

EU-JAMRAI 2 - DELIVERABLE 3.1

EVALUATION FRAMEWORK



BUILDING A ONEHEALTH WORLD

to reduce Antimicrobial Resistance (AMR)

WP3 | Evaluation Framework

Leader acronym | Biosistemak

Co-Leader acronym | FFIS

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#EVALUATION

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I EXECUTIVE SUMMARY

The purpose of this deliverable is to describe and detail the Evaluation Framework that will be used along the European Joint Action on Antimicrobial Resistance and Healthcare Associated Infections 2 (EU-JAMRAI 2) to assess the achievement of its objectives, the progress of its tasks, its outputs as well as its overall impact.

The EU-JAMRAI 2 Evaluation Framework is organized into two main elements:

1. **Project Implementation Evaluation (PIE)** - specifies the evaluation activities to assess the planning and implementation of the project.
2. **Impact Assessment (IA)** - defines a roadmap to ensure that the JA's outcomes are beneficial, the resources are used efficiently and the actions taken are effective and sustainable.

Both elements will be assisted by indicators (quantitative and qualitative) detailing the tools for data collection, responsibilities, time for completion and type of analyses.

This evaluation framework will be a useful tool for identifying planned evaluation activities and outlining the scope of the evaluation. It will help organize the evaluation process, align intervention activities with expected results, establish indicators to facilitate monitoring, assign responsibilities among the evaluation team, and communicate evaluation information to key stakeholders.

During the Joint Action, a continuous monitoring process will be carried out to assess the achievement of objectives, milestones, and deliverables, and the progress of each work package's indicators and associated activities. The progress of EU-JAMRAI 2 will be assessed and reported in the First, Second, and Final Reports at months 18, 36, and 48.

This document is organised as follows:

Section 3 introduces the Evaluation Framework for the project, which assesses the progress and effectiveness of the project according to the general and specific objectives.

Section 4 discusses the methodology used to build the evaluation framework of EU-JAMRAI 2 and defines its components. Annexes 1 and 2 (Section 10.1 and 10.2) detail the set of indicators (process, output, outcome, impact) defined to monitor the progress of the actions and the correct measurement of objectives.

Section 5 explains the Project Implementation Evaluation proposed for EU-JAMRAI 2. It comprises two tools, Project Progress Monitoring and Quality Assurance of Deliverables, which have been developed to early detect deviations and redirect planned actions.

Section 6 describes the Impact Assessment approach to evaluate the intended impact objectives and ambitions brought about by the performance of EU-JAMRAI 2. It categorizes outcome and impact indicators in a dimension-based approach and describes the proposed actions to contribute to the medium and long-term objectives and ambitions beyond the end of the Joint Action.

Section 7 summarizes the Evaluation Framework described in the Deliverable 3.1 with the aim of illustrating the main ideas and clarifying the framework developed.

Section 8 outlines the next steps to be taken.

2 ACRONYMS

Table 1: Acronyms list

AC	Associated Country
AMC	Antimicrobial Consumption
AMR	Antimicrobial Resistance
AMS	Antimicrobial Stewardship
D	Deliverable
EF	Evaluation Framework
EU-JAMRAI	European Joint Action on AMR and Health Associated Infections
GA	Grant Agreement
GO	General Objective
HERA	Health Emergency Preparedness and Response
HIA	Health Impact Assessment
IA	Impact Assessment
IPC	Infection and Prevention Control
JA	Joint Action
MS	Member State
NAP	National Action Plan
PIE	Project Implementation Evaluation
PPM	Project Progress Monitoring
SO	Specific Objective
WHO	World Health Organisation
WP	Work Package
WPL	Work Package Leader



3 INTRODUCTION

3.1 Background information

The European Joint Action (JA) on Antimicrobial Resistance (AMR) and Health Associate Infections 2 (EU-JAMRAI 2) follows the directives of the EU One Health Action Plan against AMR to make Europe a best practice region when it comes to combatting AMR. It focuses on implementing 'One Health' strategies to address AMR in human, animal, and environmental areas and reduce the risk of European citizens' exposure to antibiotic-resistant bacteria.

In its first edition, the EU-JAMRAI 1 aimed to support EU Member States (MS) in developing effective One Health policies to overcome AMR. To give continuity to the results obtained in EU-JAMRAI 1, EU-JAMRAI 2 now aims to support EU MS in implementing concrete measures to deal with AMR for a better health for the citizens. To do so, the JA is structured in 10 different Work Packages (WP), four transversal (WP1, WP2, WP3 and WP10) and six technical (WPs 4, 5, 6, 7, 8 and 9).

The Deliverable 3.1 “Evaluation Framework” is an output derived from the Evaluation WP (WP3) led by the Institute for Health Systems Research - Biosistemak (BS, Spain) and co-led by the Foundation for Health Training and Research (FFIS, Spain).

WP3 is responsible for the evaluation of EU-JAMRAI 2 by performing a systematic appraisal of its implementation (tasks and outputs) (Task 3.1) as well as its overall impact (Task 3.2).

The EU-JAMRAI 2 Grant Agreement (GA), in its Technical Description – Part B, already outlines the specific objectives of the project, identifies essential success factors, clarifies the short, medium, and long-term intended impact, and considers potential factors that could influence process and results. It serves as the cornerstone for defining the Evaluation Framework (EF) of EU-JAMRAI 2.

In charge of evaluation, WP3 has to guarantee the appropriate, rigorous and timely measurement of progresses toward the achievement of the different project objectives set in the GA, namely:

- Develop the roadmap (Evaluation Framework) addressing the measurement of all the Specific Objectives defined in EU-JAMRAI 2.
- Set up and implement a support programme to help MS and Associated Countries (AC) developing and updating their National Action Plan (NAP).
- Ensure efficient dissemination of EU-JAMRAI 2 activities and outcomes.
- Implement and sustain the EU-JAMRAI 2 outcomes.
- Support the development and implementation of core elements and core competencies for Antimicrobial Stewardship and Infection Prevention Control in various settings.
- Enable MS/AC to progress towards an integrated One Health surveillance of AMR.
- Improve access to selected AMR-related products both for human and veterinary use.
- Raise awareness on AMR and the importance of the prudent Antimicrobial Consumption (AMC) in human and animal health.

The achievement of these objectives will be assessed by means of the present Evaluation Framework.



3.2 Purpose of the Evaluation Framework

The purpose of the EU-JAMRAI 2 Evaluation Framework (EF) is to outline a structured approach to evaluate the project and emphasize the role of consortium partners in the evaluation process. It aims to provide the methodology and tools for the evaluation of the performance and impact of the JA, as well as the plan for the further analysis of the obtained results.

The EF, as a collaborative tool, organizes the evaluation through a defined process, aligns intervention activities with expected results, establishes indicators to monitor progress, assigns and distributes responsibilities among the partners, and communicates evaluation information to key stakeholders. It also provides methodological support for evaluation activities by defining performance criteria, indicators, data collection methods and time-points, as well as analysis and interpretation process.

The framework aims to identify any deviations early and guide actions to keep the project on track and aligned with its objectives. It also serves as a reference for all partners to have a shared understanding of the project and its evaluation process, involving all stakeholders and policy committees. Eventually, it will help to bring insights and recommendations to improve the project's impact and sustainability. The EF provides a comprehensive description of the scope of the evaluation, taking into account the diverse interests, activities, and concerns of various target audience profiles. These profiles encompass not only members of the JA consortium, but also external organizations that participate through their membership in project's bodies such as the Advisory Committee and the Stakeholder Forum.

This EF has been created with two main objectives in mind: (i) assessing the progress of EU-JAMRAI 2 and (ii) demonstrating the significant actions taken towards achieving the defined impact objectives and ambitions. Therefore, the EU-JAMRAI 2 EF is composed of two complementary elements: the Project Implementation Evaluation (PIE) and the Impact Assessment (IA). The PIE specifies the evaluation activities, including indicators (quantitative and qualitative), tools for data collection, responsibilities, time for completion and type of analyses. The IA defines a roadmap to ensure that the JA's outcomes are beneficial, resources are used efficiently, and actions are effective and sustainable. To measure that, outcome and impact indicators have been defined. The PIE provides crucial information on the progress and products of the Joint Action, while the IA delivers essential insights into the project's overall success in achieving its goals and objectives.



4 METHODOLOGY

This methodology has been established to collect and produce the data necessary to monitor the EU-JAMRAI 2's tasks and activities. The methodology described in this section feeds the PIE and the IA, which are presented and explained in Section 5 and Section 6 of this document.

As stated previously, the EF is based on the general and specific objectives of the Grant Agreement (GA), as well as the most relevant critical short, medium and long-term intended impact objectives and ambitions of the project. The evaluation process has been guided by thorough reflection on factors potentially influencing the process and project results. Then, the defined activities have been aligned with expected results.

The methodology is summed up in the following key steps:

1. Build the indicators to enable the measurement of the defined objectives' achievement
2. Plan data collection by identifying the most appropriate measurement instruments for the indicators and periodicity of their collection.
3. Report indicators in the online data reporting tool (REDCap).
4. Monitor the indicators and their progress to ensure their alignment with the defined objectives.
5. Plan reporting and communication of the results.

This EF has been developed through a collaborative and consensus process coordinated by WP3 with the participation of WP Leaders (WPL) and coleaders on behalf of the EU-JAMRAI 2 Consortium. The methodology has been provided by the WP3, while reflection on the activities, foreseen results and definition of the indicators has been carried out by WPLs and coleaders with the support of WP3.

The evaluation team is responsible for implementing the described methodology established. This team operates on two levels of participation, each demonstrating a strong commitment to the project:

- The evaluation core team, consisting of the leader and co-leader of WP3.
- The extended evaluation team, which includes the leaders of the WPs in addition to the core team. The WP team's participation is determined based on the tasks to be carried out, ensuring the project's evaluation success.

4.1 Process of building indicators

In EU-JAMRAI 2, an essential part of the EF relates to the definition of the indicators that will be employed to monitor the progress of the actions and the achievement of JA objectives.

Indicators are specific pieces of information collected to keep track and report on the work delivered. An indicator is a quantitative or qualitative means that seeks to measure if changes occurred in an intervention or programme ([https://one.oecd.org/document/DCD/DAC/EV\(2022\)2/en/pdf](https://one.oecd.org/document/DCD/DAC/EV(2022)2/en/pdf)).

EU-JAMRAI 2 indicators are based on the logic model components¹, where some changes and adaptations have been made, in order to cover a wider range of results. Logic models are effective tools to assist in program planning, implementation, management, evaluation, and reporting (Figure



1). They help define intended impact and goals as well as the sequence of intended effects (which activities are to produce which effect), and where to focus process, output, outcome and impact evaluations. They illustrate the purpose and content of a project, making it easier to develop meaningful evaluation questions covering both implementation (process) and results (outputs, outcomes, and impact).

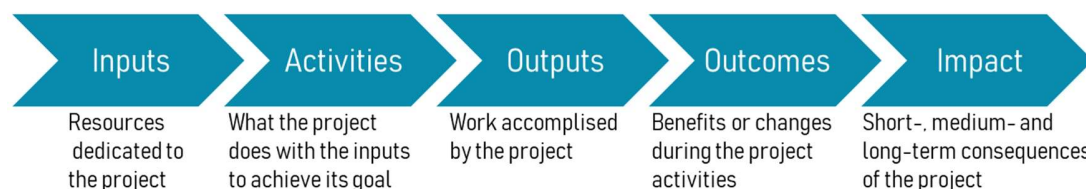


Figure 1: Logic model

The approach followed in this JA offers a structured and standardized yet flexible approach to evaluation. It focuses on the most important activities and outcomes, supports formative evaluation to understand what is working or not, and allows the capture of critical lessons that can be used to create evidence. Additionally, it helps to identify which project features contributed to the outcomes and successful impact. The evaluation in EU-JAMRAI 2, inspired by the logic model, draws on indicators reinforcing the two main elements of the Evaluation Framework: Project Impact Evaluation (PIE) and Impact Assessment (IA). On the one hand, the PIE, by measuring the process and outcome indicators necessary to carry out the project. On the other hand, the Impact Assessment, by identifying and measuring outcome and impact indicators.

Therefore, following this model, the indicators have been structured in four main categories:

- **Process indicators:** measure the activities, steps, or processes from a project. They provide information on how the implementation is progressing and help assess project quality and efficiency. They are essential to early detect deviations and take corrective actions.
- **Output indicators:** measure the immediate products or services resulting from activities. They provide information on the quantity and quality of goods or services produced and are used to assess activities.
- **Outcome indicators:** measure specific and measurable changes resulting from a project and provide information on its intended and unintended consequences. They help assess effectiveness and monitor progress towards achieving goals.
- **Impact indicators:** measures the effects of a project on its target population or environment in short, medium and long-term. They provide information on the extent to which the program has achieved its overall goals and objectives and how those results have changed the addressed challenge.

All the indicators have been built considering the SMART criteria. The term was first proposed by George T. Doran in the November 1981 issue of *Management Review*², where he advocated for setting objectives that are Specific, Measurable, Assignable, Realistic, and Time-bound—hence the acronym S.M.A.R.T. In later years, these criteria have also been used for evaluation and monitoring, as a guide for the definition of indicators, where the acronym stands for:



- **Specific:** Indicators should be specific and clearly defined, with a clear meaning and scope. This means that the indicator should be focused on a specific aspect of the program or project, rather than being too broad or vague.
- **Measurable:** Indicators should be quantifiable and measurable, so that progress towards the goal can be tracked over time. This means that the indicator should have a clear unit of measurement, such as percentages, numbers, or rates.
- **Achievable:** Indicators should be achievable and realistic, meaning that they can be realistically measured given the available resources and data. This means that the indicator should be feasible, and not overly ambitious or unattainable.
- **Relevant:** Indicators should be relevant to the goals and objectives of the program or project. This means that the indicator should be meaningful, and have a clear relationship to the program or project's intended outcomes.
- **Time-bound:** Indicators should be time-bound, with a clear timeframe for measurement. This means that the indicator should be measured at specific points in time to track progress towards the goal.

Overall, using SMART indicators in monitoring and evaluation helps to ensure that the indicators are well-defined, measurable, and relevant, and that progress towards goals and objectives can be effectively tracked over time.

Process for indicators' development

1. During the preparation of the EU-JAMRAI 2 proposal, the Evaluation Team defined an initial list of indicators based on the general and specific objectives of the JA, which were included in the Grant Agreement (GA) document.
2. After the launch of the JA, each WP discussed and refined their preliminary list, making the necessary adjustments and specifying the most appropriate indicators to measure the implementation of tasks provided in the GA of their own WPs, targets, measurement instruments, completion, as well as acceptance criteria. Updated lists of indicators were sent to evaluation core team for review.
3. Bilateral meetings were then scheduled between extended evaluation team to discuss and review the details of the updated indicators and share observations and suggestions for improvements made by the evaluation core team.
4. By an iterative process, changes were applied in the indicators until an agreed set of final indicators was reached between WPLs and WP3 leading team. The new revised version of the updated lists of indicators was sent to the teams of the various WPs for final validation. This final list of indicators will facilitate the monitoring of the activities, the achievement of the objectives and the measurement of the short and medium term impact, generating co-responsibility among all the participants of this JA.

The following figure (Figure 2) shows the process for indicators' development.

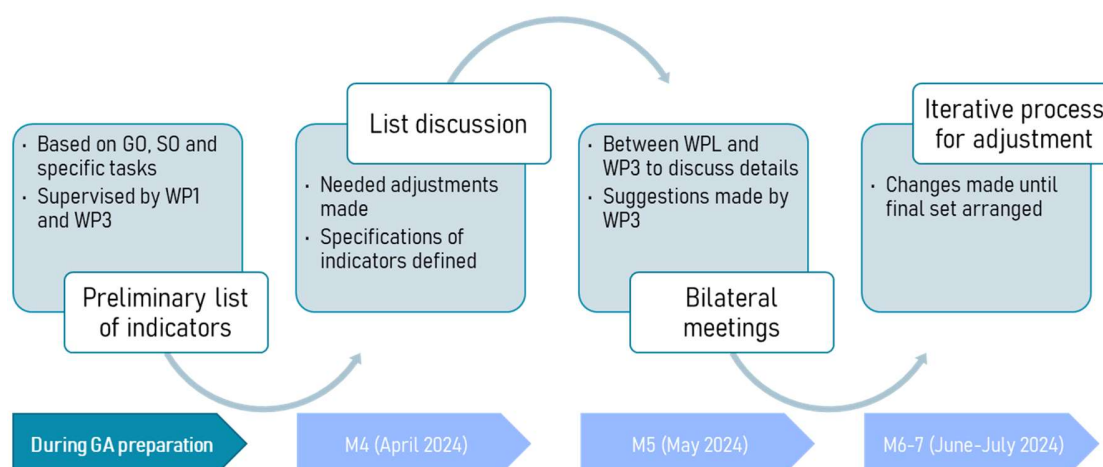


Figure 2: Indicators' development process.

Moreover, evaluation core team have defined a set of General indicators, common to all WPs, that will be collected in parallel to the specific ones, defined by WPL and coleaders through the previously mentioned methodology. These general indicators aim to measure transversal objectives shared by all WPs to ensure the correct progress of EU-JAMRAI 2.

Below is the template model used for the indicator's definition (Table 2). The design of this template was based on the one used in EU-JAMRAI 1. It describes the title of each indicator, its justification, as well as the measurement strategies, periodicity of collection and the criteria for completion and acceptance. This information will be essential to monitor the progress of the actions.



Table 2: Indicator definition table template

(code) Indicator	WPx number of indicator
Definition	A brief description of the indicator
Justification	Reason why this indicator is relevant for the monitoring of EU-JAMRAI 2
Type of indicator	process, output, outcome and impact as appropriate
Methodology	Qualitative/Quantitative
Data source(s)	Which data sources will be checked - if any
Data collection instrument	Which data collection instrument will be used to collect data - if any
Responsible	Who will be is responsible for data collection, together with WP3
Periodicity of data collection	How often will the indicator be measured* In which specific month will the measurement be carried out?
Completion criteria	What is the maximum level that the indicator can reach
Acceptance criteria	What is the minimum value of the indicator that is considered enough? Can be the same as the completion criteria
Observations	Any other relevant aspect

**Those indicators collected annually the last year will be gathered in M46, so that the results can be incorporated in the final report (D1.2).*

4.2 Data collection and reporting

The information required for evaluating the indicators will be systematically collected through various methods. Once gathered, this data will be meticulously analyzed by the evaluation team to obtain conclusions about EU-JAMRAI 2's success. This comprehensive analysis will enable an accurate assessment of the indicators' performance, facilitating informed decision-making and strategic planning.

Data will be collected by using different collection instruments defined by WPL for each indicator. For example of data collection instruments, please refer to Annexes 1 and 2.

Each WPL is responsible for the data collection of its indicators ensuring that the data is reliable and correct before reporting it in the online data reporting tool (REDCap). The data reporting tool will be ad-hoc designed according to the needs of each WP and with the aim of facilitating the reporting task.



Online data reporting tool (REDCap)

WP3 will provide an online data reporting tool with the aim of gathering all the information and facilitate further analysis. The online tool will be developed in REDCap, which is a secure web application for building and managing online databases. REDCap has been chosen as it is specifically geared to support online and offline data capture for research studies and projects, offering multi-site access and fully control of shaping the database.

REDCap will store data in the Basque Healthcare System's servers and therefore, to ensure data security, a personal access for each user will be provided. Each of the WPL will have an external user and password that will allow to report data and access the interface to see the progress of each indicator. To ensure the correct accesses, a pilot test with four WPLs has been performed with positive results in Spain and Greece during March-June 2024.

The periodicity of data collection has been established by each WPL and is reported in the definition table of each indicator (see Annexes 1 & 2). In parallel, the WP3 core team will schedule bilateral meetings with the WPLs every 6 months to monitor and follow up on the indicators, so that actions can be adjusted if needed, applying strategies to enhance the JA performance. Indicators are live elements and therefore changes can arise during the project. Therefore, evaluation core team will closely work with WPL to make adaptations as soon as possible to cover project needs and make sure the objectives are correctly addressed.

Evaluation core team will be in charge of the analysis of the data. These analyses will be done by regular follow-up of the progress of the indicators, to identify possible deviations, contingency plans and their responsables, and review dates. The results will be shared with the project coordinators and WPLs. In addition, the results will also be included in periodic reports that will be shared in three different moments along the Project: Month18 (M18), M36 and M48.



5 PROJECT IMPLEMENTATION EVALUATION

A Project Implementation Evaluation (PIE) consist in a systematic assessment of the quality and compliance of processes from a project (verifying if the project is being implemented as planned and reaches its objectives). It provides a roadmap for the systematic collection, analysis and interpretation of data to assess performance of a project, identify strengths and weaknesses, and inform future actions.

In EU-JAMRAI 2, this PIE will ensure the achievement of General and Specific Objectives, the performance of planned task and actions, the implementation of the project activities, as well as the accomplishment of milestones and the submission of deliverables to the European Commission.

As stated in the Grant Agreement (GA) description of WP3 tasks, the PIE will specify the evaluation activities, including indicators (quantitative and qualitative), tools for data collection, responsibilities, time for completion and type of analysis. It is therefore a complete guide to monitor the progress of EU-JAMRAI 2 in our plans, deliverables and milestones.

In EU-JAMRAI 2, the PIE will be composed of two elements: a Project Progress Monitoring and a Quality Assurance.

5.1 Project Progress Monitoring (PPM)

The Project Progress Monitoring (PPM) is an evaluation process that allows for feedback through the project-life, observing and tracking the progress of the project and making any necessary proactive corrections. The PPM will be oriented towards following the tasks and activities foreseen in the Grant Agreement, by evaluating:

- The achievement of the general objectives of the project.
- The actions of each of the WPs.
- The accomplishment of the 21 milestones of the JA.
- The submission of the 26 deliverables of EU-JAMRAI 2.

In terms of indicators, this PPM involves the follow-up of the process and output indicators. As mentioned previously, these indicators measure whether planned activities took place, assessing tasks' status and progress, and some immediate results and products that arise from the JA.

Process indicators measure the project's activities, while output indicators measure the direct results of these activities. These measures indicate whether the project is being implemented as planned. As explained in the section 4.1, the WPLs have identified the process and output indicators and contrasted with the WP3 core team. In addition, a set of general indicators, which apply to all WPs, has been identified.

In total, 83 indicators have been identified for monitoring the EU-JAMRAI 2 Project Implementation Evaluation:

- 52 process indicators



- 31 are output indicators
- 80 are WP-specific
- 3 are cross-cutting (general indicators) to all WPs.

The number of general indicators, as well as the process and output indicators per WP can be found in Figure 3; **Error! No se encuentra el origen de la referencia.** The detailed description of each indicator is shown in Annex 1: PIE indicators.

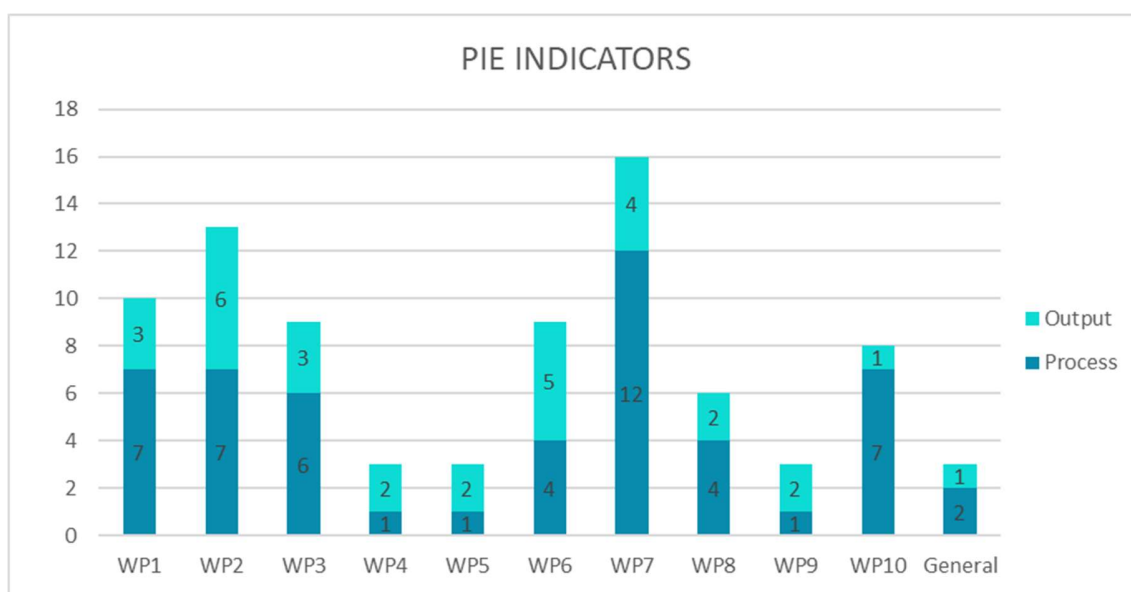


Figure 3: EU-JAMRAI 2 PIE indicators (specific per WP and General), distributed in process and output indicators

These indicators will be measured and evaluated according to the methodology defined and explained previously.

To carry out the monitoring of the achievement of milestones and deliverables, a performance evaluation checklist (



Table 3) will be completed by the milestone or deliverable responsible, once they are finished. This checklist collects general information about dates, means of verification, possible deviations that may have occurred, the causes, the corrective actions as well as the main barriers faced during the development process and the facilitators that have made easier its achievement.

WP1 will be in charge of collecting and reporting information to WP3. WP3 will keep track of these Performance Evaluation Checklists.



Table 3: Performance Evaluation Checklist Template

#	Milestone or deliverable name			Due	Due	Achieved	Achievement
Achieved	Means of verification*	Deviations (if any)	Reasons for deviation	Month	Month	Month	Month
% of achievement	Verification method	Type of deviation	Justification of deviation	Actions planned to solve the deviation			
Main barriers:	Main barriers faced to achieve the milestone or deliverable in						
Main facilitators:	Main facilitators that have enabled the correct achievement of the milestone or deliverable						

*Only applicable for Milestones

5.2 Quality Assurance for review and acceptance of deliverables

In EU-JAMRAI 2, the Quality Assurance focuses on the quality assessment of JA deliverables. The quality of these outputs will be assessed in terms of format, content and production processes.

One month before the submission date, the deliverable responsible will fill in the self-assessment checklist (Annex 3: Quality Assurance assessment checklist) and send it to WP3. At the same time, one month before the deliverable due date, the deliverable responsible will send the document's pre-final version to the coordination team. The coordination team will then perform an independent Quality Assurance assessment (going through the items from the checklist) to verify if all the requirements were met by WPL and will review the document. Two weeks before the submission date, the coordination team will send the document reviewed to the deliverable responsible so that the comments and changes can be incorporated in the final version. One week prior to the submission date, the deliverable responsible will send the last version to the coordination team to officially submit it in the EU Portal. Table 4 show the summary of the described process:



Table 4: Quality Assurance workflow summary

Timeline	Responsible	Task	Recipient	Task
One month before submission date	Deliverable responsible	Perform and send self-assessment checklist	WP 3	Review and include it in the PIE
One month before submission date	Deliverable responsible	Send pre-final version of the deliverable	Coordination team	Review the deliverable and perform an independent quality assurance assessment
Two weeks before submission date	Coordination team	Send revision of the deliverable	Deliverable responsible	Incorporate comments if needed
One week before submission date	Deliverable responsible	Send last version of the deliverable	Coordination team	Official submission of the deliverable



6 IMPACT ASSESSMENT

Impact has been defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life beyond academia and research context³.

Early consideration of the impact helps ensuring that the established goals are met along the process. Planning the impact through the process also gives a greater chance the outcomes to be connected with the desired stakeholder's interests⁴. Bridging the gap between research outputs and real-world requires a thorough planning and a strategic approach. Effective impact planning involves identifying the stakeholders and engaging them by understanding their needs and drive the outcomes to answer them as exhaustively as possible. Incorporating impact assessment from the outset fosters transparency and accountability, encouraging all involved parties to stay committed to the goals of the JA.

EU-JAMRAI 2 ambitiously seeks for the long-term impact objective of making Europe a best practice region and attaining the sustainability of its outputs. To do so, impact assessment is crucial to ensure that the outcomes of EU-JAMRAI 2 One Health approach are beneficial and aligned with societal and cross-sectorial needs. It also helps in identifying unintended consequences early, allowing for timely adjustments. The iterative process of impact assessment ensures that the resources are used efficiently and the interventions implemented and actions taken are both effective and sustainable. Moreover, impact assessment provides evidence of success or improvement areas, which is essential for securing the support of stakeholders and main groups of interest as well as long-term sustainability.

The impact assessment includes two phases of the itinerary of EU-JAMRAI 2: (i) the impacts expected during the project's lifespan and (ii) those that aspire to be achieved after the project ends. The impacts of the first phase collect the outcome and impact indicators, which have been categorized based on the proposed dimensions of the Health Impact Assessment (HIA) of the World Health Organization (WHO) (more details in section 6.1). The second phase addresses the actions intended to meet the objectives and ambitions expected after the Joint Action (JA) concludes (more details in section 6.2).

6.1 EU-JAMRAI 2's impact assessment during the JA

Reaching EU-JAMRAI 2's intended impact requires a well-structured impact assessment roadmap. It will serve as a critical tool to measure the effectiveness of actions and activities undertaken within EU-JAMRAI 2 for the project timeframe (2024-2028). These actions will lead to the achievement of the expected impacts and ambitions, included in the GA as short-term objectives and those defined by WPLs included in Annex 2 as IA indicators. To do so, specific outcome and impact indicators have been defined by WPLs in collaboration with WP3 leading team, adhering to the methodology detailed in section 4. In total, 31 indicators have been identified for monitoring the EU-JAMRAI 2 Impact Assessment. Out of these, 26 are outcome indicators and 5 are impact indicators. These indicators have been categorised into the dimensions of the WHO World Health Organisation's (WHO) Health Impact Assessment (HIA) (see section 6.1.1).



Figure 4 shows the distribution of these outcome and impact indicators defined per WP. The detailed description of these indicators, as well as their correspondence with the short term objectives and ambitions, can be consulted in Annex 2: IA Indicators.

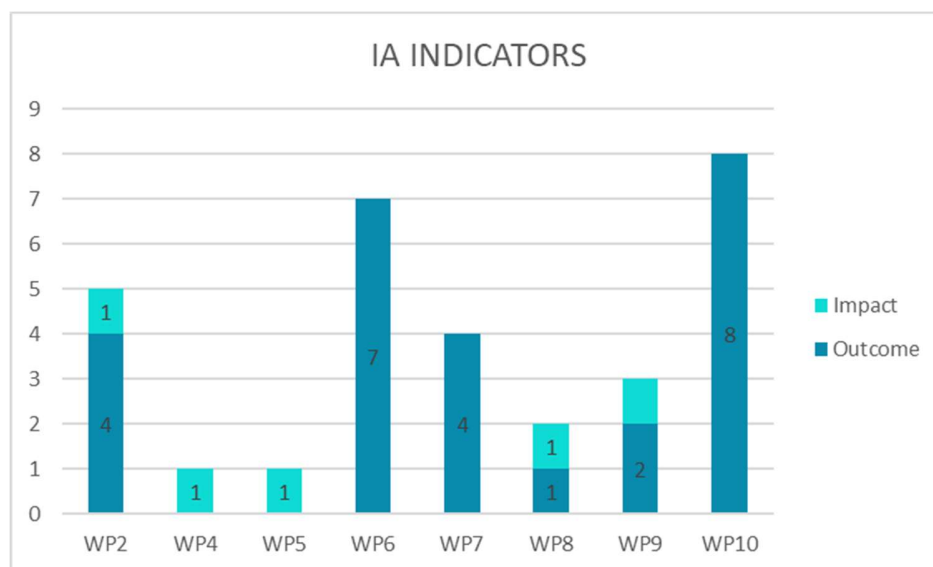


Figure 4: EU-JAMRAI 2 IA indicators distributed per WP

6.1.1 EU-JAMRAI 2 impact assessment key dimensions

Following the 2017 EU One Health Action Plan against AMR to make Europe a best practice region, EU-JAMRAI 2 aims to facilitate and support the integration of JA priority outcomes within national and sub-national policies and actions and their maintenance at the European level. To effectively measure and enhance the impact of a project, a holistic approach is essential. EU-JAMRAI 2 impact assessment has been inspired by World Health Organisation (WHO) Health Impact Assessment (HIA) whose goal is to shape decision-making processes regarding proposals and plans by integrating health protection and promotion into them. HIA engages experts, project partners, key stakeholders, and the affected community, promoting public participation in decision-making. It aims to identify potential health inequalities and addresses broad health issues impacting sustainability. HIA raises awareness about health determinants and promotes collaboration across sectors.

EU-JAMRAI 2 will follow an approach guided by four key dimensions inspired on the WHO HIA guiding principle values^{5,6}:

- promoting stakeholder participation
- comprehensive approach
- sustainable development
- use of evidence

Each of these four dimensions evaluates the impact of activities defined in EU-JAMRAI 2, carried out by different WPs, in relation to the eight specific objectives (SO) set in the GA. Therefore, each dimension corresponds to two specific objectives and includes the relevant work packages whose



activities support their fulfillment. Table 5 summarizes the mapping among Impact Assessment dimensions inspired in the WHO HIA and its relation to EU-JAMRAI 2 WPs and Specific Objectives.

Table 5: Mapping of EU-JAMRAI 2 Specific Objectives in the Impact assessment dimensions inspired in the WHO HIA Guiding principles values

WHO HIA guiding principle values	EU-JAMRAI 2	
Key dimension	WP contributing to dimension	SO contributing to dimension
Promoting stakeholders participation	<ul style="list-style-type: none"> WP5: MS engagement EU-JAMRAI 2 liaisons WP10: Awareness 	<ul style="list-style-type: none"> SO1 - Strengthen interactions between MS/AC SO8 - Raise awareness on AMR and the importance of the prudent AMC in human and animal health
Comprehensive approach	<ul style="list-style-type: none"> WP8: One Health AMR Surveillance WP9: Antibiotic access 	<ul style="list-style-type: none"> SO6- Support MS/AC to progress towards an integrated One Health surveillance of AMR SO7 - Engaging MS/AC in improving access to selected AMR-related products both for human and veterinary use
Sustainable development	<ul style="list-style-type: none"> WP2: Communication and dissemination WP4: Sustainability 	<ul style="list-style-type: none"> SO3 - Ensure efficient dissemination of EU-JAMRAI 2 activities/outcomes SO4 – Sustainability and implementation of EU-JAMRAI 2 outcomes
Use of evidence	<ul style="list-style-type: none"> WP6: Antibiotic Stewardship WP7: Infection Prevention Control 	<ul style="list-style-type: none"> SO2 - Set up and implement a support program to help MS/AC in the development and update of their NAP SO5 - Support the development and implementation of core elements and core competencies for AMS and IPC in various settings



Each of the dimensions, their adaptation to the JA context and their correspondence with the JA SOs and WPs are described below.

Promoting stakeholder participation

The HIA emphasizes the right of people to participate in the formulation and decisions of proposals, actions and activities that affect their life, both directly and through elected decision makers. Consequently, the EU-JAMRAI 2 HIA seeks to involve and engage the public, as well as inform and influence decision makers⁷.

Engaging the right stakeholders or audience to participate in the actions and decision-making processes is a key factor for the success of the JA. Therefore, stakeholders and target audiences have been carefully identified and defined, encompassing a diverse range of actors including health professionals, veterinarians, environmental scientists, policymakers, industry representatives, and community organizations. This broad engagement ensures that various perspectives are considered, enhancing the relevance and effectiveness of interventions.

Impact assessment should not only involve and engage stakeholders but also inform and influence decision-makers, creating a feedback loop that integrates real-world insights into policy development. By involving stakeholders in the assessment process, EU-JAMRAI 2 ensures that the actions taken are grounded in practical realities and address the needs of AMR challenge. This participatory approach builds trust and fosters a sense of ownership among stakeholders, which is crucial for the successful implementation and sustainability of AMR strategies.

EU-JAMRAI 2 seeks to strengthen interaction between MS/AC (SO1) by facilitating collaboration and knowledge exchange. On top of that, EU-JAMRAI 2 has the objective of raising awareness of the citizens on the AMR and the importance of the prudent AMC in human and animal health (SO8). These objectives will keep stakeholders actively involved throughout the project lifecycle to create a dynamic and responsive approach to combating AMR, leading to more impactful and sustainable outcomes.

To address these objectives, the impact of the actions proposed in WP5 One Health Strategies and NAPs necessitates active engagement from diverse stakeholders (Ministries and agencies involved) to ensure comprehensive and effective policy development. Moreover, the work proposed in the WP emphasizes the prioritization of topics for improving, updating, and operationalizing NAPs, requiring input and consensus from various stakeholders to identify the most critical areas for intervention.

Promoting stakeholder engagement is essential in WP10 as well, which focuses on communication and awareness raising. Effective communication strategies hinge on the active involvement of stakeholders (decision makers, general public, professionals...), ensuring that the messages are relevant, impactful, and widely disseminated. By engaging stakeholders, WP10 can tailor awareness campaigns to address specific needs and concerns, fostering a deeper understanding and commitment to combating antimicrobial resistance. Furthermore, key stakeholders can amplify the reach and resonance of these campaigns through their networks, enhancing public awareness and driving collective action.

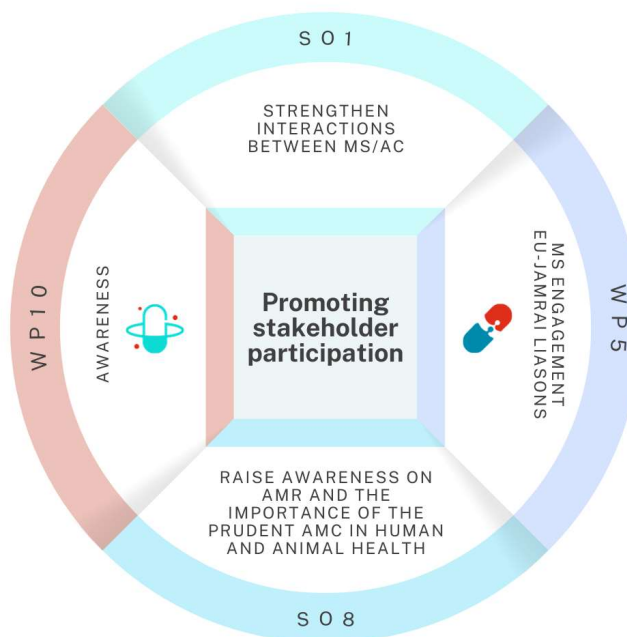


Figure 5: IA Promoting stakeholder participation dimension

Comprehensive approach

The HIA emphasizes that physical, mental and social well-being is determined by a broad range of factors from all sectors of society (known as the wider determinants of health)⁶. This perspective emphasizes that achieving holistic health requires addressing these diverse factors comprehensively. In the context of EU-JAMRAI 2, promoting a comprehensive approach through the One Health framework means tackling health issues by considering the interconnectedness of humans, animals, and the environment. Recognizing that health threats caused by AMR can emerge at the intersection of these three domains, it is essential to address them holistically.

Aligned with this comprehensive approach, EU-JAMRAI 2 has set specific objectives such as supporting MS/AC to progress towards an integrated One Health surveillance of AMR (SO6) and engaging MS/AC in improving access to selected AMR-related products for human and veterinary use (SO7). These objectives are integral to creating a cohesive and effective response to AMR.

A comprehensive approach is essential to the success of WP8 on Integrated One Health Surveillance and WP9 on Antibiotic Access. WP8's goal of integrating surveillance across human, animal, and environmental health sectors relies on a holistic strategy to capture the full spectrum of AMR data. This integration enables a more accurate and effective response to AMR threats. Similarly, WP9 addresses the complex issues surrounding antibiotic access, ensuring that antibiotics are available where needed while preventing misuse and overuse. A comprehensive approach in WP9 ensures balanced policies that consider the diverse factors influencing antibiotic access, from regulatory



frameworks to socio-economic barriers. Together, these work packages illustrate the necessity of a broad, interconnected strategy to effectively tackle AMR. Therefore, the impact related to these WPs will be essential to the EU-JAMRAI 2 general objectives achievement.

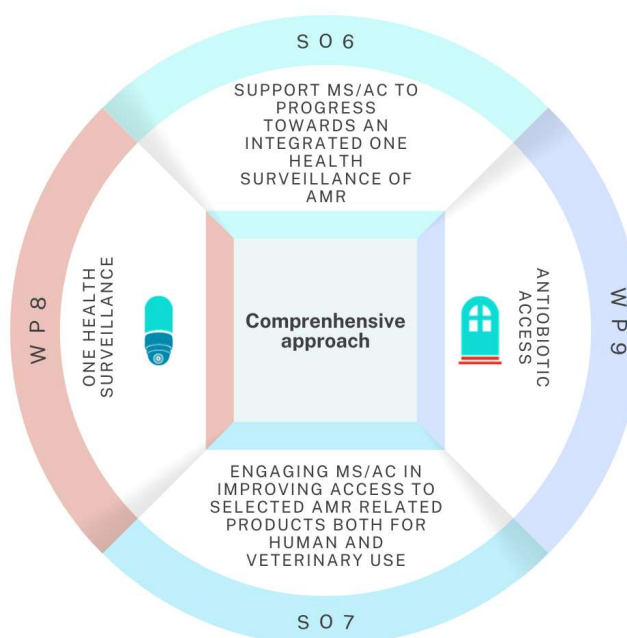


Figure 6: Comprehensive approach dimension

Sustainable development

The HIA defines the principle of sustainable development as a judgement of short- mid and long-term impacts of a proposal and providing those judgements within a time frame to inform decision makers⁶. This approach ensures that current actions do not hinder future possibilities and that they support enduring progress.

In line with this value, it is imperative that the actions developed by EU-JAMRAI 2 are designed to be sustainable and maintain their efficacy over the long term. This means ensuring that the initiatives and outcomes are not only achieved but also remain viable and impactful in the future. EU-JAMRAI 2 must guarantee that the JA activities and implemented plans are sustained across all MS/AC.

To achieve this, EU-JAMRAI 2 has set specific strategic objectives such as ensuring the efficient dissemination of its activities and outcomes (SO3) and promoting the implementation and sustainability of its results (SO4). These objectives are crucial for embedding the project's successes into the real-world practices and policies of MS/AC.



WP2, focused on Dissemination, is tasked with spreading the knowledge and achievements of EU-JAMRAI 2 to a broad audience. Effective dissemination ensures that stakeholders at all levels are informed about the project's findings, methodologies, and successes, facilitating wider adoption and support.

WP4, focused on Sustainability, is dedicated to embedding the outcomes of EU-JAMRAI 2 into the MS/AC NAP. This involves developing strategies and frameworks that enable the long-term maintenance and evolution of the project's initiatives.

By defining these work packages, EU-JAMRAI 2 demonstrates a robust commitment to sustainable development. This ensures that the benefits of the JA are not only realized in the immediate term but also continue to support and protect public health for generations to come.



Figure 7: IA Sustainable development dimension

Use of evidence

The HIA seeks with this principle that transparent and rigorous processes are used to synthesize and interpret the evidence, that the best available evidence from different disciplines and methodologies is utilized, that all evidence is valued, and that recommendations are developed impartially⁶. This approach guarantees that decisions are based on comprehensive, credible, and balanced information.

In alignment with these principles, EU-JAMRAI 2 is committed to supporting MS/AC in the development and update of their NAP (SO2). Additionally, EU-JAMRAI 2 aims to support the



development and implementation of core elements and competencies for Antimicrobial Stewardship (AMS) and Infection Prevention Control (IPC) in various settings (SO5).

WP6, focused on AMS in humans, animals, and the environment, will establish and implement a comprehensive support program. This program will guide MS/AC in effectively developing and updating their NAPs, ensuring that these plans are robust, evidence-based, and tailored to local needs. On top of that, WP7 will concentrate on improving IPC actions with a One Health approach. By promoting IPC strategies that consider human, animal, and environmental health, WP7 aims to create integrated, sustainable solutions to prevent the spread of infections and reduce reliance on antimicrobials.

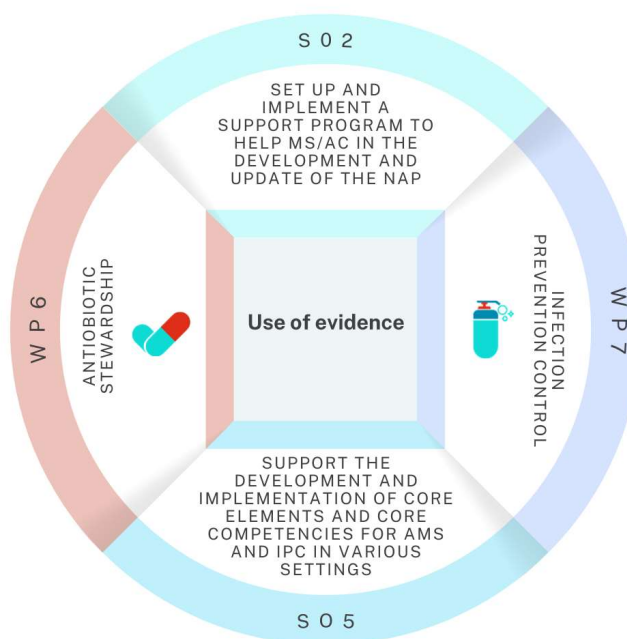


Figure 8: IA Use of evidence dimension

The defined outcome and impact indicators in each WP have been classified according to the key dimensions. Figure 9; **Error! No se encuentra el origen de la referencia.** shows the distribution of the indicators:

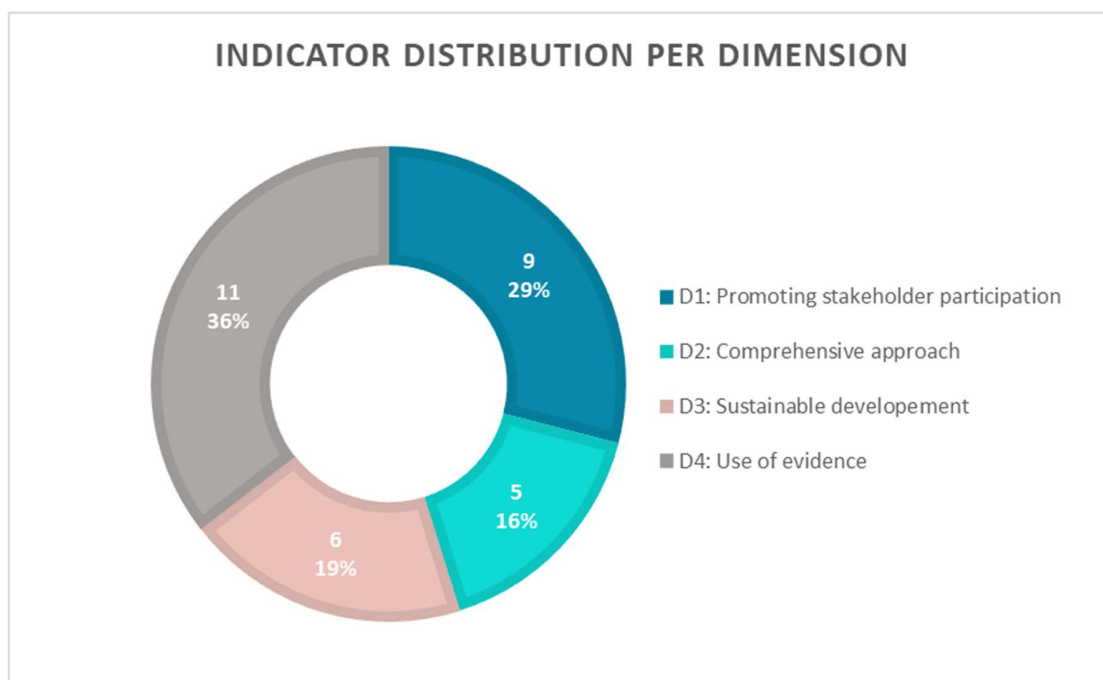


Figure 9: Distribution of indicators per key dimension: total number and percentage

6.2 EU-JAMRAI 2's impact assessment after the JA

EU-JAMRAI 2 aims to foster sustainable behavior change across Europe, necessitating medium and long-term impact assessments. Throughout the impact assessment process, efforts contributing to the medium and long-term objective and ambitions will be rigorously evaluated to ensure alignment with the overarching mission of EU-JAMRAI 2. This comprehensive approach ensures that the project not only meets its immediate objectives but also secures long-lasting positive changes across Europe.

Those objectives and ambitions will be addressed in during the project by the contribution of different actions performed in the consortium by all WPs. The following tables define the actions proposed in EU-JAMRAI 2 that will contribute to each of the medium and long term objectives and ambitions included in the GA. The actions have been gathered by means of a survey prepared by the evaluation core team and answered by all WPLs.



Medium-term impact objectives and ambitions

Objective/Ambition: Updated NAP across the Union, with well-defined indicators and targets based on EU-JAMRAI 2 outputs.

WPs involved: 4, 5, 6, 7

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Guidance tool that will provide support to WPLs in order to consider medium-term impact of their action, including updated NAPs and policies. (WP4)
- Meetings of the AMR Policy group will contribute to the definition of the indicators and targets. (WP5)
- Activities organized within the support programme, such as the collection and exchange of best practices, webinars, workshops, exchanges and others. (WP5)
- EU framework for AMS/IPC with standards and core competencies to reach in human, animal, environmental health. (WP6, WP7)
- Self-assessment system for AMS/IPC programs in human health. (WP6, WP7)
- EU-JAMRAI expert network on AMS/IPC (Human Health and Animal Health) establishment. (WP6-WP7)

Objective/Ambition: Definition of minimum criteria for phenotypic and genotypic surveillance in human health.

WPs involved: 8

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Build common interactive roadmaps on phenotypic and genotypic surveillance that include benchmarking. (WP8)

Objective/Ambition: EARS-Vet full scale implementation in the EU (reporting + integration with other initiatives).

WPs involved: 4, 8

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Development of joint data collection and analysis, as well as harmonization of AMR surveillance in vet medicine across the EU. (WP8)
- Sustainability of the initiative. (WP4-8)

Objective/Ambition: EARS-Env pilot in a few countries.

WPs involved: 8



Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Conduction of pilot sampling in some countries using the protocols established in EU-JAMRAI 2 activities. (WP8)

Objective/Ambition: National intervention to secure access to identified products with strong AMS value.

WPs involved: 4, 9

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- All the actions related to the "Access" WP are aimed to contribute to this mid-term objective/ambition. WP9
- Proper actions of sustainability during the identification process to ensure medium term impact. (WP4, WP9)

Objective/Ambition: EU-JAMRAI 2 supports HERA in its work on incentives.

WPs involved: 9

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Work with Health Emergency Preparedness and Response (HERA) on revenue guarantee for new antibiotics, focus on phages, and access to TB medicines.

Objective/Ambition: Increase awareness on AMR across EU and among different audiences (professionals, patients, pet owners, teachers, children/students, parents, general population).

WPs involved: 2, 4, 5, 6, 7, 9, 10

Actions proposed in EU-JAMRAI 2 that contribute to the mid-term objective/ambition

- Dissemination activities of the progress, results and activities carried out by EU-JAMRAI 2. (WP2, WP4)
- The EU-JAMRAI 2 AMR policy group meetings will seek to contribute to the awareness increase. (WP5)
- Support programme might contribute to organize activities that focus on awareness raising. (WP5)
- Peer-to-peer (P2P) exchange programs for human and animal professionals will (i) foster exchange of experiences, ideas and knowledge, (ii) promote professional empowerment, team building and development, networking, and (iii) contribute to raise awareness on AMS/IPC best practices and the importance of behavioral science in the implementation of AMS/IPC programmes. (WP6, WP7).



- Development of a communication and common implementation strategy on AMS/IPC programmes in animal health and to create additional educational programs. (WP6, WP7)
- Designing and development of a training/awareness toolkit on the impact of health practices on the environment aimed at the different target groups/stakeholders.(WP6, WP7)
- Behavior change strategies: Designing of an education and training programme on behavioral sciences principles applied to AMS/IPC. (WP6, WP7)
- EU-JAMRAI 2 actions on access are grounded in national stakeholder discussion strengthening these national connections. (WP9)
- Design and implementation of actions, activities and campaigns to raise awareness on AMR across the EU targeting different audiences. (WP10)

Long-term impact objectives and ambitions

Objective/Ambition: Updated and Implemented One Health NAPs in all participating countries.

WPs involved: 4, 5, 6, 7, 8

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- The Sustainability Guidance tool will include actions to address the implementation. (WP4)
- Activities organized within support programmes such as the collection and exchange of best practices, webinars, workshops, exchanges and other. (WP5)
- EU frameworks for the implementation of AMS/IPC standards and core competencies/components in human health and animal health (WP6, WP7).
- Self-assessment system that can be used to assess the degree of AMS/IPC core competencies integrated at the local and national level in human health. (WP6, WP7)
- Include EARS-Vet and One Health surveillance reports as part of the NAP. (WP 5, WP8)

Objective/Ambition: Core elements and core competencies for AMS and IPC in various settings.

WPs involved: 6, 7, 9

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- EU frameworks for the implementation of AMS/IPC standards and core competencies/components in human health and animal health (WP6, WP7).
- Assist with ensuring access to 1st line antibiotics which helps adherence to prescribing guidelines. (WP9)

Objective/Ambition: EARS-Vet is included in EFSA mandate.



WPs involved: 4, 8

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- Collaboration among WP4 and WP8, together with sustainability recommendations to achieve this objective. (WP4, WP8)
- Sustainability action will be taken for a globalized action of WP8 in an One Health perspective that does include surveillance into national level but also EU. (WP4)

Objective/Ambition: EARS-Env full scale implementation.

WPs involved: 4, 8

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- EARS-Env pilot phase results will serve as evidence to embark more country in the initiative with WP4 support. (WP4, WP8)

Objective/Ambition: Antibiotic Resistance Symbol widely used by the general public and Stakeholders.

WPs involved: All WPs

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- Inclusion of AMR Symbol in all the materials and dissemination efforts to communicate the progress, results and activities carried out by EU-JAMRAI 2. (All WPs)
- Promotion of the symbol in AMR relevant events (All WPs)
- Design and implementation of an ambassadors program plus the implementation of different campaigns and paid social media promotions.(WP10)

Objective/Ambition: Better access to narrow spectrum antibiotics (including child formulations) and medical devices with AMS value across EU.

WPs involved: 9

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- All the actions related to the “Access” WP are aimed to contribute to this long-term objectives.

Objective/Ambition: Long-term sustainability of some EU-JAMRAI 2 recommendations.

WPs involved: all WPs



Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- A sustainability report will be developed. (WP4)
- All WPL will contribute to this sustainability plan with specific actions defined to sustained main results from all WPs. (all WPs)

Objective/Ambition: Europe becomes a best practice region.

WPs involved: all WPs

Actions proposed in EU-JAMRAI 2 that contribute to the long-term objective/ambition

- All EU-JAMRAI 2 activities will contributes to this (all WPs)

Table 6 and Table 7 show the summary of the WPs that contribute to each of the defined medium-term objectives and ambitions:

Table 6: Summary of contribution of each WP to defined medium term objectives and ambitions

Objective/Ambition	WP 2	WP 4	WP 5	WP 6	WP 7	WP 8	WP 9	WP 10
Updated NAP across the Union, with well-defined indicators and targets based on EU-JAMRAI 2		✓	✓	✓	✓			
Definition of minimum criteria for phenotypic and genotypic surveillance in human health.						✓		
EARS-Vet full scale implementation in the EU (reporting + integration with other initiatives).		✓				✓		
EARS-Env pilot in a few countries.						✓		
National intervention to secure access to identified products with strong AMS value.		✓					✓	
EU-JAMRAI 2 supports HERA in its work on incentives.							✓	
Increase awareness on AMR across EU and among different audiences (professionals, patients, pet owners, teachers, children/students, parents, general population).	✓	✓	✓	✓	✓		✓	✓

Table 7: Summary of contribution of each WP to defined long-term objectives and ambitions

Objective/Ambition	WP 2	WP 4	WP 5	WP 6	WP 7	WP 8	WP 9	WP 10
Updated and Implemented One Health NAPs in all participating countries.		✓	✓	✓	✓	✓		
Core elements and core competencies for AMS and IPC in various settings.				✓	✓		✓	
EARS-Vet is included in EFSA mandate.		✓				✓		
EARS-Env full scale implementation.						✓		
Antibiotic Resistance Symbol widely used by the general public and Stakeholders.	✓	✓	✓	✓	✓	✓	✓	✓
Better access to narrow spectrum antibiotics (including child formulations) and medical devices with AMS value across EU.							✓	
Long-term sustainability of some EU-JAMRAI 2 recommendations.	✓	✓	✓	✓	✓	✓	✓	✓
Europe becomes a best practice region.	✓	✓	✓	✓	✓	✓	✓	✓



6.3 Deliverables' impact assessment

EU-JAMRAI 2 aims to significantly influence stakeholders and the general public across Europe. By raising awareness and understanding about AMR and other critical issues, the project seeks to drive positive change and promote public health. Achieving this broad impact requires meticulous measurement of the project deliverables' impact among relevant stakeholders. Deliverables are concrete outputs such as reports, guidelines, campaigns, or tools developed during the project. Assessing their impact helps determine how effectively the project's goals are being met and how well the deliverables are being received and utilized by the intended audience. Engaging stakeholders in this process ensures a comprehensive and relevant evaluation, as their feedback reflects real-world applicability and influence.

The coordination team will nominate at least three deliverables per reporting period for which an impact assessment will be performed by external stakeholders. For these selected deliverables, external stakeholders (at least two) will be nominated by the deliverable responsible. Stakeholders must be different for each deliverable. The stakeholders will then receive a questionnaire to perform the impact assessment. This questionnaire will be developed by WP3 core team, in collaboration with WPLs, in the upcoming months. It will be available in the EU-JAMRAI 2 internal online sharing platform. The stakeholders will need to answer the questionnaire within two weeks and results will be analyzed by WP3 to determine the impact.



7 OUTLINE

The information described in the previous chapters is summarised in Figure 10. This figure depicts the general scheme summarizing the Evaluation Framework developed in EU-JAMRAI 2. The scheme is structured around the two main elements of the EF: Project Implementation Evaluation (PIE) and Impact Assessment (IA). For each of the elements, the areas they address are indicated (scope). The information to be analysed (target) and the methodology used (method) are described for each area. In addition, the outline is built on a timeline which differentiates between the ambitions to be achieved during the JA and those foreseen in a longer time window beyond the end of the Joint Action.

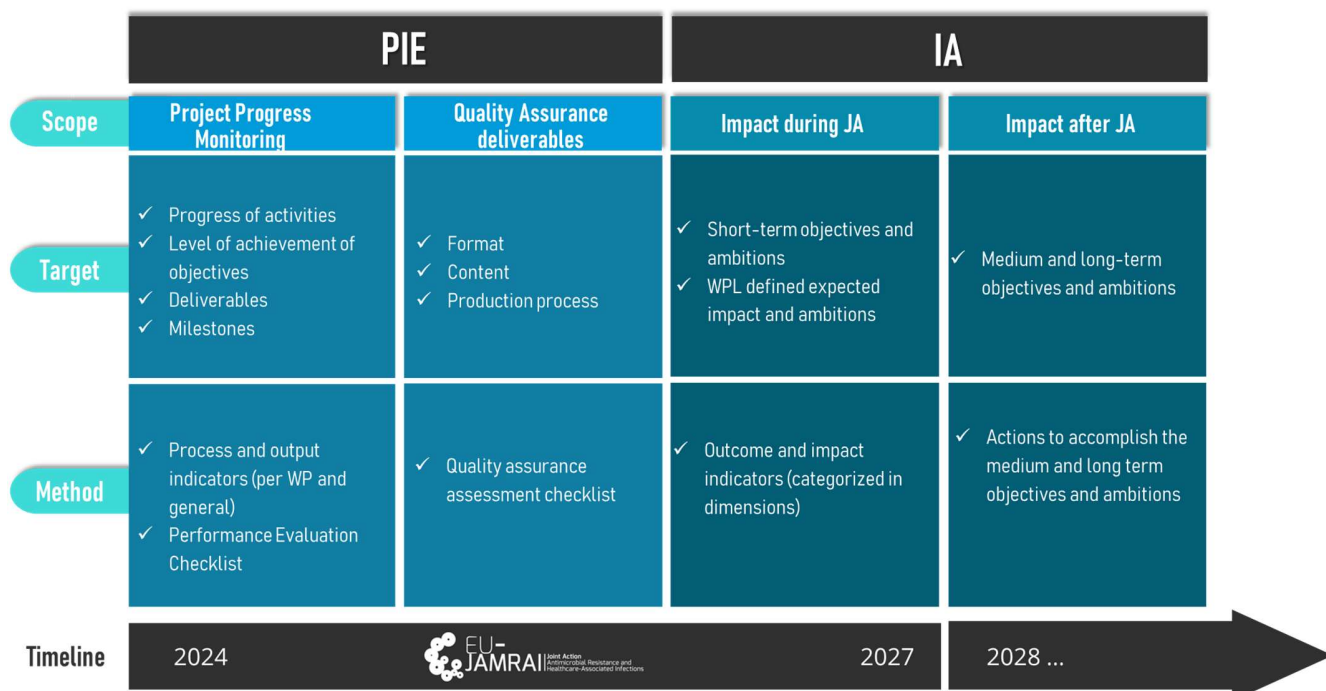


Figure 10: General scheme of the Evaluation Framework



8 NEXT STEPS

WP3's main goal is to monitor the JA's progress closely and facilitate the project's implementation and impact's achievement. By the ninth month of the project, the leaders and co-leaders of WP3 have developed this EF to fulfil this commitment in collaboration with WPL and co-leaders to ensure shared responsibility and unity in working towards project evaluation.

This EF will now be submitted to the EU-JAMRAI 2 Advisory Board, composed of European agencies/DGs and international organizations, for review. The Advisory Board input is crucial and will be considered to make any necessary change to the evaluation strategy of the JA.

In addition, by month 20, WP3 will conduct interviews with stakeholders to continually cross-check the evaluation process with experts. The goal is to identify areas for improvement, develop strategies to enhance JA's performance and propose specific measures to be taken. The Final Report will include lessons learned and recommendations for overcoming potential obstacles and improving performance based on the insights gathered from these interviews. Furthermore, WP3 will thoroughly review the evaluation framework and strategy with regular supervision. Any necessary modifications to enhance and streamline the evaluation process for EU-JAMRAI 2 will be implemented if needed.

Throughout EU-JAMRAI 2, WP3 will continuously monitor the achievement of objectives, milestones, and deliverables as established in the GA, as well as the progress of each WP's indicators and associated activities to confirm they are carried out as planned. The goal is to ensure the continuous assessment of the project's performance and progress. This will facilitate the implementation of contingency plans to address the changing needs of the project activities. If any deviation is detected, the responsible partner will provide a detailed description of the identified issue, propose appropriate contingency measures, and create an action plan identifying responsible persons and a timeframe for action. In the following months, the evaluation core team will organise an online workshop to explain how REDCap works and the procedure that will be followed for the collection and reporting of the indicators by each WP. This webinar will cover a comprehensive introduction to the REDCap tool, including its key features and functionalities, step-by-step guidance on how to navigate the platform, tips for effective data entry and management, and troubleshooting common issues. Additionally, the session will offer insights into best practices for ensuring data quality and integrity, as well as protocols for secure data handling and compliance with relevant data protection regulations.

The progress of the JA will be assessed and reported in the First, Second, and Final Reports at M18, 36, and 48. These reports will provide a comprehensive overview of the project's performance and progress. Additionally, WP3 will provide annual updates on the evaluation status and development to the coordination team. These updates will include descriptive analyses of the reporting data, progress updates from the activities carried out during the joint action, and deviations from the initial and contingency plans implemented.



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10 ANNEXES

10.1 Annex 1: PIE indicators

General PIE indicators

(code) Indicator	G.1
Definition	Number of internal meetings organized within WPx
Justification	The number of internal meetings indicates the monitoring of the WPs' internal coordination of the project
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Data available on the EU-JAMRAI 2 online data reporting tool (REDCap)
Data collection instrument	Meeting minutes
Responsible	All WPs (WPLs)
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	> 4 annually
Acceptance criteria	4 annually
Observations	Internal meetings are those organized with all partners involved in the corresponding WP Online and face to face meetings

(code) Indicator	G.2
Definition	Percentage of partners attending to the WPx meetings/teleconferences
Justification	Monitoring of partners' involvement in their own WP
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting minutes or Assistance Sheet, available on the EU-JAMRAI 2 online data reporting tool (REDCap)
Data collection instrument	Meeting minutes / Assistance Sheet
Responsible	All WPs (WPLs)
Periodicity of data collection	Annually (M12, M24, M36, M46)



Completion criteria	100% of partners involved in WPx attending all the meetings
Acceptance criteria	80% of partners involved in WPx attending all the meetings
Observations	

(code) Indicator	G.3
Definition	Satisfaction of WP Members with the progress and development of the WP
Justification	The satisfaction of the WP Members is crucial to ensure the engagement during the entire project
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Online data reporting tool (REDCap)
Data collection instrument	Satisfaction Survey
Responsible	WP3
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	100% of WPs member are satisfied
Acceptance criteria	80% of WPs member are satisfied
Observations	

10.1.1 WP 1 PIE indicators

(code) Indicator	1.1
Definition	Number of annual meetings organized
Justification	Annual meetings are key to ensure active commitment from partners and stakeholders. They are also important dissemination events.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Agenda - Meeting minutes, available on EU-JAMRAI 2 internal platform (Teams). Milestone 1 (M48)
Data collection instrument	Meeting minutes
Responsible	WP1
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	4 meetings organized
Acceptance criteria	4 meetings organized



Observations	Kick-off meeting, 3 annual meetings (2025, 2026, 2027). Final dissemination meeting will be evaluated through WP2 indicators.
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(code) Indicator	1.2
Definition	Percentage of deliverables achieved on time
Justification	Process indicator to check if we met our deadlines
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Commission portal and EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Deliverable template
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	100% of deliverables achieved on time
Acceptance criteria	>80% of deliverables achieved on time
Observations	

(code) Indicator	1.3
Definition	Percentage of milestones achieved on time
Justification	Process indicator to check if we met our deadlines
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Commission portal and EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Means of verification depending on the milestone
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	100% of milestones achieved on time
Acceptance criteria	>80% of milestones achieved on time
Observations	

(code) Indicator	1.4
Definition	Number of Executive Board Meetings



Justification	Executive Board meetings are crucial to ensure good management and execution of the project. They also facilitate information sharing between WPs.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting minutes available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Meeting minutes
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	>12 Executive Board Meetings organized
Acceptance criteria	>10 Executive Board Meetings organized
Observations	

(code) Indicator	1.5
Definition	Number of Advisory Boards
Justification	Advisory Boards are crucial to ensure that the JA activities aligns with other EU initiatives
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting minutes, available on EU-JAMRAI 2 internal platform (Teams). Milestone 2 (M7)
Data collection instrument	Meeting minutes
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	> 6 Advisory Boards organized
Acceptance criteria	>4
Observations	

(code) Indicator	1.6
Definition	Number of stakeholder forums organized



Justification	Stakeholder forums are crucial to engage stakeholders and make sure EU-JAMRAI 2 outcomes are sustained
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Attendance list (face to face and online attendance), available on EU-JAMRAI 2 internal platform (Teams).
Data collection instrument	Attendance list (face to face and online attendance)
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	>6 stakeholder forums organized
Acceptance criteria	>4 stakeholder forums organized
Observations	

(code) Indicator	1.7
Definition	Percentage of MS/AC represented by participants attending the annual meetings
Justification	Measure the engagement of the MS/AC with EU-JAMRAI 2 activities and the representativity of the MS/AC
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Minutes and data signed sheet available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Minutes and data signed sheet
Responsible	WP1
Periodicity of data collection	Annually (M12, M24, M36, M46).
Completion criteria	100%
Acceptance criteria	80%
Observations	Kick-off meeting, 3 annual meetings (2025, 2026, 2027)

(code) Indicator	1.8
Definition	Satisfaction with annual meeting



Justification	Satisfaction with partners is crucial to ensure they stay committed. Satisfaction survey will also allow us to improve the quality of our annual meetings.
Type of indicator	Output
Methodology	Qualitative
Data source(s)	Attendees from annual meetings, available on EU-JAMRAI 2 internal platform (Teams).
Data collection instrument	Satisfaction survey
Responsible	WP1
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	>75% of attendees satisfied or extremely satisfied.
Acceptance criteria	>60% of attendees satisfied or extremely satisfied.

(code) Indicator	1.9
Definition	Total number of attendees in annual meetings
Justification	Informs on the level of commitment from partners and stakeholders.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Attendance list (face to face and online attendance), available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Attendance list (face to face and online attendance)
Responsible	WP1
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	>200 people attending (both physically and virtually)
Acceptance criteria	>150 people attending (both physically and virtually)
Observations	

(code) Indicator	1.10
Definition	Average number of stakeholders attending stakeholder forums



Justification	Informs on the level of commitment from stakeholders and the impact of the meeting.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Attendance list (face to face and online attendance) from all stakeholder forums), available on EU-JAMRAI 2 internal platform (Teams).
Data collection instrument	Attendance list (face to face and online attendance) from all stakeholder forums
Responsible	WP1
Periodicity of data collection	Once (M46)
Completion criteria	>30 stakeholders attending
Acceptance criteria	>20 stakeholders attending
Observations	

10.1.2 WP 2 PIE indicators

(code) Indicator	2.1 Development of a dissemination plan
Definition	Preparation of the Dissemination Plan/Strategy
Justification	The preparation of a dissemination plan/strategy is crucial for ensuring effective communication of information, findings, or outcomes to relevant stakeholders.
Type of indicator	Process
Methodology	Qualitative
Data source(s)	Document with the plan available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Document with the plan available on EU-JAMRAI 2 internal platform (Teams) and EU-JAMRAI 2 website
Responsible	WP2 Leader
Periodicity of data collection	M9
Completion criteria	The Plan (D2.1 Dissemination, Exploitation, Communication and Outreach plan (DECO)) is developed and available for partners and stakeholders
Acceptance criteria	The Plan (D2.1 Dissemination, Exploitation, Communication and Outreach plan (DECO)) is developed and available for partners and stakeholders



Observations	Related task: 2.1 Plan must be available on EU-JAMRAI 2 internal platform (Teams) and external website
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(code) Indicator	2.2 Development of dissemination contents
Definition	Development of dissemination contents (interviews, short clips and promos, infographics, press releases) to update JA website and support identified key events
Justification	To make the JA results visible and maximise their outreach and impact.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	EU-JAMRAI 2 dissemination channels
Data collection instrument	Website, Social media channels
Responsible	WP2 leader
Periodicity of data collection	M12, M24, M36, M46
Completion criteria	24 dissemination contents (6 per year) developed and available to meet website updates and identified key events dissemination needs.
Acceptance criteria	At least 16 dissemination contents (4 per year) developed and available to meet website updates and identified key events dissemination needs.
Observations	Related tasks: 2.2 (sub- task 2.2.1), 2.3 and 2.4

(code) Indicator	2.3 Development of JA sharing platform
Definition	Design of a sharing platform for internal communication and file sharing
Justification	An interactive private file sharing platform where all partners can interact and share relevant information contributes to effective internal communication and ensures safe information storage.
Type of indicator	Process
Methodology	Qualitative
Data source(s)	Microsoft Teams of JA
Data collection instrument	Microsoft Teams of JA
Responsible	WP2 Leaders



Periodicity of data collection	M6
Completion criteria	EU-JAMRAI 2 sharing platform developed and 100% of project partners with access to it
Acceptance criteria	EU-JAMRAI 2 sharing platform developed and 100% of project partners with access to it
Observations	Related task: 2.2 (sub-task 2.2.3)

(code) Indicator	2.4 JA external website design
Definition	Design and development of JA external website
Justification	A properly identified EU-JAMRAI 2 website with open access will be the central hub to host outputs and outcomes and disseminate the information to the targeted audiences
Type of indicator	Process
Methodology	Qualitative
Data source(s)	EU-JAMRAI 2 website
Data collection instrument	Web navigator software
Responsible	WP2 leader
Periodicity of data collection	M6
Completion criteria	JA external website developed and available
Acceptance criteria	JA external website developed and available
Observations	Related tasks: 2.2; Milestone M3 Website launched (M6)

(code) Indicator	2.5 Social media dissemination
Definition	Exploitation of the EU-JAMRAI 2 presence on social media platforms to share information with the general public.
Justification	Engaging the target audience with dissemination content is essential for ensuring the effectiveness and impact of the communication efforts.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	EU-JAMRAI 2 social media channels
Data collection instrument	Standard metrics of dissemination channels
Responsible	WP2 leaders



Periodicity of data collection	M12, M24, M36, M46
Completion criteria	12 post / month
Acceptance criteria	At least 8 post/month
Observations	Related task: 2.4 (sub-task 2.4.1)

(code) Indicator	2.6 Leaflets and factsheets
Definition	Update, development, publication and distribution of at least 2 general leaflets and additional ones under specific topics when needed
Justification	Having promotional materials focused on EU-JAMRAI 2 objectives and planned activities is essential to promote the JA in meetings, congresses and other AMR relevant activities and events at international and local levels.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Leaflets and factsheets available in EU-JAMRAI 2 internal platform (Teams).
Data collection instrument	EU-JAMRAI 2 external website and intranet
Responsible	WP2 leaders
Periodicity of data collection	M15, M40
Completion criteria	Leaflet 1 developed and digital version available (information about the project) on M15. Leaflet 2 developed and digital version available (project progress and interim results) on M40
Acceptance criteria	Leaflet 1 developed and available (information about the project) on M15. Leaflet 2 developed and available (project progress and interim results) on M40
Observations	Related tasks: 2.3 (sub-task 2.3.2)

(code) Indicator	2.7 Presentations at scientific and policy-maker events
Definition	Number of scientific and policy discussion events with EU-JAMRAI 2 presentations
Justification	To promote the JA and the dissemination of the outcomes in scientific events and make them known to the policy-makers.



Type of indicator	Process
Methodology	Quantitative
Data source(s)	Compilation of evidence carried out by WP2
Data collection instrument	Reports of dissemination activities/Deliverables of WP2
Responsible	WP2 leaders
Periodicity of data collection	M12, M24, M36, M46
Completion criteria	>15 events where EU-JAMRAI 2 is disseminated
Acceptance criteria	At least 12 events where EU-JAMRAI 2 is disseminated (3 per year)
Observations	Related task: 2.4 (sub-task 2.4.3)

(code) Indicator	2.8 Visual identity
Definition	Update of EU-JAMRAI 1 branding: templates, web banner and Brand Tool Kit with new visual identity user guidelines
Justification	Adapt the brand identity to the communication strategy and to include new work areas to make them visually appealing.
Type of indicator	Output
Methodology	Qualitative
Data source(s)	Brand tool kit
Data collection instrument	EU-JAMRAI 2 external website and intranet (Teams)
Responsible	WP2 leader
Periodicity of data collection	M6
Completion criteria	Updated templates and a new Brand Tool Kit developed and available for partners
Acceptance criteria	Updated templates and a new Brand Tool Kit developed and available for partners
Observations	Related tasks: 2.1, 2.2, 2.3 and 2.4

(code) Indicator	2.9 Percentage of partners with JA web banner in their websites
Definition	Percentage of partners that have links to EU-JAMRAI 2 website at their institutional website
Justification	A link to EU-JAMRAI 2 website should be clearly observable at all partners institutional websites to boost the project visibility and lead other websites' visitors to the JA website



Type of indicator	Output
Methodology	Quantitative
Data source(s)	Partners' websites
Data collection instrument	Web navigator
Responsible	WP2 leader
Periodicity of data collection	M12, M24, M36, M48
Completion criteria	100% - All EU-JAMRAI 2 partners have links to project website at their institutional website
Acceptance criteria	At least 70% of EU-JAMRAI 2 partners have links to project website at their institutional website
Observations	Related task: 2.2 (sub-task 2.2.2)

(code) Indicator	2.10 E-Newsletters
Definition	Number of digital newsletters released announcing JA events, planned activities and results.
Justification	EU-JAMRAI 2 e-newsletters are a major avenue of information dissemination to the JA partners, external stakeholders and all individuals subscribed to the mailing list. The information collected through the subscription to this newsletter will also be very valuable to feed the JA distribution list database.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Digital newsletters released and available on EU-JAMRAI 2 internal platform (Teams) / website
Data collection instrument	Newsletter manager
Responsible	WP2 leaders
Periodicity of data collection	M12, M24, M36, M48
Completion criteria	14 newsletter editions (4 per year, except Year 1) distributed
Acceptance criteria	At least 10 newsletter editions distributed
Observations	Related task: 2.3 (sub-task 2.3.1)

(code) Indicator	2.11 Development of the Layman report
Definition	A comprehensive information brochure focused on project objectives and results with a full overview of the JA outcomes developed



Justification	A Layman report is a useful reporting tool targeted to non-specialist audience to inform decision makers and non-technical parties
Type of indicator	Output
Methodology	Qualitative
Data source(s)	EU-JAMRAI 2 results from the different WPs
Data collection instrument	EU-JAMRAI 2 external website
Responsible	WP2 and other WPs
Periodicity of data collection	M46
Completion criteria	Layman report developed and available on the external website
Acceptance criteria	Layman report developed and available on the external website
Observations	Related task: 2.4 (sub-task 2.4.4)

(code) Indicator	2.12 Participation in the Final Dissemination Conference
Definition	Percentage of participants in the Final Dissemination Conference
Justification	A Final Dissemination Conference will be organized at the end of the project to disseminate the project results among researchers, clinicians and general practitioners, professional associations, mass media, patient organizations and representatives of the JA partners.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Report
Data collection instrument	Registration form
Responsible	WP2 leaders
Periodicity of data collection	M48
Completion criteria	Percentage of participants in the final conference \geq 100% of the members
Acceptance criteria	Percentage of participants in the final conference \geq 80% of the members
Observations	Related task: 2.4. (WP1 presents similar indicators although they are not specific to the final conference meeting but focused on annual meetings).

(code) Indicator	2.13 Satisfaction with the Final Dissemination Conference
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Definition	Level of satisfaction expressed by the participants on the Final Dissemination Conference
Justification	A Final Dissemination Conference will be organized at the end of the project to disseminate the project results among researchers, clinicians and general practitioners, professional associations, mass media, patient organizations and representatives of the JA partners.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Report
Data collection instrument	Surveys
Responsible	WP2 leaders
Periodicity of data collection	M46
Completion criteria	Average level of satisfaction with the final conference $\geq 80\%$
Acceptance criteria	Average level of satisfaction with the final conference $\geq 60\%$
Observations	Related task: 2.4. (WP1 presents similar indicators although they are not specific to the final conference meeting but focused on annual meetings).

10.1.3 WP 3 PIE indicators

(code) Indicator	WP 3.1
Definition	Average response rate for satisfaction surveys
Justification	The response rate indicates engagement stakeholders as well as consortium partners with the performed activities and information provided.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting satisfaction survey report in EU-JAMRAI 2 online data reporting tool (REDCap)
Data collection instrument	Online surveys performed by WPL at the end of each organized activity
Responsible	WP Leaders for collection and WP3 for analysis
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	$> 80\%$
Acceptance criteria	$> 65\%$



Observations	Data will be provided after every meeting and reviewed by WP3 every 12 months
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(code) Indicator	WP 3.2
Definition	Coverage in process indicators data collection
Justification	Percentage of process indicators that have been successfully notified to the evaluation team on time.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	WPL reported indicators in the online data reporting tool (REDCap)
Data collection instrument	Online data reporting tool (REDCap)
Responsible	WP3 and WP leaders
Periodicity of data collection	Annual (M12, M24, M36, M46)
Completion criteria	100 %
Acceptance criteria	> 80%
Observations	

(code) Indicator	WP 3.3
Definition	Coverage in output indicators data collection
Justification	Percentage of output indicators that have been successfully notified to the evaluation team on time.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	WPL reported indicators in the online data reporting tool (REDCap)
Data collection instrument	Online data reporting tool (REDCap)
Responsible	WP3 and WP leaders
Periodicity of data collection	Annual (M12, M24, M36, M46)
Completion criteria	100 %
Acceptance criteria	> 80%
Observations	

(code) Indicator	WP 3.4
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Definition	Coverage in outcome indicators data collection
Justification	Percentage of outcome indicators that have been successfully notified to the evaluation team on time.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	WPL reported indicators in the online data reporting tool (REDCap)
Data collection instrument	Online data reporting tool (REDCap)
Responsible	WP3 and WP leaders
Periodicity of data collection	Annual (M12, M24, M36, M46)
Completion criteria	100 %
Acceptance criteria	> 80%
Observations	

(code) Indicator	WP 3.5
Definition	Coverage in impact indicators data collection
Justification	Percentage of impact indicators that have been successfully notified to the evaluation team on time.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	WPL reported indicators in the online data reporting tool (REDCap)
Data collection instrument	Online data reporting tool (REDCap)
Responsible	WP3 and WP leaders
Periodicity of data collection	Annual (M12, M24, M36, M46)
Completion criteria	100 %
Acceptance criteria	> 80%
Observations	

(code) Indicator	WP 3.6
Definition	Percentage of stakeholders of the Advisory Committee participating in the review of the proposed indicators (HADEA, WHO, EC...)
Justification	Covering needs and opinions from organizations belonging to the Advisory committee by gathering representatively of the identified main organizations.



Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting Minutes and attendance list published in the EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Meetings minutes and data signed sheet
Responsible	WP3 and WP1 leaders
Periodicity of data collection	Once (before the first periodic report) M18
Completion criteria	80%
Acceptance criteria	>60%
Observations	

(code) Indicator	WP 3.7
Definition	Level of adherence of WPs to the online data reporting tool (REDCap)
Justification	Evaluation to be successful, partners need to provide information in the online evaluation tool.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	online data reporting tool (REDCap) Report published EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Online evaluation tool (Redcap)
Responsible	WP3 / All WPLs
Periodicity of data collection	Annual (M12, M24, M36, M46)
Completion criteria	100%
Acceptance criteria	90%
Observations	WPL that have reported the assigned indicators on time on the online evaluation tool.

(code) Indicator	WP 3.8
Definition	Percentage of consortium partners who consider that the project has achieved the expected impact
Justification	The engagement and the satisfaction of the consortium partners is key to ensure the sustainability of EU-JAMRAI 2 results.



Type of indicator	Output
Methodology	Quantitative
Data source(s)	Report published in EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Survey of the expectations of the impact reached applied to all members
Responsible	WP3 and WP1 Leaders
Periodicity of data collection	Once M46
Completion criteria	80%
Acceptance criteria	>60%
Observations	

(code) Indicator	WP 3.9
Definition	Percentage of stakeholders who consider that the project has achieved the expected impact
Justification	Stakeholders play a key role in EU-JAMRAI 2 and meeting their expectations increases the odds to make the taken actions and outcomes sustainable
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Report published in EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Survey of the expectations of the impact reached applied to all members
Responsible	WP3 and WP1 Leaders
Periodicity of data collection	Once M46
Completion criteria	80%
Acceptance criteria	>60%
Observations	

10.1.4 WP 4 PIE indicators

(code) Indicator	4.1
Definition	Number of meeting attended by WP4 leaders (organized by WP4 or by other WPs)
Justification	Considering sustainability requires cooperation with other WPs, meetings with technical WPs are part of our expertise to ensure the



	integration of a sustainable action. Meetings attended and/or organized by WP4 is a good indicator of the progression of the JA.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Agenda - Meeting minutes and attendance list, available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Meeting minutes
Responsible	WP4 is responsible for data collection, subsequently transmitted to WP3
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	10 meetings (see observations for clarification)
Acceptance criteria	6
Observations	<p>Considering 5 technical WPs will have to endorse sustainability in their outcomes; and 1 annual meeting organized by WP4 (open to all WPs), we estimated a minimum number of 6 meetings per year. Up to 10 meetings can be achieved if non-technical WPs (1-3+5) are involved.</p> <p>Any activity dealing with sustainability deemed relevant for the JA can be integrated into this indicator (e.g presentation of WP4 to a local conference or exhibition).</p> <p>Rationale: sustainability can be mentioned in informal team meetings individually with a WP.</p>

(code) Indicator	4.2
Definition	Sustainability guidance tool is developed
Justification	Considering all technical WPs are required to follow a guidance tool to ensure sustainability in their work and reports, we support the latter as relevant for the JA.
Type of indicator	Output
Methodology	Qualitative
Data source(s)	Sustainability guidance tool available on EU-JAMRAI 2 internal platform (Teams). Deliverable 4.1 (M12)
Data collection instrument	Sustainability guidance tool in itself
Responsible	WP4 will share the progress of its guidance tool development with WP3 until its due date
Periodicity of data collection	Once (M12)



Completion criteria	100%
Acceptance criteria	100%
Observations	A first milestone will be reached during fall 2024 when we should be able to share a first draft of the guidance tool, as mentioned during WP4 KO meeting.

(code) Indicator	4.3
Definition	Number of policy briefs produced (by all WPs, with the support of WP4)
Justification	<p>Considering that a secondary objective of WP4 Task 4.1 is to produce a policy brief template for all the technical WPs (6-10), this indicator seems relevant to assess the JA progress and its impact towards national policies.</p> <p>Of note, the different topics covered by the potential policy briefs produced, will be pillars of the sustainability plan at the end of the JA, as they may highlight “priority outcomes”.</p>
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Policy briefs (for policy makers) produced by WP leaders, available on EU-JAMRAI 2 internal platform (Teams) and website
Data collection instrument	Policy briefs
Responsible	WP4 is responsible for data collection, subsequently transmitted to WP3
Periodicity of data collection	Annually (M12, M24, M36, M46)
Completion criteria	10 considering there are 5 technical WPs involved in the JA that could produce 2 policy briefs
Acceptance criteria	5
Observations	Policy makers can use policy briefs to implement/update NAP and/or policies beyond the JA period = sustainability.

10.1.5 WP 5 PIE indicators

(code) Indicator	5.1
Definition	Number of peer exchanges, country-to-country visits or other activities organized, as part of the Support Program



Justification	Support program activities will be organized with the objective of supporting MS/AC in their work on NAPs and AMR One Health policy in general based on the identified priorities and needs.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Meeting minutes, activity reports, support program, available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Meeting minutes and reports available in EU-JAMRAI 2 internal platform (Teams)
Responsible	NL MoH
Periodicity of data collection	M22 - M45
Completion criteria	<20 activities
Acceptance criteria	
Observations	

(code) Indicator	5.2
Definition	Number of EU JAMRAI 2 WP5 liaisons participating in Policy Group meetings
Justification	WP5 Policy Group meetings will be held with the objective of establishing a network of EU-JAMRAI 2 liaisons, to ultimately build a stronger network, strengthen connections/interactions and favour best practice exchange
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Attendance records and meeting minutes, available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Attendance records and meeting minutes.
Responsible	WP5
Periodicity of data collection	M1 - M48
Completion criteria	More than 85% of liaisons participating (from all 29 participating countries)
Acceptance criteria	65% liaisons participating
Observations	



(code) Indicator	5.3
Definition	Number of MS/AC participating in Needs Assessment (identification and selection of topics) to complete the overview
Justification	The engagement of MS/AC in the Needs Assessment, with the objective of having a comprehensive overview (list) of prioritized topics aimed at optimizing, operationalizing, and implementing NAPs
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Attendance list and/or completed survey(s), available on EU-JAMRAI 2 internal platform (Teams)
Data collection instrument	Attendance list and/or completed survey(s)
Responsible	WP5
Periodicity of data collection	M4 - M21
Completion criteria	<85%
Acceptance criteria	65%
Observations	

10.1.6 WP 6 PIE indicators

(code) Indicator	WP 6.1 Indicator 1. Responses to surveys on Antimicrobial Stewardship Programs (ASP) implementation
Definition	Number of EU JAMRAI 2 member states (MS) that have responded to the survey on ASP implementation (x 3 settings: hospital, primary care and LTCF)
Justification	Survey to EU JAMRAI 2 member states on AMS implementation is required to reach the 3 EU framework consensus documents for ASP in human health (deliverables).
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Survey report (x 3 settings: hospital, primary care and LTCF)
Data collection instrument	EU-JAMRAI-2 internal platform
Responsible	WP 6.1 Leaders



Periodicity of data collection	Once. M18
Completion criteria	80% of EUJAMRAI 2 MS answering the survey on ASP implementation (x 3 settings: hospital, primary care and LTCF)
Acceptance criteria	50% of EUJAMRAI 2 MS answering the survey on ASP implementation (x 3 settings: hospital, primary care and LTCF)
Observations	<p>EU JAMRAI 2 member states (MS) (27 EU Member states +3x non-EU countries- Iceland, Norway and Ukraine-)</p> <p>Related sub-task: 6.1.1; related deliverable: D6.1 European framework for ASP in human health for hospitals, primary care and for LTCFs (M40)</p> <p>As contact points for WP 6.1 Co-leaders:</p> <p>Jose Luis Trillo (SAS): josel.trillo@juntadeandalucia.es and Blanca Bradley (AEMPS): bbradley_externo@aemps.es</p>

(code) Indicator	WP 6.2 Face-to-face workshops
Definition	Nº of face-to-face workshops to select and define core elements and core competencies by consensus technique
Justification	Workshops in the 3 settings are essential to reach the 3 EU framework consensus documents for ASP in human health (deliverables)
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Minutes of the workshops
Data collection instrument	Minutes of the workshops available on EU-JAMRAI-2 internal platform – Milestone (M18)
Responsible	WP 6.1 Leaders
Periodicity of data collection	Once. M18
Completion criteria	3 face-to-face workshops (1 for hospital, 1 for primary care and 1 for LTCFs) organised
Acceptance criteria	3 face-to-face workshops (1 for hospital, 1 for primary care and 1 for LTCFs) organised
Observations	Related sub-task: 6.1.1; related deliverable: D6.1 European framework for ASP in human health for hospitals, primary care and for LTCFs (M40)



(code) Indicator	WP6.3
Definition	Nº of meetings conducted with stakeholder representatives
Justification	The intervention in T6.3 aims to provide meaningful trainings for professionals. These meetings are essential for the successful design of trainings, as well as during the implementation of the training of trainers (ToT) and the pilot testing of the trainings. Continuous involvement of stakeholders guarantees the quality and effectiveness of the training programs.
Type of indicator	Process
Methodology	Quantitative. Stakeholder representatives will play an integral role in conducting gap analyses and needs assessments for professionals in the field of AMS in the environment. Subsequently, they will actively contribute to the design of training programs. Once the training contents are finalized, representatives will acquire necessary skills through participation in meetings held as part of the ToT. Furthermore, during the piloting phase of the training, stakeholder representatives will continue to be actively involved. The outcomes of these collaborative sessions will be documented through the compilation of meeting minutes.
Data source(s)	Meetings logs (Official logs or records of meetings that have been conducted); Stakeholder representatives (Direct input from the stakeholder representatives who attended the meetings)
Data collection instrument	EU-JAMRAI-2 internal platform
Responsible	T6.3 Task Leaders -> Liaisons: Marta Gutierrez (AEMPS), Lida Politi (NPHO), Technical Coordinators: Ane Laburu (AEMPS), Maria Tseroni (NPHO), Leonidas Georgalis (NPHO)
Periodicity of data collection	Monthly (from M1 until M46)
Completion criteria	At least 12 meetings within stakeholder representatives, including all stages of T6.3 (training design, ToT and pilot testing)
Acceptance criteria	At least 12 meetings within stakeholder representatives, including all stages of T6.3 (training design, ToT and pilot testing)
Observations	This process indicator is related to sub-task 6.3.3 and sub-task 6.3.4. To avoid budget being a limiting factor for acceptance, both online and in-person meetings will be considered.

(code) Indicator	WP 6.4 Peer-to peer (P2P) exchange programs
Definition	P2P exchange programs description



Justification	The description of the P2P programs will be key on the completion of subtask 6.1.2 deliverable
Type of indicator	Output
Methodology	Qualitative
Data source(s)	EU-JAMRAI-2 internal platform
Data collection instrument	Document with description of P2P programs: <ul style="list-style-type: none"> • Mentorship for hospital, primary care and LTCFs • Observership for hospitals and primary care
Responsible	WP 6.1 Leaders
Periodicity of data collection	Once, by M24
Completion criteria	Description of P2P programs (Mentorship and Observership) is available in EU-JAMRAI-2 internal platform
Acceptance criteria	Description of P2P programs (Mentorship and Observership) is available in EU-JAMRAI-2 internal platform
Observations	Related sub-task: 6.1.2; Related deliverable: D6.3 P2P programs (T6.1, T6.2)

(code) Indicator	WP 6.5 P2P pilots
Definition	N° of P2P on-line mentorship and on-site observership programs piloted
Justification	Piloting of the programs is part of the project. 24 and 6 mentorship in 3 target settings (hospital, primary care and LTCF) and observership programs in 2 settings (hospitals and primary care) are expected respectively.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Statistics from programs piloted (to be defined)
Data collection instrument	Pilot findings report
Responsible	WP 6.1 Leaders
Periodicity of data collection	M44
Completion criteria	100% of the planned programs piloted (24 on-line mentorship and 6 on-site observership)



Acceptance criteria	At least 50% of the planned programs piloted
Observations	Related sub-task: 6.1.2; Related deliverable: D6.3 P2P programs (T6.1, T6.2) (M44)

(code) Indicator	WP6.6
Definition	Toolkit to improve adoption of a behavioural framework for AMS interventions report
Justification	It serves as a tangible indicator of output in the later stages of T6.4. During those stages, it is important to clearly define and describe each of the toolkit components by including: a) articulation of the target behaviour (AMS practices) that needs to change using a behavioral approach b) how to identify/assess barriers and facilitators (diagnostic assessment) towards AMS, through the lens of a behavioral change framework selected in T6.4.1 c) identification and prioritization of the strategies and techniques that target identified barriers and facilitators towards AMS d) pilot testing of each selected strategy e) how to evaluate the effectiveness of the selected strategies towards AMS.
Type of indicator	Output
Methodology	Qualitative. After choosing the most appropriate behaviour change model / framework, a broad assessment of needs and current practices across participating countries will be conducted, using a mix of data collection methods. Relevant literature and existing guidelines will be reviewed to inform the toolkit's foundation. Stakeholders from different countries will be engaged in collaborative sessions to identify key components for the toolkit. An iterative process will be used to develop and refine the toolkit elements, with feedback being incorporated from various perspectives. The toolkit will be tested in select settings, and input for improvements will be gathered. Finally, a consensus on the toolkit's content and structure will be worked towards, ensuring it is adaptable to different contexts.
Data source(s)	T6.4 participants
Data collection instrument	Survey; literature review
Responsible	WP6-T6.4 leaders (SALUD, EODY) and country contributors within T6.4
Periodicity of data collection	Data collection is planned from M16 until M36
Completion criteria	100% - definition of the components of the toolkit completed and available on EU-JAMRAI – 2 internal platform.
Acceptance criteria	100% - definition of the components of the toolkit completed and available on EU-JAMRAI – 2 internal platform.



Observations	Related sub-task: 6.4.1; related deliverable: D6.5 Behaviour-change tool kit and implementation of at least on pilot (up to M36)
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(code) Indicator	WP6.7
Definition	Pilot training programme on how to integrate behaviour change towards antimicrobial stewardship
Justification	Piloting the training components of the programme will allow us to evaluate their content, acceptability of the learning activities, learning sources appropriateness and improve them accordingly. The pilot training should be conducted to at least one (preferably two) different contexts/partners in order to ensure that the final end product captures the needs of all relevant stakeholders.
Type of indicator	Output
Methodology	Qualitative. An evaluation questionnaire will be disseminated including both close and open-ended questions providing both quantitative and qualitative data. Analysis of the collected data will form the content of an assessment report showing the strengths and weakness of the training programme, and providing suggestions for improvement.
Data source(s)	Results obtained from participants involved in the pilot training
Data collection instrument	Tools to evaluate the quality of the e-learning training material
Responsible	WP6-T6.4 leaders (SALUD, EODY) and country contributors within T6.4
Periodicity of data collection	From M33 until M36(*)
Completion criteria	Two pilot trainings delivered and pilot evaluation reports developed and available
Acceptance criteria	At least one pilot trainings delivered and a pilot evaluation report developed and available
Observations	Related sub-task: 6.4.3; related deliverable: D6.5 Behaviour-change tool kit and implementation of at least one pilot (M36)

(code) Indicator	WP6.8
Definition	Provide a step-by-step approach on how to design a behavioural change intervention towards five selected antimicrobial prescribing opportunities in a workshop.



Justification	The workshop will enable participants to develop their skills to design antimicrobial prescribing interventions based on a behavioral change framework (6.4.1)
Type of indicator	Output
Methodology	Qualitative. A practical framework will be taught on how to identify specific behavioral change techniques to target barriers and facilitators on antimicrobial prescribing opportunities allowing participants to practice the core-elements and core-competencies of the selected behavioral change framework (6.4.1).
Data source(s)	Toolkit (6.4.2) and blended training programme (6.4.3)
Data collection instrument	Collaborative meetings amongst relevant stakeholders within T6.4
Responsible	WP6-T6.4 leaders (SALUD, EODY) and country contributors within T6.4
Periodicity of data collection	From M33 TO M48
Completion criteria	An implementation plan blueprint developed, submitted and available on EU-JAMRAI-2 website / internal platform.
Acceptance criteria	An implementation plan blueprint developed, submitted and available on EU-JAMRAI-2 website / internal platform
Observations	Implementation plan blueprint, which includes a description of the educational material, tools (toolkit) for AMS teams to adopt a behavioural change framework, collected data, conclusions and a proposal for evaluating their effectiveness

10.1.7 WP 7 PIE indicators

(code) Indicator	WP7.1
Definition	Number of responses to questionnaire from partners in WP 7.1.1 on their current needs and obstacles to secure and maintain competencies at their staffs.
Justification	First step to evaluate the needs of the partners in 7.1 in the light of current technical document on core competencies for infection control and hospital hygiene professionals in the European Union from ECDC (2013)
Type of indicator	Process and outcome (it tracks the engagement of partners in providing feedback through the questionnaire) and it assesses the outcomes or changes resulting from the project activities, specifically in terms of partners' needs and obstacles



Methodology	Quantitative, it measures the number of responses received to the questionnaire, providing a numerical value indicating partner engagement.
Data source(s)	Questionnaire results available on EU-JAMRAI-2 internal platform
Data collection instrument	Questionnaire
Responsible	WP7.1 leader and co-leader-SSI
Periodicity of data collection	M9
Completion criteria	100% of partner countries of WP 7.1 responded
Acceptance criteria	80% of partner countries of WP 7.1 responded
Observations	It's crucial to establish clear communication with partners to emphasize the importance of their feedback through the questionnaire.

(code) Indicator	WP7. 2
Definition	No of partners (MS/AE) at 7.1.2 participating in the structured consensus in IPC core components.
Justification	To reach a consensus in European core components of IPC
Type of indicator	Process
Methodology	Quantitative, it measures the number of partners (MS/AE) participating in the structured consensus sessions (meetings, workshops), and in the surveys
Data source(s)	Minutes of participation in structured consensus sessions/ /Workshops, and answers to the surveys. Available on EU-JAMRAI-2 internal platform
Data collection instrument	A structured attendance register of each consensus session + surveys
Responsible	WP7.1 leader and co-leader-ICO
Periodicity of data collection	Two rounds per facility: a minimum one survey and one consensus session for each facility level (Hospitals, PC and LTCFs). M32 M34 M36 M38 M40 M42
Completion criteria	100% partners within 7.1.2
Acceptance criteria	75% of partners within 7.1.2
Observations	Related sub-task: 7.1.2 It is essential to ensure that structured consensus sessions provide a conducive environment for open discussion and collaboration among partners. Regular communication and reminders may be necessary to encourage participation.



(code) Indicator	WP7. 3
Definition	Number of pilot projects registered as being a part of 7.1.
Justification	To measure the active involvement of the partners in 7.1.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Database where pilot project registrations are logged available on EU-JAMRAI-2 internal platform.
Data collection instrument	Registration data from partners in 7.1 on their pilots
Responsible	WP7.1. task leader and co-task leaders.
Periodicity of data collection	Regularly in the period 2025-2026, on a quarterly basis
Completion criteria	100% of partners within 7.1
Acceptance criteria	50% of partners within 7.1 establish pilot projects
Observations	<p>Related subtask 7.1.3:</p> <p>It's essential for the success of this implementation project that the involved partners are actively engaged through carrying out e.g. pilots. Communication and engagement within the 7.1 group is important e.g. via the peer-to-peer activities.</p>

(code) Indicator	WP7. 4
Definition	Number of MS participating on development and implementation of a pilot tool to monitor the implementation of IPC programs in 7.1.3
Justification	The pilot tool to monitor the implementation of core components of IPC programs is an essential component of the EU-JAMRAI project and it is aimed to increase the awareness of the importance of monitoring the implementation of the IPC programs
Type of indicator	Process
Methodology	Quantitative



Data source(s)	Project documentation, meeting minutes, and records of participant involvement available on tool platform and EU JAMRAI documents.
Data collection instrument	Institution(s) responsible for the development and implementation of the Pilot tool (attendance registers, participant feedback forms, and meeting minutes capturing MS involvement in the various stages of tool development and implementation).
Responsible	WP7.1 leader and co-leader-SSI
Periodicity of data collection	Once (Month 46)
Completion criteria	100% of MS participating to WP7.1.3 (100% = X)
Acceptance criteria	20% of MS participating to WP7.1.3
Observations	Related sub-task: 7.1.3

(code) Indicator	WP7. 5
Definition	Percentage of MS providing information on existing IPC practices in livestock and/or companion animal sectors
Justification	By monitoring this information, the EU JAMRAI 2 project can identify areas of concern, knowledge gaps and prioritize interventions to mitigate the risks effectively. It is essential that as many as MS possible provide information to understand existing IPC practices and assess the potential risks associated with transmission of infectious diseases and spread of AMR.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Vets, farmers, public authorities, scientific/research institutes, universities, private actors, NGOs, industry stakeholders, healthcare settings; administrators of available protocols/tools Results of literature review and responses on survey distributed among MS partners / reports from MS partners about existing IPC practices in livestock and companion animal sectors, available on EU-JAMRAI 2 internal platform. Minutes from WP 7.2 meetings and 1 st workshop (M14) available on EU- JAMRAI-2 internal platform
Data collection instrument	Survey (through questionnaires, interviews, data templates designed to collect information, ...) distributed among MS partners Literature review and information retrieval in official national and international reports, databases and veterinary public health networks



	WP 7.2 meetings and 1 st workshops
Responsible	7.2 Task leader
Periodicity of data collection	Q2Y1 - Q4Y1: collection of information through data templates, interviews with stakeholders, questionnaires Q1Y2: depth interviews with stakeholders and 1 st workshop (M14)
Completion criteria	30 MS partners (100% of partners of WP 6.2 and WP 7.2) have provided information on existing IPC practices in livestock and/or companion animal sectors
Acceptance criteria	At least 19 MS partners (> 60% of partners of WP 6.2 and WP 7.2) have provided information on existing IPC practices in livestock and/or companion animal sectors
Observations	Related sub-task: 7.2.1; 7.2.2; 7.2.3; 7.2.4 Milestone No 13 (M20): Workshop on IPC core competencies Milestone No 14 (M36): Results from surveys Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioral insights – a report based upon data from at least half of the countries Evaluation of this indicator helps in identifying regions that may require more support in developing or enhancing IPC practices.

(code) Indicator	WP7.6
Definition	Number of MS participating on the Workshop to exchange information/knowledge on IPC and AMS between animal and human health



Justification	By promoting collaboration and knowledge sharing, the workshop facilitates a One Health approach to disease prevention, aligning with the goals of the EU-JAMRAI 2 project to address AMR through a holistic approach. By engaging experts and practitioners from different fields, the workshop ensures that IPC and AMS practices and educational activities are based on a comprehensive understanding of the challenges and needs across sectors. By bringing together professionals from animal and human health sectors, the workshop fosters mutual learning and knowledge exchange, enhancing the skills and competencies of participants. The workshop lays the foundation for sustained collaboration beyond the duration of the EU-JAMRAI 2 project and helps to translate workshop outcomes into policy actions on IPC and AMS practices, within a One Health approach.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Agenda and attendance record of workshop, available on EU-JAMRAI 2 internal platform Report with summary of the main findings of the workshop, including list of MS participating, available on EU-JAMRAI 2 internal platform Minutes from meetings together with WP7 and 7.1 Task leaders, available on EU-JAMRAI-2 internal platform
Data collection instrument	Interactive discussions and/or breakout rooms during workshop with the goal of exploring the possibility to extrapolate project outcomes to other sectors and to exchange knowledge between animal and human health. Meetings with WP 7 Leader and 7.1 Task leaders
Responsible	WP7 Leader and Task 7.2 leader, together with WP 6 and Task 6.2 Leaders
Periodicity of data collection	Periodically, in accordance with scheduled meetings organized together with WP 7 Leader and 7.1 Task leaders Q3Y4 - in parallel with 2 nd workshop (M 44)
Completion criteria	Partners participating to the workshop: 30 MS partners (100% of participants of WP 6 and WP7) are attending the workshop One Health involvement: programme of the workshop encompasses IPC and AMS across all pillars: Animal-Human-Environment-Behavioural change; and also, actors from these pillars are present during the workshop Animal sector: both actors in companion animals and in production animals are present during the workshop
Acceptance criteria	Partners participating to the workshop: At least 19 MS partners (>60% of partners of WP 6.2 and WP 7.2) are attending the workshop One Health involvement, with at least participation of animal and human sectors, and programme that encompasses IPC and AMS across human and animal pillars Animal sector: both actors in companion animals and in production



	animals are present during the workshop
Observations	<p>Related sub-task: 7.2.4</p> <p>Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level</p> <p>Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioral insights – a report based upon data from at least half of the countries</p> <p>This indicator helps assess and stimulate the level of interdisciplinary collaboration and the emphasis on continuous improvement in IPC practices.</p>

(code) Indicator	WP 7.7
Definition	Number of responses to questionnaire from partners in WP 7.3.1 on interventions to prevent and control environmental contamination that may lead to a multidrug-resistant bacterial outbreak
Justification	The questionnaire is a first step to evaluate the range of possible environmental interventions that are currently in use in MS and that can be prioritized for wider application. With a wider range of responses, practices that are only applied in single countries can be identified.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Results of responses on survey distributed among MS partners, available on JAMRAI-2 internal platform Minutes from WP7.3 meetings
Data collection instrument	Survey (through questionnaires and, if needed, follow-up interviews) distributed among MS partners Minutes from WP7.3 meetings
Responsible	WP7.3 task leader
Periodicity of data collection	Q2Y1 - collection of information through questionnaires and interviews with stakeholders (M24) Q3Y4 – documentation of results in deliverable (M 44)
Completion criteria	100% of WP 7.3 partners (10)
Acceptance criteria	80% of WP7.3 partners (8)
Observations	<p>Related sub-task: 7.3.2</p> <p>Milestone 7.3 in M24: List of the existing One Health environmental IPC measures</p> <p>Deliverable D7.3 in M44: Highlighted success and barriers and best</p>



	practices for IPC actions in the three sectors
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(code) Indicator	WP 7.8
Definition	No of 7.4 partner institution representatives attending the Introductory meeting/training workshop.
Justification	Participation vital to understand and implement theoretical frameworks to be used in the WP. The introductory meeting or training workshop serves as a crucial starting point for participants in Task 7.4 to gain essential knowledge, understanding, and skills necessary for their involvement in the project in terms of planning the IPC behaviors change intervention.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Attendance registers or sign-up sheets s available on EU-JAMRAI-2 internal platform
Data collection instrument	Data source on participation, e.g., attendance/sign-up sheet
Responsible	WP7.4 leader
Periodicity of data collection	Once, at the end of the Introductory workshop in October 2024 (M10)
Completion criteria	A representative from all 13 partner institutions attending the Introductory meeting/training workshop. A total of 13 participants.
Acceptance criteria	A representative from 75% (=10 out of 13) of partner institutions attending the Introductory meeting/training workshop.
Observations	Related sub-task: 7.4.1 It is important to monitor participant engagement and address any logistical or content-related issues during the introductory meeting or training workshop to facilitate learning and concrete skill acquisition on how to develop behaviorally informed interventions for IPC

(code) Indicator	WP 7.9
Definition	Number of responses to pilot survey of capability, opportunity and motivational factors relevant to the chosen behavior
Justification	To get the greatest number of answers of a pilot survey to assess capability, opportunity, and motivational factors relevant to a chosen behaviors is essential for understanding the needs of the partners in 7.4 in the light of current framework from ECDC (2013)
Type of indicator	Process
Methodology	Quantitative



Data source(s)	Survey replies available on EU-JAMRAI-2 internal platform
Data collection instrument	Survey pilot survey questionnaire
Responsible	WP7.4 leader
Periodicity of data collection	Once, beginning of project, between workshops 1 and 2, in October-April 2025 (M10-M16). Data collection is finalized by May 2025 (M17).
Completion criteria	100% of partner institutions planning an intervention in WP 7.4 collect responses from their own institutions (100% = minimum of 10 institutions, i.e., one per country)
Acceptance criteria	100% of partners planning an intervention in WP 7.4 response. Partners who do not respond to survey will not be allowed to proceed with the work package
Observations	Survey will also be open to participants in other WP7 centres who are welcome to reply to it. It is important to disseminate the survey as it is the first step in understanding the needs of different institutions in bettering their IPC behaviors’.

(code) Indicator	WP 7.10
Definition	Number of MS in 7.1 beginning to use IPC tools
Justification	To assess the coverage of the implementation activities in 7.1
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Partner feedback on evaluation questionnaire available on EU-JAMRAI-2 internal platform
Data collection instrument	Evaluation questionnaire
Responsible	WP7.1 leader and co-leader-SSI
Periodicity of data collection	Once (Month 44)
Completion criteria	100% of MS in 7.1 who begins using IPC tools
Acceptance criteria	20% (*) of MS in 7.1 who begins using IPC tools
Observations	Related sub-tasks: 7.1.3 (*) As we don’t still know the tools and the degree of participation, this % can change

(code) Indicator	WP 7.11
Definition	No of 7.4 participants attending the second meeting/training workshop



Justification	Attendance at the second meeting /training workshop within Task 7.4 is crucial for participants to continue their engagement and contribute effectively to planning the Behaviour Change intervention.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Attendance registers or sign-in sheets available on EU-JAMRAI-2 internal platform
Data collection instrument	Data source on participation, e.g., attendance sheet
Responsible	WP7.4 leader
Periodicity of data collection	Once, at the end of the second workshop in May 2025 (M17)
Completion criteria	A representative from all 13 (100%) partner institutions of 7.4 participants attending the second meeting/training workshop.
Acceptance criteria	A representative from 80% (11 out of 13) of partner institutions of 7.4 participants attending the second meeting/training workshop
Observations	<p>Related sub-task: 7.4.2</p> <p>During the workshop, participants will apply the results of the behavioural survey from 7.4.2 to develop their own intervention utilizing the Behaviour Change Wheel model. It is important to monitor participant engagement and address any logistical or content-related issues during the introductory meeting or training workshop to facilitate learning and concrete skill acquisition on how to develop and implement behaviorally informed interventions for IPC.</p>

(code) Indicator	WP 7.12
Definition	Number of pilot interventions to improve IPC registered with the task leaders of 7.4
Justification	This indicator assesses the extent to which the partner institutions are piloting behavior change interventions to improve IPC related to 7.4
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Registration records or databases maintained regularly in the period 2025-2026 when interventions are on-going by the task leaders of Task 7.4 available on EU-JAMRAI -2 internal platform
Data collection instrument	Registration form / database
Responsible	WP7.4 leader
Periodicity of data collection	Twice: at the start of the interventions in November/December 2025 (baseline M23/M24) and mid-interventions in August 2026 (M32)



Completion criteria	15 of pilot interventions to improve IPC registered (minimum of one and maximum of two interventions from each partner within 7.4)
Acceptance criteria	15 of pilot interventions to improve IPC registered (At least one intervention from each partner within 7.4)
Observations	Related sub-tasks: 7.4.3 and 7.4.5 Observations of the registration process enable us to detect partners' possible needs for support and may reveal areas for improvement or opportunities to streamline procedures for future initiatives.

(code) Indicator	WP 7.13
Definition	Partners in 7.1 matched together during the event taking place as part of the peer-2-peer exchange program.
Justification	To ensure partners are matched and are given the opportunity to spar with other IPC professionals who are part of the 7.1
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Registration information from the matching event.
Data collection instrument	Registration information from the matching event.
Responsible	WP7.1 leader and co-leader-SSI
Periodicity of data collection	Once at the matching event. M12.
Completion criteria	100%: All partners part of the peer-2-peers exchange program is matched
Acceptance criteria	90% is matched.
Observations	Impact of the matches are key to maximize the effectiveness of the peer-to-peer exchange program.

(code) Indicator	WP 7.14
Definition	% of partners involved in the pilot testing the self-assessment system
Justification	It is important that the partners test the self-assessment tool to evaluate the impact.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Pilot reports available on EU-JAMRAI-2 internal platform



Data collection instrument	Registration information from the pilot projects.
Responsible	WP7.1 leader and co-leader-SSI
Periodicity of data collection	During 2025-2026 when the pilots are to take place. M24 and M36.
Completion criteria	75% of partner countries in 7.1. pilot test the self-assessment system
Acceptance criteria	50% of partner countries in 7.1. pilot test the self-assessment system
Observations	Related sub-task: 7.1.3 Observations made during the pilot activities should be documented and used to inform future iterations of the tool.

(code) Indicator	WP 7.15
Definition	Number of standardized audit protocols on IPC practices in veterinary medicine
Justification	Development/improvement of standardized audit protocols on IPC facilitates harmonization of practices across MS, which is essential for effective disease control and prevention of the spread of AMR within the EU. Having standardized audit protocols allows for benchmarking and comparison of IPC practices between veterinary facilities/farms and across MS.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	TBC: administrators of available protocols/tools Responses on survey distributed among MS partners / reports from MS partners about improving/implementing standardized audit protocols on IPC practices in veterinary medicine, available on EU-JAMRAI 2 internal platform Minutes from WP 7.2 meetings and workshops available on EU-JAMRAI 2 internal platform Protocols/tools or references to these protocols/tools, available on EU-JAMRAI 2 internal platform
Data collection instrument	Survey (through questionnaires, interviews, data templates designed to collect information, ...) distributed among MS partners WP 7.2 meetings and workshops
Responsible	7.2 Task leader
Periodicity of data collection	Periodically, depending on the implementation timeline of tasks Q1Y2 - in parallel with 1 st workshop (M 14) Q3Y4 - in parallel with 2 nd workshop (M 44)



Completion criteria	Target: for each animal sector (4 sectors: companion animals; pigs; cattle; poultry), standardized audit protocols have been established, and 16 MS partners (100% of partners of WP 7.2) have reported on the development/improvement, dissemination and implementation of standardized audit protocols
Acceptance criteria	Target: for each animal sector (4 sectors: companion animals; pigs; cattle; poultry), standardized audit protocols have been established, and 10 MS partners (> 60% of partners of WP 7.2) have reported on the development/improvement, dissemination and implementation of standardized audit protocols The protocols are accepted if they are submitted within the designated timeframe, are complete, and meet the validation and verification standards set by the MS partners, task and WP leaders from WP7.
Observations	Related sub-task: 7.2.1; 7.2.2; 7.2.3; 7.2.4 Milestone No 13 (M20): Workshop on IPC core competencies Milestone No 14 (M36): Results from surveys Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioral insights – a report based upon data from at least half of the countries Monitoring this indicator over time can help in assessing the impact of these protocols on improving IPC outcomes in veterinary medicine

(code) Indicator	WP 7.16
Definition	Number of potential interventions to prevent and control environmental contamination with antibiotic resistant bacteria and antibiotics for which efficiency has been determined from literature
Justification	An overview of the efficiency of the potential interventions to prevent and control environmental contamination enables member states to gain insight into the benefits of interventions executed in other countries to curb emissions of AMR to the environment, and to prioritize interventions. Here, the indicators used by MS as evaluated in task 7.3.1 are evaluated for their efficiency.
Type of indicator	Output
Methodology	Quantitative



Data source(s)	Results of responses on survey distributed among MS partners, available on JAMRAI-2 internal platform Literature review Minutes from WP7.3 meetings
Data collection instrument	Literature review
Responsible	WP7.3 task leaders
Periodicity of data collection	Q3Y2-Q3Y4 – documentation of results in deliverable (M 44)
Completion criteria	100% of indicators identified in task 7.3.1 are complemented with literature data on their efficiency to curb emissions of AMR to the Environment
Acceptance criteria	50% of indicators identified in task 7.3.1 are complemented with literature data on their efficiency to curb emissions of AMR to the environment
Observations	Related sub-task: 7.3.1 Deliverable D7.3 in M44: Highlighted success and barriers and best practices for IPC actions in the three sectors

10.1.8 WP 8 PIE indicators

(code) Indicator	8.1
Definition	Percentage of partner countries that have completed the inventory of national AMR surveillance systems (including phenotypic and genotypic antibiotic resistance markers in humans).
Justification	This indicator measures how many countries that have completed the inventory. The data from the inventory will be the foundation for the continued work with the roadmap and is therefore a vital step in the project.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Survey and questionnaire
Data collection instrument	Questionnaire (likely EU survey)
Responsible	Task leaders for 8.1
Periodicity of data collection	Once (M12)
Completion criteria	> 75% participating countries
Acceptance criteria	75% (15 of 20)
Observations	



(code) Indicator	8.2
Definition	Number of MS/AC participating to the EARS-Vet joint data analysis
Justification	This indicator will evaluate the contribution of 8.2 participating countries to the task 8.2.1, and reflect the coverage of the EARS-Vet network within the EU. We expect an extension of EARS-vet compared to EU-JAMRAI 1 (when the network was initiated).
Type of indicator	Process
Methodology	Quantitative
Data source(s)	EARS-Vet database
Data collection instrument	EARS-Vet report Deliverable 8.2 (M36)
Responsible	WP8.2 leaders
Periodicity of data collection	Once (M24)
Completion criteria	14 countries
Acceptance criteria	12 (85%)
Observations	

(code) Indicator	8.3
Definition	Percentage of partner countries that have completed the inventory of national/regional AMR surveillance systems in the environment
Justification	This indicator measures how many partners complete the inventory. The data from the inventory will be the foundation for the mapping of surveillance systems and selection of methods for harmonized surveillance
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Questionnaire data available on the online data reporting tool (REDCap)
Data collection instrument	Questionnaire
Responsible	WP8.3 task leaders
Periodicity of data collection	Once (M12)
Completion criteria	16
Acceptance criteria	> 10 participating countries



Observations	
(code) Indicator	8.4
Definition	Number of MS/AC that mapped their national surveillance systems in the three sectors (human, animal, environment)
Justification	This indicator will evaluate the efforts of participating countries to comprehensively map their surveillance system in the three sectors, which an important step and pre-requisite to evaluate their One Health-ness and produce One Health reports of surveillance data
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Questionnaire data available on the online data reporting tool (REDCap)
Data collection instrument	Questionnaire Milestone 16 (M12)
Responsible	WP8.4 leaders
Periodicity of data collection	Once (M18)
Completion criteria	17
Acceptance criteria	13 (80%)
Observations	

(code) Indicator	8.5
Definition	Number of MS/AC that participate in the EARS-Env pilot (task 8.3.2)
Justification	The pilot serves to analyse whether the methods of surveillance are applicable in all partner countries
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Data collected as part of task 8.3.2
Data collection instrument	EARS-Env data collection protocol
Responsible	Task 8.3 leaders
Periodicity of data collection	Once (M44)
Completion criteria	16 (participants of WP8.3)



Acceptance criteria	>10 participating countries
Observations	

(code) Indicator	8.6
Definition	Number of MS/AC that evaluated the One Health-ness of their national surveillance systems in the three sectors (human, animal, environment)
Justification	This indicator will evaluate the commitment of participating countries to contribute to task 8.2, which is an important step to facilitate the generation of One Health reports
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Evaluation reports available on the EU-JAMRAI 2 online platform
Data collection instrument	Evaluation reports
Responsible	Task 8.4 leaders
Periodicity of data collection	Once (M24)
Completion criteria	17
Acceptance criteria	13
Observations	

10.1.9 WP 9 PIE indicators

(code) Indicator	9.1
Definition	Number of countries participating in 1:1-meetings with WPL
Justification	This indicator demonstrates that the countries are in the process of identifying national priority products to focus on within WP9, and are able to get support from WPL.
Type of indicator	Process
Methodology	Teams or in-person meetings with participants from each participating country with at least one WPL
Data source(s)	Minutes from each meeting. Data will be available on the EU-JAMRAI 2 online data reporting tool (REDCap)
Data collection instrument	EU-JAMRAI 2 minutes template
Responsible	WP9



Periodicity of data collection	M12
Completion criteria	11 countries have participated in 1:1-meetings
Acceptance criteria	9 countries have participated in 1:1-meetings
Observations	n/a

(code) Indicator	9.2
Definition	Percentage of participants are satisfied or extremely satisfied with WP9 workshop or meeting
Justification	This indicator demonstrates that the content of the workshop was useful and pertinent to WP9 participants and other stakeholders
Type of indicator	Output
Methodology	Quantitative post-workshop survey
Data source(s)	Post-workshop survey data available on the EU-JAMRAI 2 online data reporting tool (REDCap)
Data collection instrument	Post-workshop survey
Responsible	WP9 (based upon a survey template from WP3)
Periodicity of data collection	Annually (after each workshop), at least once per year (M12, M24, M36, M46).
Completion criteria	>75 % of participants have answered that they were either “satisfied” or “extremely satisfied” with the WP9 workshop or meeting
Acceptance criteria	>50 % of participants have answered that they were either “satisfied” or “extremely satisfied” with the WP9 workshop or meeting
Observations	n/a



(code) Indicator	9.3
Definition	Number of countries having identified priority products to focus on in WP9, published on the EU-JAMRAI 2 website
Justification	This indicator demonstrates that countries are making progress towards the goals of WP9, i.e., strengthening access to select products. This indicator demonstrates that countries have selected their focus products.
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Multiple sources depending on participating countries national context; data, dialogue-meetings, e-mail correspondence, etc. Data will be available on the EU-JAMRAI 2 online platform DELIVERABLE 9.1 (M6) / MILESTONE 18 (M6)
Data collection instrument	WP9 Product Selection Template, which is an Excel-sheet developed within the scope of WP9 that serves as a practical tool to assist with identifying and selecting national priority product (human and veterinary) by evaluating certain product-related factors.
Responsible	WP9
Periodicity of data collection	Monthly (after August 2024)
Completion criteria	10 countries or more have a list of products on the EU-JAMRAI 2 website
Acceptance criteria	>5 countries or more have a list of products on the EU-JAMRAI 2 website
Observations	n/a



10.1.10 WP 10 PIE indicators

(code) Indicator	WP10.1 Organization of workshops with the communicators group
Definition	N° of workshops organized with the communicators group
Justification	To promote interaction and long-lasting relationships among the group members
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Documents related of workshops organized. Minutes available on EU-JAMRAI 2 online internal platform.
Data collection instrument	Assistance list; agenda, minutes available on EU-JAMRAI 2 online internal platform
Responsible	WP10 leader
Periodicity of data collection	Before M16/ Before M28/ Before M40
Completion criteria	4 workshops organized
Acceptance criteria	At least 3 workshops organized
Observations	Related task: 10.1 (sub-task 10.1.4)

(code) Indicator	WP10.2 Develop evidence-based materials and messages for each target audience
Definition	N° of new evidence-based materials and key messages developed for each public target
Justification	Grounded in the necessity to provide tailored and relevant information to distinct audience segments. Development of new materials and key messages ensures that communication efforts address specific needs, preferences, and characteristics of each public target.
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Report based on study(s) results and conclusions available on EU-JAMRAI 2 online internal platform.
Data collection instrument	Report based on study(s) results and conclusions available on EU-JAMRAI 2 online internal platform
Responsible	WP10 leader
Periodicity of data collection	M24, M36, M46



Completion criteria	2 new materials using the new key messages created for each target audience (health care professionals, animal health professionals, general public)
Acceptance criteria	2 new materials using the new key messages created for each target audience (health care professionals, animal health professionals, general public)
Observations	Related task: 10.2 (sub-task 10.2.2) This indicator underscores the importance of tailoring communication efforts to the characteristics and preferences of each public target audience through the development of new materials and key messages, with evidence based.

(code) Indicator	WP10.3 Promote the completion of the ESCMID IPC and/or stewardship courses
Definition	N° of communications about the ESCMID IPC and the stewardship courses
Justification	To contribute to healthcare professionals training in IPC and stewardship, promotion of the completion of the ESCMID IPC and/or stewardship courses among healthcare professionals and EUJAMRAI participants is needed
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Records of the ESCMID IPC and the stewardship courses promotional materials and communications available on EU-JAMRAI 2 online internal platform
Data collection instrument	Newsletter Social Media channels
Responsible	WP10 Leader
Periodicity of data collection	M12/M24/M36/M48
Completion criteria	12 communications about the ESCMID IPC and the stewardship courses (3 per year)
Acceptance criteria	At least 8 communications about the ESCMID IPC and the stewardship courses (2 per year) available on EU-JAMRAI 2 online internal platform
Observations	Related task: 10.2 (sub-task 10.2.2)

(code) Indicator	WP10.4 Promotion of the Antibiotic Resistance Symbol - “Ambassadors”
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Definition	% of participating countries with ambassador wearing the symbol in a public event or promoting it in social media
Justification	With the aim of popularizing the use of the Antibiotic Resistance Symbol, promotion through events and “ambassadors” of the Antibiotic Resistance Symbol developed in EU-JAMRAI 1 is needed
Type of indicator	Process
Methodology	Quantitative
Data source(s)	List of ambassadors wearing the symbol in a public event or promoting it in social media available on EU-JAMRAI -2 internal platform???
Data collection instrument	Graphic materials and/or links of the ambassadors wearing the symbol available on EU-JAMRAI -2 internal platform
Responsible	WP10 leader
Periodicity of data collection	Permanent until the end of the JA
Completion criteria	100% of participating countries have one ambassador wearing the symbol in a public event or promotes it in social media
Acceptance criteria	At least 80% of participating countries have one ambassador wearing the symbol in a public event or promoting it in social media
Observations	Related task: 10.2 (sub-task 10.2.3)

(code) Indicator	WP10.5 Promotion of the Antibiotic Resistance Symbol - Digital and social media promotions
Definition	N° of campaigns of digital and social media promotions in participating countries
Justification	With the aim of popularizing the use of the Antibiotic Resistance Symbol launching digital and social media campaigns promoting the symbol is required
Type of indicator	Process
Methodology	Quantitative
Data source(s)	Report of campaigns available on EU-JAMRAI -2 internal platform
Data collection instrument	Social Media channels Website
Responsible	WP10 leader
Periodicity of data collection	M24/M36/M48
Completion criteria	3 paid digital and social media promotions in all participating countries
Acceptance criteria	3 paid digital and social media promotions in at least 80% of participating countries



Observations	Related task: 10.2 (sub-task 10.2.3)
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(code) Indicator	WP10.6 Study to identify barriers in schools
Definition	Design and conduction of the study on the identification of barriers in schools
Justification	To identify barriers and potential facilitators to reach and raise awareness on AMR among primary, secondary and University students. This study will also identify better ways to reach them and organize focus groups to test the existing materials on the target audience.
Type of indicator	Process
Methodology	Qualitative
Data source(s)	Study available on EU-JAMRAI internal platform
Data collection instrument	Study available on EU-JAMRAI internal platform
Responsible	WP10 Leader and task leader
Periodicity of data collection	M19
Completion criteria	The study is developed and available
Acceptance criteria	The study is developed and available
Observations	Related task: 10.3 (sub-task 10.3.1) This indicator highlights the importance of examining the challenges and opportunities associated with implementing AMR awareness initiatives in educational centers.

(code) Indicator	WP10.7 Micro-Combat social media promotions
Definition	N° of social media promotions for Micro-combat created
Justification	To amplify the impact of this activity among primary and secondary students and facilitate the teaching of AMR through gamification
Type of indicator	Process
Methodology	Quantitative
Data source(s)	WP10 leaders
Data collection instrument	EU-JAMRAI Social Media channels
Responsible	WP10 leaders
Periodicity of data collection	M24/M36/M48
Completion criteria	3 campaigns for Micro-combat created and promoted through the social media channels



Acceptance criteria	At least 2 campaigns for Micro-combat created and promoted through the social media channels
Observations	Related task: 10.3 (sub-task 10.3.3)

(code) Indicator	WP10.8 Creation of the awareness-raising Campaigns
Definition	N° of awareness-raising campaigns developed per target audience
Justification	Raise awareness on AMR among different targets audiences requires development of the awareness-raising campaigns on different channels
Type of indicator	Output
Methodology	Quantitative
Data source(s)	Register of awareness-raising campaigns available on EU-JAMRAI 2 online internal platform
Data collection instrument	Social Media channels Website
Responsible	WP10 leader
Periodicity of data collection	M24/M36/M48
Completion criteria	6 campaigns developed: 2 campaigns per year (starting second year) for two different public targets in all the participating countries.
Acceptance criteria	6 campaigns developed: 2 campaigns per year (starting second year) for two different public targets in all the participating countries.
Observations	Related task: 10.2 (sub-task 10.2.2) Target audiences: health care professionals, animal health professionals, general public, etc.



10.2 Annex 2: IA indicators

10.2.1 WP2 IA Indicators

(code) Indicator	2.14 Number of events (JA dissemination)
Definition	Number of events where JA is disseminated (general information or presentation of results)
Justification	To promote the JA and the dissemination of the outcomes in high profile events.
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	EU-JAMRAI 2 Work packages and task leaders
Data collection instrument	List of events attended
Responsible	WP2 leader
Periodicity of data collection	M12, M24, M36, M46
Completion criteria	At least 15 events per year where EU-JAMRAI 2 is disseminated
Acceptance criteria	At least 15 events per year where EU-JAMRAI 2 is disseminated
Observations	Related subtasks: 2.4

(code) Indicator	2.15 Average number of visits to JA website
Definition	Average number of yearly visits to JA external website
Justification	To assess the updated status and the content production dynamics of EU-JAMRAI 2 website
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	EU-JAMRAI 2 website
Data collection instrument	Google Analytics
Responsible	WP2 leader
Periodicity of data collection	M12, M24, M36, M48
Completion criteria	Reach 15.000 users by M24. Getting an increase of 10% in M36 and M48.
Acceptance criteria	Reach 15.000 users by M24. Getting an increase of 5% in M36 and M48.
Observations	Related task: 2.2



(code) Indicator	2.16 Estimated audience reached by EU-JAMRAI 2 social media channels
Definition	Number of followers of EU-JAMRAI 2 on social media
Justification	Engaging the target audience with dissemination content is essential for ensuring the effectiveness and impact of the communication efforts.
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Report on estimated audience reached. Standard metrics of dissemination channels
Data collection instrument	Social Media Channels analytics
Responsible	WP2 leaders
Periodicity of data collection	M12, M24, M36, M48
Completion criteria	Reach 5000 followers on EU-JAMRAI 2 social media channels (Facebook, Instagram, Twitter, YouTube and LinkedIn) by M12. increase with project development. Getting an increase of 8% per year on the number of followers.
Acceptance criteria	Reach 5000 followers on EU-JAMRAI 2 social media channels (Facebook, Instagram, Twitter, YouTube and LinkedIn) by M12. increase with project development. Getting an increase of 5% per year on the number of followers.
Observations	Related task: 2.4; These indicators will be defined and measured by DECO. Information on audience preferences and behaviours trends in engagement levels over time are factors influencing engagement and opportunities to optimise outreach strategies and content to improve audience engagement.

(code) Indicator	2.17 Press releases
Definition	Number of press releases disseminated
Justification	Dissemination of results and relevant information of the JA among the media
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Press releases available on EU-JAMRAI 2 internal platform (Teams) and published on external website



Data collection instrument	EU-JAMRAI 2 external website
Responsible	WP2 leaders
Periodicity of data collection	M12, M24, M36, M46
Completion criteria	8 press releases (2 per year)
Acceptance criteria	At least 4 press releases (1 per year)
Observations	Related task: 2.4 (sub-task 2.4.2)

(code) Indicator	2.18 Perception of the impact of EU-JAMRAI 2 results
Definition	Level of perception that EU-JAMRAI 2 results have impact in policy, scientific, and industrial forums
Justification	Level of perception that EU-JAMRAI 2 results have impact in policy, scientific, and industrial forum. A positive perception of the results demonstrates an efficient EU-JAMRAI 2 dissemination strategy.
Type of indicator	Impact
Methodology	Qualitative
Data source(s)	EU-JAMRAI 2 results from the different WPs
Data collection instrument	Surveys/Interviews
Responsible	WP2 leaders
Periodicity of data collection	At the end of the project
Completion criteria	>75% of respondents agree that EU-JAMRAI 2 has a positive impact
Acceptance criteria	>60% of respondents agree that EU-JAMRAI 2 has a positive impact
Observations	

10.2.2 WP 4 IA indicators

(code) Indicator	4.4
Definition	Integration of EU-JAMRAI 2 outputs in the NAPs: Number of countries that updated or plan to update their NAP and/or policies with EU-JAMRAI 2 outcomes
Justification	The need of improvement of the national/subnational policies and actions
Type of indicator	Impact
Methodology	Quantitative or qualitative



Data source(s)	Surveys' data available on online data reporting tool (REDCap)
Data collection instrument	Surveys conducted among liaison officers using EU-JAMRAI 2 Teams group
Responsible	WP4
Periodicity of data collection	Once (M40)
Completion criteria	>20 of countries have updated their NAP or have implemented at least one policy listed in the survey, based on EU-JAMRAI 2 outcomes
Acceptance criteria	>15 of countries have updated their NAP or have implemented at least one policy listed in the survey, based on EU-JAMRAI 2 outcomes
Observations	

10.2.3 WP 5 IA indicators

(code) Indicator	5.4
Definition	Number of JA outputs or identified best practices that were incorporated into NAPs or AMR One Health policy areas
Justification	Countries are adopting elements (outputs, toolkits, instruments, best practices, policy briefs) from the JA with the aim of optimizing, operationalizing or implementing NAPs or AMR One Health Policies
Type of indicator	Impact
Methodology	Quantitative
Data source(s)	Policy analysis, completed surveys, policy briefs etc.
Data collection instrument	Incorporated output reports available in EU-JAMRAI 2 online internal platform (Teams)
Responsible	WP5
Periodicity of data collection	M8 - M45
Completion criteria	At least one major output was integrated into the NAP or AMR Policies of more than 20 countries
Acceptance criteria	At least one major output was integrated into the NAP or AMR Policies of more than 15 countries
Observations	



10.2.4 WP 6 IA indicators

(code) Indicator	WP 6.10 Indicator 3 EU framework for ASP in human health
Definition	3 consensus documents on EU framework for ASP in human health
Justification	A structured consensus procedure involving country representative's is necessary to be performed after survey on ASP implementation in order to reach agreement in 3 settings (Deliverables of the sub-task 6.1.1)
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	3 consensus documents on EU framework for ASP in human health on EU-JAMRAI-2 internal platform and EU-JAMRAI website
Data collection instrument	Publication of deliverable documents D6.1 on EU-JAMRAI website (3 reports – 1 for hospital, 1 for primary care, 1 for LTCFs)
Responsible	WP 6.1 Leaders
Periodicity of data collection	M44
Completion criteria	D6.1 European framework for ASP in human health for hospitals, primary care and for LTCFs is developed and available on EU-JAMRAI website
Acceptance criteria	D6.1 European framework for ASP in human health for hospitals, primary care and for LTCFs is developed and available on EU-JAMRAI website
Observations	Related sub-task: 6.1.1; related deliverable: D6.1 European framework for ASP in human health for hospitals, primary care and for LTCFs (M44)

(code) Indicator	WP 6 .11 Indicator 6 EU-JAMRAI 2 expert network
Definition	Number of EU JAMRAI 2 MS participating in the AMS European Network
Justification	Participating in the network are key to reinforce the cooperation between countries, and to favour the operability, sustainability and follow-up of activities under sub-tasks 6.1.1 and 6.1.2
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Participants database available in EU-JAMRAI-2 internal platform and EU-JAMRAI-2 website
Data collection instrument	Participants database



Responsible	WP 6.1 Leaders
Periodicity of data collection	M45
Completion criteria	80% of countries (27 EU MS + 3 non-EU MS (Iceland, Norway, Ukraine) participates in the AMS European expert network on M45
Acceptance criteria	50% of countries (27 EU MS + 3 non-EU MS (Iceland, Norway, Ukraine) participates in the AMS European expert network on M45
Observations	Related sub-task: 6.1.3

(code) Indicator	WP 6 .12 Scientific articles on antimicrobial stewardship (AMS) programs in animal health
Definition	Scientific articles on AMS programs in animal health in food producing animals (FPA) and companion animals (CA)
Justification	Scientific articles will be the result of a comprehensive review of the initiatives and guidance documents already implemented on AMS programs in animal health (FPA and CA) that will allow to know the “state-of-art” on the topic. This indicator is the first of three to provide the tools for the development and implementation of AMS programs within the Joint Action
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Versions (drafts and final) of scientific articles available at EU-JAMRAI working platform
Data collection instrument	EU-JAMRAI internal platform (Teams)
Responsible	WP 6.2 leaders: Cristina Muñoz (cmunoz@aemps.es), María J. Vilar (mvilar_externo@aemps.es), Els Broens (E.M.Broens@uu.nl), Isaura Wayop (I.Y.A.wayop@uu.nl) WP 6 Spanish liason: Marta Gutierrez (mgutierrez_externo@aemps.es)
Periodicity of data collection	Once, M18 (June 2025)
Completion criteria	Scientific articles on AMS programs in animal health uploaded into the EU-JAMRAI working platform



Acceptance criteria	Agreement from 80% of WP 6.2 contributors to upload scientific articles into the EU-JAMRAI platform and to submit them to open access journal
Observations	Related sub-task: 6.2.1; Related deliverable: D6.2 (M44). Number of partners/contributors involved in WP6.2: 21 institutions

(code) Indicator	WP 6 .13 Report on core-elements and competencies for AMS programs in animal health
Definition	Report with a summary of the main findings of a workshop to collect non-published inputs on core-elements and core-competencies for AMS in animal health
Justification	At the workshop, discussions and collaborative work at the workshop will allow to identify the core-elements and core-competencies on AMS and Infection, Prevention, and Control (IPC). Data obtained from the comprehensive review (indicator 1) will guide discussions. This indicator is the second of three to provide the tools for the development and implementation of AMS programs within the Joint Action.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Agenda, minutes, and conclusions (main findings) of the workshop will be available at EU-JAMRAI working platform
Data collection instrument	EU-JAMRAI internal platform (Teams)
Responsible	WP 6.2 leaders: Cristina Muñoz (cmunoz@aemps.es), María J. Vilar (mvilar_externo@aemps.es), Els Broens (E.M.Broens@uu.nl), Isaura Wayop (I.Y.A.wayop@uu.nl) WP 6 Spanish liason: Marta Gutierrez (mgutierrez_externo@aemps.es)
Periodicity of data collection	Once, M18 (June 2025)
Completion criteria	Report with the summary of main findings of the workshop uploaded into EU-JAMRAI working platform



Acceptance criteria	Agreement from 80% of WP 6.2 contributors to upload the report of the main findings and conclusions into the EU-JAMRAI platform
Observations	Related sub-task: 6.2.1 and 6.2.2; Related milestone M10 (M18); Related deliverable: D6.2 (M44); Workshop jointly organized with WP7.2 Number of partners/contributors involved in WP6.2: 21 institutions,

(code) Indicator	WP 6.14 Guidelines to develop and implement AMS programs in animal health
Definition	Documents with guidelines for development and implementation of AMS program in animal health for FPA and CA
Justification	Data obtained from the comprehensive review and the main findings of the workshop will be the basis to recommend AMS programs. Written guidelines for AMS programs will support the development and implementation of AMS programs in Europe. This indicator is the third of three to provide the tools for the development and implementation of AMS programs with the Joint Action.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Scientific articles, Report of the workshop and Guidelines available at EU-JAMRAI working platform.
Data collection instrument	EU-JAMRAI internal platform (Teams)
Responsible	WP 6.2 leaders: Cristina Muñoz (cmunoz@aemps.es), María J. Vilar (mvilar_externo@aemps.es), Els Broens (E.M.Broens@uu.nl), Isaura Wayop (I.Y.A.wayop@uu.nl) WP 6 Spanish liason: Marta Gutierrez (mgutierrez_externo@aemps.es)
Periodicity of data collection	Once, M42 (June 2027)
Completion criteria	Guidelines for AMS programs in animal health for FPA and CA uploaded into the EU-JAMRAI working platform



Acceptance criteria	Agreement from 80% of WP 6.2 contributors to upload the guidelines into the EU-JAMRAI.
Observations	Related sub-task: 6.2.1 and 6.2.2; Related deliverable: D6.2 Guidelines with core-elements and participants in a stewardship program in FPA and CA (M44)

(code) Indicator	WP 6.15
Definition	Target Audience Identification Report
Justification	It serves as a tangible indicator of progress in the early stages of T6.3. During this stage, it is imperative to identify the target audiences for the training program at both the national and EU levels. Furthermore, the report ensures inclusivity by involving at least three representatives per country among those engaged in T6.3 activities.
Type of indicator	Outcome
Methodology	Qualitative. Initially, a survey will be disseminated among participants involved in T6.3 to collect data regarding the framework of AMS in the environment within their respective countries. Subsequently, the gathered responses will undergo thorough analysis, and the findings will be compiled into a comprehensive document. Additional information will be incorporated as needed to enrich the analysis and ensure the completeness of the report.
Data source(s)	T6.3 participants; Survey; Bibliographic databases
Data collection instrument	EU-JAMRAI-2 internal platform
Responsible	T6.3 Task Leaders -> Liaisons: Marta Gutierrez (AEMPS), Lida Politi (NPHO), Technical Coordinators: Ane Laburu (AEMPS), Maria Tseroni (NPHO), Leonidas Georgalis (NPHO)
Periodicity of data collection	Once (M10)
Completion criteria	Submission of the Target Identification Report, available at the EU-JAMRAI-2 internal platform
Acceptance criteria	Submission of the Target Identification Report, available at the EU-JAMRAI-2 internal platform
Observations	This indicator is related to sub-task 6.3.1. It constitutes an early-stage activity that contributes to both the milestone (MS Number 11 Training plan/assessment) and the deliverable (D6.4 – Pilot training program for AMS in the environment).



(code) Indicator	WP 6.16
Definition	Pilot training assessment report
Justification	The assessment of the pilot training is crucial for enhancing the quality of the final toolkit by identifying strengths and areas for improvement in it.
Type of indicator	Outcome
Methodology	Qualitative. The preliminary assessment strategy will be planned as part of Milestone 6.2 by month 18, followed by the development of assessment tools between months 19 and 24. Subsequently, the pilot test will be conducted alongside the implementation of the designed assessment tools from months 25 to 36. Finally, the analysis of collected data will be synthesized into an assessment report.
Data source(s)	Results obtained from participants involved in the pilot test
Data collection instrument	EU-JAMRAI-2 internal platform
Responsible	T6.3 Task Leaders -> Liaisons: Marta Gutierrez (AEMPS), Lida Politi (NPHO), Technical Coordinators: Ane Laburu (AEMPS), Maria Tseroni (NPHO), Leonidas Georgalis (NPHO)
Periodicity of data collection	Once (M48)
Completion criteria	Submission of the Pilot Training Assessment Report, available at the EU-JAMRAI-2 internal platform
Acceptance criteria	Submission of the Pilot Training Assessment Report, available at the EU-JAMRAI-2 internal platform
Observations	This outcome indicator is related to sub-task 6.3.4. It constitutes an assessment report, which includes a description of the used assessment tools, collected data, conclusions and a proposal for improvement measures.

10.2.5 WP 7 IA indicators

(code) Indicator	WP 7.17
Definition	Number of MS partners improving /implementing guidelines and recommendations for applying IPC at EU level in veterinary medicine



Justification	This indicator assesses the extent to which Member States are improving /implementing guidelines and recommendations for applying IPC at EU level in veterinary medicine. Assessing MS efforts in improving/implementing recommendations in veterinary medicine ensures the protection of both veterinary and public health by reducing the risk of infectious disease transmission. By assessing the uptake of IPC ‘good practices’ among MS, this indicator provides insights into the effectiveness and impact of the EU-JAMRAI 2 project over time.
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Responses on survey distributed among MS partners / reports from MS partners about improving/implementing IPC guidelines and recommendations in animal production settings and companion animals, available on EU-JAMRAI 2 internal platform Minutes from WP 7.2 meetings and workshops available on EU-JAMRAI 2 internal platform
Data collection instrument	Survey (through questionnaires, interviews, data templates designed to collect information, ...) distributed among MS partners WP 7.2 meetings and workshops
Responsible	7.2 Task leader
Periodicity of data collection	Periodically, depending on the implementation timeline of tasks Q1Y2 - in parallel with 1 st workshop (M 14) Q3Y4 - in parallel with 2 nd workshop (M 44)
Completion criteria	30 MS partners (100% of partners of WP 6.2 and WP 7.2) are improving / implementing guidelines and recommendations for applying IPC in veterinary medicine
Acceptance criteria	At least 19 MS partners (> 60% of partners of WP 6.2 and WP 7.2) are improving / implementing guidelines and recommendations for applying IPC in veterinary medicine
Observations	Related sub-task: 7.2.1; 7.2.2; 7.2.3; 7.2.4 Milestone No 13 (M20): Workshop on IPC core competencies Milestone No 14 (M36): Results from surveys Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level



	<p>Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioural insights – a report based upon data from at least half of the countries</p> <p>Regular review and refinement of the completion and acceptance criteria are essential to ensure the indicator effectively captures progress towards enhancing infection prevention and control in EU veterinary medicine.</p>
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(code) Indicator	WP 7.18
Definition	Number of MS partners improving /implementing IPC tools in animal production settings
Justification	This indicator assesses the extent to which Member State are improving /Implementing IPC tools in animal production settings. Implementing IPC tools in animal production settings is crucial for reducing the overuse and misuse of antimicrobials, thereby mitigating the emergence and spread of AMR. Monitoring the adoption of IPC tools allows the EU-JAMRAI 2 project to track progress in AMR mitigation efforts within the livestock sector. By tracking progress in implementing IPC tools, the EU-JAMRAI 2 project can ensure that animal health regulations are being followed and identify areas where additional enforcement or support may be needed.
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	TBC: administrators of available protocols/tools Responses on survey distributed among MS partners / reports from MS partners about improving/implementing IPC tools in animal production settings, available on EU-JAMRAI 2 internal platform Minutes from WP 7.2 meetings and workshops available on EU-JAMRAI 2 internal platform
Data collection instrument	Survey (through questionnaires, interviews, data templates designed to collect information, ...) distributed among MS partners WP 7.2 meetings and workshops
Responsible	7.2 Task leader
Periodicity of data collection	Periodically, depending on the implementation timeline of tasks Q1Y2 - in parallel with 1 st workshop (M 14) Q3Y4 - in parallel with 2 nd workshop (M 44)
Completion criteria	16 MS partners (100% of partners of WP 7.2) are improving / Implementing IPC tools in animal production settings
Acceptance criteria	At least 10 MS partners (> 60% of partners of WP 7.2) are improving / Implementing IPC tools in animal production settings



Observations	Related sub-task: 7.2.1; 7.2.2; 7.2.3; 7.2.4
	Milestone No 13 (M20): Workshop on IPC core competencies
	Milestone No 14 (M36): Results from surveys
	Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level
	Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioural insights – a report based upon data from at least half of the countries
	Regular review and refinement of the completion and acceptance criteria are essential to ensure the indicator effectively captures progress towards enhancing infection prevention and control in EU veterinary medicine.

(code) Indicator	WP 7.19
Definition	Number of MS partners adopting Education programmes for vets and farmers to achieve high-level of theoretical and practical knowledge on IPC practices
Justification	This indicator assesses the extent to which Member States are adopting Education programmes for vets and farmers. By assessing the adoption of Education programmes by MS, veterinarians and farmers are supported to adhere to best practices and standards, thereby enhancing the quality of disease prevention and reducing the need for antimicrobial therapy. Assessing the adoption of these programmes ensures that the latest advancements and recommendations in IPC are effectively disseminated and applied in (veterinary) practice, fostering a culture of continuous learning and improvement.
Type of indicator	Outcome
Methodology	Quantitative



Data source(s)	TBC: administrators of Education programmes Responses on survey distributed among MS partners / reports from MS partners about implementing Education programmes and organizing educational activities (face-to-face meetings / training, webinars,), available on EU-JAMRAI 2 internal platform Minutes from WP 7.2 meetings and workshops available on EU-JAMRAI 2 internal platform Training material and references to Education programmes, available on EU-JAMRAI 2 internal platform
Data collection instrument	Survey (through questionnaires, interviews, data templates designed to collect information, ...) distributed among MS partners WP 7.2 meetings and workshops
Responsible	7.2 Task leader
Periodicity of data collection	Periodically, depending on the implementation timeline of tasks Q1Y2 - in parallel with 1 st workshop (M 14) Q3Y4 - in parallel with 2 nd workshop (M 44)
Completion criteria	30 MS partners (100% of partners of WP 6.2 and WP 7.2) are adopting Education programmes for vets and farmers
Acceptance criteria	At least 19 MS partners (> 60% of partners of WP 6.2 and WP 7.2) are adopting Education programmes for vets and farmers
Observations	Related sub-task: 7.2.1; 7.2.2; 7.2.3; 7.2.4 Milestone No 13 (M20): Workshop on IPC core competencies Milestone No 14 (M36): Results from surveys Deliverable No D7.3 (M44): EU requirements for IPC in IPC / biosecurity in veterinary medicine – a guidance document with recommendations for implementing IPC in veterinary medicine at EU level Deliverable No D7.4 (M44): Highlighted success and barriers and best practices for IPC actions in the three sectors with behavioral insights – a report based upon data from at least half of the countries This indicator helps identify which Member States are prioritizing veterinary and farmer education in IPC and AMS practices. It provides insight into the global capacity for effective veterinary IPC/AMS, indicating regions that may need additional support or resources. Monitoring this indicator can reveal trends and the effectiveness of Education programmes over time, contributing to improved IPC/AMS outcomes in veterinary medicine.

(code) Indicator	WP 7.20
Definition	Number of member states (MS) participating in implementation of the behaviors change pilot tool



Justification	This indicator assesses the extent to which Member States are piloting BC interventions to improve IPC. The pilot tool to monitor the implementation of core components of IPC programs is an essential component of the EU-JAMRAI project and it is aimed to increase the awareness of the importance of monitoring the implementation of the IPC programs
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Institution's responsible for the implementation of the Pilot tool implementation records from the behavior change pilot tool available on EU-JAMRAI-2 internal platform
Data collection instrument	Registries from institution(s) responsible for the implementation
Responsible	WP7.4 leader
Periodicity of data collection	End of the interventions, March 2027 (M39)
Completion criteria	100% MS participating in WP7.4 (100% = 10 MS)
Acceptance criteria	80% of MS participating in WP7.4 (80% = 8 MS)
Observations	Related sub-tasks: 7.4.3 and 7.4.4

10.2.6 WP 8 IA indicators

(code) Indicator	8.7
Definition	Percentage of partner countries that have used the inventories and roadmap to identify their own next step/steps to develop their national capacity/ surveillance system for AMR in human sector.
Justification	This indicator will measure if partner countries uses the EU-JAMRAI 2 work to improve their own AMR surveillance systems.
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Survey and questionnaire
Data collection instrument	Questionnaire (likely EU survey)
Responsible	Task leaders for 8.1
Periodicity of data collection	Once (M36)
Completion criteria	> 75% participating countries identifying at least one point of improvement/next step
Acceptance criteria	75% (15 of 20)
Observations	



(code) Indicator	8.8
Definition	Number of MS/AC that have produced a One Health surveillance report
Justification	This indicator will evaluate the ultimate goal of task 8.4 activities which is to have a AMR/AMC One Health surveillance report in each participating country
Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	One Health reports available on the EU-JAMRAI 2 online platform (Teams)
Data collection instrument	One Health reports
Responsible	WP8.4 leaders
Periodicity of data collection	Once (M44)
Completion criteria	17
Acceptance criteria	8
Observations	



10.2.7 WP 9 IA indicators

(code) Indicator	9.4
Definition	Number of countries that have identified national barriers and proposed interventions to improve national access to select products
Justification	This indicator demonstrates that countries are making progress towards the goals of WP9, i.e., strengthening access to select products. This indicator demonstrates that countries have defined interventions targeted toward their unique needs and selected products and are working toward implementation.
Type of indicator	Outcome
Methodology	Country progress report
Data source(s)	Country progress reports available on EU-JAMRAI 2 online platform
Data collection instrument	EU-JAMRAI 2 website
Responsible	WP9
Periodicity of data collection	Monthly (after January 2025)
Completion criteria	8 countries or more have a list of national barriers and/or proposed interventions on the EU-JAMRAI 2 website
Acceptance criteria	>5 countries or more have a list of national barriers and/or proposed interventions on the EU-JAMRAI 2 website
Observations	



(code) Indicator	9.5
Definition	Guide (updated and validated by the 14 participating countries) to assist countries with identifying products with high risk to leave markets made available on the EU-JAMRAI 2 website and disseminated in collaboration with WP2.
Justification	This indicator demonstrates a method to identify products with high risk of leaving markets, which has been validated and updated based on feedback from participating countries using it. When made public other countries, not part of EU-JAMRAI 2 WP9, could use the guide too and learn from the collective experiences of the participating countries on how to identify high-risk products nationally.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Available evidence on factors that affect access to AMR-related products
Data collection instrument	Written reports and presentations on the topic. Oral or written feedback from participating countries in WP9 after use of the guide to select their priority products. Data will be available on the EU-JAMRAI 2 online platform (Teams)
Responsible	WP9 (in collaboration with WP2)
Periodicity of data collection	M6
Completion criteria	100 %
Acceptance criteria	100 %
Observations	n/a



(code) Indicator	9.6
Definition	Number of countries having documented their work in a report (local language and English)
Justification	<p>This indicator aims to document the sharing of the national experiences and progress made to other countries, that are able to learn through the documented actions of the participating countries.</p> <p>Topics included in the report will be product selection process, selected products, identified barriers, identification and evaluation of potential interventions, and progress on implementation to improve national access to selected products. Participating countries present their own report to the respective ministry.</p>
Type of indicator	Impact
Methodology	Qualitative report
Data source(s)	Country reports, will be available on the EU-JAMRAI 2 online platform (Teams) DELIVERABLE 9.2 (M44)
Data collection instrument	WP9 report template
Responsible	WP9
Periodicity of data collection	M44
Completion criteria	Published reports from 7 countries or more in local language and English on the EU-JAMRAI 2 website
Acceptance criteria	Published reports from >5 countries or more in local language and English on the EU-JAMRAI 2 website
Observations	n/a



10.2.8 WP 10 IA indicators

(code) Indicator	WP10.9 Creation of the awareness-raising plan
Definition	Awareness-raising plan designed
Justification	Strategy to disseminate information about the Joint Action both to general public and stakeholders, as well as to ensure the promotion of the project outcomes and results amongst the targeted audiences.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Awareness-raising plan available on EU-JAMRAI 2 online internal platform
Data collection instrument	Document with the plan available on EU-JAMRAI 2 online internal platform
Responsible	WP10 Leader
Periodicity of data collection	M15
Completion criteria	The Plan is developed and available for partners and selected stakeholders on EU-JAMRAI 2 internal platform
Acceptance criteria	The Plan is developed and available for partners and selected stakeholders on EU-JAMRAI 2 internal platform
Observations	<p>Related tasks: 10.1 (sub-task 10.1.1); Deliverable D10.1 Awareness raising plan and a MS/AC group of AMR communicators (M15)</p> <p>This indicator provides a qualitative assessment of the process of designing an awareness-raising plan, focusing on the justification behind its development, the methodology used, responsible parties, and criteria for completion and acceptance</p> <p>This document will serve as a compass to guide the work of WP10 and will be updated according to the needs identified throughout the implementation of the planned activities.</p>

(code) Indicator	WP10.10 Micro-Combat dissemination
Definition	N° of downloads of the Micro-Combat game App
Justification	To facilitate the teaching of AMR through gamification, dissemination of the Micro-Combat game App through the schools and parents will be done



Type of indicator	Outcome
Methodology	Quantitative
Data source(s)	Report of App downloads available on EU-JAMRAI internal platform
Data collection instrument	Google and Apple store reports available on EU-JAMRAI internal platform.
Responsible	WP10 leader
Periodicity of data collection	M36/M48
Completion criteria	4000 downloads
Acceptance criteria	4000 downloads
Observations	Related task: 10.3 (sub-task 10.3.2)



(code) Indicator	WP10.11 Creation of an MS/AC group of communicators for AMR
Definition	EU One Health communication group created with representatives from partners, Member States and other international initiatives
Justification	A group of communicators for AMR with representatives from all EU-JAMRAI participating countries will be needed to support EU-JAMRAI campaigns and activities design and implementation ensuring: 1) adaptation to the local needs of each country; 2) local dissemination; 3) Impact monitoring.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Constitution of EU One Health communication group Directory, available on EU-JAMRAI 2 internal platform
Data collection instrument	WP10 will show WP3 the database built during the project (it cannot be published at the website because of the confidentiality of the data).
Responsible	WP10 Leader
Periodicity of data collection	M12, M24, M34, M48
Completion criteria	AMR communicators database created and available in a private folder on EU-JAMRAI -2 internal platform. 100% of participant countries with representation.
Acceptance criteria	AMR communicators database created and available on EU-JAMRAI -2 internal platform. At least, 80% of participant countries with representation.
Observations	Related task: 10.1 (sub-task 10.1.2) It was identified that too many countries do not have COM specialists in their NAPs so it is better to leave this indicator open and do not restrict it to NAP Communicators.



(code) Indicator	WP10.12 Creation of an MS/AC group of educators for AMR
Definition	MS/AC group of educators created
Justification	The creation of a MS/AC group of educators is needed in order to conduct focus groups and studies to develop materials for children and disseminate the materials among teachers and students.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Directory of a MS/AC group of educators available on EU-JAMRAI 2 internal platform
Data collection instrument	WP10 will show WP3 the database built during the project (it cannot be published at the website because of the confidentiality of the data).
Responsible	WP10 leaders
Periodicity of data collection	Permanent until the end of the JA
Completion criteria	AMR educator's database created and available on EU-JAMRAI -2 internal platform. 100% of participant countries with representation.
Acceptance criteria	AMR educator's database created and available in a private folder on EU-JAMRAI -2 internal platform. At least, 80% of participant countries with representation.
Observations	Related task: 10.1 (sub-task 10.1.3)

(code) Indicator	WP10.13 Debate educational Kit dissemination
Definition	Debate educational Kit disseminated in participating countries languages.
Justification	To facilitate the teaching of AMR during school hours promoting critical thinking. Debate kit reviewed with the conclusions of the Study to identify barriers and facilitators in schools; translated to the languages of all participating countries; shared with the NAPs of all participating countries, the Educators Networks and other teachers' network and available to download on EU-JAMRAI website.
Type of indicator	Outcome
Methodology	Qualitative



Data source(s)	Report of Educators Network available on EU-JAMRAI internal platform
Data collection instrument	List of countries with distribution among NAPs of debate education kit translated in their country language among NAPs.
Responsible	WP10 leaders
Periodicity of data collection	M36/M46
Completion criteria	NAPs of all participating countries have the debate kit in their country language.
Acceptance criteria	NAPs of 80% of participating countries have the debate kit in their country language.
Observations	Related task: 10.3 (sub-task 10.3.2)

(code) Indicator	WP10.14 Micro-Combat EU competition
Definition	The organization of an EU competition with high school students, including a prize.
Justification	The organization of competitions at European level will allow reaching some of the target audiences and achieving their engagement with the Joint Action objectives.
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Report after the competition (including information about the contest, participants, and winners) available on EU-JAMRAI internal platform
Data collection instrument	List of schools participating available on EU-JAMRAI internal platform
Responsible	WP10 Leaders
Periodicity of data collection	M35
Completion criteria	EU competition with high school students organized and report available on EU-JAMRAI internal platform
Acceptance criteria	EU competition with high school students organized and report available on EU-JAMRAI internal platform
Observations	Related task: 10.3 (sub-task 10.3.3)

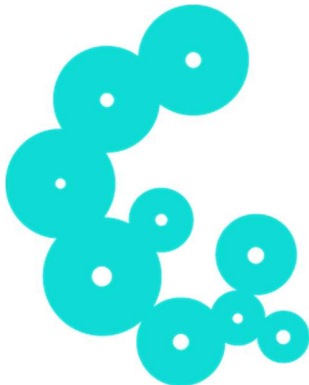


(code) Indicator	WP10.15 Escape-room experience
Definition	Escape-room experience to help sensitize participants on AMR created.
Justification	To facilitate the teaching of AMR through gamification, creation of an Escape-room experience is required
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	Graphic materials and instructions available on EU-JAMRAI internal platform
Data collection instrument	Graphic materials and instructions available on EU-JAMRAI internal platform
Responsible	WP10 leaders
Periodicity of data collection	M36
Completion criteria	Report of the results available on EU-JAMRAI internal platform
Acceptance criteria	Report of the results available on EU-JAMRAI internal platform
Observations	Related task: 10.3 (sub-task 10.3.3)

(code) Indicator	WP10.16 EU E-library
Definition	EU E-library with AMR contents and lessons created.
Justification	To reach better healthcare students, a creation of an EU E-library with AMR contents and lessons, which aims to produce and disseminate different modules among EU universities is needed
Type of indicator	Outcome
Methodology	Qualitative
Data source(s)	EU E-library with AMR contents and lessons
Data collection instrument	EU E-library platform analytics
Responsible	WP10 leaders
Periodicity of data collection	M39



Completion criteria	EU E-library with AMR contents and lessons created and report about it is available on EU-JAMRAI internal platform
Acceptance criteria	EU E-library with AMR contents and lessons created and report about it is available on EU-JAMRAI internal platform
Observations	Related task: 10.3 (sub-task 10.3.4)



EU- JAMRAI

Joint Action
Antimicrobial Resistance and
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EU-JAMRAI 2 partners involved in the elaboration of this document:



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