



## Global Monitoring of Country Progress on Antimicrobial Resistance (AMR): Tripartite AMR country self-assessment survey (TrACSS)

Version 3.0

### Introduction

The Global Action Plan on Antimicrobial Resistance (AMR)<sup>1</sup> 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.

Two rounds (2016/17 and 2017/18) of monitoring country progress on AMR in line with the Global Action Plan have taken place, with responses reported in 2017 and 2018. Results are available at <http://www.who.int/antimicrobial-resistance/global-action-plan/database/en/>.

This third round of the monitoring questionnaire has been modified from the first and second round to incorporate lessons learned. Additional questions have been added to collect information related to the core global indicators which are a part of the Tripartite Global Action Plan Monitoring and Evaluation (M&E) framework, which will be published shortly. Further questions seek a more detailed assessment of surveillance capacity in the food sector. The information from this questionnaire will be used for the report to the seventy-second World Health Assembly in May 2019 and for an analysis included in the Global Report on AMR by the UN Secretary-General at the seventy-fourth session of the UN General Assembly in 2019.<sup>2</sup>

Information on the process for completing the questionnaire is available in the Guidance Note (<http://www.who.int/antimicrobial-resistance/global-action-plan/database/en/>). 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 summarises 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. **For inclusion in global reporting, responses are requested by 15 February 2019.**

<sup>1</sup> 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.

<sup>2</sup> Political Declaration of the high-level meeting of the General Assembly on antimicrobial resistance <https://www.un.org/pga/71/event-latest/high-level-meeting-on-antimicrobial-resistance/>

The questionnaire has 5 sections: section one asks for contact details and progress with multi-sectoral working on AMR and completing a multi-sectoral national action plan on AMR. The next sections cover progress on the first four strategic objectives in the Global Action Plan on AMR. The questions include human health, animal health and production aspects of AMR and in specific cases also address AMR as food safety concerns, plant production, and the environment. A new section on national assessment of risks for AMR transmission in the environment and pollution control and legislations to prevent environmental contamination with antimicrobials has been added. GAP strategic objective 5 is equally important, but this data will be collected through other channels.

Countries that have 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. 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 [whoamrsecretariat@who.int](mailto:whoamrsecretariat@who.int).

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

The questionnaire was developed jointly between WHO, FAO and OIE, with WHO coordinating this annual global monitoring process. If there are questions on the process or the questionnaire, please contact Pravasha Prakash in WHO at [whoamrsecretariat@who.int](mailto:whoamrsecretariat@who.int). WHO will act as liaison point with FAO and OIE.

Questions marked with \* are mandatory.

Name of country\* ..... Date of completion .....

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

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

**2. Name(s) and contact details of person(s) who coordinated the national response to this self-assessment\***

.....

**3. Name and email of AMR Focal point in WHO country office .....**

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

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

**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 |          |                                                                                                                                                                                                           |
|------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                      | <b>A</b> | No formal multi-sectoral governance or coordination mechanism on AMR exists.                                                                                                                              |
| <input type="radio"/>                                      | <b>B</b> | Multi-sectoral working group(s) or coordination committee on AMR established with Government leadership.                                                                                                  |
| <input type="radio"/>                                      | <b>C</b> | Multi-sectoral working group(s) is (are) functional, with clear terms of reference; regular meetings, and funding for working group(s). Activities and reporting/accountability arrangements are defined. |
| <input type="radio"/>                                      | <b>D</b> | Joint working on issues including agreement on common objectives.                                                                                                                                         |
| <input type="radio"/>                                      | <b>E</b> | 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 including WASH<sup>3</sup>

<sup>3</sup> Effective WASH is critical to limiting spread of infection and essential component of the environmental response.

## 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* |          |                                                                                                                                                                            |
|-------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                   | <b>A</b> | No national AMR action plan.                                                                                                                                               |
| <input type="radio"/>                                                   | <b>B</b> | National AMR action plan under development.                                                                                                                                |
| <input type="radio"/>                                                   | <b>C</b> | National AMR action plan developed.                                                                                                                                        |
| <input type="radio"/>                                                   | <b>D</b> | National AMR action plan approved by government that reflects Global Action Plan objectives, with an operational plan and monitoring arrangements.                         |
| <input type="radio"/>                                                   | <b>E</b> | National AMR action plan has funding sources identified, is being implemented and has relevant sectors involved with a defined monitoring and evaluation process in place. |

### 5.2 Is your country's national action plan on AMR linked to any other existing action plans, strategies or targets related to HIV, tuberculosis, malaria or neglected tropical diseases?\*

- ☐ Yes.

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

- ☐ HIV
- ☐ Tuberculosis
- ☐ Malaria
- ☐ Neglected tropical diseases
- ☐ No

### 5.3 If you have published your AMR national action plan, please insert a link here. ....

Or if you wish to share the AMR national action plan via email, please send to [whoamrsecretariat@who.int](mailto:whoamrsecretariat@who.int).

### 5.4 Country policies and regulation on antimicrobial use\*

| Country antimicrobial use policy and legal status                                                                                  |                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Country <b>has laws or regulations</b> on prescription and sale of antimicrobials, for human use.                                  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Don't know |
| Country <b>has laws or regulations</b> on prescription and sale of antimicrobials for animal use.                                  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Don't know |
| Country <b>has laws or regulations</b> that prohibits the use of antibiotics for growth promotion in the absence of risk analysis. | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Don't know |

**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 * |          |                                                                                                                                                                                                                              |
|---------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                               | <b>A</b> | No significant awareness-raising activities on relevant aspects of risks of antimicrobial resistance.                                                                                                                        |
| <input type="radio"/>                                               | <b>B</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.                                                                              |
| <input type="radio"/>                                               | <b>C</b> | Limited or small-scale antimicrobial resistance awareness campaign targeting some but not all relevant stakeholders.                                                                                                         |
| <input type="radio"/>                                               | <b>D</b> | Nationwide, government-supported antimicrobial resistance awareness campaign targeting all or the majority of relevant stakeholders, based on stakeholder analysis, utilizing targeted messaging accordingly within sectors. |
| <input type="radio"/>                                               | <b>E</b> | Targeted, nationwide government-supported activities 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
  - ☐ this sector not involved
- Environment including WASH :
  - ☐ 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 |          |                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                     | <b>A</b> | No training for human health workers on AMR.                                                                                                                                                                                                               |
| <input type="radio"/>                                                     | <b>B</b> | Ad hoc AMR training courses in some human health related disciplines.                                                                                                                                                                                      |
| <input type="radio"/>                                                     | <b>C</b> | 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.                                                                                             |
| <input type="radio"/>                                                     | <b>D</b> | 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.                                                                               |
| <input type="radio"/>                                                     | <b>E</b> | 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 |          |                                                                                                                                                                                                        |
|-------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                   | <b>A</b> | No training of veterinary related professionals (veterinarians and veterinary paraprofessionals) related to AMR.                                                                                       |
| <input type="radio"/>                                                   | <b>B</b> | Ad hoc AMR training courses available for veterinary related professionals.                                                                                                                            |
| <input type="radio"/>                                                   | <b>C</b> | AMR and appropriate use is covered in core curricula for graduating veterinarians and for veterinary paraprofessionals when relevant.                                                                  |
| <input type="radio"/>                                                   | <b>D</b> | Continuing professional training on antimicrobial resistance and antimicrobial use is available nationwide for veterinary related professionals.                                                       |
| <input type="radio"/>                                                   | <b>E</b> | AMR is systematically and formally incorporated in curricula for graduating veterinarians and veterinary paraprofessionals when relevant and continuing professional training is a formal requirement. |

| 6.4 Training and professional education on AMR in farming sector (animal and plant), food production, food safety and the environment |          |                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                                                                 | <b>A</b> | No training provision on AMR for key stakeholders, e.g. farmers and farm workers, extension workers, food and feed processors and retailers, environmental specialists.                   |
| <input type="radio"/>                                                                                                                 | <b>B</b> | Tailored ad hoc AMR training courses available for at least two groups of key stakeholders.                                                                                               |
| <input type="radio"/>                                                                                                                 | <b>C</b> | Tailored ad hoc AMR training courses are available for all or the majority of key stakeholders.                                                                                           |
| <input type="radio"/>                                                                                                                 | <b>D</b> | 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. |
| <input type="radio"/>                                                                                                                 | <b>E</b> | Tailored AMR training courses are routinely available nationwide and completion of training is a formal requirement for all key stakeholders.                                             |

| 6.5 Progress with strengthening veterinary services |          |                                                                                                                                                                                                    |
|-----------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                               | <b>A</b> | No systematic approach at national level to strengthening Veterinary Services.                                                                                                                     |
| <input type="radio"/>                               | <b>B</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. |
| <input type="radio"/>                               | <b>C</b> | Implementation of plan to strengthen capacity gaps in Veterinary Services underway.                                                                                                                |
| <input type="radio"/>                               | <b>D</b> | Monitoring of Veterinary Services performance carried out regularly, e.g. through PVS Evaluation Follow Up missions.                                                                               |
| <input type="radio"/>                               | <b>E</b> | Documented evidence of strong capacity in compliance with OIE standards on the quality of Veterinary Services <sup>4</sup> .                                                                       |

<sup>4</sup> [http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre\\_vet\\_serv.htm](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 |          |                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                             | <b>A</b> | No national plan or system for monitoring use of antimicrobials.                                                                                                                                                                                                                           |
| <input type="radio"/>                                                                             | <b>B</b> | System designed for surveillance of antimicrobial use, that includes monitoring national level sales or consumption of antibiotics in health services.                                                                                                                                     |
| <input type="radio"/>                                                                             | <b>C</b> | Total sales of antimicrobials are monitored at national level and/or some monitoring of antibiotic use at sub-national level.                                                                                                                                                              |
| <input type="radio"/>                                                                             | <b>D</b> | Prescribing practices and appropriate antibiotic use are monitored in a national sample of healthcare settings.                                                                                                                                                                            |
| <input type="radio"/>                                                                             | <b>E</b> | On a regular basis (every year/two years) data is collected and reported on:<br>a) Antimicrobial sales or consumption at national level for human use; and<br>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 (sales/use) |          |                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                        | <b>A</b> | No national plan or system for monitoring sales/use of antimicrobials in animals.                                                                                                                                                                                                       |
| <input type="radio"/>                                                                        | <b>B</b> | Plan agreed for monitoring quantities of antimicrobials sold for/used in animals, based on OIE standards <sup>5</sup> .                                                                                                                                                                 |
| <input type="radio"/>                                                                        | <b>C</b> | Data collected and reported on total quantity of antimicrobials sold for/used in animals and their intended type of use (therapeutic or growth promotion).                                                                                                                              |
| <input type="radio"/>                                                                        | <b>D</b> | On a regular basis, data is collected and reported to the OIE on the total quantity of antimicrobials sold for/used in animals nationally, by antimicrobial class, by species (aquatic or terrestrial), method of administration, and by type of use (therapeutic or growth promotion). |
| <input type="radio"/>                                                                        | <b>E</b> | Data on antimicrobials used under veterinary supervision in animals are available at farm level, for individual animal species.                                                                                                                                                         |

| 7.3 National monitoring system for pesticide use in plant production |          |                                                                                                                                                                                                                    |
|----------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                | <b>A</b> | No national plan or system for monitoring use of pesticides used for the purpose of controlling bacteria or fungal diseases <sup>6</sup> .                                                                         |
| <input type="radio"/>                                                | <b>B</b> | Plan agreed for monitoring quantities of pesticides used for the purpose of controlling bacteria or fungal diseases.                                                                                               |
| <input type="radio"/>                                                | <b>C</b> | Data collected and reported on total quantity of pesticides sold/ used nationally for the purpose of controlling bacteria or fungal diseases.                                                                      |
| <input type="radio"/>                                                | <b>D</b> | On a regular basis, data is collected and reported on quantity of pesticides sold/used in plant production for the purpose of controlling bacteria or fungal diseases, disaggregated by class of active ingredient |

<sup>5</sup> [http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre\\_antibio\\_monitoring.htm](http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_antibio_monitoring.htm) ;  
[http://www.oie.int/index.php?id=171&L=0&htmfile=chapitre\\_antibio\\_quantities\\_usage\\_patterns.htm](http://www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_quantities_usage_patterns.htm)

<sup>6</sup> 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.

| 7.4 National surveillance system for antimicrobial resistance (AMR) in humans |          |                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                         | <b>A</b> | No capacity for generating data (antibiotic susceptibility testing and accompanying clinical and epidemiological data) and reporting on antibiotic resistance.                                                                                   |
| <input type="radio"/>                                                         | <b>B</b> | AMR data is collated locally for common bacteria, but data collection may not use a standardized approach and lacks national coordination and/or quality management.                                                                             |
| <input type="radio"/>                                                         | <b>C</b> | National AMR surveillance activities for common bacterial infections follow national standards, and a national reference laboratory that participates in external quality assurance.                                                             |
| <input type="radio"/>                                                         | <b>D</b> | There is a functioning national AMR surveillance system covering common bacterial infections in hospitalized and community patients <sup>7</sup> , with external quality assurance, and a national coordinating centre producing reports on AMR. |
| <input type="radio"/>                                                         | <b>E</b> | The national AMR surveillance system integrates surveillance of AMR across sectors, and generates regular reports covering at least one common indicator.                                                                                        |

| 7.5 (a) National surveillance system for antimicrobial resistance (AMR) in animals (terrestrial and aquatic) |                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b>                                                                                                     | No national plan for a system of surveillance of AMR.                                                                                                                                                                                                                                             |
| <b>B</b>                                                                                                     | National plan for surveillance of AMR but capacity (including laboratory and for reporting data on AMR) is lacking.                                                                                                                                                                               |
| <b>C</b>                                                                                                     | Some AMR data is collected locally but may not use a standardised approach and lacks national coordination and/or quality management.                                                                                                                                                             |
| <b>D</b><br>(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 1 of those bacterial species, involving a laboratory that follows quality management processes, e.g. proficiency testing.  |
| <b>E</b><br>(if selected E, move to 7.5 b)                                                                   | National system of surveillance of AMR 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: |                                                                                             |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                     | Animal (terrestrial and/or aquatic) isolates linked to animal disease.                      |
| <input type="radio"/>                                                                     | Zoonotic pathogenic bacteria                                                                |
| <input type="radio"/>                                                                     | Commensal isolates                                                                          |
| <input type="radio"/>                                                                     | ESBL producing indicator E.coli obtained from healthy animals in key food producing species |

<sup>7</sup> Community patients would be in many instances outpatients or those patients within 48 hours of admission in line with GLASS definition.

| 7.5 (c) National surveillance system for antimicrobial resistance (AMR) in food (animal and plant origin) |                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b>                                                                                                  | No national plan for a system of surveillance of AMR is available.                                                                                                                                                                                                                                          |
| <b>B</b>                                                                                                  | National plan for surveillance of AMR but capacity (including laboratory and for reporting data on AMR) is lacking.                                                                                                                                                                                         |
| <b>C</b>                                                                                                  | Some AMR data is collected locally but may not use a standardised approach and lacks national coordination and/or quality management.                                                                                                                                                                       |
| <b>D</b><br>[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 1 of those bacterial species, involving a laboratory that follows quality management processes, e.g. proficiency testing. |
| <b>E</b><br>[If selected move to 7.5d ]                                                                   | National system of surveillance of AMR 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: |                                |                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b>                                                                                                             | Food borne pathogenic bacteria | Animal origin :<br><input type="checkbox"/> yes<br><input type="checkbox"/> no<br><br>Plant origin :<br><input type="checkbox"/> yes<br><input type="checkbox"/> no |
| <b>B</b>                                                                                                             | Indicator bacteria             | Animal origin :<br><input type="checkbox"/> yes<br><input type="checkbox"/> no<br><br>Plant origin :<br><input type="checkbox"/> yes<br><input type="checkbox"/> no |

| 7.6 Multi-sectoral working group or coordination committee in charge of national AMR strategy reviews data on antimicrobial consumption and resistance in human and animal sectors at least annually, considers implications for and amends national strategy accordingly. |                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| For human health :                                                                                                                                                                                                                                                         | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
| For animal health:                                                                                                                                                                                                                                                         | <input type="checkbox"/> yes<br><input type="checkbox"/> no |

|                                                                                                                                                                                                                                                                                                                                                             |          |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>7.7 National AMR Laboratory network in animal health and food safety sectors+</b><br>+includes laboratories that process samples from food producing terrestrial and aquatic animals and from food;<br>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                                                                                                                                                                                                                                                                                            |          |                                                                                                                                                                                                                                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>A</b> | Information not available.                                                                                                                                                                                                                                                                                                                                                                           |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>B</b> | Laboratories perform antimicrobial susceptibility testing (AST) for own purposes and are not included in the national AMR surveillance system.                                                                                                                                                                                                                                                       |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>C</b> | Some laboratories performing AST are integrated in the national AMR surveillance system.                                                                                                                                                                                                                                                                                                             |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>D</b> | All laboratories performing AST are integrated in the AMR surveillance system but the role should be better formalized and the network better and developed.                                                                                                                                                                                                                                         |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>E</b> | 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                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>A</b> | Information not available.                                                                                                                                                                                                                                                                                                                                                                           |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>B</b> | No standardized national AST guidelines are in place or Less than 30% laboratories follow the same AST guidelines.                                                                                                                                                                                                                                                                                   |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>C</b> | Between 30% to 79% of laboratories follow the same AST guidelines.                                                                                                                                                                                                                                                                                                                                   |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>D</b> | Over 80% of laboratories use the same AST guidelines.                                                                                                                                                                                                                                                                                                                                                |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>E</b> | 100% of laboratories use the same AST guidelines.                                                                                                                                                                                                                                                                                                                                                    |
| c) Relevance of diagnostic techniques used by laboratories included in the AMR surveillance system                                                                                                                                                                                                                                                          |          |                                                                                                                                                                                                                                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>A</b> | Information not available.                                                                                                                                                                                                                                                                                                                                                                           |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>B</b> | AST, bacterial isolation and identification protocols are not relevant or specific to the national AMR surveillance objectives.                                                                                                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>C</b> | Major modifications in the AST, bacterial isolation and identification protocols used are required to improve their adaptation to national AMR surveillance objectives.                                                                                                                                                                                                                              |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>D</b> | Minor modifications in the AST, bacterial isolation and identification protocols used would improve their adaptation to the national AMR surveillance objectives.                                                                                                                                                                                                                                    |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>E</b> | 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                                                                                                                                                                                                                                                              |          |                                                                                                                                                                                                                                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>A</b> | Information not available.                                                                                                                                                                                                                                                                                                                                                                           |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>B</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.                                                                                                                                                                              |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>C</b> | Most laboratories of the network use computers to manage part of their data but major improvements in the system are required.                                                                                                                                                                                                                                                                       |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>D</b> | Some minor improvements may be made in some laboratories of the network for the computerized management of laboratory data (computerized transmission of data, input procedures, sample storage information, etc....).                                                                                                                                                                               |
| <input type="radio"/>                                                                                                                                                                                                                                                                                                                                       | <b>E</b> | All laboratories use 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 strategic objective 3: 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.*

| <b>8.1 Infection Prevention and Control (IPC) in human health care</b> |          |                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                  | <b>A</b> | No national IPC programme or operational plan is available.                                                                                                                                                                                                                                                                           |
| <input type="radio"/>                                                  | <b>B</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.                                                                                                                                              |
| <input type="radio"/>                                                  | <b>C</b> | 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.                                                                                            |
| <input type="radio"/>                                                  | <b>D</b> | National IPC programme available according to the WHO IPC core components guidelines <sup>8</sup> 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. |
| <input type="radio"/>                                                  | <b>E</b> | IPC programmes are in place and functioning at national and health facility levels according to the WHO IPC core components guidelines <sup>9</sup> . Compliance and effectiveness are regularly evaluated and published. Plans and guidance are updated in response to monitoring.                                                   |

| <b>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)</b> |          |                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                                                                                                                        | <b>A</b> | No systematic efforts to improve good production practices.                                                                                                                                                                                                                                         |
| <input type="radio"/>                                                                                                                                                                        | <b>B</b> | Some activities in place to develop and promote good production practices.                                                                                                                                                                                                                          |
| <input type="radio"/>                                                                                                                                                                        | <b>C</b> | 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. |
| <input type="radio"/>                                                                                                                                                                        | <b>D</b> | Nationwide implementation of plan to ensure good production practices and national guidance published and disseminated.                                                                                                                                                                             |
| <input type="radio"/>                                                                                                                                                                        | <b>E</b> | Nationwide implementation of plan to ensure good production practices and monitoring of impact on level of AMR, on animal health and welfare, and on production, with updating of plans and guidance in response to findings.                                                                       |

| <b>8.3 Good management and hygiene practices to reduce the development and transmission of AMR in food processing</b> |          |                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                                                                 | <b>A</b> | No systematic efforts to improve good management and hygiene practices.                                                                                                                                                                                                     |
| <input type="radio"/>                                                                                                 | <b>B</b> | Some activities in place to develop and promote good management and hygiene practices.                                                                                                                                                                                      |
| <input type="radio"/>                                                                                                 | <b>C</b> | 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. |
| <input type="radio"/>                                                                                                 | <b>D</b> | Nationwide implementation of plan to ensure good management and hygiene practices and national guidance published and disseminated.                                                                                                                                         |

<sup>8</sup> 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/>

<sup>9</sup> As per footnote #8.

**8.4 Coverage with critical measures (water supplies, sanitation, hygiene and immunization) to reduce spread of infections in communities and health care facilities<sup>10</sup>**

| <b>Estimated national coverage with critical measures (water supplies, hygiene and immunization) to reduce spread of infections in communities and health care facilities</b> | <b>Latest national coverage rate (in %)</b> | <b>Year</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------|
| Immunisation coverage rate of pneumococcus vaccine.                                                                                                                           |                                             |             |
| Immunisation coverage rate of Haemophilus influenzae type b (Hib) vaccine.                                                                                                    |                                             |             |
| Proportion of health care facilities with basic <sup>11</sup> water supplies.                                                                                                 |                                             |             |
| Proportion of health care facilities with basic <sup>12</sup> hand hygiene facilities.                                                                                        |                                             |             |
| Proportion of health care facilities with functional sanitation facilities.                                                                                                   |                                             |             |

<sup>10</sup> These issues are critical to AMR containment, but the relevant data is already being submitted to WHO through other channels in most instances. If this questionnaire is being used to review country progress at national level, we recommend that at a minimum the data is downloaded and reviewed from the following websites. Ideally local data should be reviewed and discussed, and if appropriate included in the return [http://www.who.int/immunization/monitoring\\_surveillance/routine/coverage/en/index4.html](http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html)

<https://www.washinhcf.org/home/>

<sup>11</sup> “Basic” as defined in WASH in health care facilities standards or national standards. See <https://www.washinhcf.org/home/>

<sup>12</sup> As per footnote #11.

## 9. Country progress on strategic objective 4: Optimize the use of antimicrobial medicines 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 |          |                                                                                                                                                                                                                                                |
|--------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                            | <b>A</b> | No/weak national policies for appropriate use.                                                                                                                                                                                                 |
| <input type="radio"/>                            | <b>B</b> | National policies for antimicrobial governance developed for the community and health care settings.                                                                                                                                           |
| <input type="radio"/>                            | <b>C</b> | Practices to assure appropriate antimicrobial use being implemented in some healthcare facilities and guidelines for appropriate use of antimicrobials available.                                                                              |
| <input type="radio"/>                            | <b>D</b> | 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. |
| <input type="radio"/>                            | <b>E</b> | Guidelines on optimizing antibiotic use are implemented for all major syndromes and data on use is systematically fed back to prescribers.                                                                                                     |

| 9.2 Optimizing antimicrobial use in animal health (terrestrial and aquatic) |          |                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="radio"/>                                                       | <b>A</b> | No national policy or legislation regarding the quality, safety and efficacy of antimicrobial products, and their distribution, sale or use.                                                                                                                                                                      |
| <input type="radio"/>                                                       | <b>B</b> | National legislation covers some aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of antimicrobial products.                                                                                                                            |
| <input type="radio"/>                                                       | <b>C</b> | National legislation covers all aspects of national manufacture, import, marketing authorization, control of safety, quality and efficacy and distribution of antimicrobial products.                                                                                                                             |
| <input type="radio"/>                                                       | <b>D</b> | The national regulatory framework <sup>13</sup> for AM 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. |
| <input type="radio"/>                                                       | <b>E</b> | Enforcement processes and control are in place to ensure compliance with legislation.                                                                                                                                                                                                                             |

<sup>13</sup> Including legislation, standards, guidelines and other regulatory instruments

**10. National assessment of risks for AMR transmission in the environment and pollution control. Legislation and/or regulations to prevent contamination of the environment with antimicrobials**

| Risks for AMR transmission |                                                                                                                                                   | Risk assessments                                                                           |                                                             | Are there legislation and/or regulation and policies to mitigate risks |                                                             |                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------|
|                            |                                                                                                                                                   | Have high risk locations been identified?                                                  | Are risk reduction actions underway?                        | That specifically addresses AMR <sup>14</sup>                          | That impacts AMR <sup>15</sup>                              | That has a functioning system for monitoring compliance and enforcement |
| 1                          | Areas of a low community access to safe water and sanitation.                                                                                     | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No |                                                                        |                                                             |                                                                         |
| 2                          | Human health facilities without access to safe water supply and sanitation.                                                                       | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No |                                                                        |                                                             |                                                                         |
| 3                          | Human sewage (including wastewater and sludge) quality<br>a) disposal in the environment                                                          | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
|                            | Human sewage (including wastewater and sludge) quality<br>b) Re-use                                                                               | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
| 4                          | Wastewater discharges from health facilities for disposal in the environment.                                                                     | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
| 5                          | Discharges from intensive animal (terrestrial and aquatic) production (liquid waste and manure)<br>a) disposal into the environment               | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
|                            | Discharges from intensive animal (terrestrial and aquatic) production (liquid waste and manure)<br>b) Re-use                                      | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
| 6                          | Wastewater discharges from manufacturing sites for antimicrobial agents ( either as Active Pharmaceutical Ingredient (API) or finished products). | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |
| 7                          | Disposal of unused medicines antimicrobial agents.*                                                                                               | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No            | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No             |

<sup>14</sup> This column refers to policy, legal and other regulatory mechanisms that specifically address AMR.

<sup>15</sup> This column refers to legislation that does not include specific references to AMR but where existing regulatory mechanisms (licenses, permits) may serve to address AMR.

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|   |                                                       |                                                                                            |                                                             |                                                             |                                                             |                                                             |
|---|-------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
|   |                                                       |                                                                                            |                                                             |                                                             |                                                             |                                                             |
| 8 | Disposal of products contaminated with AM residues ** | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> NA | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No |

(\*) unused should include left-over product and also product containers (including pesticides)

(\*\*) such as food, plant or animal products with residues over the MRL (maximum residue limit)