Food and Agriculture Organization of the United Nations

WORLD ORGANISATION FOR ANIMAL HEALTH

World Health Organization

15 February 2021

Dear Colleagues,

On behalf of the Tripartite organizations, the Food and Agricultural Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), and the World Health Organization (WHO), we are pleased to share with you the fifth round of the Tripartite AMR Country Self-assessment Survey (TrACSS).

To ensure effective tracking of country progress in addressing antimicrobial resistance (AMR), we would urge the national AMR focal points in all countries to fully engage all the relevant sectors to help complete the questionnaire. It is also an opportunity to convene a meeting of the national Multisectoral Coordination Group on AMR to assess national progress and provide a consolidated response to the survey that is approved by all the relevant sectors.

Despite the challenges faced in 2020 due to the COVID-19 pandemic, 136 countries responded to last year's survey. Information from the fourth round of the TrACSS, including the list of countries that responded, was also published in a Global Analysis Report- Monitoring Global Progress on AMR (https://www.who.int/activities/monitoring-progress-antimicrobial-resistance).

We seek your continued support in completing and submitting responses to the fifth round of TrACSS. The data from the fourth and fifth rounds of TrACSS will be used for the first global report on AMR which will be published jointly by the Tripartite organizations in 2021 and contribute to the monitoring of various multisectoral indicators of the Tripartite monitoring and evaluation framework[1] of the Global Action Plan on AMR.

We request you to submit one consolidated country response coordinated by the national AMR focal point by the deadline of 31 May 2021. For any additional questions or clarifications, or for support regarding the questionnaire, please write to: tracss@who.int. We will provide the results of the survey, including country reports, at https://amrcountryprogress.org/ in late 2021.

We thank you for your strong efforts to implement and monitor multisectoral national action plans on AMR in your country. Various tools and guidance documents developed by the Tripartite relevant to each question have been included in the ANNEX to the accompanying guidance note. Through our joint efforts we can help address one of the greatest challenges to human and animal health, food security, livelihoods, and economic growth, and that impacts a number of Sustainable Development Goals.

Sincerely,

Ms Maria Helena M.Q. Semedo Deputy Director-General Climate and Natural Resources **FAO – Headquarters**	Dr Matthew Stone, Deputy Director General International Standards and Science **OIE - Headquarters**	Dr Hannan Balkhy Assistant Director-General AMR Division **WHO – Headquarters**

[1] https://www.who.int/publications/i/item/monitoring-and-evaluation-of-the-global-action-plan-on-antimicrobial-resistance

Tripartite AMR Country Self-assessment Survey (TrACSS)

Deadline for Submission: 31 May, 2021

Version 5.0

Introduction

The Global Action Plan on Antimicrobial Resistance (AMR)[2] was adopted in 2015 by all countries through decisions in the World Health Assembly, the Food and Agriculture Organization of the United Nations (FAO) Governing Conference and the World Assembly of World Organisation for Animal Health (OIE) Delegates. Countries agreed to have a national action plan on AMR that is consistent with the Global Action Plan, and to implement relevant policies and plans to prevent, control and monitor AMR. To monitor country progress in the implementation of the national actions plans, an annual Tripartite AMR country self-assessment survey (TrACSS) has been jointly administered by FAO, OIE and WHO since 2016.

The results of the previous four rounds of country self-assessment surveys (2016/17, 2017/18, 2018/19, 2019/2020) are available at https://amrcountryprogress.org/

Process of completing the questionnaire: Information on the process for completing the questionnaire is available in the Guidance Note (*https://www.who.int/publications/m/item/tripartite-amr-country-self-assessment-survey-(tracss)-2020-2021*). It is important that countries involve a multi-sectoral group in assessing national progress and provide consolidated responses agreed by all. Many countries have found that the process of completing the questionnaire is a useful review of progress for the national action plan (NAP) implementation team.

Each country is asked to submit one official response, validated by all involved sectors, which summarizes national progress. The national response should be submitted using the online questionnaire. One access key will be sent through WHO to the Ministry of Health, to ensure only one version of the questionnaire is submitted per country.

Focal points from FAO and OIE in the countries will also receive a soft copy of the questionnaire to facilitate the completion of relevant sections of the questionnaire and to coordinate closely with the national AMR focal point to ensure they are accurately reflected in the final submission.

Responses are requested by 31 May 2021. Data will be analyzed and published in late 2021.

Structure of the questionnaire: The questionnaire has 5 sections: section one requests key contact details, information on progress with multi-sectoral working on AMR, and information on completing a multi-sectoral national action plan on AMR. The next three sections cover progress on the first four strategic objectives in the Global Action Plan on AMR. The questions cover areas of human health, animal health and production aspects, plant production, the environment, and food safety concerns. The final section covers

[2] WHO, 2015, http://www.who.int/antimicrobial-resistance/publications/global-action-plan/en/. The Global Action Plan was developed by WHO with the support of FAO and OIE.

national assessment of risks for AMR spread in the environment and pollution control and legislations to prevent environmental contamination with antimicrobials. Strategic objective 5 of the global action plan is equally important, but this data will be collected through other channels.

Countries that have only recently started to develop their response to AMR may not be able to respond to all the questions (especially, questions towards the end of each section and concerning the environment and surveillance capacity in the food sector); partial responses are acceptable. In this case, we would encourage you to please complete the mandatory questions, and any other questions that you can respond to and then submit your Country response. If the response needs to be amended after submission, please contact tracss@who.int. We also request you, where feasible, to provide links to national documents, reports, legislations and policies. You are also invited to add additional comments in some sections.

Responses will only be accepted via the unique online link provided to each national AMR focal point.

The questionnaire was developed jointly between WHO, FAO and OIE, with WHO coordinating this annual global monitoring process. WHO will act as liaison point with FAO and OIE at global, regional and national levels. If there are questions on the process or the questionnaire, please contact Pravarsha Prakash in WHO at tracss@who.int.

Questions marked with * are mandatory.

ATTENTION: Please involve the AMR multi-sectoral group and all relevant sectors to assess national progress and provide a consolidated response that is agreed by all. Many countries have found that the process of completing this questionnaire is a useful mechanism for national authorities to convene a meeting of all relevant sectors, and review progress in the implementation of their national action plan (NAP) on AMR. **Each country is asked to submit one official response, validated by all involved sectors, which summarizes national progress.**

Name of country* …… **Date of completion …….**

1. Name and email of-existing AMR focal points for relevant sectors:

Human Health Name ……Email…….

Animal Health (terrestrial and aquatic) Name……..Email…….

Plant Health Name……Email…….

Food Production Name……Email…….

Food Safety Name…… Email……..

Environment Name……Email……

Animal Production (including feed) Name …….. Email……

2. Details of person(s) who coordinated the national response to this self-assessment*

Name…….Title ……..Email……

Name…….Title ……..Email……

Name…….Title ……..Email……

3. 1 Name and email of AMR Focal point in WHO country or regional office

Name……..Email……..

3.2 Name and email of AMR Focal Point in FAO country or regional office

Name……..Email……..

3.3 Name and email of OIE National Focal Point on veterinary products

Name……..Email……..

4. Multi-sectoral approach to addressing AMR*

Please select one rating that most closely matches the country situation.

		 **4.1 Multi-sector and One Health collaboration/coordination[3]**
O	**A**	No formal multi-sectoral governance or coordination mechanism on AMR exists.
O	**B**	Multi-sectoral working group(s) or coordination committee on AMR established with Government leadership.
O	**C**	Multi-sectoral working group(s) is (are) functional, with clear terms of reference, regular meetings, and funding for working group(s) with activities and reporting/accountability arrangements defined.
O	**D**	Joint working on issues including agreement on common objectives.
O	**E**	Integrated approaches used to implement the national AMR action plan with relevant data and lessons learned from all sectors used to adapt implementation of the action plan.

4.2 Which sectors are actively involved in developing and implementing the AMR National Action Plan? (multiple choice)

- Human Health
- Animal Health (terrestrial and aquatic)
- Plant Health
- Food Production
- Food Safety
- Environment

5. Country progress with development of a national action plan on antimicrobial resistance (AMR)

Please select one rating that most closely matches the country situation.

		 **5.1 Country progress with development of a national action plan on AMR*[4]**
O	**A**	No national AMR action plan.
O	**B**	National AMR action plan under development.
O	**C**	National AMR action plan developed.
O	**D**	National AMR action plan being implemented.
O	**E**	National AMR action plan being implemented and actively monitored through a monitoring and evaluation framework.

5.1.1 If you wish to provide a status update on the development and/or delivery of your national AMR action plan. Please provide comments or links here:

[3] https://www.who.int/antimicrobial-resistance/publications/workingpaper1multisectoralcoordinationAMR/en/

[4] https://www.who.int/antimicrobial-resistance/national-action-plans/manual/en/

5.2 Is your country's national action plan on AMR linked to any other existing action plans, strategies or targets? *

- Yes.

If so, please select the relevant item (mark all diseases that are relevant):

  - HIV
  - Tuberculosis
  - Malaria
  - Neglected tropical diseases
  - Sexually Transmitted Diseases (STIs)
  - Water, Sanitation and Hygiene (WASH)
  - Immunization
  - National action plan on health security
  - National Environmental plans
  - National Food Safety and/or food security strategy and policies

- No

5.2.1 Has you AMR National Action Plan development and implementation process been affected by the COVID-19 pandemic and the national response in your country?

- Yes.

  If so, please select the relevant item (multiple choice):

  - **Governance and administrative impacts**: AMR NAP Committee meetings deferred; reduced government funding for addressing AMR available; prioritization of COVID19 response; staff deputized to work on COVID19 response.
  - **Operational impacts**: awareness campaigns deferred; monitoring and data collection activities impacted; technical capacity building activities deferred; planned technical activities postponed; increased antibiotics use from human disease burden; regulations on antibiotic consumption and use not enforced.
  - **Other**: Please specify ……

- No

Additional Comments: Please provide information and examples of implementation of AMR activities in your country that were strengthened and continued despite COVID-19

5.3 If you have published your AMR national action plan, please upload here…….....

If you wish to share a link to the AMR national action plan, please insert here……

Or, if you wish to share via email, please send to tracss@who.int.

5.4 Country legislations on antimicrobial use*

 **5.4 Country legislations on antimicrobial use**	
Country **has laws or regulations** on prescription and sale of antimicrobials for human use.	☐ Yes ☐ No ☐ Don't know
Country **has laws or regulations** on prescription and sale of antimicrobials for animal use.	☐ Yes ☐ No ☐ Don't know
Country **has laws or regulations** that prohibits the use of antibiotics for growth promotion in the absence of risk analysis.	☐ Yes ☐ No ☐ Don't know
Country **has legislation** on marketing of pesticides including antimicrobial pesticides, such as bactericides and fungicides used in plant production.	☐ Yes ☐ No ☐ Don't know

If you wish to share the relevant legislation, please upload here……

If you wish to share a link to the relevant legislation, please insert here……

Or, if you wish to share via email, please send to tracss@who.int.

6. Country progress on Strategic Objective 1: Improve awareness and understanding of AMR through effective communication, education and training.

Please select the rating (A-E) for each question that most closely matches the country situation. Please note that for each question, higher ratings are expected to have achieved the progress level covered in lower ratings (e.g. countries selecting "D" should have achieved progress listed in both "B" and "C" as well as "D"). For questions covering multiple sectors, please select the appropriate rating for each sector separately, as indicated.

		 **6.1 Raising awareness and understanding of AMR risks and response *[5]**
O	**A**	No significant awareness-raising activities on relevant aspects of risks of antimicrobial resistance.
O	**B**	Some activities in parts of the country to raise awareness about risks of antimicrobial resistance and actions that can be taken to address it.
O	**C**	Limited or small-scale antimicrobial resistance awareness campaign targeting some but not all relevant stakeholders.
O	**D**	Nationwide, government-supported antimicrobial resistance awareness campaign targeting all or the majority of priority stakeholder groups, based on stakeholder analysis, utilizing targeted messaging accordingly within sectors.
O	**E**	Targeted, nationwide government-supported activities regularly implemented to change behavior of key stakeholders within sectors, with monitoring undertaken over the last 2-5 years.

6.1.1 For the level selected above, please indicate the extent of involvement of the sectors below.

- Human Health:
  - ☐ this sector is a main focus for activities
  - ☐ some activities done in this sector
  - ☐ this sector not involved
- Animal Health (terrestrial and aquatic) :
  - ☐ this sector is a main focus for activities,
  - ☐ some activities done in this sector
  - ☐ this sector not involved
- Plant Health :
  - ☐ this sector is a main focus for activities,
  - ☐ some activities done in this sector
  - ☐ this sector not involved
- Food Production :
  - ☐ this sector is a main focus for activities,
  - ☐ some activities done in this sector
  - ☐ this sector not involved
- Food Safety :
  - ☐ this sector is a main focus for activities,
  - ☐ some activities done in this sector

[5] World Antibiotic Awareness Week Toolkit | WHO: https://www.who.int/campaigns/world-antimicrobial-awareness-week/2020; https://who.canto.global/v/AntimicrobialResistance/folder/M0FHE?display=fitView&viewIndex=0&gSortingForward=false&gOrderProp=uploadDate&from=fitView

- ☐ this sector not involved

- Environment
  - ☐ this sector is a main focus for activities,
  - ☐ some activities done in this sector
  - ☐ this sector not involved

		6.2 Training and professional education on AMR in the human health sector[6]
O	**A**	No training for human health workers on AMR.
O	**B**	Ad hoc AMR training courses in some human health related disciplines.
O	**C**	AMR is covered in 1) some pre-service training and in 2) some in-service training or other continuing professional development (CPD) for human health workers.
O	**D**	AMR is covered in pre-service training for all relevant cadres. In-service training or other CPD covering AMR is available for all types of human health workers nationwide.
O	**E**	AMR is systematically and formally incorporated in pre-service training curricula for all relevant human health cadres. In-service training or other CPD on AMR is taken up by relevant groups for human health nationwide, in public and private sectors.

		6.3 Training and professional education on AMR in the veterinary sector[7]
O	**A**	No training of veterinary related professionals (veterinarians and veterinary paraprofessionals) related to AMR.
O	**B**	Ad hoc AMR training courses available for veterinary related professionals.
O	**C**	AMR and prudent use of antimicrobial agents are covered in core curricula for graduating veterinarians and for veterinary paraprofessionals in some educational institutions.
O	**D**	Continuing professional training on antimicrobial resistance and antimicrobial use is available nationwide for veterinary related professionals.
O	**E**	AMR is systematically and formally incorporated in curricula for graduating veterinarians and veterinary paraprofessionals and continuing professional training is a formal requirement.

		6.4 Training and professional education on AMR provided to the farming (animal and plant), food production, food safety and the environment sectors
O	**A**	No training provision on AMR for key stakeholders, e.g. agricultural extension workers, farmers, food safety officers, food and feed processors and retailers, environmental specialists.
O	**B**	Tailored ad hoc AMR training courses available for at least two groups of key stakeholders.
O	**C**	Tailored ad hoc AMR training courses are available for all or the majority of key stakeholders.
O	**D**	Tailored AMR training courses are routinely available nationwide for all key stakeholders and completion of training is a formal requirement for at least two groups of key stakeholders.

[6] WHO Competency Framework for Health Workers' Education and Training on Antimicrobial Resistance & Curricula Guide
https://www.who.int/hrh/resources/WHO-HIS-HWF-AMR-2018.1/en/
https://apps.who.int/iris/bitstream/handle/10665/329380/9789241516358-eng.pdf

[7] https://www.oie.int/en/solidarity/options-for-targeted-support/veterinary-and-veterinary-paraprofessional-education/

O	**E**	Tailored AMR training courses are routinely available nationwide and completion of training is a formal requirement for all key stakeholders.

6.4.1 If you wish to add additional comments on training/professional education for specific sectors (farming, food production, food safety, environment), please insert here:

6.5 Progress with strengthening veterinary services

O	**A**	No systematic approach at national level to strengthening Veterinary Services.
O	**B**	Veterinary services assessed and plans developed to improve capacity, through a structured approach such as OIE Performance of Veterinary Services (PVS) Evaluation and PVS Gap Analysis missions.
O	**C**	Implementation of plan to strengthen capacity gaps in Veterinary Services underway.
O	**D**	Monitoring of Veterinary Services performance carried out regularly, e.g. through PVS Evaluation Follow Up missions.
O	**E**	Documented evidence of strong capacity in compliance with OIE standards on the quality of Veterinary Services[8].

[8] http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_vet_serv.htm

7. Country progress on Strategic Objective 2: Strengthen the knowledge and evidence base through surveillance and research.

Please select one rating for each question that most closely matches the country situation.

		7.1 National monitoring system for consumption and rational use of antimicrobials in human health
O	**A**	No national plan or system for monitoring use of antimicrobials.
O	**B**	System designed for surveillance of antimicrobial use, that includes monitoring national level sales or consumption of antibiotics in health services.
O	**C**	Total sales of antimicrobials are monitored at national level and/or some monitoring of antibiotic use at sub-national level.
O	**D**	Prescribing practices and appropriate antibiotic use are monitored in a national sample of healthcare settings.
O	**E**	On a regular basis (every year/two years) data is collected and reported on: a) Antimicrobial sales or consumption at national level for human use; and b) Antibiotic prescribing and appropriate/rational use, in a representative sample of health facilities, public and private.

7.2 National monitoring system for antimicrobials intended to be used in animals (terrestrial and aquatic) (sales/use)

A: Do you have a national plan or system in place for monitoring sales/use of antimicrobials in animals?	☐ yes ☐ no ☐ don't know
b: Do you submit AMU data to the OIE Database on Antimicrobial agents intended for use in animals?	☐ yes ☐ no ☐ don't know

Only If yes, please answer 7.2 c.

		7.2 c Reporting Options
O	**A**	OIE Reporting Option: Baseline On a regular basis, baseline information is reported to the OIE
O	**B**	OIE Reporting option 1 On a regular basis, data is collected and reported to the OIE on the overall amount sold for use/used in animals by antimicrobial class, with the possibility to separate by **type of use.**
O	**C**	OIE Reporting option 2 On a regular basis, data is collected and reported to the OIE on the overall amount sold for use/used in animals by antimicrobial class, with the possibility to separate by **type of use and animal group**.
O	**D**	OIE Reporting option 3 On a regular basis, data is collected and reported to the OIE on the overall amount sold for use/used in animals by antimicrobial class, with the possibility to separate by **type of use, animal group and route of**

		administration.
O	**E**	Data on antimicrobials used under veterinary supervision in animals are available for individual animal species.

7.3 National monitoring system for antimicrobial- pesticide use in plant production including bactericides and fungicides

O	**A**	No national plan or system for monitoring use of pesticides including antimicrobial pesticides such as bactericides and fungicides used for controlling bacteria or fungal diseases[9].
O	**B**	Plan agreed for monitoring quantities of pesticides including antimicrobial pesticides such as bactericides and fungicides used for controlling bacteria or fungal diseases.
O	**C**	Data collected and reported on total quantity of pesticides including antimicrobial pesticides such as bactericides and fungicides sold/ used nationally for controlling bacteria or fungal diseases.
O	**D**	On a regular basis, data is collected and reported on quantity of pesticides including antimicrobial pesticides such as bactericides and fungicides sold/used in plant production for controlling bacteria or fungal diseases, disaggregated by class of active ingredient and plant type/species.

7.4 National surveillance system for antimicrobial resistance (AMR) in humans

O	**A**	No capacity for generating data (antibiotic susceptibility testing and accompanying clinical and epidemiological data) and reporting on antibiotic resistance.
O	**B**	AMR data is collated locally for common bacterial infections in hospitalized and community patients [10], but data collection may not use a standardized approach and lacks national coordination and/or quality management.
O	**C**	AMR data are collated nationally for common bacterial infections in hospitalized and community patients, but national coordination and standardization are lacking.
O	**D**	There is a standardized national AMR surveillance system collecting data on common bacterial infections in hospitalized and community patients, with established network of surveillance sites, designated national reference laboratory for AMR,, and a national coordinating centre producing reports on AMR.
O	**E**	The national AMR surveillance system links AMR surveillance with antimicrobial consumption and/or use data for human health[11].

[9] Pesticides applied to plants include bactericides and fungicides, which may impact development of resistance in bacteria on plants or in the surrounding environment. The impact this has in respect to the overall burden of pesticide resistance, contribution to AMR and impact on human and animal health, and indeed on our ability to treat plant diseases, is an important area of research. Note that the terminology commonly used for chemicals or products in plant health varies from that applied in animal and human health, as reflected in the wording of this question.

[10] Community patients would be in many instances outpatients or those patients within 48 hours of admission in line with GLASS definition.

[11] The term *consumption* refers to estimates that are derived from aggregated data sources, mainly sales data, and serves as proxy for actual use of antibiotics.

Data on antibiotic *use* refers to estimates derived from individual level data, and may be accompanied by information on patient characteristics and

7.4.1 AMR National Laboratory System structure in human health – Capacity and quality		
Are the majority of bacteriology laboratories in the public health sector part of a National Laboratory network?		☐ yes ☐ no ☐ don't know
Does a regulatory authority to certify/accredit bacteriology laboratories exist?		☐ yes ☐ no ☐ don't know
Only answer if responded Yes to previous question Does the regulatory authority provide accreditation based on International Standards for Bacteriology Laboratories (e.g ISO)?		☐ yes ☐ no ☐ don't know

Additional Comments:
If feasible, provide numbers of human health laboratories in the national system performing bacteriology analysis in
a) public sector:_____
b) private sector:_____
Additional Comments:
If feasible, provide numbers of laboratories that are accredited in
a) public sector:___ b) private sector:____

7.4.2 National AMR Laboratory network in human health

a) Diagnostic (bacteriology) techniques used by laboratories included in the AMR surveillance system

O	**A**	Information not available.
O	**B**	The National Reference Laboratory (NRL) and/or the National Regulatory Authority (NRA) has not agreed and approved national guidelines for AST (e.g CLSI or EUCAST), bacterial isolation and identification protocols
O	**C**	The NRL and/or NRA have issued national guidelines, based on international standards for AST (e.g CLSI or EUCAST), bacterial isolation and identification for use within the bacteriology laboratory network.
O	**D**	The NRL and/or NRA have issued national guidelines for AST (e.g CLSI or EUCAST), bacterial isolation and identification for use within the bacteriology laboratory network and National Reference Laboratory participates in an international external quality assurance.
O	**E**	The National Reference Laboratory supports the bacteriology laboratory network in identification of pathogens and AMR through a systematic approach to cascade training and supportive supervision and it has established a National External Quality Assurance program provided to the national bacteriology laboratory network.

indication of treatment.

		7.5 (a) National surveillance system for antimicrobial resistance (AMR) in animals (terrestrial and aquatic)
O	**A**	No national plan for an AMR surveillance system.
O	**B**	National plan for AMR surveillance in place in place but capacity (including laboratory and reporting) is lacking.
O	**C**	Some AMR data is collected but a standardized approach is not used. National coordination and/or quality management is lacking.
O	**D (if selected D, move to 7.5 b)**	Priority pathogenic/ commensal bacterial species have been identified for surveillance Data systematically collected and reported on levels of resistance in at least one of those bacterial species, involving a laboratory that follows quality management processes e.g. proficiency testing.
O	**E (if selected E, move to 7.5 b)**	National system of AMR surveillance established for priority animal pathogens, zoonotic and commensal bacterial isolates which follows quality assurance processes in line with intergovernmental standards. Laboratories that report for AMR surveillance follow quality assurance processes.

Please answer this next question **only** if you have selected either D or E to 7.5 (a) (check all that apply)

	7.5 (b) AMR surveillance is routinely undertaken in animals for the following categories:
O	Animal (terrestrial and/or aquatic) isolates linked to animal disease.
O	Zoonotic pathogenic bacteria
O	Commensal isolates
O	Specific resistance phenotypes such as ESBL producing indicator E.coli obtained from healthy animals in key food producing species

		7.5 (c) National surveillance system for antimicrobial resistance (AMR) in food (animal and plant origin)
O	**A**	No national plan for an AMR surveillance system.
O	**B**	National plan for AMR surveillance in place but capacity (including laboratory and reporting) is lacking.
O	**C**	Some AMR data is collected - but a standardized approach is not used. National coordination and/or quality management is lacking.
O	**D [If selected move to 7.5d]**	Priority food borne pathogenic/ indicator bacterial species have been identified for surveillance. Data systematically collected and reported on levels of resistance in at least one of those bacterial species, involving a laboratory that follows quality management processes e.g. proficiency testing.
O	**E [If selected move to 7.5d]**	National system of AMR surveillance established for priority foodborne pathogens and/or relevant indicator bacteria which follows quality assurance processes in line with intergovernmental standards. Laboratories that report for AMR surveillance follow quality assurance processes.

Please answer this next question **only** if you have selected either D or E to 7.5 (c)

7.5 (d) AMR surveillance is systematically undertaken in food (animal and plant origin) in the following categories:		
A	**Food borne pathogenic bacteria**	Animal origin: ☐ yes ☐ no Plant origin: ☐ yes ☐ no
B	**Indicator bacteria**	Animal origin: ☐ yes ☐ no Plant origin: ☐ yes ☐ no

7.6 Is the country using relevant antimicrobial consumption/use and/or antimicrobial resistance data to amend national strategy and/or inform decision making, at least annually?

If yes, for which sector/s

- Human Health
- Animal Health (terrestrial and aquatic)
- Plant Health
- Food Production
- Food Safety
- Environment

7.6.1 1 Has the country established or starting the implementation of an Integrated Multisectoral Surveillance System including Antimicrobial Resistance and Antimicrobial consumption/use?

If yes, involving which sector/s

- Human Health
- Animal Health (terrestrial and aquatic)
- Plant Health
- Food Production
- Food Safety
- Environment

7.7 National AMR Laboratory network in animal health and food safety sectors+

+includes laboratories that process samples from food producing terrestrial and aquatic animals and from food; countries which also have a national programme for AMR surveillance in plant health and/or the environment should include these laboratories too.

a) Effective integration of laboratories in the AMR surveillance in the animal health and food safety sectors		
O	**A**	Information not available.
O	**B**	Laboratories perform antimicrobial susceptibility testing (AST) for own purposes and are not included in the national AMR surveillance system.
O	**C**	Some laboratories performing AST are integrated in the national AMR surveillance system.
O	**D**	All laboratories performing AST are integrated in the AMR surveillance system but the role should be better formalized and the network better and developed.
O	**E**	All laboratories performing AST are integrated in the national AMR surveillance system, have a clear position, and are linked to a national network coordinated by a National Reference Laboratory.
b) Level of the standardization and harmonization of procedures among laboratories included in the AMR surveillance system in the animal health and food safety sectors		
O	**A**	Information not available.
O	**B**	No standardized national AST guidelines are in place or Less than 30% laboratories follow the same AST guidelines.
O	**C**	Between 30% to 79% of laboratories follow the same AST guidelines.
O	**D**	Between 80% and < 100% of laboratories use the same AST guidelines.
O	**E**	100% of laboratories use the same AST guidelines.
c) Relevance of diagnostic (bacteriology) techniques used by laboratories included in the AMR surveillance system in the animal health and food safety sectors		
O	**A**	Information not available.
O	**B**	AST, bacterial isolation and identification protocols are not relevant considering the national AMR surveillance objectives.
O	**C**	Major modifications in the AST, bacterial isolation and identification protocols used are required to improve their adaptation to national AMR surveillance objectives.
O	**D**	Minor modifications in the AST, bacterial isolation and identification protocols used would improve their adaptation to the national AMR surveillance objectives.
O	**E**	AST, bacterial isolation and identification protocols are perfectly suited to the national AMR surveillance objectives.
d) Technical level of data management of the laboratory network in the AMR surveillance system in the animal health and food safety sectors		
O	**A**	Information not available.
O	**B**	AST data are handled manually, or AST data management is not computerized in all laboratories of the network and/or there are problems in the recording of the samples and their traceability along the analysis chain.
O	**C**	Most laboratories of the network use computers to manage part of their data but important improvements in the system are required.
O	**D**	Some minor improvements are required in some laboratories of the network to improve the computerized management of AMR laboratory data (sample input procedures, sample storage information, computerized transmission of data, etc.…).
O	**E**	All laboratories use ongoing optimal data management (e.g. samples and test results are identified using a complete computerized management system covering each step in the analysis chain, including the storage of epidemiological information, data validation protocol and the computerized transmission of results, conforming perfectly to the requirements of the national AMR surveillance system).

8. Country progress on <u>Strategic Objective 3</u>: Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures.

Please select one rating for each question that most closely matches the country situation.

8.1 Infection Prevention and Control (IPC) in human health care

O	**A**	No national IPC programme or operational plan is available.
O	**B**	A national IPC programme or operational plan is available. National IPC and water, sanitation and hygiene (WASH) and environmental health standards exist but are not fully implemented.
O	**C**	A national IPC programme and operational plan are available and national guidelines for health care IPC are available and disseminated. Selected health facilities are implementing the guidelines, with monitoring and feedback in place.
O	**D**	National IPC programme available according to the WHO IPC core components guidelines[12] and IPC plans and guidelines implemented nationwide. All health care facilities have a functional built environment (including water and sanitation), and necessary materials and equipment to perform IPC, per national standards.
O	**E**	IPC programmes are in place and functioning at national and health facility levels according to the WHO IPC core components guidelines. Compliance and effectiveness are regularly evaluated and published. Plans and guidance are updated in response to monitoring.

8.2 Good health, management and hygiene practices to reduce the use of antimicrobials and minimize development and transmission of AMR in animal production (terrestrial and aquatic)

O	**A**	No systematic efforts to improve good production practices.
O	**B**	Some activities in place to develop and promote good production practices.
O	**C**	National plan agreed to ensure good production practices in line with international standards (e.g. OIE Terrestrial and Aquatic Codes, Codex Alimentarius). Nationally agreed guidance for good production practices developed, adapted for implementation at local farm and food production level.
O	**D**	Nationwide implementation of plan to ensure good production practices and national guidance published and disseminated.
O	**E**	Implementation of the nation-wide plan is monitored periodically.

8.3 Good management and hygiene practices to reduce the development and transmission of AMR in food processing

O	**A**	No systematic efforts to improve good management and hygiene practices.
O	**B**	Some activities in place to develop and promote good management and hygiene practices.

[12] WHO Guidelines on core components of IPC programmes at the national and acute health care facility level, http://www.who.int/infection-prevention/publications/core-components/en/
https://www.who.int/infection-prevention/campaigns/ipc-global-survey-2019/en/

O	**C**	National plan agreed to ensure good management and hygiene practices in line with international standards (e.g. Codex Alimentarius). Nationally agreed guidance for good practices developed, and adapted for implementation according to local food processing approaches.
O	**D**	Nationwide implementation of plan to ensure good management and hygiene practices and national guidance published and disseminated.
O	**E**	Implementation of the nation-wide plan is monitored periodically.

9. Country progress on Strategic Objective 4: Optimize the use of antimicrobials in human, animal and plant health.

Please select one rating for each question that most closely matches the country situation.

		9.1 Optimizing antimicrobial use in human health [13]
O	**A**	No/weak national policies for appropriate use.
O	**B**	National policies for antimicrobial governance developed for the community and health care settings.
O	**C**	Practices to assure appropriate antimicrobial use being implemented in some healthcare facilities and guidelines for appropriate use of antimicrobials available.
O	**D**	Guidelines and other practices to enable appropriate use are implemented in most health facilities nationwide. Monitoring and surveillance results are used to inform action and to update treatment guidelines and essential medicines lists.
O	**E**	Guidelines on optimizing antibiotic use are implemented for all major syndromes and data on use is systematically fed back to prescribers.

		9.1.1 Adoption of "AWaRe" classification of antibiotics[14] in the National Essential Medicines List
O	**A**	Country has no knowledge or information about the AWaRe classification of antibiotics.
O	**B**	Country has knowledge about the AWaRe classification of antibiotics and country has intention to adopt it in the next few years.
O	**C**	Country has adopted the AWaRe classification of antibiotics in their National Essential Medicines List.
O	**D**	Country is monitoring its antibiotic consumption based on the AWaRe classification of antibiotics.
O	**E**	Country has incorporated AWaRe classification of antibiotics into its antibiotic stewardship strategies.

Please answer these next questions only if you have selected either C, D or E to 9.1.1

9.1.1. a Are the country's antibiotic stewardship strategies at:

- National Level
- Community Level
- Facility Level

[13] WHO Practical Toolkit: Antimicrobial Stewardship Programmes in Health-Care Facilities in Low- and Middle-Income Countries. See https://apps.who.int/iris/bitstream/handle/10665/329404/9789241515481-eng.pdf

[14] https://adoptaware.org/

9.1.1.b If you wish to provide additional information on either the adoption of the AWaRe classification or your country's antibiotic stewardship strategies for human health, please insert here:

If you wish to share a copy of the National Essential Medicines List that includes the AWaRe classification of antibiotics, please upload here……

If you wish to share a link to the National Essential Medicines List that includes the AWaRe classification of antibiotics, please insert here……

Or, if you wish to share via email, please send to tracss@who.int.

9.2 Optimizing antimicrobial use in animal health (terrestrial and aquatic)

O	**A**	No national policy or legislation regarding the quality, safety and efficacy of antimicrobial products, and their distribution, sale or use.
O	**B**	National legislation covers some aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of antimicrobial products.
O	**C**	National legislation covers all aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of antimicrobial products.
O	**D**	The national regulatory framework.15 for Antimicrobial products incorporates all the elements included in the related international standards on responsible and prudent use of antimicrobials (e.g. OIE Terrestrial and Aquatic Codes, Codex Alimentarius) according to animal species and/or production sector. [16]
O	**E**	Enforcement processes and control are in place to ensure compliance with legislation.

9.3 Optimizing antimicrobial pesticide such as bactericides and fungicides use in plant production[17]

O	**A**	No national policy or legislation regarding the quality, safety and efficacy of pesticides including antimicrobial pesticides such as bactericides and fungicides and their distribution, sale or use.
O	**B**	National legislation covers some aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of pesticides including antimicrobial pesticides such as bactericides and fungicides
O	**C**	National legislation covers all aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of pesticides including antimicrobial pesticides such as bactericides and fungicides.
O	**D**	The national regulatory framework for antimicrobial pesticides such as bactericides and fungicides incorporates all the elements in the related international standards on responsible and prudent use according to plant type/species.
O	**E**	Enforcement processes and control are in place to ensure compliance with legislation on use of antimicrobial pesticides such as bactericides and fungicides.

[15] Including legislation, standards, guidelines and other regulatory instruments

[16] OIE: Responsible and prudent use of antimicrobial agents in veterinary medicine
https://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_antibio_use.htm
https://www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm

[17] http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/en/

10. National assessment of risks for AMR spread in the environment. Legislation and/or regulations and policies to prevent infections through improved WASH and prevent contamination of the environment[18]

10.a Has a national assessment of risks for AMR spread in the environment been conducted?

☐ Yes
☐ No

If yes, then please complete the following:

	Risks for AMR spread[19] in the environment	**Have risk assessments been conducted?**
1	Human sewage ((including lack of basic toilets and management of wastewater and sludge collected in sewer networks and onsite facilities such as septic tanks)) quality	Yes Partial No
2	Wastewater discharges from health facilities for disposal in the environment. (including lack of basic toilets and management of wastewater and sludge collected in sewer networks and from onsite sanitation such as septic tanks)	Yes Partial No
3	Discharges from intensive animal (terrestrial and aquatic) production (liquid waste and manure)	Yes Partial No
4	Wastewater discharges from manufacturing sites for antimicrobial agents (either as Active Pharmaceutical Ingredient (API) or finished products).	Yes Partial

[18] For technical evidence and guidance on risk assessment and management actions refer to FAO/OIE/WHO *Technical brief of water sanitation, hygiene (WASH) and wastewater management to prevent infections and reduce the spread of AMR*

[19] AMR spread refers to both AMR pathogens and AM compounds and their metabolites discharged to the environment

		No
5	Disposal of unused medicines antimicrobial agents (unused should include left-over product and also product containers (including pesticides)	Yes Partial No
6	Disposal of food, plant or animal products contaminated with antimicrobial residues over the MRL (maximum residue limit)	Yes Partial No
7	Runoff waste from slaughterhouses (abattoirs).[20]	Yes Partial No
8	Treatment of liquid waste and manure from intensive animal (terrestrial and aquatic) production before reusing in agriculture.	Yes Partial No
9	Spray drift and leaching from pesticide applications	Yes Partial No

10.b Country has legislation and/or regulations[21] to prevent contamination of the environment with antimicrobials

☐ Yes
☐ No

If yes, then please complete the following:

	Risks for AMR spread [22] in the environment	**Are there legislation and/or regulation and policies to mitigate risks?**
11	Human sewage (including lack of basic toilets and management of wastewater and sludge collected in sewer	Yes

[20] Refers to the direct release of "AMR bacteria" from the untreated wastewater of the slaughterhouses/ meat plants to the surface water.

[21] Legislation and/or regulation may be AMR specific or AMR sensitive within wider water, wastewater, waste management and environmental sector policy.

[22] AMR spread refers to both AMR pathogens and AM compounds and their metabolites discharged to the environment

	networks and onsite facilities such as septic tanks)	Yes – but not fully implemented No
12	Wastewater discharges from health facilities for disposal in the environment . (including lack of basic toilets and management of wastewater and sludge collected in sewer networks and onsite facilities such as septic tanks).	Yes Yes – but not fully implemented No
13	Discharges from intensive animal (terrestrial and aquatic) production (liquid waste and manure)	Yes Yes – but not fully implemented No
14	Wastewater discharges from manufacturing sites for antimicrobial agents (either as Active Pharmaceutical Ingredient (API) or finished products).	Yes Yes – but not fully implemented No
15	Disposal of unused medicines antimicrobial agents (unused should include left-over product and also product containers (including pesticides)	Yes Yes – but not fully implemented No
16	Disposal of food, plant or animal products contaminated with antimicrobial residues over the MRL (maximum residue limit)	Yes Yes – but not fully implemented No
17	Runoff waste from slaughterhouses (abattoirs).	Yes Yes – but not fully implemented No
18	Treatment of liquid waste and manure from intensive animal (terrestrial and aquatic) production before reusing in agriculture.	Yes Yes – but not fully implemented No

If you wish to share the relevant legislation or risk assessments, please upload here…….

If you wish to share a link to the relevant legislation, please insert here……

Or, if you wish to share via email, please send to tracss@who.int.

COMMENTS BOX: If wish you to share additional comments or feedback on the entire questionnaire, please insert here:

Validation question*

Please confirm which of the following sectors have been engaged in the completion of this survey:

- Human Health
- Animal Health (terrestrial and aquatic)
- Plant Health
- Food Production
- Food Safety
- Environment