



Regional AMR Communication Strategy

May 2024

Regional Tripartite Antimicrobial Resistance Project in Asia

Table of Contents

Conceptual framework.....	1
Executive summary.....	2
1. Introduction	2
2. Methodology.....	3
2.1 For current communication situation analysis	3
2.2. For stakeholder analysis	4
3. Current communication situation	5
3.1 What key terminologies are being used?	5
3.2 What are the current key messages	6
3.2.1 What are ‘Calls to action’ based on?	6
3.2.2 What are the challenges and gaps in current communication?.....	7
3.3 How is communication on AMR being framed?	7
4. Knowledge and understanding of AMR in the Region	10
5. Regional stakeholder analysis	13
5.1 Introduction	13
5.1. Objectives.....	13
5.2. Stakeholder analysis	13
5.2.1 Stakeholder engagement/buy-in strategy	13
5.2.2 Stakeholder country mapping	14
5.2.3 Factors to consider for different types of stakeholders	17
<i>Communication in the local context</i>	17
<i>Coordination and collaboration</i>	17
<i>Publication and distribution of regional AMR publications</i>	17
<i>Youth engagement</i>	17
<i>Educational engagement</i>	18
<i>Gender inclusiveness</i>	18
6. Actions to be taken - communication objectives, guidelines and tools and channels	19
6.1 Communication objectives	19

6.2	Communication guidelines	19
6.2.1	Communication strategy implementation model	19
6.2.2	Communication strategy target audiences	23
6.3	Communication strategy and advocacy plan	24
6.4	Communication tools and channels	39
	<i>Utilizing human stories and case studies</i>	39
	<i>Frequently asked questions (FAQs)</i>	39
	<i>Website update</i>	39
	<i>Paid media, publications, and collateral materials</i>	39
	<i>Earned media</i>	40
	<i>Media training and identifying focal people</i>	40
	<i>Media engagement</i>	40
	<i>Internal information sharing portal – Staff resource centre</i>	41
	<i>In person workshops</i>	41
	<i>Engagement surveys</i>	41
	<i>Communication package and country support</i>	42
7.	Messaging.....	43
7.1	Current state of AMR message positioning	43
7.1.1.	Breakdown of current AMR framework	43
7.1.2	Breakdown of AMR framework theme and its impact	44
7.2	Messaging recommendations	45
	<i>Clarity in communication</i>	45
	<i>Correct understanding of resistance</i>	45
	<i>Universal and personal relevance</i>	45
	<i>Urgency in call to action</i>	45
	<i>Avoiding catastrophic framing</i>	46
	<i>Clarifying specific actionable steps</i>	46
	<i>Not just focused on a single disease or procedure</i>	46
7.3	Creative approach AMR positioning – How it should be framed.	48

7.4 Overall key messages suggestion based on findings	49
7.5 Unconventional tactics for AMR	50
Annex 1: Communication interventions by county	52
Annex 2: Some successful campaigns	55
Thailand's antibiotics smart use (ASU) campaign.....	55
IAMResponsible – Empowering stakeholders in the Philippines to combat AMR:.....	56
Scientific progress in China:	56
Annex 3: Audience understanding of AMR in the countries.....	57
Annex 4: Fictional case study on AMR in farm animal template	61
Annex 5: Country stakeholders	63
Stakeholder analysis framework:.....	63
Regional/Global stakeholders	63
Country stakeholders.....	63
Annex 6: Factors to consider for different types of stakeholder	73
<i>Communication in the local context</i>	73
<i>Coordination and collaboration</i>	73
<i>Publication and distribution of regional AMR works</i>	74
<i>Youth engagement</i>	74
<i>Educational engagement</i>	74
<i>Gender inclusion</i>	75

List of Tables

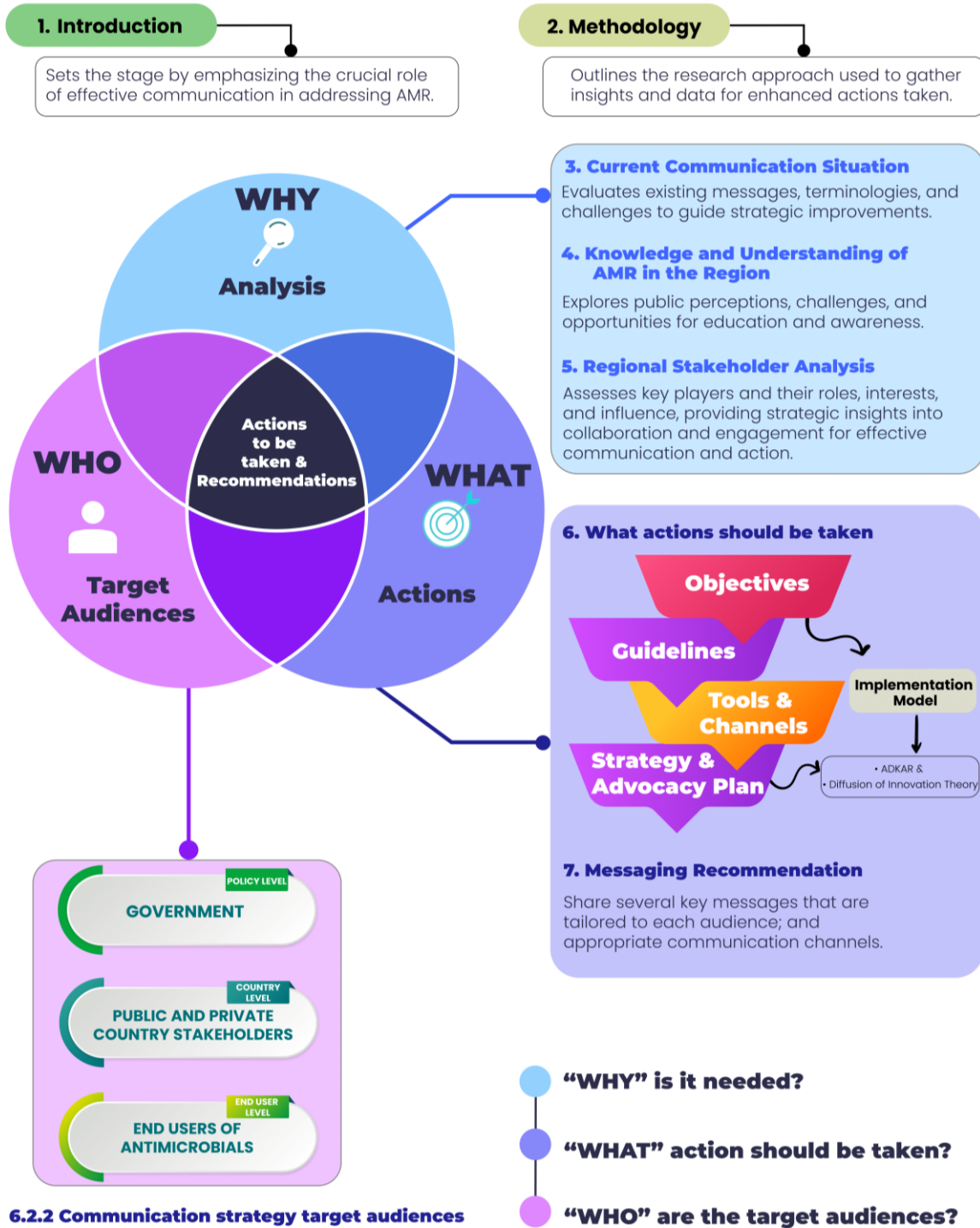
Table 1: Main themes presented in global media headlines.....	8
Table 2: Main themes presented in media headlines in partner countries	9
Table 3: Systemic and people challenges related to health and health care that effective communication needs to address.....	11
Table 4: SWOT analysis of different communication features and initiatives from the region and beyond	12
Table 5: Stakeholder management levels and associated communication interventions.....	14
Table 6: Consolidated stakeholder mapping across the partner countries	16
Table 7: Synthesis of the ADKAR model and the Diffusion of Innovation theory	23
Table 8: Communication strategy and advocacy plan	24
Table 9: Framework for current messaging.....	43
Table 10: Current messaging problems and their impact on understanding.....	44
Table 11: Key 'Dos' and 'Do not's' for messaging.....	47
Table 12: Recommended framework for future messaging.....	48

List of Figures

Figure 1: ADKAR model approaches	21
Figure 2: Average distribution of stage of adoption under Diffusion of Innovation theory	22

Conceptual framework

This strategy brings together a **multidisciplinary analysis and strategic recommendations** to enhance AMR communication effectiveness and drive actionable outcomes. This diagram illustrates to categorize chapters and show their connection to the overall strategy.



Executive summary

Antimicrobial resistance (AMR) is a major global threat of increasing concern to human and animal health, livestock and agricultural production, and the environment. The lack of awareness about AMR poses a threat to public health and requires urgent action at the national and regional level. Getting the message across about the dangers of AMR and how to prevent it is a global priority. This guideline emphasizes the establishment of an effective communication strategy and methods for addressing AMR as a key to impactful communication. It analyses the stakeholder levels and dynamics in nine Asian nations—China, Japan, the Philippines, South Korea, India, Indonesia, Vietnam, Malaysia, and Thailand, where these countries face unique challenges.

In this context, the objective of this guideline is to help stakeholders across relevant sectors and levels of organization and governance in the Region to develop strategies to raise awareness about the importance of using antimicrobials appropriately. It will also be useful to other relevant public and private professional stakeholders in addressing the multifaceted challenge of AMR.

This communication strategy is based on a synthesis between the ADKAR model (building Awareness, Desire, Knowledge, Ability and Reinforcement) and the Diffusion of Innovation theory (which offers insights into how innovations spread through populations). Detailed information is provided on the structured framework to guide communication efforts, ensuring that stakeholders are appropriately informed, motivated, and empowered to drive change; target audiences are differentiated; several key messages are shared that are tailored to each audience; and appropriate communication channels and tools explained. This strategic guideline also proposes four strategic goals of action to consider how appropriate strategies will support the overall AMR activities: 1) Build communication competency and capacity; 2) Design and implement communication and advocacy activities; 3) Make AMR known and position it as the primary threat to One Health integrity and emphasize its relevance to individual well-being; and 4) Improve audience engagement and ensure their empowerment.

Each goal lists objectives to be achieved at different levels of the model to increase awareness about the problem of AMR and motivate behaviour change. By targeting specific groups and addressing their unique needs, this structured approach ensures that communication efforts are relevant, and impactful, ultimately leading to wider adoption, thus reducing the risk of AMR.

Finally, this guideline provides a number of examples of methods and approaches for those responsible for communication and advocacy to develop and implement plans and strategies to support the necessity for action to combat AMR.

1. Introduction

Effective communication about any issue hinges on the language we choose. The framing of an issue can significantly influence how it is perceived by an audience, affecting their understanding, engagement, and support for actions. This concept of framing extends beyond expert and practitioner communication; it encompasses how issues are conveyed and discussed by the public, political decision-makers, and media.

Whether it's climate change, war, or health crises, media coverage and social media discussions are pivotal in shaping public opinion and either facilitating or impeding political advancements. There have been numerous efforts to reshape conversations on various topics, including climate change, mental health, and smoking. Every time we address antimicrobial resistance (AMR), our language and messages have the power to inspire allies or breed apathy. By grounding our communications in evidence, just as we would for any other intervention, we can better leverage our potential as advocates to effectively garner support for the AMR cause and prompt action.

This communication is based on two distinct analyses. One is on the process of communication itself and the other is of the different stakeholders we are seeking to educate and influence through communication. The analysis of the process of communication looks at current terminology, for what is a complex subject, how communication has been framed, the level of knowledge and understanding across the region and the tools and channels used in our partner countries. The stakeholder analysis has included mapping of stakeholders according to their role and level of engagement and their area of interest (Policy & Funding, Advocacy, Innovation & Research and Surveillance).

The objectives of this document are to:

- identify effective communication methods for addressing AMR,
- understand how impacted and interested parties comprehend AMR,
- develop a strategy that convinces the stakeholders of the necessity for action to combat AMR.

2. Methodology

2.1 For current communication situation analysis

This analysis of AMR communication in the region underwent two distinct phases: i) desk research; ii) analysis and discussion. In the initial phase, online searches were conducted for research papers, government reports, press releases, and news articles related to AMR communication. This search encompassed databases such as PubMed for English-published data and recent research results in The Lancet regarding AMR. The examination focused on AMR communication activities documented in research papers, UN reports, and online databases, primarily from the year 2010 onwards, aligning with the Global Action Plan. The study covered experiences in nine Asian countries: China, Japan, Indonesia, India, Malaysia, the Philippines, Republic of Korea, Thailand, and Vietnam. Specific Google searches were conducted using strings that combined country names, publications, authors, partnerships, and stakeholders with various AMR-related keywords, including "AMR awareness campaign," "AMR education," "AMR stewardship," "AMR workshops," "rational use of antibiotics," and "AMR awareness."

The analysis commenced by conducting thorough country-specific multisectoral assessments of the AMR situation, encompassing factors such as AMR stakeholders, AMR structures, and the status of National Action Plans. These analyses drew insights from previous AMR campaigns. The resulting overview offers insights into the experiences and lessons learned during the development and implementation of AMR

communication in nine Asian countries, with the objective of furnishing useful perspectives for improving and optimizing the utilization of this tool in the future.¹

2.2. For stakeholder analysis

For a comprehensive understanding of the diverse landscape of stakeholders involved in combating AMR, a meticulous approach to data collection was adopted.

Definition of a stakeholder in this process

- Any person, group or institution with an interest in prudent use of antimicrobials and AMR issues.
- Such a person, group or institution may be affected directly or indirectly by issues relating to antibiotic use and resistance.
- Such a person, group or institution may have interests and expectations, which may affect the AMR policy and/or policy process or be affected by the AMR policy and/or policy process.

Thus, for the purposes of the analysis contained in this document, a stakeholder was defined as “Someone who has interests in a particular decision, either as an individual or as a representative of a group.” With respect to antibiotic use and resistance, decision-makers, those who can influence decisions and those who are or may be affected by such decisions were considered as potential stakeholders.

The stakeholder mapping employed a mixed-methods approach, combining desk research with primary research methods. The inclusion and exclusion criteria guided the selection process to ensure a focused examination of stakeholders in specific policy areas related to AMR.

- **Desk research:** Extensive desk research was conducted to identify and gather information on relevant stakeholders. This involved reviewing published literature, official reports, policy documents, and organizational websites.
- **Questionnaire and discussion:** discussions were conducted with representatives from few organizations working in the AMR field.
- **Inclusion and exclusion criteria:** Criteria were established to prioritize stakeholders based on their direct involvement in critical policy areas related to AMR. This ensured that the final mapping would focus on actors with substantial influence and contribution.

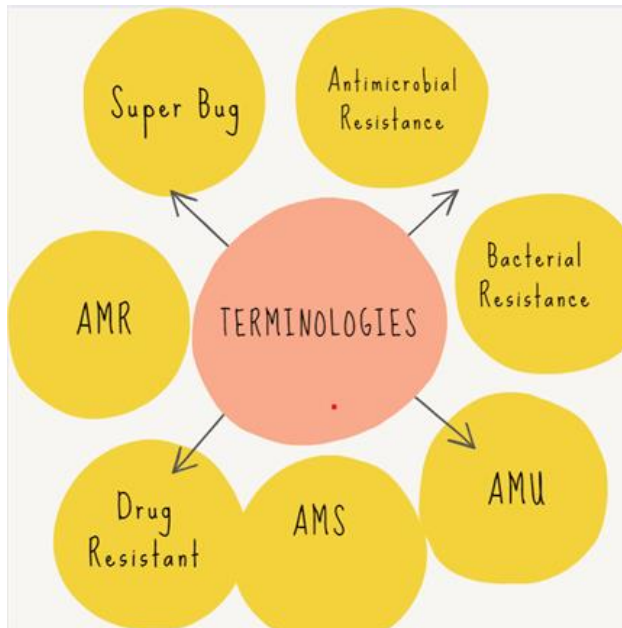
The combination of these research methods allowed for a comprehensive exploration of both publicly available information and insights that might not be readily accessible. The triangulation of data from different sources aimed to provide a robust and nuanced understanding of the stakeholder landscape in AMR communication and policy implementation.

¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5890732/>

3. Current communication situation

3.1 What key terminologies are being used?

The following are some of the current terminologies being used in the key messages AMR in in a study titled 'Communication Medicine'².



The study suggests that the scientific term "antimicrobial resistance" appears ill-suited for effective public health communication. This conclusion is drawn from the term's inconsistent usage, its phonetic complexity, abstract nature, and its lack of intuitive meaning; unlike terms such as "heart disease", "antimicrobial resistance" fails to evoke immediate associations with its implications.

There are challenges associated with the usage of the wide variety of terms, particularly when communicating with the general public. Many of these terms, such as 'antimicrobial', are technical and may be perceived as complicated by the general public. Additionally, experts and communicators often abbreviate these terms, further distancing them from everyday language. For example, 'antimicrobial resistance' may be shortened to 'AMR', and 'drug-resistant infections' to 'DRI', making them less familiar to the public. Besides this, many people were not aware of which medications contained antibiotic ingredients, such as Mybacin Lozenges cough drops containing 2.5 mg neomycin.

To address this challenge, **there is a need for clarity and consistency in the use of terminology**, as well as efforts to simplify complex terms for broader public comprehension. By employing accessible language and avoiding excessive jargon, communicators can better engage audiences and convey the urgency of addressing AMR as a global health priority.

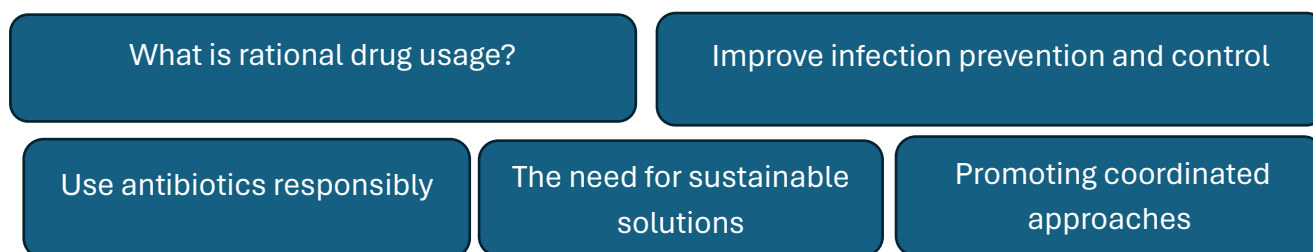
² <https://www.nature.com/articles/s43856-023-00379-6.pdf>

3.2 What are the current key messages

The following messages are from campaigns by Quadripartite and other key organizations considered for analysis. Most of these messages are only being used during World Antibiotic Awareness Weeks.

- “Only use antibiotics when prescribed by a certified health professional, finish your full course of antibiotics as prescribed.”
- “Never demand antibiotics if your health worker says you don’t need them.”
- “Always follow your health worker’s advice when using antibiotics.”
- “Follow withdrawal periods to avoid antibiotic residues in food. And use antibiotics only under veterinary supervision.”
- “Never share or use leftover antibiotics.”
- “Antibiotics represent one of the most powerful tools in healthcare, underpinning every aspect of treatment against life-threatening infectious diseases such as pneumonia, TB, HIV, and malaria, enabling critical interventions like chemotherapy, and surgical procedures.”
- “Prescribe antibiotics judiciously based on diagnosis.”
- “AMR occurs when bacteria, viruses, fungi, and parasites change over time and no longer respond to medicines – making infections harder to treat and increasing the risk of disease spread, severe illness and death. This rising resistance threatens to undermine modern medicine.”
- “AMR poses a significant threat to human and animal health as well as ecosystems.”
- “One Health approach: Recognize that AMR challenges are interconnected with climate change, biodiversity loss, and pollution.”
- “There were an estimated 4.95 million deaths associated with bacterial resistance in 2019 including 1.27 million deaths attributable to infections which are resistant to antibiotics. And this is estimated to increase to 10 million deaths each year by 2050.”
- “AMR is a global public health issue requiring multiple solutions and a sustained coordinated response.”
- “Over-the-counter antibiotic access remains a challenge.”
- “Good husbandry practices, biosecurity, sanitation, hygiene, vaccination and other infection prevention measures are essential to reduce the need for antimicrobials in animals and antimicrobial pesticides in plants”
- “Antimicrobials are agents used to prevent, control and treat infectious diseases in humans, animals and plants, but they are becoming increasingly ineffective.”

3.2.1 What are ‘Calls to action’ based on?



3.2.2 What are the challenges and gaps in current communication?

A significant challenge in conveying these messages stemmed from the **lack of familiarity** people had with the term "antibiotic" as well as lack of clarity in required action. While awareness campaigns exist, they often lack clear and actionable guidance for individuals. Audiences receive general messages about responsible antibiotic use, but the specific steps needed are unclear. This **lack of clarity** in the call to action exacerbates the gap between awareness and action, a persistent challenge within AMR communication efforts.

Compounding this issue is the **time-bound nature** of many awareness initiatives, such as World Antibiotic Awareness Week (WAAW). While these campaigns serve to raise awareness, their impact is often fleeting, failing to instigate sustained behavior change. Addressing AMR requires ongoing reinforcement beyond specific weeks or months, highlighting the need for continuous engagement.

The **lack of relevance** of messaging across diverse audiences is another challenge. Generic messages may not resonate equally with different stakeholders (e.g. patients, healthcare providers, farmers, policymakers).

Tailored calls to action are essential to address the specific needs and challenges faced by different groups, recognizing that a **one-size-fits-all approach falls short** in driving meaningful change. The distinctions between bacteria and viruses as disease-causing agents were **rarely understood** among the general population.

To address these challenges, calls to action should aim to empower individuals to take ownership of their actions. Rather than solely emphasizing risks, messages should provide practical steps for people to deal with real life situations that they can identify with. For instance, guidance on how to handle leftover antibiotics or when to seek medical advice can empower people to make informed decisions in their everyday lives. By addressing these complexities and fostering a sense of empowerment, AMR communication efforts can move beyond awareness-raising to drive tangible behavior change and combat this pressing global health threat.

3.3 How is communication on AMR being framed?

Understanding how communication about AMR is framed requires examination of the strategies employed, the messaging conveyed, and the channels utilized.

WAAW in 2021 and 2022 saw a broadening of activities across various sectors and featuring a vibrant 'Go Blue' campaign under the theme 'Spread Awareness, Stop Resistance'. As part of this campaign, important public buildings around the world chose to immerse themselves in blue color. **However, these messages and campaigns were short-lived, disseminated separately, not strategically. The theme was not clear and the messages did not inform the target audience of what they needed to do to reduce AMR.**

The portrayal of AMR in the media often presents challenges in driving public understanding, primarily driven by specific disease areas and outbreaks. While this approach is common in global health reporting, it results in **disjointed and fragmented media coverage** of AMR, making it difficult for the public to

connect different stories on the issue. For instance, coverage may focus on antibiotic-resistant strains of bacteria found in livestock, such as *Campylobacter* or *Salmonella*, and their implications for food safety and public health, without highlighting the interconnected nature and details of these topics. Additionally, the volume of media coverage on AMR varies significantly between countries, further contributing to the lack of cohesive understanding.

Analysis of **social media conversations** reveals that discussions about AMR **tend to be confined to specialist circles**. Compared to more high-profile issues like climate change, the overall volume of conversation about AMR is relatively low. Consequently, the discourse surrounding AMR fails to reach mainstream audiences, with only experts and practitioners actively engaging in these conversations. This lack of broader engagement limits the effectiveness of communication efforts, as it hampers the dissemination of crucial information and hinders efforts to mobilize collective action against AMR.

The way in which the **media’s main AMR topics and headlines** are portrayed are shown in Table 1 for global media and Table 2 for partner countries. It is important to note that the media conveys the messages and keywords shared by the main implementing stakeholders of AMR.

Table 1: Main themes presented in global media headlines

Theme	Media headlines
Affected demographics: vulnerable populations	<ul style="list-style-type: none"> • “AMR also exacerbates inequities within societies vulnerable groups, including women, children, migrants, refugees, and those living in informal settlements, are particularly vulnerable to drug-resistant infections and may have less access to health systems.” • “E.coli in children: Doctor’s fears as antibiotics stop working.”
level of economic impact	<ul style="list-style-type: none"> • “Drug-Resistant Infections: A Threat to Our Economic Future”³ • “Antimicrobial agents are essential for food security and the global consumption of antimicrobials is projected to rise by 70 percent by 2030” • “Impact of AMR on animal health and welfare”⁴
Level of catastrophic impact	<ul style="list-style-type: none"> • “Millions are dying from drug-resistant infections, global report says”⁵ • “Antibiotic resistance could spell end of modern medicine, says chief medic”
Scale of impact on healthcare systems	<ul style="list-style-type: none"> • “Antibiotic resistance could spell end of modern medicine, says chief medic” • “Antibiotic resistance: Huge fears for ‘end of modern medicine”
Scale of fatalities	<ul style="list-style-type: none"> • “More than 700,000 people die every year from drug-resistant infections” • “10 million lives could be lost to superbugs – so how far have we got in the race to beat them?” • “Antibiotic Resistance Could Take Us Back to the Days Where 40% of Us Died of Infections” • “Taking antibiotics unnecessarily could cause more DEATHS than diabetes and cancer COMBINED.”

³ <https://www.worldbank.org/en/topic/health/publication/drug-resistant-infections-a-threat-to-our-economic-future>

⁴ <https://health.economictimes.indiatimes.com/news/industry/impact-of-amr-on-animal-health-and-welfare/87917018>

⁵ <https://www.bbc.com/news/health-60058120>

Table 2: Main themes presented in media headlines in partner countries

Country	Media and publication headlines (news and web articles)
India:	<ul style="list-style-type: none"> • Scientists, startups fight antibiotic apocalypse⁶ • Over-prescription, self-medication, and regulatory gaps leading causes of antimicrobial resistance in India⁷ • The Indian livestock industry’s efforts to regulate antibiotic usage in meats and ban Colistin. • Unmeasured burden: Drug-resistance in farm animals threatens human health in India. • Vulnerable Populations Bear the Brunt of AMR Crisis in India. • Scientists, startups fight antibiotic apocalypse.⁸ • Are antibiotics over-prescribed in India?⁹
China	<ul style="list-style-type: none"> • China’s Battle Against Superbugs: AMR Poses a Grave Risk to Public Health.¹⁰ • Catastrophic Impact of AMR: China Faces Growing Antibiotic Resistance Crisis. • Healthcare Systems Strain Under the Weight of AMR in China.
Japan	<ul style="list-style-type: none"> • Japan’s Efforts to Combat AMR: Balancing Economic Costs and Health Impact. • Fatalities Rise: Japan Grapples with Antibiotic-Resistant Infections”.
Malaysia	<ul style="list-style-type: none"> • Malaysia’s Fight Against Superbugs: AMR Threatens Healthcare Systems.¹¹ • Fatalities Soar: Malaysia’s Battle with Resistant Infections. • Malaysia’s efforts to prevent spread of AMR through proper waste disposal and food hygiene
Philippines	<ul style="list-style-type: none"> • Time to Act: Curbing Antimicrobial Resistance Now. • AMR: When infections fight back, kill¹² • AMR Affects Vulnerable Populations, Requires Urgent Action.
Thailand	<ul style="list-style-type: none"> • Thailand hosted the first Asia-Pacific Regional Forum on Health and Environment in 2007, including AMR as an environmental health concern. • “Thailand’s National Strategic Plan on AMR aims to reduce antimicrobial use in animals”.
Vietnam	<ul style="list-style-type: none"> • “Challenges of Investigating AMR: Benefits of a One Health Approach”. • “Antimicrobial Resistance Situation in Vietnam: A Challenge”. • “Vietnam Holds Historic Meeting to Protect Human, Animal, and Environmental Health”.
Indonesia	<ul style="list-style-type: none"> • “Indonesia’s focus on WASH, waste management, and food hygiene to reduce AMR”. • “AMR and the Environment: Challenges and Opportunities”.
South Korea	<ul style="list-style-type: none"> • “Tackling AMR through One Health and Sustainable Development Goals”. • “Human-to-animal transmission of SARS-CoV-2 in South Korea”.

⁶ <https://www.hindustantimes.com/india-news/centre-to-expand-surveillance-against-anti-microbial-resistance-101706292175228.html>

⁷ <https://www.financialexpress.com/healthcare/pharma-healthcare/over-prescription-self-medication-and-regulatory-gaps-leading-causes-of-antimicrobial-resistance-in-india/3322656/>

⁸ <https://timesofindia.indiatimes.com/india/scientists-startups-fight-antibiotic-apocalypse-news-article/articleshow/107784345.cms>

⁹ <https://www.thehindu.com/opinion/op-ed/are-antibiotics-over-prescribed-in-india/article67730564.ece>

¹⁰ <https://www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2023.1270018/full>

¹¹ <https://www.thestar.com.my/news/nation/2022/09/18/new-action-plan-to-fight-superbugs>

¹² <https://newsinfo.inquirer.net/1696417/amr-when-infections-fight-back-kill>

4. Knowledge and understanding of AMR in the Region

Research conducted by the World Bank in 2019¹³ revealed a significant "know–do" gap in addressing AMR challenges. Despite a growing body of evidence on AMR and drug-resistant infections, translating this knowledge into effective policies and practices remains a formidable challenge. Implementation **gaps** are evident in areas such as **hygiene, animal health, food safety, water, and sanitation**. There is a need for extensive research to bridge the gap between knowledge and real-world actions, emphasizing practical approaches for achieving national and global AMR goals.

As mentioned above, there is a wide diversity in understanding between different groups of people in different countries. Communication needs to reflect this and be specific to audience groups - no communication is effective across the board. An analysis of the **different understanding by different groups** in the partner countries is provided in Annex 3.

Communication methods and **messaging depend on the stage of the health care process**. From prevention of infection (e.g. relevance to daily life), through diagnosis (e.g. identification of AMR infections) and treatment (e.g. appropriate medication) of disease, to overall access to health services (e.g. disparities in access and reporting), communication planning needs a multifaceted approach and targeted plan involving collaboration between governments, healthcare institutions, community organizations, and individuals to implement effective communication strategies, improve healthcare infrastructure, and to promote responsible antibiotic use (Table 3).

Given the wide range of issues, features, initiatives and channels a **SWOT analysis of different communication features** and initiatives from the region and beyond was carried out to inform future planning decisions (Table 4).

¹³ World Bank. 2019. "Pulling Together to Beat Superbugs: Knowledge and Implementation Gaps in Addressing Antimicrobial Resistance." Washington, DC: World Bank.

Table 3: Systemic and people challenges related to health and health care that effective communication needs to address

Phase	System challenges	People challenges
Prevention of infection	<ul style="list-style-type: none"> - Uneven reach of AMR awareness campaigns globally. - Lack of consistent global messaging and lack of standardized protocols - Insufficient funding for public health campaigns to promote awareness and education on AMR. 	<ul style="list-style-type: none"> - Perceived irrelevance of AMR to daily life. - Difficulty relating to abstract concepts. - Complacency among individuals due to a lack of understanding about the seriousness of AMR and the impact of preventive measures
Diagnosis	<ul style="list-style-type: none"> - Lack of access to accurate and timely diagnostic tools, particularly in resource-limited settings - Communication gaps regarding AMR in wildlife and ecosystems. - Inadequate training of healthcare professionals in diagnosing bacterial infections and differentiating them from viral infections 	<ul style="list-style-type: none"> - Limited awareness among the general public including farmers, health professionals and veterinarians. - Misinterpretation or misunderstanding of diagnostic test results by both healthcare providers and patients - Challenges in addressing AMR beyond human health.
Treatment	<ul style="list-style-type: none"> - Gaps in AMR training for healthcare professionals. - Lack of standardized training across settings. - Limited availability and affordability of effective antimicrobial drugs due to overuse and misuse. - Fragmentation of healthcare systems leading to challenges in monitoring and regulating antibiotic use 	<ul style="list-style-type: none"> - Inappropriate antibiotic prescription due to misunderstanding. - Varying adherence to guidelines. - Patient demand for antibiotics even when they are not necessary, leading to inappropriate prescription practices
Access to health services	<ul style="list-style-type: none"> - Limited awareness about one health AMR risks. - Disparities in access to healthcare services, including limited access to clinics and hospitals in rural or underserved areas. - Overburdened healthcare systems leading to long wait times and limited consultation time with healthcare providers 	<ul style="list-style-type: none"> - Underreported AMR compared to other health topics. - Cultural beliefs and preferences influencing healthcare-seeking behaviors, potentially delaying seeking appropriate medical attention for AMR-related issues - Socioeconomic factors such as poverty and lack of health insurance leading to barriers in accessing healthcare services

Table 4: SWOT analysis of different communication features and initiatives from the region and beyond

Strength	Weaknesses
<ul style="list-style-type: none"> • Global and Regional Collaboration: <ul style="list-style-type: none"> ○ Countries collaborate on AMR research, policies, and awareness campaigns. ○ Joint efforts enhance knowledge sharing and resource utilization. • Successful Initiatives in Some Countries: <ul style="list-style-type: none"> ○ Notable achievements in AMR awareness and behavior change (e.g., Thailand’s campaigns). ○ These successes can serve as models for other countries. • Ongoing Surveillance Efforts: <ul style="list-style-type: none"> ○ Global Antimicrobial Resistance Surveillance System (GLASS) ○ ANimal antiMicrobial USE (ANIMUSE) Global Database ○ RENOFARM (Reduce the Need for Antimicrobials on Farms for Sustainable Agrifood Systems Transformation) including International FAO Antimicrobial Resistance Monitoring (InFARM) ○ Data-driven insights inform targeted interventions. • LANCET AMR Report Pre-COVID-19: <ul style="list-style-type: none"> ○ Research publications like the LANCET report highlight AMR urgency. ○ These reports influence policy decisions. • Knowledge Attitude and Practice Surveys: <ul style="list-style-type: none"> ○ Regular surveys assess public awareness and behavior. ○ Insights guide campaign strategies. 	<ul style="list-style-type: none"> • Limited Large-Scale Communication Campaigns: <ul style="list-style-type: none"> ○ Insufficient investment in comprehensive awareness initiatives. ○ Campaigns often lack reach and impact. • Knowledge Gaps Among the Public and Healthcare Professionals: <ul style="list-style-type: none"> ○ Misconceptions about antibiotics and AMR persist. ○ Education gaps hinder behavior change. • Inconsistent Messaging Addressing AMR Behavior: <ul style="list-style-type: none"> ○ Mixed messages confuse the public. ○ Harmonized communication is essential. • Weakened Social Connectivity: <ul style="list-style-type: none"> ○ Social isolation affects information dissemination. ○ Community engagement is challenging. • Discrimination Against Those Deemed at Risk for or With AMR Infections: <ul style="list-style-type: none"> ○ Stigma associated with AMR can deter seeking help. ○ Inclusive messaging is crucial. • Unequal Impacts of AMR: <ul style="list-style-type: none"> ○ Marginalized groups face higher AMR risks due to poverty, homelessness, and inadequate sanitation.
Opportunities	Threats
<ul style="list-style-type: none"> • Reframing and strategizing the continuity of AMR messaging <ul style="list-style-type: none"> ○ Continuous messages can enhance campaign visibility. • Potential for Leveraging Popular Personalities: <ul style="list-style-type: none"> ○ Celebrities and influencers can amplify AMR messages. • Increasing Public Awareness Through Global Campaigns: <ul style="list-style-type: none"> ○ Events like World Antibiotic Awareness Week raise awareness. ○ Coordinated efforts yield greater impact. • Inclusion of UNEP for Addressing Environmental Aspects of AMR: <ul style="list-style-type: none"> ○ United Nations Environment Programme (UNEP) involvement expands the scope. 	<ul style="list-style-type: none"> • Lack of Universally Accepted AMS Definition: <ul style="list-style-type: none"> ○ Antimicrobial stewardship (AMS) lacks consistent global standards. ○ Varying definitions hinder coordinated efforts. • Rising Antimicrobial Use (AMU) in Certain Countries: <ul style="list-style-type: none"> ○ Increased AMU contributes to AMR. ○ Containment efforts face challenges. • Limited Progress in AMR Awareness Generation and Education in the Environmental Sector: <ul style="list-style-type: none"> ○ Environmental aspects are often overlooked. ○ Holistic approaches are needed.

5. Regional stakeholder analysis

5.1 Introduction

This section explores the stakeholder dynamics in the partner countries. By examining the roles, contributions, and engagement levels of stakeholders, this section aims to provide valuable insights for policymakers and organizations working towards effective AMR mitigation.

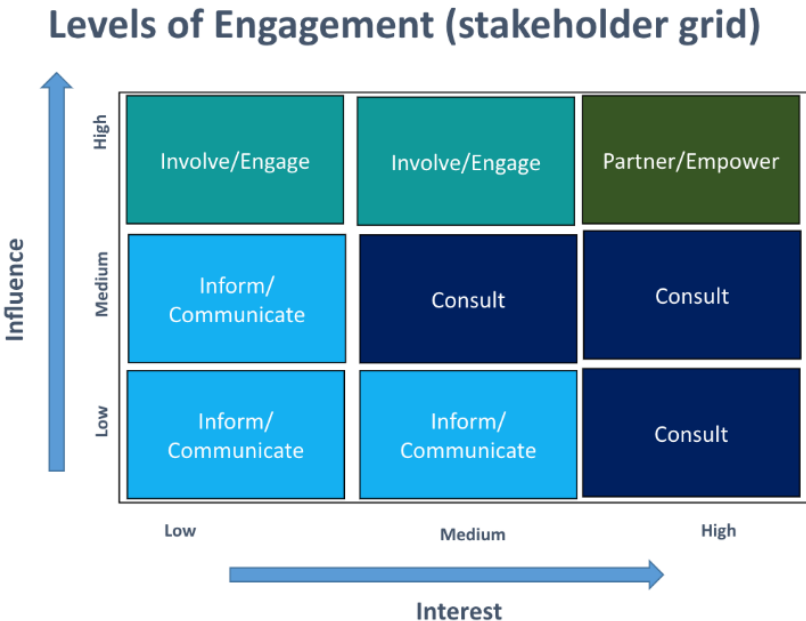
5.1. Objectives

- **Identify key stakeholders:** Recognise and categorise the primary stakeholders influencing AMR-related policies and communication strategies.
- **Evaluate stakeholder roles:** Understand the roles and contributions of each stakeholder in the context of AMR, considering factors such as policy formulation, communication dissemination, and research initiatives.
- **Assess interest and influence:** stakeholder allegiance / interest to support AMR.
- **Develop stakeholder management strategy:** Based on outcome create engagement strategy for identified stakeholders.

5.2. Stakeholder analysis

5.2.1 Stakeholder engagement/buy-in strategy

The overarching goal of the stakeholder analysis is to secure stakeholder buy-in through effective communication and advocacy efforts. The ‘Stakeholder level of engagement versus influence matrix’ shown here has been created following exhaustive analysis and provides a framework for formulating a Stakeholder Engagement Strategy. Based on stakeholder influence-interest mapping, the strategy is designed to adhere to the progressively closer levels of stakeholder engagement.



Whilst the process for identifying stakeholder engagement options is shown in the figure above, Table 5 identifies the implications of each stakeholder engagement options (in terms of communication objectives, approach, activities, lead and priority).

This approach forms the basis for the stakeholder mapping exercise in section 5.2.2.

Table 5: Stakeholder management levels and associated communication interventions

<p>Inform/Communicate This level involves advocacy and focuses on providing information. The key objective is to ensure stakeholders receive necessary and relevant information regarding the subject matter. Objective: Disseminate essential information to stakeholders with minimal effort on their part. Approach: Develop concise communication materials, including reports and briefs, to keep stakeholders informed. Proposed Activities: Regular highlighting key updates on AMR initiatives through diverse communication tool (informational brochures, Newsletter, video, advocacy meeting). Lead: Communications team working in collaboration with subject matter experts. Priority Rating: Moderate – Essential for stakeholders to be aware but not requiring extensive engagement.</p>	<p>Consult This level entails actively seeking stakeholders' views, although it doesn't necessarily involve two-way dialogue. The primary goal is to gather input and opinions from stakeholders to incorporate into decision-making processes. Objective: Actively seek views and opinions of stakeholders without engaging in extensive dialogue. Approach: Conduct targeted surveys, interviews, or focus group discussions to gather insights. Activities: Stakeholder-specific consultations on proposed AMR strategies. Surveys to understand stakeholder perspectives on key AMR issues. Lead: Dedicated consultation team collaborating with relevant experts. Priority Rating: Moderate-High – Requires more involvement than mere information dissemination.</p>
<p>Involve/Engage The "Involve/Engage" stage requires active and two-way dialogue with stakeholders. Beyond soliciting information, it requires proactive effort to comprehend stakeholder views and engage in follow-up consultations. The aim is to foster a deeper understanding of perspectives and encourage collaborative discussions. Objective: Establish active dialogue, request information, and proactively understand views. Approach: Facilitate interactive sessions, workshops, and collaborative platforms for deeper engagement. Activities: Stakeholder workshops to co-create awareness campaigns. Collaborative forums for discussions on AMR challenges. Lead: Cross-functional team involving subject matter experts, facilitators, and coordinators. Priority Rating: High – In-depth involvement for fostering collaboration and understanding.</p>	<p>Partner/Empower The highest level of engagement is "Partner/Empower," where joint activities are pursued. This stage involves establishing partnerships and empowering stakeholders to actively participate in mutually beneficial initiatives. Collaboration is emphasized, and stakeholders are viewed as equal partners in achieving shared objectives. Objective: Achieve the highest level of engagement through joint activities and empowering stakeholders. Approach: Establish strategic partnerships, collaborations, empower to take ownership. Activities: Form alliances with key stakeholders for joint initiatives. Empower local communities to champion AMR awareness at the grassroots. Lead: Leadership team supported by dedicated partnership coordinators. Priority Rating: Critical – Essential for long-term sustainability and impact.</p>

5.2.2 Stakeholder country mapping

As AMR covers human and animal health, livestock and agricultural production, and the environment a diverse group of stakeholders is involved, across sectors and types of organization. An in-depth examination of stakeholders from each partner country and their role in either the public and private sector is presented in Annex 5.

In all, more than 100 institutions were identified as potential stakeholders. Given the complexity of AMR, and the diversity and position of stakeholders, integrated approaches are needed to identify appropriate ways of communicating and the associated level of engagement.

Gauging the interest and influence levels of stakeholders is important for prioritizing stakeholders. The Influence-Interest Grid above is a simple tool for visualizing stakeholder categories based on their levels of influence and interest. By plotting stakeholders on this grid, organizations can gain valuable insights into how to engage with each group effectively.

Influence refers to the ability of a stakeholder to influence the outcome of an activity. Stakeholders with high influence have the capacity to make decisions, allocate resources, and shape the activity. These stakeholders often include ministries, regulatory bodies, competent authorities or key private sector partners.

Interest, on the other hand, signifies the degree to which a stakeholder is affected by or interested in the outcome. Stakeholders with high interest have a direct stake in the activity and are more likely to be affected by its success or failure.

- High Influence, High Interest (**Partner/Empower**): These stakeholders have both the ability and the motivation to exert significant influence on the activity.
- High Influence, Low Interest (**Involve/Engage**): While these stakeholders have the influence to impact the activity, they may not be directly involved.
- Low Influence, High Interest (**Consult**): These stakeholders have a keen interest in the activity but limited influence.
- Low Influence, Low Interest (**Inform/Communicate**): Stakeholders in this category have minor influence and interest.

Table 6 provides an overview of the stakeholders combining the Buy-in Approach and Level of Engagement tailored to each stakeholder category. It is important to note that the positions and roles can evolve, and continuous engagement with stakeholders is essential for effective engagement.

Engaging the private sector is crucial in addressing AMR comprehensively. Communication guidelines for private sector engagement emphasize building partnerships with pharmaceutical companies, healthcare providers, agricultural organizations, and other relevant stakeholder dynamics in the nine partner countries. The guidelines outline strategies for promoting responsible antibiotic use, supporting research and innovation, and fostering collaboration to implement AMR prevention and control measures effectively. By integrating private sector engagement into our communication framework, we aim to leverage industry expertise and resources to achieve our AMR communication objectives and drive positive change.

A separate publication will be developed for the private sector based on focus group discussions and workshops with private sector associations and representatives in several countries in the region.

Table 6: Consolidated stakeholder mapping across the partner countries

Government (policy level)		
	Level of engagement grid	Role
Ministries including authorities and technical teams (involved in AMR) of Ministries	<ul style="list-style-type: none"> • Partner/Empower • Involve/Engage • Consult 	Responsible for designing, resourcing and implementing comprehensive national AMR polices and strategic plans using the One Health approach. Active role to coordinate and engage all stakeholders
National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services	<ul style="list-style-type: none"> • Partner/Empower • Involve/Engage • Consult 	in the development, implementation and monitoring and evaluation of national AMR plans – including, but not limited to, relevant ministries and institutions responsible for human, animal, plant and environmental health. This division of responsibilities across departments and ministries underlines the level of engagement
Public and private country stakeholders		
	Level of engagement grid	Role
Private sector partners	<ul style="list-style-type: none"> • Involve/Engage • Consult 	Including pharmaceutical industry, animal feed manufacturers, agricultural extension providers. Important role in raising awareness about AMR, promoting antimicrobial stewardship and adhere to good manufacturing practices.
Professional associations of doctors, pharmacists and veterinarians	<ul style="list-style-type: none"> • Inform/Communicate • Consult • Involve/ Engage 	Important platforms for sharing experience, knowledge, information on AMR and best practices.
Academia	<ul style="list-style-type: none"> • Involve/Engage • Consult 	Providing education to potential professionals with the necessary knowledge to perform efficiently and fight against AMR effectively.
Civil society organizations	<ul style="list-style-type: none"> • Involve/Engage • Inform/Communicate 	Utilize their capacity for advocacy and their experience to encourage governments to take action on AMR
End users of antimicrobial		
	Level of engagement grid	Role
Farmers	<ul style="list-style-type: none"> • Involve/Engage • Inform/Communicate 	Implement responsible use of antimicrobials in agriculture. Participate in AMR prevention programs
Producer associations entities	<ul style="list-style-type: none"> • Involve/Engage • Inform Communicate 	Implementing measures to avoid food contamination. Activities aiming at limiting contamination of the environment. To promote greater awareness through health extension, work that reaches out to farmers, medical and veterinary professionals, consumers.
Public/Private hospital and clinic (human and animal health)	<ul style="list-style-type: none"> • Involve/Engage • Inform Communicate 	Clinical staff members are involved in the prescription and administration of antimicrobials and are therefore important in ensuring their prudent use.
General public	<ul style="list-style-type: none"> • Inform Communicate 	Human behaviors (actions) play an important role in both driving and mitigating AMR.

5.2.3 Factors to consider for different types of stakeholders

This section summarises the different factors to consider in relation to the different types of stakeholders. Full descriptions are provided in Annex 6.

Communication in the local context

Local communities often have unique cultural, linguistic, and socioeconomic characteristics that influence their perceptions and behaviors related to health and AMR. Culturally sensitive messaging, language accessibility, and community engagement strategies are essential for building trust and credibility within local communities.

Language accessibility should be ensured by translating communication materials into local languages and dialects. Traditional communication channels, such as community gatherings, local radio stations, and grassroots events, should be leveraged to disseminate information effectively. Continuous engagement and feedback loops should be established to maintain relevance and adapt communication strategies based on community input.

Coordination and collaboration

Coordination enables resources to be maximised, avoids duplication of efforts and achieves greater impact in AMR communication initiatives, and helps to ensure coherence and consistency in messaging, facilitates knowledge exchange, and promotes synergy across different sectors and levels of governance. Effective coordination involves establishing communication networks, defining clear roles and responsibilities, and fostering partnerships between government agencies, non-governmental organizations, academic institutions, and industry stakeholders.

Publication and distribution of regional AMR publications

The publication and distribution of regional AMR research, reports, and guidelines play a crucial role in informing evidence-based communication strategies. By collaborating with research institutions, public health agencies, and academic journals, stakeholders can share findings, highlight emerging trends, and promote knowledge exchange on AMR-related issues. Disseminating regional AMR works facilitates informed decision-making, policy development, and public awareness efforts at both regional and national levels.

Youth engagement

Engaging youth in AMR communication efforts is essential for fostering long-term behavior change and raising awareness among future generations. Youth represent a significant demographic with the potential to influence attitudes, behaviors, and social norms related to AMR prevention and control. Implementing youth engagement strategies in AMR communication requires targeted outreach, innovative approaches, and meaningful participation opportunities. Strategies to involve youth may include organizing youth-led campaigns or competitions, integrating AMR topics into school curricula or extracurricular activities, and leveraging social media influencers or online platforms to amplify messaging.

Educational engagement

Incorporating AMR education into professional training programs and public education campaigns is essential for equipping healthcare professionals and consumers with the knowledge and skills to prevent and control AMR. Healthcare professionals play a critical role in antibiotic stewardship and infection prevention efforts, making ongoing education and training essential for maintaining best practices. Likewise, educating consumers about the importance of responsible antibiotic use, hygiene practices, and vaccination uptake promotes informed decision-making and behavior change. Leveraging partnerships with professional associations, academic institutions, and community organizations can also enhance reach and engagement.

Gender inclusiveness

Gender-inclusive communication strategies are critical for addressing disparities in healthcare access, antibiotic use, and AMR awareness. Engaging women's groups and community organizations in outreach efforts promotes gender equality in healthcare policy and practice, supporting more inclusive and effective AMR interventions. Women and men may have different roles, preferences, and experiences related to healthcare decision-making and AMR prevention. By adopting gender-sensitive communication approaches, stakeholders can ensure that AMR communication efforts effectively reach and resonate with diverse audiences.

6. Actions to be taken - communication objectives, guidelines and tools and channels

6.1 Communication objectives

This section outlines the communications objectives for AMR in the Region based on analysis conducted and provides directions on how this strategy will support the overall AMR activities. These objectives should be converted into SMART objectives in any communication plan.

Goal 1. Build communication competency and capacity
Objective 1.1: Improve internal communication - develop a better 'first to know' process
Objective 1.2: Improve relation with media and government
Goal 2: Design and implement well-structured communication and advocacy activities, especially in selected countries and regions
Objective 2.1: Inform about what and why (what are the practices and why the change is needed)
Goal 3: Make AMR known and position it as a key threat to One Health integrity and emphasize relevance to individual well-being
Objective 3.1: Increase public awareness of AMR through targeted advocacy campaigns (focus on AMR understanding and its impact on One Health)
Goal 4: Improve audiences' engagement and ensure their empowerment
Objective 4.1: Ensure a sustainable and efficient approach to AMR education, communication and advocacy
Objective 4.2: Improve stakeholder-centered focus in AMR communication delivery

6.2 Communication guidelines

This section is the heart of this communication strategy. It takes the learning from the assessment of current AMR communications and the stakeholder analysis and uses a proven communication model to structure communication planning in the future.

The strategy considers the target audience, message approach, communication tactics and strategies as well as communication channels/materials/tools to achieve a defined desired outcome.

6.2.1 Communication strategy implementation model

In the communication plan (7.4.2) the **ADKAR model** and the **Diffusion of Innovation theory *synergize*** to create an effective communication strategy for combating AMR. In addressing the multifaceted challenge of AMR, effective communication is paramount. The ADKAR (**Awareness, Desire, Knowledge, Ability** and **Reinforcement**) model provides a structured framework to guide communication efforts, ensuring that

stakeholders are appropriately informed, motivated, and empowered to drive change. Below are the communication guidelines structured around the ADKAR model, which will aid in organizing each AMR campaign and communication effort through its phases.

Awareness:

The first step in addressing AMR is to raise awareness of the issue among stakeholders. Communication efforts should focus on disseminating information about the causes, consequences, and implications of AMR for public health. By increasing awareness, stakeholders can understand the urgency of the problem and recognize the need for action.

- **Craft Clear Messages:** Develop concise and compelling messages that convey the urgency and significance of AMR to diverse stakeholders, utilizing language tailored to each audience.
- **Leverage Multiple Channels:** Utilize a mix of communication channels, including digital platforms, educational seminars, and healthcare settings, to disseminate awareness-raising messages widely and effectively.
- **Highlight Urgency:** Emphasize the time-sensitive nature of addressing AMR and its far-reaching implications for healthcare systems, patient safety, and global public health.

Desire:

- **Emphasize Benefits:** Highlight the benefits of embracing antimicrobial stewardship practices and responsible antimicrobial use, underscoring their positive impact on patient outcomes, healthcare costs, and the efficacy of antibiotics.
- **Address Motivations:** Identify stakeholders' motivations and concerns regarding AMR, tailoring communication strategies to resonate with their professional interests, ethical values, and organizational priorities.
- **Utilize Personal Stories:** Incorporate real-life anecdotes, testimonials, and case studies to humanize the issue of AMR and evoke empathy, thereby fostering a sense of personal investment and desire for action.

Knowledge:

- **Provide Evidence-Based Information:** Disseminate accurate and up-to-date information about AMR, its root causes, risk factors, and preventive measures, drawing on credible sources and scientific evidence to build stakeholders' knowledge base.
- **Clarify Misconceptions:** Address common misconceptions and myths surrounding AMR through clear, accessible explanations and fact-based messaging, ensuring stakeholders have a comprehensive and accurate understanding of the issue.
- **Equip with Resources:** Equip stakeholders with practical resources, tools, and guidelines for implementing antimicrobial stewardship practices in their respective roles, fostering informed decision-making and effective action.

Ability:

- **Offer Targeted Training:** Provide tailored training sessions, workshops, and educational opportunities to enhance stakeholders' skills and competencies in implementing antimicrobial

stewardship initiatives, such as antimicrobial prescribing guidelines and infection prevention protocols.

- **Provide Hands-On Support:** Offer ongoing support, mentorship, and technical assistance to help stakeholders translate knowledge into action, facilitating the successful implementation of antimicrobial stewardship programs and practices.
- **Encourage Collaboration:** Foster a collaborative environment where stakeholders can share insights, best practices, and lessons learned, promoting collective learning and continuous improvement in addressing AMR.

Reinforcement:

- **Recognize Achievements:** Acknowledge and celebrate the accomplishments, milestones, and contributions of stakeholders in combating AMR, reinforcing positive behaviors and fostering a culture of excellence and accountability.
- **Facilitate Feedback:** Establish mechanisms for stakeholders to provide feedback, share experiences, and participate in quality improvement initiatives, facilitating ongoing dialogue and engagement in AMR-related efforts.
- **Sustain Engagement:** Implement strategies to sustain stakeholder engagement and participation over the long term, such as regular communication updates, recognition programs, and opportunities for continued involvement in AMR initiatives.

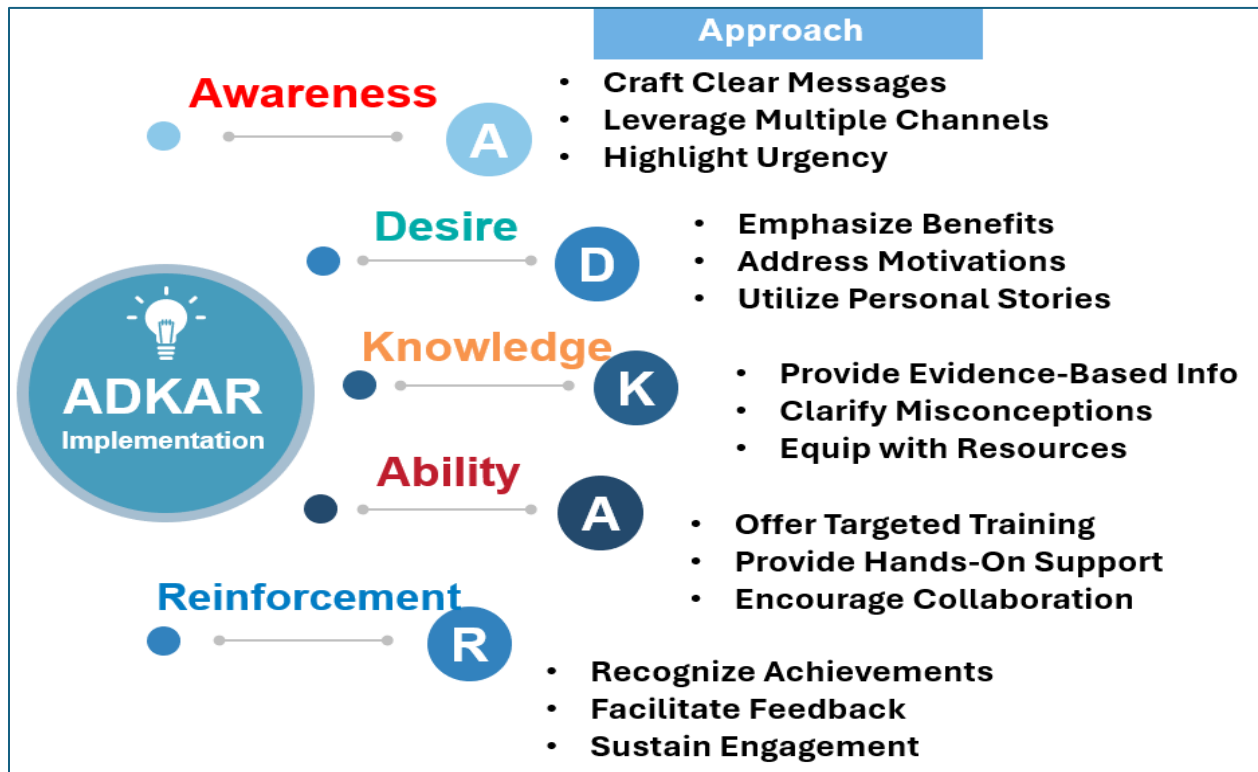


Figure 1: ADKAR model approaches

Simultaneously, the **Diffusion of Innovation model offers insights into how innovations spread through populations over time**, allowing for targeted communication strategies tailored to different stages of adoption (**innovators**, **early adopters**, **early majority**, **late majority** and **laggards** – **Figure 2**).

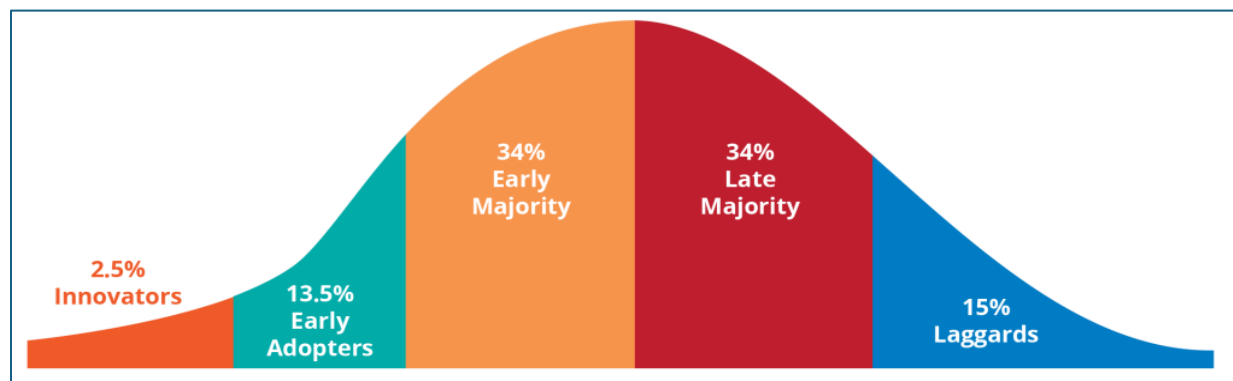


Figure 2: Average distribution of stage of adoption under Diffusion of Innovation theory

Integrating both models ensures stakeholders are informed, motivated, and supported in implementing sustainable practices, ultimately safeguarding One health. The plan utilizes the "Diffusion of Innovation Theory" to systematically outline the communication processes and effects involved in health campaigns (Table 9). Initially, the plan focuses on **innovators** and **early adopters** within the target audience. These individuals open to new ideas and play a vital role in kickstarting momentum for change. Further, focus on engaging the **early majority**, who tend to adopt innovations after seeing the others and embrace them out of necessity or peer pressure. Social proof, testimonials, and peer-to-peer communication channels are utilized to showcase the benefits of adopting antimicrobial stewardship practices and encourage widespread adoption. Finally, the strategy addresses the concerns of **late majority** to **laggards**, individuals who are more resistant to change. Tailored messaging on risk perception, personalized feedback, and addressing misconceptions is employed to mitigate resistance and encourage the adoption of responsible antimicrobial use practices.

Simultaneously the strategy also focuses on Awareness, Desire, Knowledge, Ability, and Reinforcement, ADKAR that facilitates a systematic approach to addressing behavior change among identified stakeholder groups. It helps to raise awareness about the urgency and implications of AMR, cultivating the desire among stakeholders to take action, providing them with the knowledge and skills to implement antimicrobial stewardship practices, and reinforcing positive behaviors over time. By targeting various stakeholder groups and addressing their unique needs, this structured approach ensures that communication efforts are relevant, and impactful, ultimately leading to widespread adoption, thus reducing the risk of AMR and protecting One health. Table 7 illustrates how the ADKAR model and the Diffusion of Innovation theory synergize.

Table 7: Synthesis of the ADKAR model and the Diffusion of Innovation theory

ADKAR model	Diffusion of Innovation theory
Awareness	Identifies the Innovators who are typically early adopters of new ideas. They are the first to become aware of and embrace innovations.
Desire	Cultivates Early Adopters by generating desire and motivation among them to adopt new practices. These individuals are influential in spreading innovations to others.
Knowledge	Equips Early Majority with the necessary knowledge and understanding to adopt innovations. This group requires evidence and information to support their decision-making process.
Ability	Builds Late Majority members' ability to implement innovations by providing them with the skills and capabilities needed for successful adoption.
Reinforcement	Reinforces the adoption of innovations among Laggards by providing ongoing support, feedback, endorsement and incentives to encourage their participation.

6.2.2 Communication strategy target audiences

To implement this communication strategy, target audiences are categorized into three main groups, based on their roles and levels of influence in combating AMR (each of these main groups may be subdivided into the Diffusion of Innovation stakeholder groups):

1. **Government (policy level)**
2. *Public and private country stakeholders*
3. End users of antimicrobial.

Aligning with the ADKAR model, this categorization is crucial as it allows communication efforts to be specifically tailored effectively. Policy stakeholders, including policymakers and regulatory bodies, play a vital role in creating frameworks and guidelines for AMR management. Engaging them ensures that messages are aligned with policy objectives and regulatory standards. Country-level practitioners, such as healthcare professionals, veterinarians, and agriculture specialists, are key implementers of AMR strategies at the local level. Providing them with the necessary knowledge and skills fosters their ability to implement best practices and guidelines. Lastly, targeting end users of antimicrobials, including patients, farmers, and animal owners, is essential for reinforcing positive behaviors and promoting responsible antimicrobial use. By addressing the specific needs and motivations of each audience segment, a comprehensive approach to behavior change and sustainability in combating AMR can be achieved. Target audiences are specified details in Table 8.

6.3 Communication strategy and advocacy plan

Table 8: Communication strategy and advocacy plan

Goal 1 Build communication competency and capacity					
Objective 1.1: Improve internal communication - develop a better 'first to know' process.					
Diffusion of Innovation theory stage - INNOVATORS					
ADKAR model	Target audience	Message approach	Communication tactics and strategies	Communication channel/material /tools	Desired outcome
Awareness	<p>Government (policy level)</p> <ul style="list-style-type: none"> • Policy makers and opinion leaders • Authorities and technical teams of Ministries and National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services • Food Safety Authorities, Competent authorities • Local/provincial/regional authorities 	<ul style="list-style-type: none"> • Key Initiative, Issues, Success, Activities update. • Risk discussions and mitigation plan. • Importance of AMR awareness and its impact on public health. • Role of internal staff, technical leads, and partner organizations in combating AMR. 	<ul style="list-style-type: none"> • Regular updates and engagement on key system initiatives and information established. • Annual review of current communication processes. • Leadership 'walk-about' within programme sites, meeting informally with staff without an agenda to discuss concerns, issues or simply express what is going well. • Feedback/input opportunity for staff. • Provision of management communication education workshops and resources. • Regular dissemination of health care system changes. • Establish partnerships with relevant organizations working on AMR. 	<ul style="list-style-type: none"> • Yammer • Direct Emails, • Internal Newsletters • Reports • Coordination meetings • Field visit • Project Planning activities and meetings • Industry conferences and events 	<ul style="list-style-type: none"> • Standardize consistent and relevant communication and messaging across the system. • Informed and engaged employees. • Increased communication between staff, physicians and senior leaders. • Positive, supportive relationships with staff, physicians, managers and internal stakeholders.

Goal 1 Build communication competency and capacity

Objective 1:2 Improve relation with media and government

Diffusion of Innovation theory stage - **INNOVATORS**

ADKAR models	Target audience	Message approach	Communication tactics and strategies	Communication channel/material/tools	Desired outcome
<p>Awareness</p>	<p>Government (policy level)</p> <ul style="list-style-type: none"> • Authorities and technical teams of Ministries and National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services • Local/provincial/regional authorities 	<ul style="list-style-type: none"> • Clear, proactive, transparent and timely. • Explain the clear message. • Call to action for general public. • Mitigate the myths. • Highlight the societal impact of AMR and the importance of collective action. 	<ul style="list-style-type: none"> • Develop media relations guidelines, revisions to existing and Draft directory of key media personals. • Provide media training as required (including for Senior Management Group, directors, and key program-related communicators). • Ensure communicators are aware of formal accepted channels for dissemination of information. • Regular meetings between Senior Management and leads (as required), with Ministries officials. • Influence policymakers to prioritize AMR prevention. • Open accessibility to AMR staff and government officials as required. • Briefing notes on key initiatives and emerging issues. • Regular updating of program/service/initiative information on the website and social media (where appropriate). 	<ul style="list-style-type: none"> • Press briefings/ Press release, • Meetings • Website, • Annual Report, • Newsletters, • Media (Radio, Television, Print), policy briefs, • Meetings and presentations, • FAQ material. • Communication Package and Country Support • Publication and Distribution of Regional AMR Works 	<ul style="list-style-type: none"> • An informed media that can count on Organization being open and transparent. • Continued positive relationship with the provincial government and its representatives. • Continued commitment to quality improvement. • Increased Awareness: Early Majority individuals, along with the broader public, understand the significance of AMR and their role in combating it. • Behavioral Change: Adoption of responsible antibiotic use practices, including completing prescribed courses, avoiding unnecessary antibiotics, and understanding the importance of hygiene in preventing infections. • Policy Support: Government policies and regulations align with AMR education and prevention strategies.

Goal 2: Design and implement well-structured communication and advocacy activities, especially in selected countries and regions.

Objective 2.1: Inform about why and what (what are the practices and why the change is needed)

Diffusion of Innovation theory stage – EARLY ADOPTERS / EARLY MAJORITY

ADKAR models	Target audience	Message approach	Communication tactics and strategies	Communication channel/material/tools	Desired outcome
<p>Desire</p>	<p>Government (policy level)</p> <ul style="list-style-type: none"> • Policy makers and opinion leaders • Authorities and technical teams of Ministries and National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services • Local/provincial/regional authorities <p><u>End users of antimicrobial</u></p> <ul style="list-style-type: none"> • Farmers • Producer associations and entities (animal foods, feed, veterinary drug) • Public/Private hospital and clinic (human and animal health) 	<ul style="list-style-type: none"> • Messaging designed to inform and manage expectations. • Clearly outline the reason(s) for change. • Outline new processes and procedures, pending new initiatives, solicit input or feedback (as appropriate) and health research report. 	<ul style="list-style-type: none"> • Regular communication of important AMR decisions/changes resulting from changes in trends, best practices or to recognize and address challenges from • Regular website updates correspond to changes in trends, best practices and addressing challenges. • In person meetings. 	<ul style="list-style-type: none"> • Policy briefs, • Reports • Brochures, • Training materials • Audiovisual materials • Presentation • FAQ material • Communication Package and Country Support • Publication and Distribution of Regional AMR Works 	<ul style="list-style-type: none"> • Stronger governance and capacity for AMR mitigation activities. • Better understanding of AMR direction, annual priorities and key initiatives. • Increased understanding and communication among staff and Health workers. • Better understanding and communication of AMR activities with stakeholders.

<p>Knowledge</p>	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • Private sector partners • Professional associations of doctors, pharmacists and veterinarians • Farming associations and environmentalists <p><u>End users of antimicrobial</u></p> <ul style="list-style-type: none"> • Farmers • Producer associations and entities (animal foods, feed, veterinary drug) • Public/Private hospital and clinic (human and animal health) 	<ul style="list-style-type: none"> • Outline new processes and procedures, • Solicit input or feedback (as appropriate) and health research report. • Factual informational. • Categorization and clarifying myths and right use of dosage for each clear. • Antimicrobial waste management and occupational safety. 	<ul style="list-style-type: none"> • Social media promotion (targeted info graphics • Earned media as appropriate (news release, feature stories, media interviews, etc.). • Coordinate AMR efforts with the communication engagement strategies of the Region/country (as appropriate). • Capacity-building workshops and Field visit. • Continuous professional development. • Training for environmental practitioners (e.g. on monitoring and policy development). 	<ul style="list-style-type: none"> • Brochures • Posters Toolkit(s) and educational materials to support staff in engagement efforts • Training materials and courses • Jingles Audiovisual materials • Presentation • Television/radio discussions SOPs and guidelines • Literature reviews • Door-to-door visits • Capacity-building workshops Mass/local media • FAQs • Social Media Channels • Feature stories • Annual Report • Newsletters, • Targeted case studies • Local Media (Radio, Television, Print) • WASH measures • Technical brief • Mass/local media training for environmental, health journalists 	<ul style="list-style-type: none"> • Responsible and prudent prescription. • Provide adequate guidance/advice to patients on use. • Improved monitoring and action plans.
-------------------------	---	---	--	---	--

Goal 3: Make the AMR known and position it as the primary threat to One Health integrity and emphasize its relevance to individual well-being.

Objective 3.1: Increase public awareness of AMR through targeted advocacy campaigns (focus on AMR understanding and its impact on One health)

Diffusion of Innovation theory stage – LATE MAJORITY

ADKAR models	Target audience	message approach	Communication tactics and strategies	Communication channel/material/tools	Desired outcome
Ability	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> Private sector partners Professional associations of doctors, pharmacists and veterinarians 	<ul style="list-style-type: none"> Responsible sale of antibiotics and other medication. Proper guidance on use of antibiotics to clients. Medicine should be sold when only needed – preferably with a doctor’s prescription. 	<ul style="list-style-type: none"> Encourage responsible antibiotic sale and hygiene practices. Allocate resources for awareness programs. Share information, case studies Train pharmacists In collaboration with partners Integrate AMR education 	<ul style="list-style-type: none"> Brochures/Infographic display Charts One on One Counselling to address misconception. Training materials and courses Television/radio discussions Social media Door-to-door visits Trainings/ capacity-building workshops Mass/local media 	<ul style="list-style-type: none"> Improved understanding of AMR risks and preventive measures among the public.
Ability	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> Academia (Faculties of medicine, veterinary medicine, food science, agriculture and environment) 	<ul style="list-style-type: none"> Advance scientific understanding of AMR dynamics, including its epidemiology, mechanisms, and drivers. Explore novel interventions and technologies to reduce the reliance on antimicrobials in healthcare, agriculture, and the environment. 	<ul style="list-style-type: none"> Establish collaborative research partnerships multidisciplinary research spanning microbiology, veterinary science, epidemiology, pharmacology, and beyond, to deepen our understanding of AMR. Foster Collaborative Research Networks: 	<ul style="list-style-type: none"> Academic Journals and Publications Webinars and Online Workshops Social Media Platforms Collaborative Platforms Newsletters, Targeted case studies Local Media (Radio, Television, Print) Technical brief In person training Case studies 	<ul style="list-style-type: none"> Prioritize AMR research. Foster a robust network of interdisciplinary research collaborations focused on AMR mitigation strategies. Enhance education and awareness

	<ul style="list-style-type: none"> • Research Institutions, councils, scientific community 	<ul style="list-style-type: none"> • Evaluate the impact of AMR on human and animal health, as well as on social, economic, and environmental systems. • Promote education and awareness about AMR among students, healthcare professionals, policymakers, and the general public. • Advocate for evidence-based policies and practices to combat AMR at local, national, and global levels. 	<ul style="list-style-type: none"> • Capacity Building and Training Programs. • Promote Advocacy and Policy Engagement. • Highlight how AMR affects humans, animals, and the environment. Emphasize that AMR jeopardizes individual health and well-being. • Conduct baseline and follow-up surveys to measure awareness growth. 	<ul style="list-style-type: none"> • Success stories, • Media 	<p>among students, faculty, and researchers about the multifaceted challenges posed by AMR.</p> <ul style="list-style-type: none"> • Generate innovative solutions and evidence-based insights to inform policy and practice in combating AMR.
--	---	---	--	---	---

Goal 4: Improve audiences engagement and ensure their empowerment

Objective 4.1: Ensure a sustainable and efficient approach to AMR education, communication and advocacy.

Diffusion of Innovation theory stage – **LATE MAJORITY**

ADKAR models	Target audience	Message approach	Communication tactics and strategies	Communication tools/channels/materials	Desired outcome
Ability	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> Private sector partners. Professional associations of doctors, pharmacists and veterinarians. 	<ul style="list-style-type: none"> Misuse and overuse of AMs are main drivers of AMR. Support and engage in accredited drug dispensing outlet systems to enhance accessibility to high-quality medicines and pharmaceutical services. Discharging antimicrobials (drugs) into the environment increases AMR. Minimize environmental release of antimicrobial agents (AMs) to mitigate AMR. Follow proper protocols for the disposal of Antimicrobials. 	<ul style="list-style-type: none"> Share information, case studies. AMR education. Consultative meeting with stakeholders. Capacity-building workshops for manufacturers and regulatory inspectors. Encourage responsible antibiotic sale and hygiene practices. 	<ul style="list-style-type: none"> Brochures. Posters Training materials and courses for Regulatory Inspectors. AMR aide-mémoire/booklet for regulatory inspectors. 	<ul style="list-style-type: none"> Enhanced Manufacturing Capacity. Research and Development of Novel Drugs.
Ability	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> Private sector partners Farming associations <p><u>End users of antimicrobial</u></p>	<ul style="list-style-type: none"> Adopt responsible feed production methods. Promoting holistic approaches to disease prevention and management. 	<ul style="list-style-type: none"> Establish certification and accreditation programs that recognize feed manufacturers adhering to responsible production. Engage with suppliers and distributors to promote responsible sourcing of feed 	<ul style="list-style-type: none"> Comprehensive educational materials Mass/local media Brochures Videos Posters AMR aide-mémoire/booklet for regulatory inspectors 	<ul style="list-style-type: none"> Reduce the need for antimicrobial interventions in animal agriculture. Reduce the risk of AMR transmission from animals to humans through the food chain.

Ability	<ul style="list-style-type: none"> • Farmers • Producer associations and entities (animal foods, feed, veterinary drug) 	<ul style="list-style-type: none"> • Ensure limited access of medicated feed to veterinary prescription. 	<ul style="list-style-type: none"> • ingredients and raw materials. • Invest in research and development initiatives to explore innovative solutions. • Direct group discussion • Trainings and workshops 		<ul style="list-style-type: none"> • Increased research and better integration of AMR in curricula.
	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • Farming associations • Civil society organizations 	<ul style="list-style-type: none"> • Promote available resources about AMR and how/where to access them. • What can be Alternatives and solutions? • understanding to implement AMR mitigation strategies effectively. • Highlight the role of continuous learning and training programs. • Emphasize the detrimental effects of AMR on both environmental sustainability and public health. 	<ul style="list-style-type: none"> • Align with global health priorities and One Health principles. • Allocate resources for awareness programs. • Facilitate multi-stakeholder dialogues and partnerships to develop consensus-based guidelines and standards for responsible feed production. • Encourage collaboration between feed manufacturers, industry associations, government agencies, and civil society organizations to collectively address AMR challenges. 	<ul style="list-style-type: none"> • FAQs, • Toolkit(s) and educational materials to support staff in engagement efforts, • Social Media Channels, • Feature stories, • Documentaries • Policy briefs, • Presentations, • Seminars and Webinars, • In person engagements, • Media (Radio, Television, Print) 	<ul style="list-style-type: none"> • AMR Governance and implementation of national action plans strengthened. • Social cohesion on AMR Improved. • Foster a sense of collective responsibility and empowerment among civil society members.
Ability	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • Farming associations • Civil society organizations • General population • Youth • Country media 	<ul style="list-style-type: none"> • Highlight the urgency and severity of AMR. • Emphasize the role of community leaders in influencing behavior change. • Stress the connection between AMR and various religious teachings or community values (e.g., stewardship, care for others' well-being). 	<ul style="list-style-type: none"> • Identify key community leaders across various sectors such as healthcare, education, government, religious organizations, and NGOs. • Reach out through personal meetings. • Utilize social media platforms and online forums 	<ul style="list-style-type: none"> • Social media • One-on-One meetings • Online forums • Presentation materials • Expert speakers • Group discussion guides • Online collaboration platforms • Advocacy toolkits 	<ul style="list-style-type: none"> • Increased awareness and understanding of AMR. • Commitment to support AMR education and adoption initiatives • Willingness to take action and advocate for AMR awareness.

		<ul style="list-style-type: none"> • Provide evidence-based information on AMR. • Encourage interactive sessions for discussion and idea sharing. • Tailor messaging and activities to specific community needs. • Foster partnerships for resource sharing and program implementation. • Support leaders in developing advocacy campaigns and initiatives. 	<p>for outreach and engagement.</p> <ul style="list-style-type: none"> • Organize workshops, seminars, or webinars. • Invite experts to speak on AMR-related topics. • Facilitate group discussions and brainstorming sessions. • Conduct needs assessments within communities. • Co-create educational materials and resources - Establish partnerships with local organizations and institutions. • Offer advocacy workshops and training sessions - Provide resources for developing advocacy materials. • Facilitate networking opportunities with policymakers and stakeholders. • Engage women groups and community organizations in outreach efforts. • Foster partnerships between healthcare providers, public health agencies, and religious/community organizations. Encourage joint initiatives such as health camps or awareness drives. 	<ul style="list-style-type: none"> • Training materials • Networking events • Policy briefs • Community Event 	<ul style="list-style-type: none"> • Development of effective AMR education programs - Increased community engagement and participation • Policy changes supporting AMR prevention and control.
--	--	--	--	---	---

Goal 4: Improve audiences engagement and ensure their empowerment

Objective 4.2: Improve stakeholder-centered focus in AMR communication delivery

Diffusion of Innovation theory stage – LATE MAJORITY / LAGGARDS

ADKAR models	Target audience	Message approach	Communication tactics and strategies	Communication channel/material/tools	Desired outcome
<p>Ability</p>	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • General population • Youth • Country media 	<ul style="list-style-type: none"> • 1000 reasons to fight AMR now—for the lives we cherish, the futures we safeguard, and the world we protect. • Foster a sense of ownership and accountability among youth Each one of us has a responsibility to be an active member to combat AMR. • Encourage peer-to-peer communication and collaboration. • Acquisition of knowledge and skills to make informed decisions about antimicrobial. 	<ul style="list-style-type: none"> • Establish youth advisory boards for AMR initiatives. • Organize workshops and interactive sessions in universities and colleges. • Host competitions (e.g., AMR awareness campaigns, hackathons) • Encourage peer-to-peer communication and collaboration. • Identify youth Ambassadors. • Develop AMR curriculum for schools and universities. • Offer online courses and webinars. • Facilitate mentorship programs with AMR experts. • Establish long-term partnerships with youth organizations and schools. • Develop educational materials (videos, infographics, quizzes). • Partner with influencers and youth organizations. • Incorporate gamification elements. 	<ul style="list-style-type: none"> • Interactive media campaign • Paid media Advertisement • Social media platforms (Instagram, TikTok, Twitter/X) • Educational websites and apps • Virtual events/webinars • Youth-focused conferences and events • Collaboration platforms (Slack, Discord) • Educational websites and platforms (Khan Academy, Coursera) • classrooms and learning management systems • Case studies success stories • Newsletters • Recognition programs and awards for active participants 	<ul style="list-style-type: none"> • AMR Ambassadors and champions. • Integration of AMR awareness into daily behaviors and decision-making. • Formation of youth-led AMR awareness groups or clubs. • Increased understanding of AMR risks and consequences. • Development of leadership and advocacy abilities among youth.

<p>Ability</p>	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> Farming associations <p><u>End users of antimicrobial</u></p> <ul style="list-style-type: none"> Farmers Producer associations 	<ul style="list-style-type: none"> Highlight the direct impact of AMR on livelihoods and the agriculture sector. Provide clear and concise information about the causes, risks, and consequences of AMR. Emphasize actionable steps and best practices for responsible antibiotic use. Encourage teamwork and shared responsibility among stakeholders. Tailor messages to resonate with the specific needs and challenges of different target groups. 	<ul style="list-style-type: none"> Invite experts to conduct educational workshops on AMR awareness and best practices. Provide hands-on training on alternative disease management techniques. Establish demonstration farms showcasing successful implementation of AMR stewardship practices. Organize field visits for farmers and agriculturalists to learn from these demonstrations. Distribute educational materials such as pamphlets, posters, and fact sheets. Utilize digital platforms including websites, social media, and mobile applications for wider outreach. Organize community meetings and discussions to address local concerns related to AMR. Encourage peer-to-peer learning and knowledge sharing within farming communities. Forge partnerships with agricultural associations, cooperatives, and extension services. Collaborate with veterinary professionals and agricultural advisors to integrate AMR education into existing programs. Engage women's groups and community organizations in outreach efforts. 	<ul style="list-style-type: none"> Paid media Advertisement Printed Materials: Pamphlets, brochures, posters. Digital Platforms: Websites, social media (Facebook, Twitter, Instagram), blogs. Face-to-Face Interactions: Workshops, training sessions, community meetings. Demonstration Farms: On-site visits, field days. Media Outreach: Press releases, articles in agricultural magazines or newspapers. Partnership Networks: Agricultural associations, cooperatives, extension services. Mobile Applications: Apps for accessing educational resources and interactive tools. 	<ul style="list-style-type: none"> Increased awareness among livestock farmers, agricultural farmers, and agriculturalists about the risks of AMR. Adoption of best practices in antimicrobial stewardship. Reduction in the unnecessary use of antibiotics in livestock and agricultural settings. Promotion of alternative methods for disease prevention and treatment. Collaboration among stakeholders for effective management of AMR.
-----------------------	--	---	---	--	---

<p>Reinforcement</p>	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • Youth • Country media 	<ul style="list-style-type: none"> • Convey genuine concern and understanding about AMR. • Emphasize the severity of AMR and its implications on global health. • Encourage individuals to take action by adopting responsible antibiotic usage practices. • Highlight positive steps individuals and communities can take to combat AMR. 	<ul style="list-style-type: none"> • Collaborate with personalities who have a genuine interest in health and sustainability. • Develop engaging and informative content such as videos, infographics, and blogs tailored to the influencer's audience. • Launch targeted social media campaigns featuring influencers discussing AMR awareness and prevention strategies. • Organize live events or webinars where influencers and celebrities share insights and answer questions about AMR. • Collaborate with healthcare organizations to amplify messaging and provide credible information. • Encourage followers to share their experiences with responsible antibiotic use or tips for preventing AMR. • Create challenges or contests incentivizing individuals to share their commitment to combating AMR. • Develop and distribute PSAs featuring celebrities advocating for responsible antibiotic use and AMR awareness. • Share personal stories or anecdotes related to AMR to make the issue relatable and impactful. • Facilitate discussions and forums where followers can engage with influencers and each other on AMR-related topics. 	<ul style="list-style-type: none"> • Paid media and advertisements. • Utilize platforms like Instagram, Twitter, Facebook, and TikTok for content dissemination and engagement. • Publish articles and blog posts on influencers' websites. • Create educational videos for YouTube. • Host podcast episodes dedicated to discussing. • Share educational resources and updates. • Newsletters. • Utilize public events attended by influencers and celebrities. • Press Releases. • Develop downloadable guides, infographics, and toolkits for influencers to share with their followers. 	<ul style="list-style-type: none"> • Foster behavior change towards more sustainable healthcare practices. • Increase awareness about AMR among the general public. • Encourage responsible antibiotic use and promote alternative solutions. • Drive engagement with educational resources on AMR prevention and management. • Increase stakeholders' confidence AMR support system developed by Quadripartite. • Better understanding and consumer experience. • Encourage stakeholders and the public to adopt responsible antibiotic use practices, including appropriate prescription adherence and proper disposal. • Encourage policymakers to implement regulations and policies to
-----------------------------	--	---	---	---	---

Reinforcement					<p>address AMR effectively.</p> <ul style="list-style-type: none"> • Foster active engagement and collaboration among stakeholders, including healthcare professionals, policymakers, researchers, industry, and the public.
	<p><i>Public and private country stakeholders</i></p> <ul style="list-style-type: none"> • General population • Youth • Country media 	<ul style="list-style-type: none"> • Ensure clear and understandable messaging about AMR and its implications. • Empower individuals to take action through information dissemination on preventive measures. • Communicate the urgency of addressing AMR to prevent catastrophic consequences. • Highlight the shared responsibility of stakeholders and the public in combating AMR. Positive 	<ul style="list-style-type: none"> • Engage with influencer networks to identify and collaborate with relevant influencers passionate about health issues. 	<ul style="list-style-type: none"> • Paid media Advertisement and campaigns. • News articles, blogs, talk shows. • Case studies, documentaries. • Public Service Message. • Presentation. • Community engagements programs. • Media (Radio, Television, Print). • Online Surveys. • YouTube ads banners. • In person surveys about understanding and activities. 	<ul style="list-style-type: none"> • Launch educational campaigns targeting different demographics through various mediums (e.g., schools, workplaces, community centers, social media). • Advocate for the development and implementation of policies promoting responsible antibiotic use and AMR prevention. • Partner with media outlets to feature stories, articles, and interviews related to AMR awareness and prevention. • Conduct surveys to gauge public understanding and perception of AMR

		<ul style="list-style-type: none"> • Showcase success stories and positive outcomes resulting from responsible antibiotic use and AMR prevention efforts. 			<p>and adjust strategies accordingly.</p> <ul style="list-style-type: none"> • Humanized stories, people -centered approach on website. • Feature consumer stories, (including vulnerable animals and their farmers, patient). • Include community leaders, influentials and health providers as members of planning committees and quality teams. • AMR collateral materials that encourage the public to become more engaged in their care (brochures, rack cards, posters, etc.). • AMR specific campaigns that feature patients (as required). • Earned media that includes patients and care providers (news releases, feature stories, media interviews, etc.). • Social media promotion encourages the public to become
--	--	--	--	--	---

					<p>active partners in their care.</p> <ul style="list-style-type: none"> • Provide Continuing Medical Education (CME) courses on AMR and evidence-based practices.
Reinforcement	<p>European Union (Policy Level)</p> <ul style="list-style-type: none"> • European Commission and EU Delegations • European Centre for Disease Prevention and Control (ECDC) • European Food Safety Authority (EFSA) • European Medicines Agency (EMA) • UN Food Systems Summit (UNFSS) • Committee on Agriculture (COAG - Sub-Committee on Livestock) 	<ul style="list-style-type: none"> • Emphasize the global impact of AMR and its significance in human, animal, and environment health sustainability. • Highlight successful initiatives and best practices within the European Union related to AMR. • Stress the importance of continued commitment and collaboration in addressing AMR at regional and global level. • Encourage ongoing reinforcement of responsible antibiotic use policies and practices. 	<ul style="list-style-type: none"> • Engage with EU institutions and policymakers through targeted workshops, seminars, and policy briefings on AMR. • Collaborate with EU health agencies and organizations to disseminate best practices and guidelines for AMR prevention and control. • Leverage EU-funded research projects and initiatives related to AMR to showcase progress and innovations. • Utilize high-level meetings and conferences within the EU to advocate for AMR awareness and action. • Develop case studies and success stories highlighting the EU's impact in combating AMR and share them through various channels. • Facilitate discussions and knowledge-sharing forums among EU member states and stakeholders on AMR-related topics. 	<ul style="list-style-type: none"> • EU official websites and social media platforms. • Engage with EU Health and Food Safety networks. • Reports, articles, and policy briefs on AMR in EU publications and journals. • Utilize social media platforms such as Twitter, LinkedIn, and professional networks. • Collaboration with EU-funded projects and initiatives • Webinars, workshops, and online forums with EU stakeholders and experts on AMR topics. • Infographics, videos, and interactive content • Partnership with EU health associations, advocacy groups, and influencers • Guidelines, and resources specifically designed for EU policymakers 	<ul style="list-style-type: none"> • Maintain and strengthen the EU's leadership role in AMR prevention and management. • Increase awareness and understanding of AMR among policymakers, healthcare professionals, and the general public within the EU. • Sustain and expand efforts to combat AMR through policy development, research, and innovation. • Foster international partnerships and collaborations to address AMR challenges comprehensively.

6.4 Communication tools and channels

Utilizing human stories and case studies

Stories are the key part of making AMR feel like an issue that can affect everyone is to communicate in relatable terms. By sharing real-life experiences and concrete examples of how AMR impacts individuals, families, and communities, communicators can effectively illustrate the urgency and relevance of the issue. These narratives bring the abstract concept of AMR to life, making it more relatable and compelling for the general public.

This is important because most people either do not know anyone affected by AMR, or do not immediately connect specific issues (like hospital superbugs) with the broader issue. This is a theme that emerged strongly in our interviews with experts and practitioners working on AMR, who identified the need for human stories that they feel could cut through. There were several references to campaigns that are thought to have done this well.

- Communicate the individual impact of AMR through relatable stories.
- Highlight real-life experiences to make the issue more tangible and engaging for the audience.

Frequently asked questions (FAQs)

Creating and disseminating a set of Frequently Asked Questions (FAQs) is a fundamental communication tactic to address common queries and misconceptions about AMR. These FAQs serve as a valuable resource for individuals seeking information about AMR, offering clear and concise answers to commonly encountered questions. By addressing key concerns and providing accurate information, FAQs help to demystify AMR, empower individuals to make informed decisions, and encourage proactive measures to mitigate the spread of resistant bacteria. Moreover, FAQs can be easily shared across various communication channels, including websites, social media platforms, and educational materials, to reach a wide audience and promote public awareness.

Website update

The Organization website serves as a central hub for program and service information, emergency procedures, and community-building initiatives. It is promoted as the go-to source for reliable guidance and information for both the public and healthcare professionals.

Content on the website is written in plain language and presented in a conversational format to enhance understanding and accessibility for all audiences, facilitating effective communication of critical AMR-related information.

Paid media, publications, and collateral materials

Advertising campaigns, internal newsletters, and public publications play a strategic role in disseminating consistent and standardized information to relevant stakeholders. These tools not only inform but also hold organization accountable for its actions.

Paid media, such as advertising, may be necessary in crisis situations to ensure messages are communicated effectively without risk of editorial intervention, especially during emergencies or challenging circumstances.

Earned media

Earned media, including news coverage and press releases, is vital for addressing emerging or crisis issues and garnering public support. The aim is to secure media coverage on accomplishments and positive stories, emphasizing the human aspect of healthcare improvements.

Efforts are made to incorporate storytelling elements into press releases to humanize content and resonate with audiences. Leveraging social media platforms for cross-promotion further enhances the reach and impact of communication efforts, ensuring targeted public audiences receive critical AMR-related information.

Media training and identifying focal people

Media training plays a pivotal role in enhancing the effectiveness of AMR communication efforts by equipping spokespersons, experts, and stakeholders with the necessary skills and confidence to engage with the media effectively. Through comprehensive training sessions, participants learn how to navigate interviews, articulate key messages, and adapt their communication strategies to different media platforms and audiences. Media training also helps individuals anticipate and address challenging questions or misconceptions about AMR, enabling them to communicate complex concepts clearly and persuasively. By fostering media-savvy advocates and communicators, media training contributes to amplifying the visibility and impact of AMR awareness campaigns and initiatives. Designating an identified focal person serves as a strategic communication tactic to streamline messaging and enhance coordination in AMR advocacy efforts. This individual, often an expert or spokesperson with credibility and authority in the field of AMR, serves as the primary point of contact for media inquiries, public outreach, and stakeholder engagement. By centralizing communication efforts around a designated focal person, organizations can ensure consistency in messaging, avoid confusion, and maintain credibility in their communication endeavors. Moreover, the focal person can effectively represent the organization's stance on AMR-related issues, serve as a spokesperson in media interviews, and facilitate collaboration with key stakeholders, thereby bolstering the overall effectiveness of AMR communication initiatives.

Media engagement

AMR communication should outline strategies for engaging with traditional and digital media channels to raise awareness and disseminate accurate information about AMR. Here are key points related to media engagement:

- **Relationship building:** Cultivating strong relationships with journalists, editors, and media outlets is crucial. Regular interactions allow for timely dissemination of accurate information. Spokespersons representing AMR initiatives should be well-prepared to provide concise, factual responses during interviews or press conferences.
- **Crafting compelling narratives:** Effective communication relies on compelling storytelling. Media engagement should focus on creating narratives that resonate with the public. Human interest

stories, real-world examples, and data-driven messaging capture media attention and convey the urgency of addressing AMR.

- **Demographic targeting:** Different media platforms cater to diverse audiences. Tailoring messages based on demographics (e.g., age groups, cultural backgrounds) ensures broader reach. Social media, radio, television, and print media each have unique strengths, and a well-rounded media strategy leverages these channels effectively.
- **Data-driven messaging:** Utilize scientific evidence and research findings to support AMR-related messages. Data-backed statements enhance credibility and encourage responsible reporting.

Internal information sharing portal – Staff resource centre

The Staff Resource Centre serves as an interactive platform for dynamic information sharing within the organization. It enables staff to access the latest organizational news, updates, and resources, fostering effective communication and community engagement.

Communication Planning Resources, including templates and guidelines, are available on the portal to assist staff in making announcements, rolling out projects, and implementing new programs, ensuring consistency and clarity in communication efforts.

In person workshops

In person workshops offer a unique opportunity for stakeholders to convene in person, fostering direct interaction, engagement, and collaboration. These events provide a platform for participants to exchange ideas, share experiences, and collectively strategize on addressing AMR. Through face-to-face interactions, workshops facilitate deeper understanding of AMR-related challenges and encourage the development of practical solutions. Additionally, physical workshops allow for dynamic and interactive sessions, such as group discussions and hands-on activities, which enhance participant engagement and learning. By bringing together diverse stakeholders, including healthcare professionals, policymakers, researchers, and community members, physical workshops play a vital role in fostering cross-sectoral collaboration and strengthening collective efforts to combat AMR. Strategies for implementing physical workshops may include leveraging existing networks and partnerships to identify and invite stakeholders, collaborating with experts to develop informative and engaging presentations, and utilizing online registration systems to streamline participant enrollment. Moreover, incorporating evaluation mechanisms to assess the impact and effectiveness of workshops can inform future improvements and iterations.

Engagement surveys

Surveys after implementation of any campaign, webinar, workshop or meeting are highly valuable for several reasons:

Predictive power: Feedbacks and surveys are always excellent predictors of behavior. They provide insights into employee sentiments, which can influence their actions and decisions.

Two-way interaction and audience Voice: Surveys give a voice and offer a platform for audience to express their opinions, understanding, and suggestions. Furthermore, provide guidelines and identify gaps for future communication engagements.

Support behavior change: Surveys are not just about collecting data; they can drive behavior change. When leaders act on survey feedback, it demonstrates that the organization values audience input and is committed to improvement.

Communication package and country support

Developing comprehensive communication packages and providing country support are essential for empowering national stakeholders to effectively communicate about AMR. These packages typically include a range of educational materials, campaign toolkits, multimedia resources, and communication templates tailored to the specific needs and priorities of individual countries or regions. By providing technical and financial support, international organizations, donor agencies, and technical partners enable countries to implement and sustain AMR communication strategies. This support ensures that countries have the necessary resources, expertise, and guidance to raise awareness, promote behavior change, and mobilize support for AMR prevention and control efforts at the national level. These packages should include a range of educational materials, campaign toolkits, and multimedia resources that address various aspects of AMR prevention and control. Technical assistance and capacity-building initiatives should be provided to support countries in implementing these communication strategies effectively. Financial support should be allocated to fund the development, dissemination, and evaluation of communication activities. International collaboration and partnerships with donor agencies, technical partners, and other stakeholders are essential to mobilize resources and expertise for country support. By implementing communication packages and providing country support, stakeholders can empower countries to raise awareness, promote behavior change, and mobilize support for AMR prevention and control efforts at the national level.

7. Messaging

This section specifically considers the messages to be conveyed and things to think about in relation to messages. This includes how to position messages (e.g. in terms of what is happening and what actions should be taken – Table 9) and a description of the problems associated with current messaging and the impact this has on the understanding of target groups (Table 10). The messaging recommendations then seek to resolve the problems associated with current messaging topics and practices and end up providing a list of actions to include and to avoid. A list of appropriate messages is proposed and finally some innovative and unusual tactics for messaging.

7.1 Current state of AMR message positioning

7.1.1. Breakdown of current AMR framework

Table 9: Framework for current messaging

ASPECT	MESSAGE
WHAT IS HAPPENING?	<ul style="list-style-type: none"> - AMR occurs when bacteria, fungi, and parasites no longer respond to antimicrobial medicines. - Overuse of antibiotics in humans, animals, and plants accelerates AMR. - Drug-resistant pathogens make infections harder to treat, risking severe illness and death.
WHY IS IT HAPPENING?	<ul style="list-style-type: none"> - Human activity drives AMR through misuse and overuse of antimicrobials. - Inappropriate prescriptions, agricultural use, and poor infection control contribute to resistance.
WHAT ACTION SHOULD BE TAKEN?	<ul style="list-style-type: none"> - Prevent infections through hygiene, vaccination, and infection control. - Ensure universal access to quality diagnosis and appropriate treatment. - Promote responsible antimicrobial use in humans, animals, and agriculture. - Invest in research for new vaccines, diagnostics, and medicines.
WHO IS AFFECTED?	<ul style="list-style-type: none"> - AMR impacts everyone globally, regardless of age, gender, or socioeconomic status. - Low- and middle-income countries are particularly vulnerable. - Vulnerable groups, healthcare systems, and food security are at risk.

7.1.2 Breakdown of AMR framework theme and its impact

Table 10: Current messaging problems and their impact on understanding

Current state	Description	Impact on understanding
Multiple technical and scientific Terminology	Complex language: AMR discussions often involve technical terms (e.g., 'antimicrobial resistance', 'drug-resistant infections', 'superbugs', 'antibiotic resistance') used by experts and practitioners create confusion among the public.	Confusion: Lay audiences struggle to grasp the nuances, hindering awareness and behavior change. Prevents recognition of AMR as a singular, cohesive problem, leading to fragmented understanding and reduced urgency for action.
Hard to relate	Abstract concept: AMR lacks tangible visibility; it's not like a visible infection or disease. AMR is difficult for the public to relate to due to its complex nature and abstract terminology, making it challenging to generate interest and understanding among the general population.	Perceived relevance: People may dismiss AMR as distant or irrelevant to their daily lives. Hinders the public's ability to connect with the issue, leading to low awareness and insufficient urgency for action.
Variety of communication strategy	Diverse approaches: Communication occurs through healthcare providers, media, educational programs, etc. Different frames (e.g., war analogies, mortality rates, economic impacts) used to explain AMR result in diverse interpretations and perceptions of the issue.	Fragmented messages: Lack of consistency in messaging across channels can confuse the public. Contributes to disparate understanding of AMR's implications, hindering collective understanding and support for comprehensive action.
Not rightly framed as issue beyond human health	Holistic view: Framing AMR as an issue that goes beyond human health would expand its defined impacts to incorporate the significant risks that AMR transmission and the inappropriate use of antimicrobial compounds pose to global food security, animal welfare and the natural environment. In turn, this would expand the population and the breadth of stakeholders who consider the issue to be relevant to their lives, increasing the number of people and organizations who may act to address it.	Narrow perception: Many associate AMR solely with human health, missing the broader context. Limited Awareness: Focusing solely on human health overlooks AMR's impact on animals, agriculture, and ecosystems. Underestimation of Risks: Neglecting AMR's broader implications leads to underestimating risks to food safety and biodiversity. Inadequate Policy Advocacy: Narrow framing hinders policy advocacy for veterinary medicine, agriculture, and the environment. Reduced Funding: Insufficient understanding results in inadequate funding for research and surveillance.
Wrong AMR positioning	Misunderstanding: Some view AMR as a minor issue or believe antibiotics always work. There is a clear need to rethink how AMR is positioned within the global health agenda. The AMR community must align on a specific critical path to achieve impact in the long term.	Risk perception: Underestimating AMR risks leads to inappropriate antibiotic use and resistance. A strategic realignment of AMR within the global health agenda is necessary to drive meaningful progress and address the complex challenges associated with AMR effectively.
Limited media coverage and awareness campaign	Underreported: AMR struggles for attention compared to other health topics. Media coverage primarily focuses on specific disease outbreaks rather than providing a holistic view of AMR, leading to fragmented perception of the issue.	Public ignorance: Insufficient media coverage hampers public awareness and urgency. Difficulty in connecting disparate aspects of AMR, leading to fragmented understanding and reduced public urgency for action.

Limited social media engagement	Untapped potential: Social media platforms offer wide reach but are underutilized for AMR communication. Social media discourse on AMR is predominantly led by a small group of technical experts and institutions, resulting in a niche conversation with limited engagement from the broader public.	Youth engagement: Leveraging social media can engage younger audiences and amplify awareness efforts. Lack of mainstream conversation and low volume of discourse diminish public awareness and urgency for action on AMR.
--	---	---

7.2 Messaging recommendations

As the stakeholder and communication analysis above indicates there are some significant challenges in addressing AMR. To address these challenges, messaging recommendations are set out below including some Dos and Do nots (Table 11).

Clarity in communication

Issue: The current message lacks specificity. It refers to “overuse,” but what exactly is “the way”? Is it overused or underused?

Solution: Provide a straightforward explanation of resistance. Emphasize that bacteria—not individuals—develop resistance. Additionally, clarify terms like “vulnerable groups” and “superbugs.” Clear communication is essential to empower individuals and promote responsible antibiotic use.

Correct understanding of resistance

Issue: Enhancing public understanding and garnering support for action on AMR requires coherence and evidence-based communication. Many people think of resistance as an individual’s failure to respond to antibiotics. However, it’s essential to clarify that bacteria develop resistance, not humans.

Solution: Develop a communication approach grounded in evidence. Highlight the scientific basis for addressing AMR and its impact on global health. This approach is essential for garnering support from various stakeholders, including policymakers and international agencies.

Universal and personal relevance

Issue: AMR is often perceived as distant or unrelated to individuals.

Solution: Position AMR as a universal issue affecting everyone. By emphasizing personal relevance, we underscore the risk that AMR poses to all individuals. When individuals perceive a threat as personally relevant, they are more likely to engage and take action. Highlighting the personal relevance of the issue increases engagement and encourages individuals to take responsibility for their actions regarding antibiotic use. This approach fosters a sense of collective ownership and encourages collaborative efforts to address the problem.

Urgency in call to action

Issue: Urgency is crucial for driving support, but projections alone may not convey immediacy.

Solution: Focus on the current impact of AMR. Highlight that it is already affecting society significantly. Stress that without immediate action, the situation will worsen. In order for the public to see the need for

action on this issue, we need to make it clear that AMR is currently having a significant impact – and that this impact will become increasingly severe (if action is not taken). Many communications about the impact of AMR refer to its impact in the future, often focusing on the economic or human impact by 2030 or 2050. Such projections – focusing on 2050, or even the next three to five years – do not have the urgency needed to drive support for action on AMR. Projections lead to people thinking that AMR is an important issue, but crucially, not one that needs immediate action. In addition, projections often (though not always) reference numbers and statistics, which, as set out above, generally resonate less strongly with the public. These staggering figures underscore the urgency of addressing AMR effectively.

Avoiding catastrophic framing

Issue: While attention-grabbing, catastrophic framing risks being dismissed as sensationalist.

Solution: Strike a balance. Communicate the severity of AMR without resorting to alarmist language. Maintain credibility and engage the audience effectively. *“AMR poses a significant threat to global health. It is associated with an estimated five million deaths in 2019. Left unchecked, AMR could have catastrophic consequences for both people and the economy. Research conducted by the United Nations Environment Programme (UNEP) reveals that if AMR continues to spread, it could shave US\$ 3.4 trillion off GDP annually and push 24 million people into extreme poverty within the next decade.”* These staggering figures underscore the urgency of addressing AMR effectively. However, when crafting messages about AMR, it’s essential to consider the language used. While catastrophic terms like “apocalypse” and “dark ages” may initially capture attention, they can inadvertently diminish credibility. The public often perceives such language as sensationalist and exaggerated, akin to what we encounter in ‘clickbait’ headlines. As a result, this sensationalism can lead to skepticism among the audience, ultimately undermining the impact of the message.

Sensationalist terms like 'apocalypse' and 'dark ages' can lead to skepticism and dismissiveness among the audience. By avoiding such framing, the messaging maintains credibility and encourages constructive dialogue and action on AMR.

Clarifying specific actionable steps

Issue: When framing AMR as solvable, we need clarity on specific actions. When we frame the issue as solvable, we also need to be clear about the specific actions that are needed.

Solution: Clearly articulate the steps needed to address AMR. Provide actionable guidance for individuals, healthcare professionals, and policymakers.

Not just focused on a single disease or procedure

Communicators should give examples of the most common procedures, illnesses and injuries that are affected by AMR in the country where they are communicating, or among the demographic groups they are communicating with. This will maximize the potential relevance to our audiences. When communicating about AMR, we must move beyond isolated disease-specific discussions. Here’s how:

- **Contextual Relevance:** Communicators should tailor examples to the specific country or demographic they are addressing. Highlight the most common procedures, illnesses, and injuries impacted by AMR within that context.

- Maximize Relevance: By linking AMR to familiar health conditions, we engage our audiences. For instance: for example, explain how AMR affects cancer treatments, chemotherapy, and post-surgery infections; showcase the vulnerability of HIV/AIDS patients to resistant infections; illustrate how AMR impacts common bacterial infections like E. coli.
- Priority Perception: When people understand that AMR directly affects their health or their animals' ones, it becomes a higher priority. By emphasizing its impact on real lives, we elevate AMR awareness.

Table 11: Key 'Dos' and 'Do not's' for messaging

DO	DO NOT
Storytelling: Use creative approaches to express the impact of AMR, celebrating collaboration across sectors.	Underestimating impact: Avoid downplaying the role of AMR in affecting societies and health.
Inspiring approach: Empower audiences by emphasizing the urgency of AMR.	Institutional language: Steer clear of overly technical or bureaucratic language.
Reflect diversity: Adapt messages and channels to different contexts within the cultural and creative sectors.	One-Size-Fits-All: Avoid generic content; tailor messages for relevance.
People-centric: Highlight individual experiences and the impact of AMR.	Data and economic: Don't focus solely on policies; emphasize real-world effects.
Clear calls to action: Make action steps visible (e.g., 'push boundaries' or 'apply now').	Complex messages: Avoid confusing or multifaceted messages without clear directions.
Vibrant visuals: Use diverse, engaging visuals related to culture and creativity.	Déjà Vu imagery: Steer clear of ordinary or overused visuals.
Showcase collaboration: Highlight creative teamwork among artists, creators, and professionals.	Individual focus: Don't overlook collective efforts; emphasize collaboration.
Share success: Proudly share effective communication tools and actions.	Irrelevant content: Avoid using copy or imagery that doesn't resonate locally.

7.3 Creative approach AMR positioning – How it should be framed.

Key message should be framed in a way that can be understandable even by a ten-year-old —Explain what the audience need to **Hear, Remember** and **Action on!**

Table 12: Recommended framework for future messaging

ASPECT	MESSAGE
<p>WHY IS IT HAPPENING?</p>	<ul style="list-style-type: none"> • Incorrect dosages, incomplete courses, or unnecessary prescriptions contribute to resistance. • Many mild infections resolve without antibiotics. But when we use too many antimicrobials (in humans or animals), some bacteria learn to resist them. These resistant germs and bacteria can spread to other animals, people, and even our food. • Imagine germs that don’t listen to medicine—they keep growing even when we try to stop them! • Pesticides, herbicides, and fertilizers used in agriculture can contaminate soil and water. These residues may promote the growth of resistant bacteria. • Animals can harbor resistant bacteria, which can then infect humans. Close contact between humans and animals contributes to zoonotic AMR transmission. • Beside livestock, resistant bacteria can live in wild animals (like birds, deer, or fish). These animals move around—flying, swimming, or walking. As they travel, they carry resistant bacteria with them. They can leave these germs and bacteria in soil, water, or other habitats.
<p>WHAT IS HAPPENING?</p>	<ul style="list-style-type: none"> • Impact on Human Health: <ul style="list-style-type: none"> ○ Untreatable Infections: Common diseases like respiratory tract infections, urinary tract infections, and sexually transmitted infections can become untreatable. ○ Riskier Medical Procedures: Surgeries, cancer chemotherapy, and organ transplants become riskier due to limited effective antibiotics. ○ Increased Mortality: AMR contributes to more severe illnesses, prolonged hospital stays, and higher mortality rates. • Animal Health Consequences: <ul style="list-style-type: none"> ○ Food Security: Resistant bacteria in animals can spread to humans through food (like meat, milk, or eggs). ○ Livestock and Pets: Diseases in animals may become harder to treat, affecting food production and companion animals. • Environmental Impact: <ul style="list-style-type: none"> ○ Ecosystems at Risk: Resistant microbes enter soil, water, and wildlife habitats. ○ Ecological Balance: AMR disrupts natural ecosystems, affecting plants, insects, and other creatures. <p>It is important to understand Antibiotics are essential for bacterial infections. Antibiotics are ineffective against viruses.</p>

WHAT ACTION SHOULD BE TAKEN?	<ul style="list-style-type: none"> • Avoid Self-Medication and consult a healthcare provider. • Only use antimicrobials when needed (not for every little thing).
	<ul style="list-style-type: none"> • Implement One Health approach for holistic solutions. Bring together experts from human health, veterinary medicine, and environmental science. • Improve diagnostic capabilities to identify resistant strains promptly. • Implement guidelines for appropriate antibiotic prescriptions. • Strengthen AMR monitoring systems to track resistant microbes in all domains. • Follow prescribed dosages, complete full courses, and avoid self-medication.
WHO IS AFFECTED?	<ul style="list-style-type: none"> • AMR impacts everyone globally, Human, Animal and Environment • People living in areas with limited access to healthcare • AMR affects Animals used for food production (livestock) well-being and can impact food security. • The germs end up in soil, rivers, or forests. This affects plants, insects, and other creatures.

7.4 Overall key messages suggestion based on findings

Here are some key messages addressing AMR, which refers to drug-resistant infections. These messages have been carefully crafted and framed to counter the challenges highlighted above and to align with the suggestions provided in under guideline section, ensuring they are relevant, clear, universally understood, and urgent in their perspective. For the most effective consolidation of understanding and support for action, it is important to provide a more detailed explanation of drug-resistant infections alongside these key messages. This longer explanation will help to contextualize the issue, provide background information, and offer a deeper understanding of the challenges posed by AMR.

- ***“AMR affects us all. It’s not confined to hospitals or laboratories—it’s in our homes, schools, and communities. When we misuse antibiotics, we contribute to this global challenge. Let’s be responsible stewards of these life-saving drugs.”***
- ***“Everyday infections and injuries that used to be easy to treat are now becoming more dangerous and deadly. This is happening because of drug-resistant infections. These infections don’t respond to the medicines that doctors usually use to treat them, which is making modern medicine less effective.”***
- ***“Imagine bacteria as tiny survivors. When exposed to antibiotics, some die, but a few with natural resistance survive and multiply. Over time, these resistant strains dominate.”***
- ***“Without effective antibiotics, common infections like urinary tract infections or strep throat could become deadly.”***
- ***“AMR occurs when tiny living things like bacteria, viruses, parasites, or fungi become resistant to medicines (such as antibiotics) that used to kill them. Imagine these germs evolving and no longer listening to our medicine—they adapt and survive. This process is happening more and more worldwide. In 2019, AMR caused nearly 1.3 million deaths, making it deadlier than AIDS***

and malaria. Unfortunately, the situation is expected to worsen. We urgently need to educate ourselves about AMR and take action to prevent it."

- ***"Antibiotic resistance doesn't discriminate – it affects people of all ages and backgrounds, putting everyone at risk."***
- ***"The future of medicine hangs in the balance: either we take decisive action against antibiotic resistance now, or we risk losing the ability to effectively treat infections altogether."***

7.5 Unconventional tactics for AMR

The healthcare industry is currently undergoing a significant transformation fueled by technological advancements. To effectively promote the innovative solutions and drive maximum impact of AMR messages, it is imperative to adopt unconventional marketing strategies that transcend traditional approaches. In our analysis, we've delved into innovative tactics specifically tailored for AMR messages to navigate the distinct challenges within the industry. By thinking creatively and embracing unconventional methods, we can effectively convey the value propositions, surmount adoption barriers, and leave a lasting impression.

Unconventional marketing campaigns, such as guerrilla marketing and creative storytelling, play a pivotal role in capturing audience attention and generating buzz around health solutions. These campaigns enable messages to stand out amidst competition, creating memorable experiences for the target audience. In the realm of AMR, where raising awareness and driving behavioral change are paramount, adopting unconventional marketing tactics can prove instrumental in effectively conveying the urgency and importance of responsible antibiotic use, hygiene practices, and AMR prevention strategies. By leveraging creative storytelling and innovative approaches, stakeholders in the fight against AMR can engage diverse audiences, spark conversations, and drive meaningful action towards combating this global health threat. Following are some unconventional tactics that can be utilized to stand out AMR messages.

Guerrilla marketing campaigns

Guerrilla marketing involves unconventional and attention-grabbing approaches to reach the audience. For AMR, consider creative campaigns that surprise and engage people. Examples:

- "Superbug" Street Art: Commission street artists to create eye-catching murals depicting superbugs (resistant microbes) in public spaces. These visuals can spark conversations and highlight the urgency of AMR.
- "Prescription Pad" Flyers: Distribute mock prescription pads with messages about responsible antibiotic use in waiting rooms, pharmacies, and clinics.

Social media challenges

Leverage social media platforms to spread awareness. Create challenges related to AMR and encourage users to participate. Examples:

- #SuperbugSelfie: Encourage people to take selfies wearing superhero masks or capes, emphasizing their role in fighting superbugs.
- #PrescribeWisely or #MythsVs Facts Campaign: Challenge healthcare professionals to share tips on appropriate antibiotic prescriptions.

Interactive storytelling

Develop interactive narratives that immerse the audience in AMR-related scenarios. Examples:

- Choose-Your-Own-Adventure Stories: Allow readers to navigate through AMR challenges and explore different outcomes.
- Online Games: Create games where players must make decisions about antibiotic use and witness the consequences.

Influencer partnerships

Collaborate with influencers, celebrities, or experts to amplify AMR messages. Examples:

- Instagram Takeovers: Invite healthcare professionals or scientists to take over your organization's Instagram account for a day, sharing insights on AMR.
- YouTube Videos: Partner with popular YouTubers to create educational videos about AMR.

Art installations

Use visual art to convey AMR messages. Examples:

- Petri Dish Art: Arrange colorful petri dishes in public spaces, each representing a different aspect of AMR (e.g., misuse, overuse, environmental impact).
- Sculptures: Commission sculptures made from discarded antibiotics or pill bottles.

Satirical content

Satire can be powerful in conveying serious messages. Examples:

- AMR Memes: Share humorous memes that highlight the absurdity of antibiotic misuse.
- Fake Pharmaceutical Ads: Create mock ads for "Superbug-B-Gone" pills, emphasizing the futility of seeking a quick fix. Example [How to stay Health](#).

Annex 1: Communication interventions by county

This section summarises media/communication campaigns and interventions related to AMR in the partner countries (Table 13). These efforts aimed to raise awareness, change behavior, and combat AMR. Annex 2 provides more information on some of the more successful communication campaigns implemented in some of the targeted countries in the region.

These campaigns utilized diverse channels and tactics to reach their target audiences, emphasizing responsible antibiotic use and collective action against AMR. While observational study designs limit causal conclusions, clear evaluation processes are crucial for future campaign effectiveness.¹⁴¹⁵¹⁶¹⁷

Frequency and number of campaigns:

- The frequency column indicates how often the campaign occurs (e.g., annually, ongoing).
- The number of campaigns column represents the total count of distinct campaigns with the same or similar titles over the specified period.
- Even if the campaign title remains the same, there were multiple instances of that campaign conducted annually or periodically.

Distinguishing factors:

- To differentiate between campaigns with identical titles, following factors were:
- Year: Different years indicate separate instances of the campaign.
- If campaigns were initiated by different organizations or authorities, they were treated as distinct campaigns.

¹⁴ <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-024-17766-w>

¹⁵ <https://www.who.int/news/item/06-06-2023-world-antimicrobial-awareness-week-%28waaw%29-will-now-be-world-amr-awareness-week>

¹⁶ <https://gh.bmj.com/content/4/3/e001239>

¹⁷ <https://www.dovepress.com/knowledge-attitudes-and-practices-of-antimicrobial-uses-and-resistance-peer-reviewed-fulltext-article-IDR>

Table 13: Media/communication campaigns and interventions related to AMR in the partner countries

Country	Number of interventions	Frequency / Number of campaigns	Theme of intervention	Message/Title of intervention	Message framing	Audience	Channel/Tactics of interventions	Gaps and challenges documented
India	2	7 Ongoing, Periodic	Hygiene, Sanitation, Responsible Antibiotic use WHO Core Package of 13 Critical Interventions for AMR 2023	Swachh Bharat Abhiyan - Clean India Mission (2014) World AMR Week Campaign (ongoing)	Medical Terminology, AMR is a Superbug	General public, Healthcare Workers	Mass media, targeted messaging, Healthcare Personnel (HCP)-Patient Interactions, TV/Radio ads, Billboards, Social Media, Community Workshops	Challenges In Reaching Rural Areas, Misinformation. Not The Stand-alone Campaign For AMR – Combine With Other Health & Sanitation Campaign Human Health Centric
Vietnam	2	5 Periodic Campaigns, Annual Campaign	WHO Core Package of 13 Critical Interventions for AMR Rational antibiotic Use, Stewardship	Together Against AMR Keep Antibiotics Working (ongoing)	Microbial Evolution, Inadequate AMU Communication	Healthcare Providers, Consumers	Educational Materials, Community Workshops, Educational Pamphlets, Medical Conferences, Online Campaigns	Language Barriers, Limited Media Freedom. Human Health Centric
Philippines	2 (One Specified Campaign One Combine with Covid-19)	3 Annual Awareness Week	Combating Covid-19 And AMR Together, Who Media Workshop on AMR	AMR Awareness Week – IAmResponsible (2018) Bida Solusyon Sa Covid-19 (2020)	Not Consistent, Increased During Awareness Week	General Public	Mass Media, Targeted Messaging, Social Media, Posters, Awareness Event, Tv/Radio Announcements, Posters, Online Videos	Media Ownership Concentration
Indonesia	2 AMR Specified Campaign And One General Health Campaign	6 Ongoing, Regularly Scheduled	Hygiene, Infection Prevention, Rational Antibiotic Use AMR Global Ongoing Theme	New Declaration on AMR After G20 (2022) One Health Warriors Gerakan Masyarakat Hidup	Inadequate Communication on Consequences	Community Members, Healthcare Providers	Workshops, Local Health Centers, Mass Media, Mobile Apps, Community Health Centers, School Programs	Language Diversity, Health Infrastructure

				Sehat - The Healthy Living Community Movement (Ongoing)				
Japan	4	6 Ongoing Annual	AMR Emergency, Raising Awareness About AMR	Media Campaigns on AMR Consequences, AMR Awareness Week Campaign Annually, Technical Campaigns	Official Reports, Scientific Discovery	General Public, Government, Healthcare Organizations	TV Broadcasts, Expert Panels Nationwide (Events, Workshops, Materials), Webinars, Social Media Campaigns, Educational Brochures	Conservative Media, Language Barrier
China	3	4 Periodic And Annual Campaign	People-centered Approach For AMR Comprehensive Health Promotion, AMR Awareness	WAAW Week Campaign Healthy China 2030 Defeat Superbugs Together	Heterogeneous Terminology, AMR is a Superbug	General Public, Chinese Government	Billboards, Radio, Community Talks, Public Service Announcements, Educational Websites, Healthcare Facilities	Censorship, Trust Deficit
Thailand	2	8 Some Periodic and Annual Campaign	Creative Community Engagement Rational Antibiotic Prescribing, AMR Education	Antibiotic Guardians Antibiotics Smart Use (ASU) Campaign	Microbial Evolution, Inadequate AMU Communication	Healthcare Providers, Consumers	Webinars, Pamphlets, Hospital Campaigns, Training Modules for Healthcare Workers, Public Health Campaigns	Language Diversity, Media Ownership
Malaysia	2	9 Some Periodic and Annual Campaign	Responsible Antibiotic Use Responsible Antibiotic Use, Stewardship	One Health Heroes Antibiotics: Handle With Care (2013)	Inadequate Communication on Consequences	General Public, Healthcare Professionals	School Programs, Online Platforms,	Media Bias, Multicultural Communication, Posters in Clinics, School Programs, Interactive Workshops
South Korea	2	5 Periodically scheduled	Learning From Successful Interventions Protecting Antibiotics for Future Generations	Smart Antibiotics Antibiotics Guardian	Medical Terminology, AMR is a Superbug	General Public, Healthcare Professionals	Mobile Apps, Public Service Announcements, TV Dramas, Celebrity Endorsements, Online Quizzes	Aging Audience, Media Monopolies

Annex 2: Some successful campaigns

Thailand's antibiotics smart use (ASU) campaign: The ASU Campaign was launched over **seven years ago** through a collaborative effort between researchers, Thailand's Ministry of Public Health, and support from the World Health Organization (WHO). The primary goal was to tackle the rampant overuse of antibiotics, especially in cases of upper respiratory tract infections, acute diarrhea, and simple wounds. These health conditions were chosen due to the prevalent practice of prescribing antibiotics unnecessarily.

Key components of the ASU campaign:

- **Community involvement:** The ASU Campaign adopted a **comprehensive, bottom-up approach** by engaging health volunteers at the village level. These volunteers played a crucial role in educating patients and community members about responsible antibiotic use.
- **Door-to-Door visits:** Health volunteers conducted door-to-door visits, providing information on appropriate antibiotic usage and dispelling misconceptions.
- **Informative reading materials:** Distribution of **educational materials** further reinforced the campaign's messages.
- **Antibiotic use quiz:** A quiz focused on antibiotic use was administered to community members. Successful participants were rewarded with **discounted household goods**, sponsored by local companies.

Unique success factors:

- The ASU Campaign's **community-driven strategy** has been recognized as one of the most effective approaches to reducing antibiotic misuse.
- The stepwise approach emphasized **local education** about antibiotic use, empowering individuals to make informed decisions.
- The campaign also promoted **alternative treatments** for non-bacterial infections, reducing unnecessary antibiotic prescriptions.

Integration and sustainability:

- The ASU Campaign's triumph led to its integration into **Thailand's rational drug use initiative** under the national drug policy.
- **Civil society organizations** and **local networks** continue to champion the campaign, ensuring sustained efforts in minimizing unnecessary antibiotic use.
- Impact and Evidence:
- Data collected between **2014 and 2019** from approximately **680 hospitals** revealed a significant decrease in antibiotic prescribing rates:
 - For upper respiratory infections, rates dropped from 43.5% to 22.1%.
 - For **acute diarrhea**, rates decreased from **45.7% to 19.3%**.
 - For uncomplicated wounds, rates declined from 68.4% to 45.6%.

iAMResponsible – Empowering stakeholders in the Philippines to combat AMR: To raise awareness, particularly within the animal health sector in the Philippines, a pivotal message on AMR was crafted: iAMResponsible. Unveiled during World Antibiotic Awareness Week in 2018, this campaign instills a profound sense of accountability, ownership, and responsibility among stakeholders actively engaged in the battle against AMR.

The iAMResponsible message was meticulously developed through collaborative efforts involving representatives from the Department of Agriculture Technical Working Group on AMR and various stakeholders, with generous support from the Food and Agriculture Organization of the United Nations. Since its inception, this impactful communication has been consistently utilized and adapted across a spectrum of Information, Education, and Communication (IEC) materials dedicated to addressing AMR in the Philippines. iAMResponsible stands as a unifying beacon, empowering stakeholders to play a crucial role in the collective efforts to combat AMR and ensure a healthier future for all.

Scientific progress in China: In 2015, Chinese scientists made a groundbreaking discovery, uncovering the mobile resistance gene, *mcr-1*, in both animals and human patients across China. This gene, capable of conferring resistance to the antibiotic colistin, quickly spread beyond China's borders within a year.

In response to this alarming revelation, the **Ministry of Agriculture and Rural Affairs of China (MARA) issued Announcement No. 2428 in 2016**, aiming to curb the emergence and dissemination of AMR by prohibiting the use of colistin in animals for growth promotion.

By April 30, 2017, China implemented a complete **ban on the use of colistin** in animals as a growth promoter. In 2018, a collaboration between the FAO in China and MARA culminated in a high-profile launch ceremony dedicated to raising awareness and advocating for the prudent utilization of antimicrobials. A compelling video titled "**Better Animal Health, Use Antimicrobials Responsibly**" was unveiled, captivating over 5 million viewers within a month. Building on these initiatives, China made significant strides in 2020 by effectively executing two pivotal plans: **the National Action Plan for Antimicrobial Resistance (2016–2020) and the National Action Plan for Antibiotic Resistance of Microorganisms of Animal Origin (2017–2020)**. MARA's proactive measures included announcements to cease the production, import, trade, and usage of growth-promoting antimicrobials.

As of December 31, 2020, China achieved a milestone with the complete prohibition of antimicrobial use for growth promotion, marking a resolute commitment to combatting AMR and safeguarding public health. Additionally, China adopted legislation in July 2020, banning several antibiotics commonly used as feed additives, further reinforcing its commitment to responsible antimicrobial use. To understand the result of this action, **Frontiers Research Article: "Withdrawal of antibiotic growth promoters in China and its impact on the foodborne pathogen *Campylobacter coli* of swine origin" by Wen et al. (2022)**. **This study explores the consequences of AGP withdrawal on the prevalence and antibiotic resistance of foodborne pathogens.**

Annex 3: Audience understanding of AMR in the countries

In 2019, researchers in **China** conducted an online survey to evaluate shifts in public knowledge, awareness, and behaviors concerning AMR since 2016. The survey was distributed through China's national and provincial-level 12320 Health Hotline Weibo (micro-blog site) and WeChat (text messaging service) social media accounts.

While AMR awareness was found to be widespread among social media users in China, the study identified a pressing need to tackle inappropriate antibiotic usage, particularly the misconception that antibiotics are effective against viral infections. Key findings underscored the necessity for multiple interventions aimed at promoting the appropriate use of antibiotics and providing education on the causes of AMR. The 12320 Health Hotline serves as a valuable platform for conducting routine surveys to monitor antibiotic usage trends and public understanding of AMR.¹⁸

In **Japan**, a national questionnaire survey conducted in 2017 aimed to evaluate the knowledge and perception of antimicrobials and AMR among Japanese adults aged 20–69 years. The findings revealed that half of the participants had taken antibiotics within the past 12 months, primarily to alleviate symptoms of the common cold. However, the survey also brought to light a significant lack of public awareness, with 80% of respondents unaware that antibiotics are ineffective against viruses. Despite relying heavily on mainstream media for information, there was a clear indication of a strong desire for behavioral change regarding antibiotic use. These results underscore the urgent necessity for comprehensive educational campaigns targeting the general population to rectify misconceptions and promote responsible antibiotic usage. This study reinforces the critical role of public education and awareness initiatives in the ongoing battle against AMR.¹⁹

The survey conducted in **South Korea** highlights significant knowledge gaps, particularly concerning the ineffectiveness of antibiotics for treating coughs and colds. These knowledge deficiencies are notably prevalent among individuals with lower education levels and older age groups, underscoring the necessity for targeted educational initiatives. Titled “Antibiotic Use in South Korea from 2007 to 2014: A Health Insurance Database-Generated Time Series Analysis,” the study aimed to analyze antibiotic usage patterns in South Korea during the specified period using health insurance claims data. However, the study revealed the limited success of the national campaign, emphasizing the urgent need for focused efforts to rectify misconceptions and promote responsible antibiotic practices.

Regarding self-adjustment and leftover antibiotics, approximately 11.7% of participants admitted to keeping unused antibiotics, while 23.6% reported adjusting antibiotic doses without medical consultation. Moreover, patient requests for antibiotics were prevalent, with about 10% of participants seeking

¹⁸ Using Weibo and WeChat social media channels to assess public awareness and practices related to antimicrobial resistance, China, 2019, <https://doi.org/10.3390/antibiotics11121751>

¹⁹ Public knowledge and perception about antimicrobials and antimicrobial resistance in Japan: A national questionnaire survey in 2017 <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0207017>

antibiotics from their doctors. Additionally, nearly 30% expressed a preference for doctors who prescribed antibiotics for cold symptoms.

The knowledge gap surrounding antibiotic use is substantial, with 80% of participants unaware that antibiotics are ineffective against viruses and do not treat cold or flu symptoms. This finding underscores the critical importance of targeted educational campaigns to improve public understanding and promote appropriate antibiotic usage in South Korea.²⁰

In **India**, while a National Policy for Containment of AMR is in place, there is a noticeable lack of comprehensive communication campaigns targeting both healthcare providers and consumers. The findings from the farmers' Knowledge and Attitude survey conducted in India underscore significant awareness gaps, indicating a pressing requirement for customized initiatives and educational programs geared towards fostering responsible antibiotic usage.²¹

A National Online Survey of people of Philippines' Knowledge, Attitude, and Awareness of Antibiotic Use and Resistance: A Cross-Sectional Study understanding of antibiotic use and resistance. Researchers surveyed 3,767 participants through social media, using the Eurobarometer survey on antibiotic resistance. Key findings revealed that while participants had a general idea about common types of antibiotics, their knowledge of antibiotic resistance was relatively low. Factors such as age, education, profession, recent antibiotic use, and household members taking antibiotics significantly influenced their understanding of AMR. attitudes were assessed based on gender, age, and educational status:

- Acquisition of Antibiotics: How do they obtain antibiotics? Do they follow proper channels?
- Hygienic Practices: Are they aware of hygiene practices to prevent infections?
- Role of Health Professionals: What do they believe about healthcare providers' role in antibiotic resistance?

The study underscores the importance of informed policies to ensure safe and effective antibiotic use. Findings revealed that 50.7% had low knowledge levels of antibiotic resistance, with predictors including age, education, and recent antibiotic use. Policymakers should consider these factors when addressing antibiotic resistance in the Philippines.^{22,23}

In **Vietnam**, a cross-sectional survey was conducted by researchers in one commune of Ha Nam Province, encompassing 324 households. The findings from the survey underscored the diversity in knowledge and practices related to antibiotic usage, highlighting the imperative for tailored interventions aimed at curbing antibiotic misuse and the emergence of resistance. Effective communication interventions should

²⁰ Antibiotic use in South Korea from 2007 to 2014: A health insurance database-generated time series analysis, <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0207017>

²¹ Knowledge, attitudes, and practices related to antibiotic use in Paschim Bardhaman District: A survey of healthcare providers in West Bengal, India, <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0207017>

²² <https://academic.oup.com/jphsr/article/13/4/289/6775459>

²³ <https://doi.org/10.1093/jphsr/rmac038>

target prevalent media platforms such as television, alongside pivotal health information providers like health workers.

Factors influencing antibiotic awareness were discerned:

- Distance from health facilities: Those living further from health facilities had lower antibiotic awareness.
- Information sources: Those who used interpersonal sources (such as health workers) for health information had higher antibiotic awareness.
- Health facility choice: Awareness of antibiotic resistance was lower among those using private providers or pharmacies as their usual health facility.
- Insurance and media use: Awareness was higher among those with medical insurance and those with high media use frequency.
- Seeking health information: Awareness of AMR was higher among those who sought information from official sources and had overall high levels of health information seeking.²⁴

In **Indonesia**, the prevalence of inaccurate knowledge and widespread self-medication practices underscores the necessity for health education initiatives aimed at curbing self-medication habits and fostering responsible antibiotic use. The year 2019 witnessed Indonesia grappling with a significant burden related to AMR, with 34,500 deaths directly attributable to AMR, and an additional 133,800 deaths associated with it. Globally, Indonesia ranked 78th concerning age-standardized mortality rate associated with AMR per 100,000 population. The "Knowledge, Attitudes, and Practice Survey about Antimicrobial Resistance and Prescribing Among Physicians in a Hospital Setting in Lima, Peru" scrutinized AMR awareness and prescribing practices among medical doctors in two major public hospitals in Lima, Peru.

Key findings:

- Theoretical knowledge about AMR was satisfactory, but awareness of local AMR rates for key pathogens was lacking.
- Respondents recognized AMR as a global issue but were less aware of its impact within their own practice.
- Perceived overuse of antimicrobials was prevalent in both community and hospital settings.
- Confidence levels in antimicrobial prescribing varied among attending physicians and residents.
- The survey revealed significant gaps in understanding AMR, particularly among policymakers.
- Some respondents held misconceptions about AMR, such as confusing it with general antibiotic use.
- Urgent targeted interventions are needed to enhance awareness and educate policymakers.
- Policymakers' awareness directly influences policy decisions, emphasizing the need for informed decision-making.

²⁴ Awareness of Antibiotics and Antibiotic Resistance in a Rural District of Ha Nam Province, Vietnam: A Cross-Sectional Survey, <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0207017>

- The impact of AMR in Indonesia exceeded deaths attributed to other major causes, highlighting ongoing challenges in data availability and surveillance.²⁵²⁶²⁷

Thailand: A national survey in 2019 evaluated knowledge and awareness of antibiotic use and AMR. 6.3% of the population reported recent antibiotic use (reduced from 7.9% in 2017). 10% requested antibiotics from doctors, and nearly 30% preferred doctors who prescribed antibiotics for cold symptoms. While progress was made, inappropriate practices persist, emphasizing the need for educational interventions and effective communication with patients.²⁸

²⁵ <https://bmcclinpharma.biomedcentral.com/articles/10.1186/1472-6904-11-18>

²⁶ <https://joppp.biomedcentral.com/articles/10.1186/s40545-022-00484-2>

²⁷ <https://www.amr-insights.eu/understanding-antimicrobial-resistance-from-the-perspective-of-public-policy-a-multinational-knowledge-attitude-and-perception-survey-to-determine-global-awareness/>

²⁸ <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-021-12237-y>

Annex 4: Fictional case study on AMR in farm animal template

Title: "Struggling Against AMR: A Farmer's Battle Against Respiratory Infections"

Background:

In a quaint village nestled in the heart of rural India, Rajesh, a diligent farmer, faced the devastating consequences of AMR within his livestock. Rajesh, a diligent third-generation farmer, cherished his family's legacy of farming. However, when his dairy cows began showing signs of respiratory infections, Rajesh faced a daunting challenge on his farm.

The challenge:

In the spring of 2023, a strange sickness started spreading among Rajesh's cows. At first, it was just a cough or a runny nose, but soon, many of them were really sick, struggling to breathe and stay on their feet. Rajesh was worried because nothing he tried seemed to help them get better. Even the medicine the vet gave didn't work.

As the days went by, things only got worse. Rajesh's cows were too sick to produce milk, which meant he wasn't making any money from selling it. This put a lot of pressure on him because he needed that money to take care of his family and keep the farm running. It felt like everything was falling apart, and Rajesh didn't know what to do.

Impact:

The sickness didn't just affect Rajesh's cows—it affected Rajesh's economic wellbeing too. With his cows falling sick and unable to produce milk, his main source of income was severely affected. Without the revenue from milk sales, Rajesh faced financial strain as he struggled to cover the expenses of running the farm, including feed, veterinary care, and other necessities. Additionally, the decline in milk production meant Rajesh had fewer products to sell, leading to a decrease in overall farm revenue. This financial strain threatened Rajesh's ability to support his family and maintain the farm's operations, putting his livelihood and the future of the farm at risk.

Action steps:

Recognizing the urgency of the situation, Rajesh consulted with a veterinarian. The vet stressed the importance of using antibiotics responsibly, he suggested exploring other treatment options and isolating the affected animals.

Implementing Preventive Measures: To contain the spread of infection, Rajesh implemented strict biosecurity protocols, including isolating sick cows and enhancing ventilation in the barn to minimize the risk of transmission. In his quest to combat AMR, the veterinarian researched innovative therapies for respiratory infections, such as bacteriophage treatment, which utilizes viruses to target antibiotic-resistant bacteria. He hoped these novel approaches could offer effective treatment for his cows.

Committed to protecting the health of his livestock and the environment, Rajesh became an advocate for sustainable farming practices within his community. He wanted to make sure that other farmers knew about the risks of antibiotic resistance and the importance of using antibiotics responsibly.

Annex 5: Country stakeholders

Stakeholder analysis framework:

To systematically categorize stakeholders and provide a clear understanding of their roles, contributions, and levels of engagement, a robust analysis framework was employed. This framework served as a structured guide for the classification process, ensuring consistency and accuracy in delineating stakeholder categories.

- **Structured classification:** The framework facilitated a structured and systematic classification of stakeholders into distinct levels according to their position and competences, allowing for a nuanced analysis of their individual and collective impact on the fight against AMR.
- **Categorization criteria:** Based on, contributions to the AMR landscape, and the extent of their engagement in addressing the challenges posed by AMR, the mapping analysis allocated country stakeholders four distinct categories based on area of interest:
 - Policy & Funding
 - Advocacy
 - Innovation & Research
 - Surveillance

This methodological approach aimed to provide a comprehensive and nuanced overview of the diverse range of stakeholders contributing to the global efforts against AMR.

Regional/Global stakeholders

The main regional and/or global stakeholders for communication purposes are as follows:

Stakeholder	Interest in area
APEC: Strategic action plan to control AMR in the Asia-Pacific Region	Policy
South Asian Association for Regional Cooperation (SAARC)	Policy
Federation of Asian Veterinary Associations (FAVA)	Advocacy
Asia-Pacific Society of Clinical Microbiology and Infection	Advocacy
Asian Network for Surveillance of Resistant Pathogens (ANSORP)	Surveillance
GASP (The Gonococcal Antimicrobial Surveillance Program)	Surveillance, Research
Global Antimicrobial Resistance Surveillance System (GLASS)	Surveillance, Research
Asia Pacific Foundation for Infectious Diseases (APFID)	Research
ASEAN Risk Assessment Centre for Food Safety (ARAC)	Research

Country stakeholders

The Tables below show key government authorities in China, India, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Thailand and Viet Nam responsible for implementing comprehensive national AMR policies and strategic plans using the One Health approach. The analysis shows also relevant public and private country stakeholders that address complex AMR-related issues and aim to take actions to minimize spread of AMR. It is important to note that the positions and roles can evolve, and continuous engagement with stakeholders is essential for effective AMR management.

China

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> The State Administration for Market Regulation, Ministry of Agriculture and Rural Affairs, Ministry of Ecology and Environment, The National Health Commission	Policy, Advocacy
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services:</u> China National Center for Food Safety Risk Assessment, Chinese Center for Disease Control and Prevention (CDC), China Animal Disease Control Centre (CADC), China Institute of Veterinary Drug Control (IVDC), China Animal Health and Epidemiology Centre (CAHEC), National Medical Products Administration	Policy, Advocacy Surveillance
	<u>Veterinary organizations</u> e.g. Commission of Chinese Veterinary Pharmacopoeia, National Medical Products Administration, Veterinary Administration Management Organization, Veterinary Administrative Enforcement organizations	Policy, Advocacy
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Chinese Association of Animal Science and Veterinary Medicine (CAAV), Chinese Veterinary Medical Associations (CVMA), China Veterinary Drug Associations (CVDA), Shanghai Small Animal Veterinary Association.	Policy, Advocacy
	<u>Academia</u> including Chinese Academy of Agricultural Sciences, Chinese Academy of Inspection and Quarantine	Research
End users of antimicrobials	<u>Producer Associations linked to animal production and food processing sector</u> such as China Meat Association (CMA), Dairy Association of China, China Fisheries Association, China Feed Industry Association.	Policy, Advocacy

India

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying, Department of Fisheries), Ministry of Agriculture and Farmers Welfare (Department of Agriculture, Cooperation & Farmers Welfare), Ministry of Health and Family Welfare (DG of Health Services, FSSAI), Ministry of Environment, Forest and Climate Change, Ministry of Food Processing Industries.	Policy, Advocacy
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Food Standards & Safety Authority of India (FSSAI), National Centre for Disease Control (NCDC), Central Drugs Standard Control Organization (CDSCO), Central Pollution Control Board	Policy, Advocacy Surveillance
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Indian Veterinary Associations, Indian Association for the Advancement of Veterinary Research (IAAVR), The Federation of All India Farmer Associations.	Advocacy
	<u>Councils</u> such as Indian Council of Medical Research (ICMR), Indian Council of Agricultural Research (ICAR), Veterinary Medical Council of India (MCI), Veterinary Council of India (VCI), Pharmacy Council of India (PCI)	Advocacy, Research
	<u>Academia</u> including Indian Veterinary Research Institute (IVRI)	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Poultry Federation of India, Indian Dairy Association (IDA), The Compound Feed Manufacturers Association, All India Food Processors' Association (AIFPA), Indian Federation of Animal Health Companies (INFAH).	Advocacy

Indonesia

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Agriculture (Directorate General for Livestock and Animal Health Services (DGLAHS), Food Security Agency, Indonesia Agricultural Quarantine Agency), Ministry of Health (Directorate General for Diseases Prevention and Control, Directorate General for Public Health), Coordinating Ministry of Human Development and Culture, Ministry of Environment and Forestry, Ministry of Marine Affairs and Fisheries (Fish Quarantine and Inspection Agency)	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Indonesia Risk Assessment Center (INARAC), Indonesia Food and Drug Agency	Surveillance Research
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Indonesia Poultry Veterinarian Association (ADHPI), Indonesia Ruminant Veterinarian Association (IDHSI), National Layer Farmers Association (PPN) Center, Poultry Breeding Entrepreneurs Association (GPPU), Indonesian Sheep Goat Farmers Association (HPDKI), Indonesia Veterinary Medicine Association (PB PDHI)	Advocacy
	<u>Academia</u> including State Veterinary/Animal Science/Agricultural University	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Association of Animal Food Entrepreneurs (GPMT), Association of Poultry community (PINSAR Indonesia), Indonesian Animal Husbandry Graduate Association (ISPI).	Policy, Advocacy

Japan

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> The Ministry of Health, Labour, and Welfare (Food Safety Standards and Evaluation Division, Inspection and Safety Division), The Ministry of Agriculture, Forestry, and Fisheries, Regional Bureaus of Health and Welfare, Prefectural and Municipal Governments.	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Food and Agricultural Materials Inspection Center, Food Safety Commission (FSC) Cabinet Office	Surveillance Research
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Japan Veterinary Medical Association, Japan Poultry Science Associations, Japan Medical Association, Japan Pharmaceutical Manufacturers Association, Japan Small Animal Veterinary Association, Japanese Board of Veterinary Practitioners, Japan Food Safety Management Association.	Policy, Advocacy
	<u>Academia</u> , State Veterinary/Animal Science/Agricultural University including Japan Agency for Medical Research and Development	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Japan Dairy Industry Association, The Agriculture & Livestock Industries Corporation (ALIC), Japan Livestock Industry Association, Japan Fisheries Association, All Japan Meat Industry Co-Operative Associations, Japan Meat Processors Association, Japan Meat Traders Association, Japan Feed Manufacturers Association.	Policy, Advocacy

Republic of Korea

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Food and Drug Safety, Ministry of Agriculture, Food and Rural Affairs, Ministry of Health and Welfare, Ministry of Oceans and Fisheries, Ministry of Environment	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Korea Disease Control and Prevention Agency (KDCA), National Institute of Food & Drug Safety Evaluation, National Agricultural Product Quality Management Service, Animal and Plant Quarantine Agency.	Surveillance Research
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Korean Veterinary Medical Association, Korea Animal Health Products Association (KAHPA), Korean Animal Hospital Association.	Policy, Advocacy
	<u>Academia including State Veterinary/Animal Science/Agricultural</u>	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as The Korea Feed Association (KFA), Korea Dairy Industries Association Korea Dairy Cattle Association, Korea Food Industry Association, Korea Meat Industries Association, Korean Poultry Associations, Korea Meat Slaughterhouse Associations, Korea Fisheries Association.	Policy, Advocacy

Malaysia

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Health (Food Safety and Quality Division), Ministry of Agriculture and Food Security (Department of Veterinary Services, Department of Fisheries, Department of Agriculture), Ministry of Natural Resources, Environment and Climate Change	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Fisheries Development Authority of Malaysia, Malaysian Society of Infection Control and Infectious Disease, National Public Health Laboratory (MKAK)	Surveillance Research
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Federation of Livestock Farmers Association of Malaysia (FLFAM), Sarawak Livestock Breeders' Association, Sibu Livestock Farmers' Association, Marine Fish Farmers Association of Malaysia (MFFAM), National Farmers Organisation (NAFAS), Malaysian Veterinary Medical Association (MAVMA), Malaysian Small Animal Veterinary Association (MSAVA), Malaysia Animal Health & Nutrition Industries Association (MAHNIA), Malaysian Society of Infection Control and Infectious Disease	Policy, Advocacy
	<u>Academia</u> including State Veterinary/Animal Science/Agricultural, including Institute for Medical Research, National Water Research Institute of Malaysia, Institute for Medical Research, The Malaysian Society of Agricultural Engineers	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Malaysian Society of Animal Production (MSAP), Malaysian Fisheries Society, Malaysian Dairy Corporation (MADAC), The Malaysian Feedmillers Association (MFA), Malayan Agricultural Producers Association (MAPA), Federation of Malaysian Manufacturer, Malaysian Society of Animal Production	Policy, Advocacy

Philippines

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Department of Agriculture (Bureau of Animal Industry; Bureau of Fisheries and Aquatic Resources; Bureau of Agricultural and Fisheries Product Standard; Bureau of Plant Industry; Bureau of Fisheries and Aquatic Resources), Department of Health (Food and Drug Administration - Center for Food Regulation and Research)	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> Food and Drugs Administration (DOH), Food Development Center, National Fisheries Research and Development Institute, Philippine Council for Agriculture and Fisheries (National Agriculture and Fisheries Council (NAF Council), National Sectoral Committees (NSCs), and the Agricultural and Fisheries Councils (AFCs)), National Meat Inspection Service, National Dairy Authority, Philippine Fisheries Development Authority, Agricultural Training Institute	Surveillance Policy, Advocacy
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Philippine Animal Hospital Association, United Broilers Raisers Association (UBRA), Philippine Veterinary Medical Association and collegial bodies (Philippine College of Swine Practitioners, Philippine College of Poultry Practitioners, Philippine College of Veterinary Public Health, Philippine College of Veterinary Epidemiologist, Philippine College of Veterinary Feed Practitioners, Philippine Veterinary Drug Association).	Policy, Advocacy
	<u>Academia</u> including State Veterinary/Animal Science/Agricultural	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Philippine Association of Meat Processors, Inc. (PAMPI), Pork Producers Federation of the Philippines, Inc., Phil. Assoc. Of Feed Millers Inc. (PAFMI), the Philippine Chamber of Food Manufacturers, Inc, The Philippine Food Processors and Exporters Organization, Inc., SOCKSARGEN Federation of Fishing and Allied Industries, Inc., the Philippine Chamber of Food Manufacturers, Inc.	Policy, Advocacy

Thailand

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Agriculture and Cooperatives (Department of Agriculture, Department of Fisheries, Department of Livestock Development), Ministry of Public Health (Food and Drug Administration National Antimicrobial Resistance Surveillance Center Thailand (NARST), National Institute of Health, Department of Medical Sciences, Department of Disease Control)	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> National Bureau of Agricultural Commodity and Food Standards, National Food Institute	Surveillance Policy, Advocacy
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Veterinary Practitioner Association of Thailand (VPAT), Thai Swine Farm Control Veterinary Association, The Veterinary Medical Association of Thailand Under the Patronage of His Majesty the King, Thai Poultry Veterinary Association.	Policy, Advocacy
	<u>Academia</u> including State Veterinary/Animal Science/Agricultural including Agricultural Research Development Agency	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Thai Frozen Foods Association (TFFA), The Thai Food Processors' Association, Thai Broiler Processing Exporters Association, Animal Husbandry Association of Thailand, Dairy Farming Promotion Organization of Thailand, Thai Fishmeal Producers Association (THAI), Thai Shrimp Association (TSA), Thai Tuna Industry Association (TTIA), Thai Feed Mill Association.	Policy, Advocacy
	Farmers, Farmer federations	Advocacy, Surveillance

Vietnam

Stakeholder level	Stakeholder	Interest in area
Government level	<u>Ministries including authorities and technical teams (involved in AMR) of Ministries:</u> Ministry of Agriculture and Rural Development (National Agroforestry Fisheries Quality Assurance Department (NAFIQAD), Department of Animal Health (DAH), Department of Plant Protection (PPD), Department of Livestock Production (DLP), Ministry of Health (Vietnam Food Administration), Ministry of Natural Resources and Environment	Policy, Advocacy, Surveillance
	<u>National Institutes of Health, Agriculture, Livestock and Aquaculture, and Environment, Veterinary Services</u> National Institute of Food Control, Institute of Strategy and Policy on Natural Resources and Environment.	Surveillance Policy, Advocacy
Public and Private country stakeholders	<u>Professional associations of doctors, pharmacists and veterinarians</u> such as Vietnam Veterinary Association (VVA), Vietnam Ruminant Husbandry Association (VINARUHA), Vietnam Small Animal Veterinary Association.	Policy, Advocacy
	<u>Civil Society Organizations</u> such as Vietnam Chamber of Commerce and Industry (VCCI), Vietnam Farmer's Union (VFU), Vietnam Consumers Protection Association (VICOPRO), Vietnam Organic Agriculture Association (VOAA).	Advocacy
	<u>Academia</u> including State Veterinary/Animal Science/Agricultural such as Hanoi Medical University (HMU) - School of Preventive Medicine and Public Health, Vietnam National University of Agriculture (VNUA), Thai Nguyen University of Agriculture and Forestry (TUAF), Hanoi University of Public Health (HUPH), Vietnam Academy of Agricultural Sciences	Research
End users of antimicrobials	<u>Producer Associations and federations linked to animal production and food processing sector</u> such as Vietnam Association of Seafood Exporters and Producers (VASEP), Vietnam Food Association (VFA), Vietnam Animal Feed Association (VFA), Vietnam Fisheries Society (VINAFIS), Vietnam Dairy Association, Vietnam Livestock Association - Animal Husbandry Associations of Viet Nam (AHAV), Vietnam Poultry Association (VIPA), The Vietnam Association of Food Science and Technology (VAFoST).	Policy, Advocacy

Annex 6: Factors to consider for different types of stakeholder

Communication in the local context

Tailoring communication efforts to the local context is crucial for ensuring relevance, resonance, and effectiveness. Local communities often have unique cultural, linguistic, and socioeconomic characteristics that influence their perceptions and behaviors related to health and AMR. By understanding and addressing these factors, communication initiatives can better connect with and engage target audiences. Culturally sensitive messaging, language accessibility, and community engagement strategies are essential for building trust and credibility within local communities. Leveraging traditional communication channels and collaborating with local influencers further enhances the reach and impact of AMR communication efforts. Ultimately, communicating in the local context fosters greater community engagement, participation, and ownership of AMR prevention and control initiatives. Implementing communication efforts in the local context requires a tailored approach that considers the unique characteristics and needs of each community. Firstly, thorough research and analysis are necessary to understand the cultural, linguistic, and socioeconomic factors that influence communication preferences and behaviors within the target community. Collaborating with local leaders, organizations, and influencers is crucial to co-create messaging and engagement strategies that resonate with the community's values and priorities. Language accessibility should be ensured by translating communication materials into local languages and dialects. Traditional communication channels, such as community gatherings, local radio stations, and grassroots events, should be leveraged to disseminate information effectively. Continuous engagement and feedback loops should be established to maintain relevance and adapt communication strategies based on community input. By implementing communication efforts in the local context, stakeholders can build trust, foster engagement, and promote behavior change within communities affected by AMR. Strategies may include establishing multi-stakeholder working groups, conducting needs assessments, and developing implementation plans with clear objectives, timelines, and resource allocations.

Coordination and collaboration

Coordination and collaboration among stakeholders are critical for maximizing resources, avoiding duplication of efforts, and achieving greater impact in AMR communication initiatives. Effective coordination involves establishing communication networks, defining clear roles and responsibilities, and fostering partnerships between government agencies, non-governmental organizations, academic institutions, and industry stakeholders. By working together, stakeholders can share resources, expertise, and best practices, thereby enhancing the effectiveness and efficiency of AMR communication efforts. Furthermore, coordination ensures coherence and consistency in messaging, facilitates knowledge exchange, and promotes synergy across different sectors and levels of governance. Clear roles and responsibilities should be defined for different stakeholders, including government agencies, non-governmental organizations, and industry partners, to ensure coherence and synergy in communication initiatives. Through such collaborative efforts, stakeholders can share resources, expertise, and best practices, thereby enhancing the efficiency and effectiveness of AMR communication initiatives. Ensuring

coherence and consistency in messaging, promoting knowledge exchange, and fostering synergy across different sectors and levels of governance further augment the impact of these collaborative endeavors.

Publication and distribution of regional AMR works

The publication and distribution of regional AMR research, reports, and guidelines play a crucial role in informing evidence-based communication strategies. By collaborating with research institutions, public health agencies, and academic journals, stakeholders can share findings, highlight emerging trends, and promote knowledge exchange on AMR-related issues. Disseminating regional AMR works facilitates informed decision-making, policy development, and public awareness efforts at both regional and national levels. Translation of research findings into accessible formats and languages enhances understanding and relevance across diverse regions, thereby amplifying the impact and effectiveness of AMR communication initiatives.

Youth engagement

Implementing youth engagement strategies in AMR communication requires targeted outreach, innovative approaches, and meaningful participation opportunities. Engaging youth in AMR communication efforts is essential for fostering long-term behavior change and raising awareness among future generations. Youth represent a significant demographic with the potential to influence attitudes, behaviors, and social norms related to AMR prevention and control. By empowering young people as advocates for responsible antibiotic use and infection prevention, stakeholders can harness their energy, creativity, and influence to drive positive action and shape attitudes towards AMR. Additionally, involving youth in educational initiatives and campaigns fosters a sense of ownership and commitment to addressing AMR, ensuring sustained efforts in combating this global health threat. Key factors involve understanding the interests, preferences, and needs of young people, as well as identifying channels and platforms for reaching them effectively. Strategies to involve youth may include organizing youth-led campaigns or competitions, integrating AMR topics into school curricula or extracurricular activities, and leveraging social media influencers or online platforms to amplify messaging. Moreover, creating opportunities for youth to contribute their ideas, perspectives, and solutions to AMR challenges can foster a sense of ownership and empowerment.

Educational engagement

Incorporating AMR education into professional training programs and public education campaigns is essential for equipping healthcare professionals and consumers with the knowledge and skills to prevent and control AMR. Healthcare professionals play a critical role in antibiotic stewardship and infection prevention efforts, making ongoing education and training essential for maintaining best practices. Likewise, educating consumers about the importance of responsible antibiotic use, hygiene practices, and vaccination uptake promotes informed decision-making and behavior change. By providing educational resources and opportunities for learning, stakeholders contribute to more responsible antimicrobial use, improved public health outcomes, and ultimately, the containment of AMR. Tool to utilize this tactic includes organizing workshops or seminars for healthcare professionals, developing e-learning modules or webinars for broader dissemination, and collaborating with educational institutions to incorporate

AMR topics into curricula. Moreover, leveraging partnerships with professional associations, academic institutions, and community organizations can enhance reach and engagement.

Gender inclusion

Gender-inclusive communication strategies are critical for addressing disparities in healthcare access, antibiotic use, and AMR awareness. Recognizing and addressing gender differences in healthcare decision-making and AMR prevention are paramount. Stakeholders must adopt gender-sensitive approaches to ensure that communication efforts effectively reach and resonate with diverse audiences. Engaging women's groups and community organizations in outreach efforts promotes gender equality in healthcare policy and practice, supporting more inclusive and effective AMR interventions. Ultimately, gender-inclusive strategies advance efforts to combat AMR on a global scale by promoting equitable access to information, resources, and healthcare services. Women and men may have different roles, preferences, and experiences related to healthcare decision-making and AMR prevention. By adopting gender-sensitive communication approaches, stakeholders can ensure that AMR communication efforts effectively reach and resonate with diverse audiences. Engaging women's groups and community organizations in outreach efforts promotes gender equality in healthcare policy and practice, supporting more inclusive and effective AMR interventions. Ultimately, gender-inclusive communication strategies contribute to equitable access to information, resources, and healthcare services, advancing efforts to combat AMR on a global scale. Key factors include conducting gender analysis to identify specific communication needs and preferences, as well as collaborating with women's groups and gender-focused organizations to ensure representation and inclusion. Developing gender-sensitive communication materials and messaging, organizing targeted outreach events or campaigns for diverse gender groups, and integrating gender perspectives into policy and programmatic interventions. Moreover, fostering gender equality in healthcare decision-making and leadership roles can support more effective and equitable AMR interventions.