTE, EURLs, EFSA Panels, ECDC, National Food Safety Agencies*]: What additional or different types of information (in the EU summary reports) would be useful when carrying out risk assessments?
    a. Is there any data or analysis provided that is unnecessary (or that could be done without)?

Efficiency *(5 minutes)*

11. How could the current quantitative analyses provided in the EU Summary Reports be improved?
    a. Are there any types of analyses not currently included that might be helpful?

12. *[Question for EFSA and ECDC representatives only]:* Are there, in your view, any opportunities to improve the collaboration between EFSA and the ECDC to improve the EU Summary Reports?

EU Added value *(5 minutes)*

13. What, in your view, is the added value of the EU Summary Reports?
    a. For instance, do the EUSRs provide additional information/data that is not covered by other reports?
    b. Is the EUSR information relevant to carry out scientific risk assessments?
    c. Is the EUSR information useful to make informed decisions?

14. If the EU Summary Reports were not published, what impact would this have on your work?

15. Is there scope to change or improve the current level of geographic analysis provided in EU summary reports?

Recommendations for improvement *(10 minutes)*

16. What improvements, if any, could be made to the content of the EU summary reports, or any particular aspects of the reports?
    a. For example, for any of the specific zoonoses or zoonotic agents?

17. What improvements, if any, could be made to the overall length (230-250 pages) and level of detail included in the EU summary reports, including for any specific sections of the reports?
    [For AMR report probe on]
    - Materials and methods: antimicrobial susceptibility data
    - Antimicrobial resistance in humans/animals/ food
    - Monitoring of antimicrobial resistant bacteria

    [For Zoonoses report probe on]
    - Comparability and quality of data
    - Surveillance and monitoring of various zoonoses in humans/food and animals
    - Cases of zoonoses in humans, food and animals

18. What improvements, if any, could be made regarding how frequently the EU summary reports are *(or should be)* published?

19. What improvements, if any, could be made to the format of the report?
    If necessary, explain: by format we mean how the information is structured in relation to the organisation of the chapters and sections and display of data.

20. Are you aware of any other reports or outputs that could offer synergies with the EU summary reports?

21. Do you have any other comments or information you would like to share with us?

THANK & CLOSE