

SAMPLE TEMPLATE

**National action plan
on antimicrobial resistance**

Contents

Glossary.....	4
Abbreviations and acronyms	4
Foreword.....	4
Executive summary	4
Background	5
Introduction	5
Situation analyses and assessment.....	5
Country response	5
Governance	5
Strategic plan	7
Operational plan and budget.....	12
Monitoring and evaluation plan	18
References	22

Glossary

(if necessary)

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Abbreviations and acronyms

Use as few abbreviations and acronyms as possible, as they make the text more difficult to read and understand.

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Foreword

Text giving a broad outline of the reason for the plan, signed by the relevant ministries and other contributing authorities

Throughout the plan, use plain language so that it will be understandable to everyone involved. Avoid multiple repetitions of words like “develop” and “implement”; use a more precise, simpler term instead, such as “establish”, “prepare”, “write”, “set up” or “do”.

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Executive summary

An abstract of the main aspects of the document

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Background

Introduction

May be based on introductory texts of the global action plan or a regional action plan. Gives the background of AMR and current global initiatives, the decision of the World Health Assembly in 2015, the “one health” approach, WHO regional initiative and action plan, country initiatives

Situational analyses and assessment

Analysis of the situation of AMR in the country, what remains to be done, aspects for further assessment, regional factors in AMR and existing national AMR facilities, structures, policies, legal frameworks, surveillance activities, laboratory capacity, standards. Overview and analysis of data from surveillance, including the incidence and prevalence of AMR in different sub-groups of the population, morbidity, mortality and other health outcomes in relation to AMR, economic impact of AMR at both micro- and macroeconomic levels, awareness and knowledge, data from behavioural studies in different social and professional groups and any other evidence-based information on antimicrobial use and resistance in human health, animal health, agriculture and the environment.

Country response

Governance

The country's multisectoral coordinating group or another formal mechanism to ensure a "one health" approach to AMR and to oversee strategic interventions

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Strategic plan, operational plan, budget, M&E plan

Country priorities in an integrated approach for addressing the use of and resistance to antimicrobial agents in human health, animal health, agriculture, food products and the environment. The five strategic objectives of the global action plan may be used as a starting point for discussions to determine the country's priorities. A step-wise approach to achieving objectives may be necessary, the details of which should be agreed in participative dialogue during preparation of the national action plan.

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Strategic plan: sample format with examples of planning elements

Global action plan strategic objective 1: Improve awareness and understanding of antimicrobial resistance through effective communication, education and training.

Awareness-raising and risk communication

Objective 1	Increase national awareness of AMR	
	Strategic interventions	Activities
	1.1. Establish an evidence-based public communications programme targeting audiences in human health practice. <i>Milestone:</i> January 2017	1.1.1. Estimate awareness and knowledge through behavioural studies in different social and professional groups. 1.1.2. ... 1.1.3. ...
	1.2. ...	1.2.1. ...

Education

Objective 2	Improve knowledge of AMR and related topics	
	Strategic interventions	Activities
	2.1. Include AMR and related topics as a core component of professional education, training, certification and development <i>Milestone:</i> The educational programmes revised and approved by June 2017	2.1.1. Include AMR and related topics in undergraduate curricula for human health professionals, animal health professionals and food industry and agriculture professionals 2.1.2. ... 2.1.3. ...
	2.2. ...	2.2.1. ...

Objective 3 ...

Global action plan strategic objective 2: Strengthen the knowledge and evidence base through surveillance and research.

Surveillance

Objective 4 Set up a national surveillance system for antimicrobial resistance		
	Strategic interventions	Activities
	4.1. Establish a national coordination structure for surveillance of AMR. <i>Milestone:</i> National coordinating committee with appropriate mandate and terms of reference and a focal point designated by January 2016	4.1.1. Write and approve terms of reference for a national coordinating centre for AMR surveillance with the mandate to oversee the AMR surveillance programme, including collecting, aggregating and sharing data. 4.1.2. ... 4.1.3. ...
	4.2. ...	4.2.1. ...
Objective 5 ...		
Laboratory capacity		
Objective 6 Build laboratory capacity to produce high-quality microbiological data for patient management and support surveillance activities in both human and animal sectors.		
	Strategic interventions	Activities
	6.1. Designate a national reference laboratory for AMR surveillance. <i>Milestone:</i> January 2016	6.1.1. Write and approve terms of reference for a national reference laboratory with expertise in methods for confirming and characterizing specific pathogens and organizing quality assurance schemes. 6.1.2. ... 6.1.3. ...
	6.2. ...	6.2.1. ...
Objective 7 ...		
Research and development		

Objective 8	Identify operational research priorities for responsible use of antimicrobial agents and better practice in infection prevention in human and animal health	
	Strategic interventions	Activities
	8.1. Prepare a national operational research agenda. <i>Milestone:</i> September 2016	8.1.1. Engage relevant experts to identify current gaps in knowledge and potential research topics. 8.1.2. ... 8.1.3. ...
	8.2. ...	8.2.1. ...
Objective 9	...	
Global action plan strategic objective 3: Reduce the incidence of infection through effective sanitation, hygiene and prevention measures.		
Infection prevention and control in health care		
Objective 10	Establish a national infection prevention and control programme	
	Strategic interventions	Activities
	10.1. Create a formal organizational structure to ensure proper development and use of infection prevention and control policies and strategies. <i>Milestone:</i> June 2016	10.1.1. Write and approve terms of reference for a national infection prevention and control coordinating unit with authority delegated by a relevant administrative or political jurisdiction and an identified budget. 10.1.2. ... 10.1.3. ...
	10.2. ...	10.2.1. ...
Objective 11	...	
Infection prevention in animal health		
Objective 12	Introduce infection prevention and control programmes in veterinary settings and animal husbandry.	

	Strategic interventions	Activities
	12.1. Include hygiene and infection prevention and control as core (mandatory) content in training and education of veterinary professionals. Milestone: June 2017	12.1.1. Include hygiene and infection prevention and control in undergraduate curricula for animal health professionals. 12.1.2. ... 12.1.3. ...
	12.2. ...	12.2.1. ...
Objective 13	...	
Hygiene and sanitation at community level		
Objective 14	Limit the development and spread of AMR outside health settings by infection prevention and control.	
	Strategic interventions	Activities
	14.1. Promote personal hygiene by social mobilization and behavioural change activities. Milestone: March 2017	14.1.1. Estimate knowledge of personal hygiene in different social groups as a basis for the social mobilization campaigns. 14.1.2. ... 14.1.3. ...
	14.2. ...	14.2.1. ...
Objective 15	...	
Global action plan strategic objective 4: Optimize the use of antimicrobial medicines in human and animal health.		
Regulated access to high-quality antimicrobial medicines		
Objective 16	Ensure uninterrupted access to high-quality antimicrobial medicines.	
	Strategic interventions	Activities
	16.1. Strengthen the pharmaceutical supply chain, including the procurement, supply and management system. Milestone: A quality management system introduced in all links of the supply chain by December 2017	16.1.1. Establish a quality management system for the supply of medicines, covering storage, transport, expiry date, etc. 16.1.2. ... 16.1.3. ...

	16.2. ...	16.2.1. ...
Objective 17	...	
Antimicrobial stewardship		
Objective 18	Improve and measure appropriate use of antimicrobial agents in health care.	
	Strategic interventions	Activities
	18.1. Create formal antimicrobial stewardship programmes in health care facilities. <i>Milestone:</i> Antimicrobial stewardship programmes established in 80% of acute care facilities by January 2018	18.1.1. Write generic terms of reference for antimicrobial stewardship multidisciplinary committees and teams. 18.1.2. ... 18.1.3. ...
	18.2. ...	18.2.1. ...
Objective 19	...	
Use of antimicrobial agents in animal health and agriculture		
Objective 20	Ensure prudent use of antimicrobial agents in terrestrial and aquatic animals and agriculture.	
	Strategic interventions	Activities
	20.1. Establish national policies on use of antimicrobial agents in terrestrial and aquatic animals and agriculture. <i>Milestone:</i> December 2017	20.1.1. Establish policies on the use of critically important antibiotics. 20.1.2. ... 20.1.3. ...
	20.2. ...	20.2.1. ...
Objective 21	...	
Global action plan strategic objective 5: Prepare the economic case for sustainable investment, ... and increase investment in new medicines, diagnostic tools, vaccines and other interventions.		
Objective 22	Prepare the economic case for sustainable investment in new medicines, diagnostic tools, vaccines and other interventions.	

Strategic interventions		Activities
Objective 23	22.1. Prepare a plan to secure and use financing for implementation of the AMR NAP.	22.1.1. Assess investment requirements for implementation of the NAP.
	Milestone: Assessment results available by May 2016	22.1.2. ...
		22.1.3. ...
	22.2. ...	22.2.1. ...

Operational plan and budget

Sample format with examples of planning elements (linked to the strategic plan)

Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
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Strategic intervention 1.1. Prepare an evidence-based public communication programme for people in human health practice.

Activity 1.1.1. Estimate awareness and knowledge through behavioural studies of different social and professional groups.								
Sub-activity 1.1.1.1 Measure AMR awareness in health care workers in the public sector.	Awareness survey	2	March 2016	Nationwide	Department of behavioural and social sciences, national public health school	50 000	Ministry of health	Baseline awareness
			March 2018					Post-intervention awareness
Sub-activity 1.1.1.2	...	...	...	...	...	...	...	...

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Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
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Strategic intervention 2.1. Include AMR and related topics as core components of professional education, training, certification and development.

Activity 2.1.1. Include AMR and related topics in undergraduate curricula for human health professionals, animal health professionals and food industry and agriculture professionals.

Sub-activity 2.1.1.1 Revise undergraduate curriculum for medical doctors to incorporate AMR and related issues.	Revised curriculum	1	June 2016	Capital	Strategic objective 1 sub-working group, MCG technical advisory group, ministries of health and of the environment	5000	Ministry of health	Revised curriculum introduced
Sub-activity 2.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 4.1. Establish a national coordination structure for surveillance of AMR.

Activity 4.1.1. Write and approve terms of reference for a national coordinating centre for AMR surveillance with the mandate to oversee the AMR surveillance programme, including collecting, aggregating and sharing data.

Sub-activity 4.1.1.1. Prepare terms of reference for a national coordinating centre for AMR surveillance.	National coordinating centre terms of reference	1	January 2016	Capital	Strategic objective 2 sub-working group, MCG technical advisory group, national	5000	Ministry of health	National coordinating centre terms of reference ready for approval
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Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
					public health institute			
Sub-activity 4.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 6.1. Designate a national reference laboratory for AMR surveillance.

Activity 6.1.1. Write and approve terms of reference for a national reference laboratory with expertise in methods for confirming and characterizing specific pathogens and organizing quality assurance schemes.

Sub-activity 6.1.1.1. Develop terms of reference for a national reference laboratory.	National reference laboratory terms of reference	1	January 2016	Capital	Strategic objective 2 sub-working group, MCG technical advisory group, national public health laboratory	6000	Ministries of health and of agriculture	National reference laboratory terms of reference ready for approval
Sub-activity 6.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 8.1. Prepare a national operational research agenda.

Activity 8.1.1. Engage relevant stakeholders to identify the current gaps in knowledge and potential research topics.

Sub-activity 8.1.1.1. Convene relevant experts to identify gaps in knowledge and potential research topics.	Expert meeting	1	May 2016	Capital	MCG technical advisory group	60 000	Ministry of health, public-private	Draft research agenda developed
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Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
							partnership	
Sub-activity 8.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 10.1. Create a formal organizational structure at national level to ensure proper development and management of infection prevention and control policies and strategies.

Activity 10.1.1. Write and approve terms of reference for a national infection prevention and control coordinating unit with authority delegated by a relevant administrative or political jurisdiction and an identified budget.

Sub-activity 10.1.1.1. Prepare terms of reference for a national infection prevention and control coordinating unit.	Terms of reference for an infection prevention and control unit	1	May 2016	Capital	Strategic objective 3 sub-working group, MCG technical advisory group, ministry of health, national infection control society	5000	Ministry of health	Infection prevention and control unit terms of reference ready for approval
Sub-activity 10.1.1.2	...	...	...	...	...	...	...	...

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Strategic intervention 12.1. Include hygiene and infection prevention and control unit as core (mandatory) content in training and education of veterinary professionals.

Activity 12.1.1. Include hygiene and infection prevention and control in undergraduate curricula for animal health professionals

Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
Sub-activity 12.1.1.1. Revise undergraduate curriculum for veterinary professionals to incorporate hygiene and infection prevention and control.	Revised curriculum	1	May 2017	Capital	Office of chief veterinary officer, ministries of agriculture and the environment	5000	Ministry of agriculture	Revised curriculum introduced
Sub-activity 12.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 14.1. Promote personal hygiene by social mobilization and behavioural change activities.

Activity 14.1.1. Estimate knowledge of personal hygiene in different social groups as a basis for social mobilization campaigns.

Sub-activity 14.1.1.1. Estimate knowledge of schoolchildren about personal hygiene.	Knowledge survey	2	January 2017 August 2017	Nationwide	Department of behavioural and social sciences, ministry of the environment	50 000	Ministry of the environment	Baseline data Post-intervention data
Sub-activity 14.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 16.1. Strengthen the pharmaceutical supply chain, including procurement, supply and management system.

Activity 16.1.1. Establish a quality management system for the medicines supply chain, covering storage, transport, expiry date, etc.

Sub-activity 16.1.1.1. Map the major elements of	Formal description	1	March 2016	Nationwide	Drug regulation	12 000	Ministry of health	Critical processes in
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Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
the supply chain, with their inputs, activities and outputs.	of how the supply chain works				agency, ministry of health			the supply chain documented
Sub-activity 16.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 18.1. Create formal antimicrobial stewardship programmes in health care facilities.

Activity 18.1.1. Prepare generic terms of reference for multidisciplinary antimicrobial stewardship committees and teams

Sub-activity 18.1.1.1. Prepare generic terms of reference for multidisciplinary antimicrobial stewardship committees.	Terms of reference	1	December 2016	Capital	Ministry of health, national pharmacists' association	5000	Ministry of health	Terms of reference ready for approval
Sub-activity 18.1.1.2.	...	...	...	...	...	...	...	...

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Strategic intervention 20.1. Prepare national policies on use of antimicrobials in terrestrial and aquatic animals and agriculture.

Activity 20.1.1. Prepare policies on the use of critically important antibiotics.

Sub-activity 20.1.1.1. Make a list of critically important antibiotics based on WHO list.	List of critically important antibiotics	1	June 2017	Capital	Drug regulation agency, ministries of health and agriculture	4000	Ministry of agriculture	List of critically important antibiotics ready for approval
Sub-activity 20.1.1.2.	...	...	...	...	...	...	...	...

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Sub-activity	Unit	Quantity	Date	Location	Responsible entity	Cost (currency)	Source of funding	Indicator
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Strategic intervention 22.1. Prepare a plan to secure and use financing for implementation of the AMR NAP.

Activity 22.1.1. Assess investment required for implementation of the national action plan.

Sub-activity 22.1.1.1. Assess the investment required, and identify gaps for implementation of the NAP.	Assessment report	1	May 2016	Capital	MCG technical advisory group, ministry of finance	25 000	Ministry of finance	Assessment report available
Sub-activity 22.1.1.2.	...	...	...	...	...	...	...	...

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Monitoring and evaluation plan

Sample format with examples of indicators

Planning element (activity linked to the strategic plan)	Indicator	Type and purpose	Value (calculation)	Frequency of data collection	Data source	Method	Baseline
1.1.1. Measure awareness and knowledge in different social and professional groups.	Level of awareness by target group	Assessment, baseline survey, monitoring and evaluation of outcome	Awareness scores stratified by target group (composite indicator)	Baseline, according to schedule of awareness-raising campaigns (biannual)	Baseline survey report, post-intervention survey reports	Awareness survey	Measured in baseline survey

Planning element (activity linked to the strategic plan)	Indicator	Type and purpose	Value (calculation)	Frequency of data collection	Data source	Method	Baseline
2.1.1. Include AMR and related topics in undergraduate curricula for professionals in human and animal health, the food industry and agriculture.	Revised curricula available for target professional groups	M&E of input	Yes/No No. of curricula / No. of professional groups to target	Annually	Key informant at ministry of the environment	Key informant interview	No curricula with AMR and related topics
4.1.1. Write and approve terms of reference for a national coordinating centre for AMR surveillance.	National coordinating centre terms of reference written and approved	M&E of input	Yes/No	Annually	Key informant at ministry of health	AMR surveillance programme implementation report	No terms of reference for national coordinating centre
6.1.1. Write and approve terms of reference for a national reference laboratory.	National reference laboratory terms of reference written and approved	M&E of input	Yes/No	Annually	Key informant at ministry of health	AMR surveillance programme implementation report	No terms of reference for national reference laboratory
8.1.1. Engage relevant experts to identify current gaps in knowledge and potential research topics.	Draft research agenda prepared	M&E of input	Yes/No	Annually	Key informant at ministry of health	Key informant interview	No research agenda

Planning element (activity linked to the strategic plan)	Indicator	Type and purpose	Value (calculation)	Frequency of data collection	Data source	Method	Baseline
10.1.1. Write and approve terms of reference for a national infection prevention and control coordinating unit.	Infection prevention and control unit terms of reference written and approved	M&E of input	Yes/No	Annually	Key informant at ministry of health	Infection prevention and control programme implementation report	No terms of reference for infection prevention and control unit
12.1.1. Include hygiene and infection prevention and control in undergraduate curricula for animal health professionals.	Revised curricula available for target professional groups	M&E of input	Yes/No No. of curricula / No. of professional groups targeted	Annually	Key informant at ministry of agriculture	Key informant interview	No curricula with hygiene and infection prevention and control
14.1.1. Estimate knowledge of personal hygiene in different social groups.	Level of knowledge of target groups	Assessment, baseline survey M&E of outcome	Knowledge scores stratified by target groups (composite indicator)	Baseline Biannually	Baseline survey report Post-intervention survey reports	Knowledge survey	Measured by baseline survey
16.1.1. Establish a quality management system for the medicines supply chain.	Quality management system established and introduced	M&E of input	Yes/No	Annually	Key informant at drug regulation agency	Key informant interview	No quality management system
18.1.1. Write generic terms of reference for	Antimicrobial stewardship	M&E of input	Yes/No	Annually	Key informant at	Key informant	No terms of reference for

Planning element (activity linked to the strategic plan)	Indicator	Type and purpose	Value (calculation)	Frequency of data collection	Data source	Method	Baseline
multidisciplinary antimicrobial stewardship committees and teams.	committees terms of reference written and approved				ministry of health	interview	antimicrobial stewardship committees
20.1.1. Prepare policies on use of critically important antibiotics.	Policies prepared and introduced	M&E of input	Yes/No	Annually	Key informant at ministry of agriculture	Key informant interview	No policies
22.1.1. Assess investment required for implementation of the NAP.	Investment assessment available	M&E of input	Yes/No	Annually	Key informant at ministry of finance	Investment needs assessment report	No assessment

References

List of publications cited in the document

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