

MONGOLIA NATIONAL COMMUNICATION STRATEGY FOR ANTIMICROBIAL RESISTANCE (AMR) 2027-2030



ХҮНС, ХӨДӨӨ АЖ АХУЙ,
ХӨНГӨН ҮЙЛДВЭРИЙН ЯАМ



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БАЙГАЛЬ ОРЧИН, УУР АМЬСГАЛЫН
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World Organisation
for Animal Health



World Health
Organization



Food and Agriculture
Organization of the
United Nations

PREFACE



General Agency for Veterinary Services



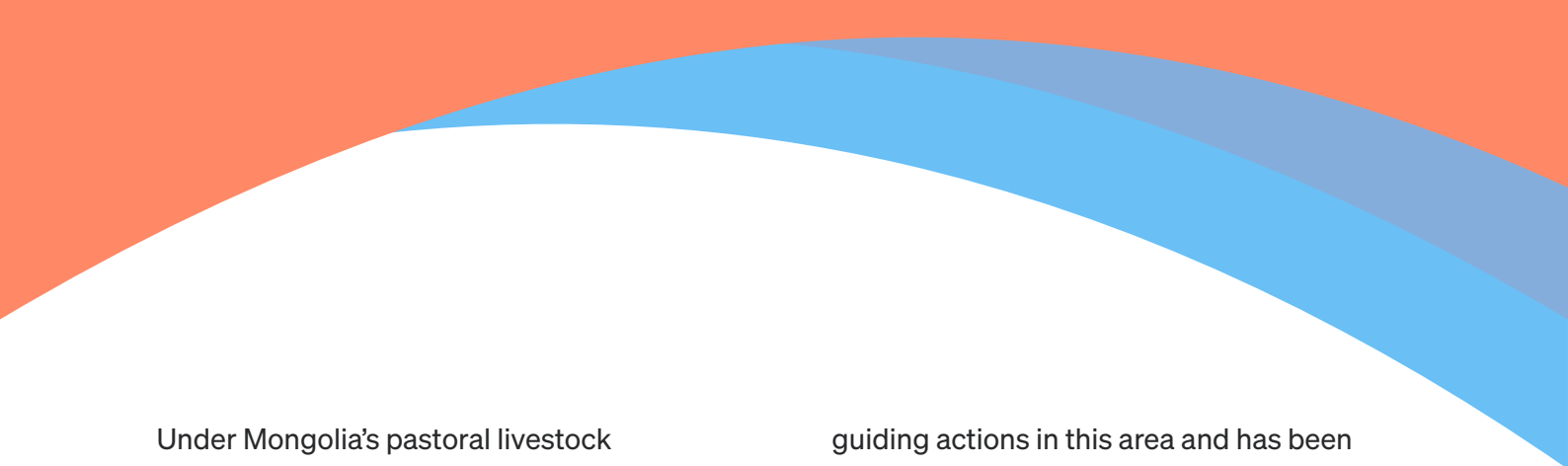
Livestock husbandry is a key pillar of Mongolia's economy, food security, and traditional national culture. The veterinary sector plays an important role in protecting animal health, ensuring that the population is supplied with safe and healthy food, and preventing antimicrobial resistance.

Antimicrobial resistance (AMR) is no longer a distant or abstract threat—it is a pressing global challenge that affects the health of humans, animals, plants, and our shared environment. As recognized by the United Nations and reaffirmed at the 79th United Nations General Assembly High-Level Meeting on AMR, coordinated and decisive action is urgently required. Mongolia stands firmly aligned with this global commitment.

As a country with vast territory and a livestock population that exceeds our human population by many times, Mongolia holds a unique position in the global fight against AMR. Our

pastoral livestock production system is both a source of national pride and an essential pillar of our economy and food security. Safeguarding animal health, ensuring the safety of livestock-origin food products, and protecting public health are therefore shared national responsibilities.

Within the framework of implementing the Law on Animal Health and the Law on Veterinary Drugs and Feed Additives, the General Authority for Veterinary Services is carrying out phased measures to improve the regulation and oversight of the production, import, trade, and use of veterinary medicines. For example, a system has been introduced to dispense veterinary medicines by prescription, establishing a mechanism to promote the rational use of antimicrobials. In addition, regular surveillance of drug residues and antimicrobial resistance in foods of animal origin is conducted, and risk assessments are carried out.



Under Mongolia's pastoral livestock production system, the use of antimicrobials remains relatively low, which is a positive indicator. However, limited access to veterinary services in remote soums and baghs, as well as insufficient public knowledge and awareness, create risks of inappropriate use of medicines. Therefore, combating antimicrobial resistance requires more than legal regulation and surveillance alone; it is also essential to implement comprehensive information, communication, and education measures that promote changes in public knowledge, attitudes, and behavior.

The Antimicrobial Resistance Communication Strategy in Mongolia (2027–2030) is an important policy document

guiding actions in this area and has been developed based on the One Health approach. The strategy aims to strengthen cross-sectoral collaboration, increase public awareness and understanding, promote the rational use of antimicrobials, and ultimately foster sustainable behavioral change.

Therefore, we call upon veterinarians, health professionals, farmers, herders, policymakers, researchers, educators, development partners, and all citizens to actively support and implement this strategy. Combating antimicrobial resistance is a shared responsibility across sectors. By working together, we can protect animal and public health and contribute to building a sustainable and safe future for Mongolia.

B. Batsukh

Director General
General Authority for Veterinary Services (GAVS)
Chief Veterinary Officer (CVO) of Mongolia
WOAH Delegate of Mongolia



ЭМ, ЭМНЭЛГИЙН ХЭРЭГСЛИЙН
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Medicines and Medical Devices Regulatory
Agency (MMRA)



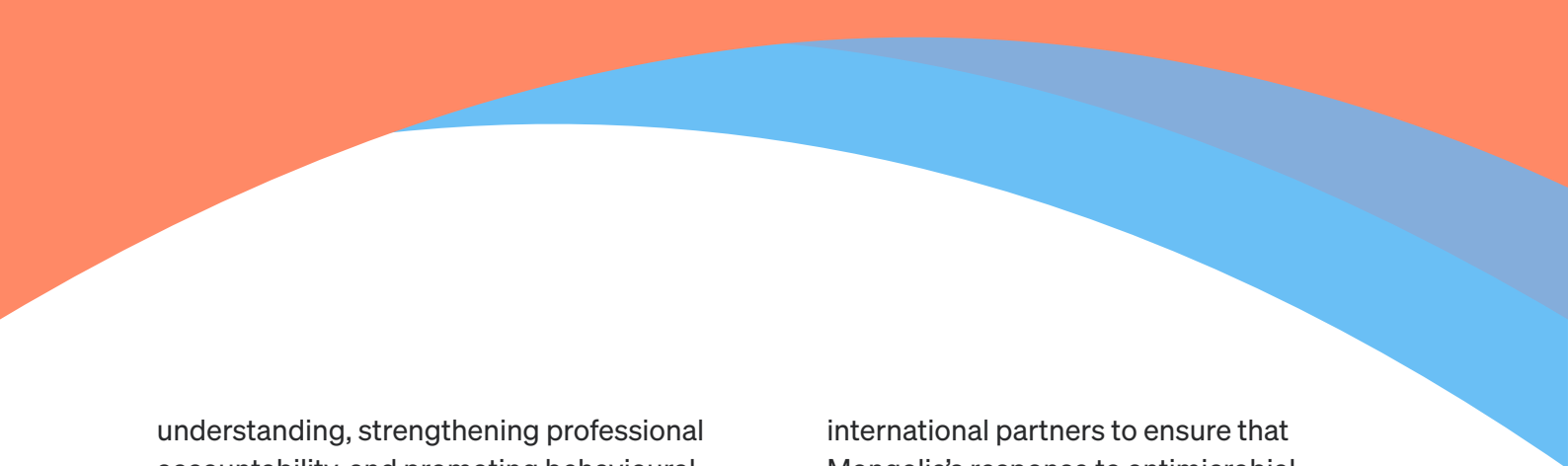
Antimicrobial resistance (AMR) is one of the pressing challenges facing modern healthcare. Effective management and appropriate use of antimicrobial therapy in healthcare services form the foundation for improving outcomes in infectious diseases, intensive care, maternal and child health, and cancer, as well as for ensuring successful surgical procedures. However, when the effectiveness of these medicines declines, the consequences extend beyond increased treatment costs to include prolonged illness, increased complications and risks, and a rise in preventable deaths.

According to surveillance data from Mongolia, the use of antimicrobials remains high compared to the global average, and there is a growing trend in the use of antibiotics classified under the World Health Organization's AWaRe “Watch” category. At the same time, antimicrobial susceptibility testing is not yet consistently performed and utilized in treatment management for every patient requiring antimicrobial therapy. This limits evidence-based clinical decision-making and prescribing practices, negatively affecting treatment outcomes. Furthermore, the high level of resistance among common pathogens responsible for healthcare-associated

infections indicates the need to further strengthen systems for the prudent use, surveillance, and control of antimicrobials within the national health system.

In conclusion, it is necessary not only to ensure the availability of high-quality and safe antimicrobials in the market, but also to foster practices of their prudent and responsible use. Moving forward, improving intersectoral coordination, ensuring compliance with prescription standards, strengthening pharmacovigilance, enhancing oversight of the supply chain, and ensuring adherence to clinical guidelines for diagnosis and treatment are the key pillars for preserving and protecting the effectiveness of these medicines.

The Antimicrobial Resistance (AMR) Communication Strategy in Mongolia (2027–2030) has been developed to provide doctors, pharmacists, healthcare professionals, policymakers, and the public with evidence-based information, thereby supporting informed decision-making. Communication is not merely a process of information dissemination; it is a strategic tool for shaping appropriate attitudes and



understanding, strengthening professional accountability, and promoting behavioural change. This strategy aims to foster a culture of responsible and prudent use of antimicrobials in the health sector through targeted advocacy and professional training, supported by transparent information exchange.

As the Director of the Medicines and Medical Devices Regulatory Agency (MMRA), I place particular emphasis on strengthening the regulatory environment, supporting evidence-based decision-making, and facilitating the effective implementation of antimicrobial stewardship programs within healthcare institutions. In this context, we are working closely with the Ministry of Health, professional associations, research institutions, and

international partners to ensure that Mongolia's response to antimicrobial resistance is evidence-based, well-coordinated across sectors, and sustainably implemented.

Reducing antimicrobial resistance and safeguarding the effectiveness of antimicrobial therapies is not only a priority for today's health sector but also a shared responsibility to future generations. Based on collective commitment, professional ethics, and informed public participation, we can preserve the effectiveness of these vital medicines and ensure safer, higher-quality healthcare services for the people of Mongolia.

P. Altantsetseg

Director
Medicines and Medical Devices Regulatory
Agency (MMRA)
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Mongolia



World Organisation
for Animal Health



Antimicrobial resistance (AMR) is a growing global threat that affects human, animal, and environmental health. Confronting it requires coordinated, sustained action across all sectors. Mongolia has shown strong commitment to this effort, strengthening its policies on antimicrobial use and advancing multisectoral collaboration in line with the One Health approach.

In 2024, WOAHA worked closely with the General Authority for Veterinary Services (GAVS) and national partners to assess Mongolia's AMR communication practices and co-develop priority actions. Through a national workshop held in Ulaanbaatar, stakeholders from human, animal, and environmental health identified gaps, solutions, and effective communication pathways that directly informed this National Communication Strategy.

This strategy provides Mongolia with a practical framework to improve public understanding of AMR, promote responsible antimicrobial use, and strengthen coordination between sectors. It reflects Mongolia's unique

livestock-dependent context and recognises the essential roles of herders, farmers, veterinarians, health workers, policymakers, and community networks. Its recommendations build on the country's existing AMR initiatives and highlight the importance of evidence-based messaging, clear responsibilities, and sustained engagement to drive behaviour change.

WOAH is proud to support Mongolia in this important work, together with our partners FAO and WHO under the United Nations Multi-Partner Trust Fund (MPTF). I extend my sincere appreciation to all national institutions, experts, and stakeholders who contributed to developing this strategy. Your leadership strengthens Mongolia's AMR response and contributes to global efforts to preserve the effectiveness of antimicrobials.

WOAH remains committed to supporting Mongolia as this strategy is put into action. Together, we can safeguard the health of communities, animals, and ecosystems for generations to come.

Dr. Tomoko Ishibashi

Regional Representative for Asia and the Pacific
World Organisation for Animal Health (WOAH)

ABBREVIATIONS

AMR	Antimicrobial Resistance
AMR CS	Antimicrobial Resistance Communication Strategy
AMU	Antimicrobial use
ATC	Anatomic Therapeutic Class
AWaRE	Access, Watch and Reserve
CSO	Civil Society Organizations
COVID-19	Corona Virus Disease of 2019
DDD	Daily Defined Dose
DID	Daily Defined Dose per 1000 Inhabitants
FAO	Food and Agriculture Organization
GAP	Global Action Plan
GASI	Government Agency for Specialized Inspection
GAVS	General Authority for Veterinary Services
GDHI	General Department for Health Insurance
GLASS	Global Antimicrobial Resistance and Antibiotic Use
IVM	Institute for Veterinary Medicine
MMDRA	Medicines and Medical Devices Regulatory Agency
MNUMS	Mongolian National University of Medical Sciences
MULS	Mongolian University of Life Sciences
MoFALI	Ministry of Food, Agriculture and Light Industry
MoES	Ministry of Education and Science
MoECC	Ministry of Environment and Climate Change
MoF	Ministry of Finance
MoH	Ministry of Health
NAP	Multi-sectoral national action plan on AMR
NCCD	National Center for Communicable Diseases
NCHD	National Center for Health Development
NCPH	National Center for Public Health
NCZD	National Center for Zoonotic Diseases
NGO	Non-government organisation
SRLFM	State Reference Laboratory for Food and Medicine
SWOT	Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis
OTC	Over-the-counter
PPI	Plant Protection Institute
SCVL	State Central Veterinary Laboratory
SDG	Sustainable Development Goals
SLVMTC	State Laboratory for Veterinary Medicine Testing and Certification
UNEP	United Nations Environmental Program
UN FAO	United Nations Food and Agriculture Organization
WAAW	World Antibiotic Awareness Week
WHO	World Health Organization
WOAH	World Organisation for Animal Health (formerly OIE)

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EXECUTIVE SUMMARY

Today, AMR poses a significant global challenge affecting human, animal, plant, and environmental health. The United Nations (UN) has acknowledged the urgency of addressing this issue, underscoring the importance of seeking solutions by establishing a UN Interagency Coordination Group on AMR. Additionally, global leaders have approved a political declaration at the 79th United Nations General Assembly (UNGA) High-Level Meeting on Antimicrobial Resistance (AMR), committing to a clear set of targets and actions.

Given the multifaceted determinants and impacts of AMR, a multi-sectoral strategy is essential to address the issue comprehensively. Responsibility falls on many stakeholders, including farmers, herders, livestock producers, animal health professionals, healthcare workers, and citizens from every corner of the world.

While progress has been achieved in raising awareness about antimicrobial resistance (AMR) in human health, there remains a pressing need to intensify awareness-raising efforts in animal and environmental health. The dangers associated with AMR have escalated, particularly in countries where regulations, oversight, and monitoring systems related to antimicrobial usage are virtually non-existent or inadequately enforced.

The NACS recognises the intricate nature of antimicrobial resistance (AMR) and antimicrobial usage (AMU) in Mongolia. It underscores the necessity for more prudent antimicrobial use across human health and agricultural practices, keeping environmental concerns into consideration.

The AMR CS is an important document that guides collaboration and communication of information among the human, animal, and environmental health, food, and agriculture sectors, as well as with the general public.



RATIONALE FOR STRATEGY DEVELOPMENT

Since the British scientist Alexander Fleming accidentally discovered the first antibiotic, penicillin, in 1929, humankind has widely used antibiotic therapy in the treatment of diseases in humans and animals, continuously benefiting from its advantages.

Before the discovery of antibiotics, even seemingly simple wounds could cause severe infections and therefore carried a high risk of becoming life-threatening. However, due to the inappropriate and excessive use of antimicrobials (AMR/antibiotics), drug-resistant microorganisms have emerged and spread among humans and animals. As a result, this has led to multiple serious consequences, including delays in disease treatment in the human health sector, increased healthcare costs, higher mortality rates, reduced efficiency in livestock production, and negative impacts on the environment and surrounding ecosystems.

One of the effective measures to combat antimicrobial resistance (AMR) is to ensure the accessible organisation of activities that facilitate information sharing and enhance knowledge and understanding. Therefore, these activities should be planned in coordination with a broader objective aimed at promoting social and behavioural change.

Use of antimicrobials and surveillance of AMR in the human health sector of Mongolia

According to the WHO “Report on Surveillance of Antimicrobial Consumption 2016-2018” antibiotic consumption (AMC) in Mongolia was estimated to be 64.4, expressed as the Daily Defined Dose (DDD) per 1000 inhabitants (2015 data). This was the highest among 65 countries and areas globally. In 2018, it decreased to 50.68 DDD, following government policies and actions to restrict the sale of antimicrobials over the counter and improve public awareness on AMR.

According to data reported to the World Health Organization (WHO) WPRACSS system (WPRACSS), antimicrobial consumption in

Mongolia was 46.2 DDD per 1,000 inhabitants in 2020, 114.1 DDD in 2021, and 105.7 DDD in 2022. In addition, based on the Defined Daily Dose per 1,000 inhabitants per day (DID), a comparison of 2020 and 2022 data shows that the use of antibiotics in the “Reserve” group under the WHO AWaRe classification increased by 17%, while the use of antibiotics in the “Access” group decreased by 14.57%.

According to the 2024 report of the Drug Therapy Committee, a total of 73 health institutions submitted reports. Analysis of these reports shows that antibiotic susceptibility testing was performed for 26.5% of all patients. However, this testing was conducted at a relatively low rate due to the time required to obtain the results.

Hospitals provide treatment in accordance with the relevant clinical guidelines approved by the Minister of Health. Antibiotics are selected and used either before laboratory test results become available or based on the test results, in line with these guidelines. Based on the total submitted reports, antimicrobial consumption was calculated per 100 hospital-days using the antimicrobial consumption index. This indicator increased from 2,804 DDD/100 hospital-days in 2023 to 4,196.74 DDD/100 hospital-days in 2024.

Compared to the previous year, the use of cefazolin injections has decreased, while the use of ceftriaxone 1000 mg injections has increased. In addition, the use of levofloxacin 500 mg tablets and ciprofloxacin 500 mg tablets has approximately doubled compared to the previous year. According to WHO recommendations, antibiotics in the “Access” group should account for at least 60% of total use. However, the 2024 report shows that “Access” group antibiotics accounted for 46.6%, while “Watch” group antibiotics accounted for 53%. This indicates a decrease in the use of “Access” antibiotics and an increase in the use of “Watch” antibiotics.

Based on surveillance conducted in human healthcare, the National Center for

Communicable Diseases (NCCD) collected information on antimicrobial resistance (AMR) from a total of 26 second- and third-level hospitals. In 2023, these hospitals performed a total of 12,179 tests to detect *E. coli* infections. By source of infection, 7,376 samples were from non-hospital settings (NHS), 4,580 were hospital-acquired infections (HAI), and 223 were from intensive care units (ICU).

Of all cultured *E. coli* isolates, 76.7% were resistant to ampicillin, with resistance levels varying depending on the source of infection: 74.6% in non-hospital settings (NHS), 80.9% in hospital-acquired (HAI) infections, and 83.8% in intensive care unit (ICU) infections. For *E. coli* producing extended-spectrum beta-lactamases (ESBL), which are typically targeted by cefotaxime, 29.4% of isolates were resistant. Resistance by infection source was 27.1% in NHS, 32.3% in HAI, and 45.6% in ICU samples.

Resistance to carbapenem-class antibiotics ranged from 0.7% to 2.5%, fluoroquinolones from 40.7% to 46.4%, and sulfamethoxazole-trimethoprim (SXT) was resistant in 51.7% of all cultured isolates. By specimen type, pathogens were detected 59 times in blood, 10,484 times in urine, 76 times in sputum, and 901 times in wound samples. Considering cefotaxime resistance by specimen type, 62.9% of blood isolates, 27.9% of urine isolates, 57.1% of sputum isolates, and 37.9% of wound isolates were resistant.

Use of antimicrobials and surveillance of AMR in the veterinary sector of Mongolia

In Mongolia, issues related to veterinary medicines are overseen by the General Authority for Veterinary Services (GAVS), which operates under the Law on Animal Health and the Law on Veterinary Drugs and Feed Additives. Additionally, the GAVS is supported by the non-permanent Veterinary Drugs Council and the Pharmacopoeia Committee, which assist in implementing government policies regarding medicines, biological products, disinfectants, sterilizing

agents, pharmaceutical raw materials, and feed additives for animals.

As of December 2025, a total of 1,065 types of veterinary medicines, biological products, disinfectants, sterilizing agents, pharmaceutical raw materials, and feed additives were registered in Mongolia. Among these, approximately 200 were antimicrobial agents. In accordance with the “Regulation on the Prescription of Veterinary Medicines,” approved by Order A/356 of the Director of the General Authority for Veterinary Services on December 19, 2025, the dispensing of antimicrobials for use in animals by prescription has begun to be implemented.

Surveillance of veterinary drug residues in livestock-originated food products has been conducted annually since 2022, while monitoring for resistant microorganisms began in 2024. Results from this surveillance indicate that the use of veterinary medicines in Mongolia’s pasture-based livestock sector is relatively low. As a result, the risk of drug residues and antimicrobial-resistant microorganisms in livestock-originated food products remains low, which is considered an advantage.

Mongolia has a vast territory, and the majority of its population is engaged in livestock husbandry, with the number of animals exceeding the human population by more than 20 times. Primary human healthcare centers and veterinary units are located in soum and district centers, which limits access to health services for nomadic herders living in remote areas.

This situation often leads herders to diagnose and treat themselves and their animals, using antimicrobial agents at their discretion. It creates challenges in fully controlling inappropriate antibiotic use and increases the risk of the emergence and spread of antimicrobial resistance (AMR). Furthermore, the general public, especially herders, have insufficient knowledge and awareness about the proper and responsible use of antimicrobials, which further contributes to the inappropriate use of these medicines.

The AMR-CS (Antimicrobial Resistance Communication Strategy in Mongolia) was developed based on an assessment of the current situation of antimicrobial resistance (AMR) and antimicrobial use in Mongolia, as well as the main factors contributing to the emergence of AMR. This strategy was formulated through a broad consultative process with key stakeholders, including the Ministry of Health (MoH), the Ministry of Food, Agriculture and Light Industry (MoFALI), the Ministry of Environment and Climate Change (MoECC), development partners, non-governmental organizations (NGOs), and the private sector. Priority actions identified during seminars and discussions on AMR were incorporated into the strategy.

The AMR CS for 2027–2030 is aimed at increasing public knowledge and awareness of antimicrobial resistance (AMR), promoting responsible use of antimicrobial agents, and providing regular access to necessary information. It also seeks to improve intersectoral coordination, communication, and knowledge sharing regarding AMR and antimicrobial use. In addition, by supporting changes in public attitudes and behaviors, the strategy aims to strengthen the national efforts to combat AMR.

NATIONAL INITIATIVES TO ADDRESS AMR

Since 2010, a number of multi-sectoral coordination efforts have been initiated, including but not limited to an establishment of zoonosis mechanisms between the human and animal sectors guided by Tripartite partners. In 2013, it was expanded to the Zoonotic Diseases Coordination Committee which was later integrated with the Disaster Risk Management (DRM) system.

Recognizing AMR as an emerging health threat, MoH and MoFALI developed and endorsed a first joint Multi-sectoral National Action Plan (MNAP) 2017-2020.

In addition, on May 22, 2022, the “Second Multi-sectoral National Action Plan for the Prevention of Antimicrobial Resistance” (2022–2025) was approved. To ensure its implementation, a joint Multi-sectoral coordination council (non-permanent or ad-hoc) was established by the Minister of Health and Minister of Food, Agriculture and Light Industry through joint orders A/521 and A/331 in 2022.

In addition, the “Law on Medicines and Medical Devices” (amended version) and the “Law on Veterinary Drugs and Feed Additives” were passed by the Parliament of Mongolia and came into effect on October 1, 2024. These laws specifically include regulations related to combating antimicrobial resistance (AMR) and the use and control of antimicrobial agents, thereby strengthening the legal framework and enhancing national-level responses.



SWOT ANALYSIS OF AMR COMMUNICATION

Based on the current situation of AMR/AMU issues in Mongolia, a SWOT analysis was undertaken during a national consultative workshop on 1 November 2024 wherein key stakeholders working on AMR in Mongolia brainstormed and identified key strengths, weaknesses, opportunities and threats (Table 1).

Mongolia has key strengths that make it a good environment for success, though identified weaknesses and threats pose impediments to progress. Key strengths include official recognition of the AMR threat (inclusion in legal framework, public awareness of AMR, ongoing programmes), adequate training environments and strong support from international organisations, and robust networks for information dissemination.

Important weaknesses and threats include poor coordination and persistent “siloes” among key stakeholders, lack of deep awareness of AMR and related issues, low human resources and dependency on international funding, lack of surveillance systems and loose compliance with laws and regulations, and the prevalence of false information.

To address these, opportunities were identified: use of strong communication networks among herders and specific social groups, development of good quality social media communication materials, improvement of coordination among disparate stakeholder groups, strengthening of the rule of law, and the expansion of training programmes.

(See Table 1 on the next page.)



Table 1: Results of the SWOT analysis of AMR communication in Mongolia

Strengths • There has been progress in improving the training environment and equipment • Public understanding of the inappropriate use of antimicrobials and antimicrobial resistance (AMR) has been improving. • The World AMR Awareness Week (WAAW) has been established to raise knowledge and awareness about antimicrobial resistance (AMR) • Antibiotics prescribed in human medicine • The issue of AMR has been incorporated into laws, regulations, and standards • NAP 2022-2025 endorsed/implemented • Implemented projects and programmes • The public receives information effectively through social media platforms (such as Facebook, etc.)	Weaknesses • Poor interconnection within and among sectors • Weak AMR surveillance system • Citizens tend to use antimicrobials excessively and without proper guidance • Weak compliance with laws and regulations • Lack of deep knowledge and attitude • Unclear sources of information • No database for AMR/AMU information
Opportunities • Capacity building through training programs is fully feasible • The widespread use of social media provides a favorable environment for information dissemination • The speed of information dissemination is high, allowing rapid outreach to the public • Sufficient sources and information • A system has been established to provide specialists with regular updates, improving intersectoral coordination Possibility of engaging pharmaceutical importers through social responsibility • It is possible to collaborate with influencers on social media to disseminate knowledge and information Potential for global funding and investment opportunities	Threats • If concrete actions are not taken now, by 2050 antimicrobial resistance (AMR) could cause the deaths of 10 million people worldwide each year • The widespread dissemination of incorrect and false information is deepening public misconceptions • No baseline data for surveillance • The uncontrolled availability and wide variety of low-cost antibiotics increase the risk of inappropriate use • Weak interconnection and mutual understanding among parties • Safety of information on medication instructions and advice is compromised; prevalence of non-compliance and disregard for implementation • Greatest threat: lack of true awareness of the danger of AMR

GOAL

The goal of this strategy is to establish a One Health–based communication approach for combating antimicrobial resistance (AMR) and thereby reduce the risks associated with AMR.

OBJECTIVE

1. To enhance the knowledge, understanding, attitudes, and practices regarding antimicrobial resistance (AMR) among the public, relevant sector professionals, and decision-makers.
2. Strengthen collaboration, coordination, and support among all stakeholders involved in AMR communication activities, including decision makers, policy holders, government and non-governmental organisations, social networks, citizens, and the general public.
3. To identify communication channels and tools and increase the availability of evidence-based information on AMR to the public.

ACTIVITIES TO BE IMPLEMENTED WITHIN STRATEGY, GOAL AND OBJECTIVES

1. Communication advocacy: Enhance knowledge and understanding, improve communication approaches, and support activities to combat antimicrobial resistance (AMR).
2. Capacity building: Emphasize capacity building of stakeholders to effectively address AMR-related challenges.
3. Communication materials development and dissemination: Develop appropriate communication materials to facilitate effective dissemination of information and engagement with stakeholders regarding AMR.
4. Fundraising and resource mobilization: Secure and mobilize resources to support initiatives aimed at combating AMR.

To effectively implement the planned activities, continuous attention and active support from the Government of Mongolia and development partners are crucial. In this context, providing necessary funding, technical and human resource support, supplying equipment, and sharing professional experience and knowledge are of critical importance.

To achieve tangible progress on the objectives set out in the AMR-CS, both governmental and non-governmental organizations need to actively implement their planned activities. The technical offices of the Quadripartite group of organizations (WHO, WOA, UN FAO, UNEP) will leverage and augment government resources, and gather contributions from development partners and the private sector, to tailor the current action plan within this strategy for effective implementation.

EXPECTED COMMUNICATION STRATEGY OUTCOMES

- Stakeholders will fully understand the dangers and risks posed by antimicrobial resistance (AMR) and implement practical measures to combat it.
- Key stakeholders—including citizens, the general public, herders, farmers, and pharmaceutical professionals—will improve their knowledge, understanding, attitudes, and practices regarding the responsible and appropriate use of antimicrobials, leading to sustained behavioral change.
- To draw the attention of decision-makers and policymakers to activities aimed at combating antimicrobial resistance (AMR) and positively influence their decisions.
- Stakeholders collaborating in the fight against AMR will exchange information, coordinate their activities, and effectively utilize their resources and efforts.
- In Mongolia, activities against antimicrobial resistance (AMR) will become transparent and measurable, creating favorable conditions for collaboration with donors.

KEY STAKEHOLDERS

Participants in the activities of the Antimicrobial Resistance (AMR) Communication Strategy consist of the following groups:

- Citizens and the general public
- Herders and farmers
- Health sector workers, veterinarians, and veterinary para-professionals
- Professionals in the environment, plant, and crop sectors
- Pharmacists and compounding specialists
- Manufacturers of medicines for human healthcare
- Veterinary pharmacists
- Producers of animal feed and feed additives
- Food production and safety authorities
- Educational and research institutions
- Professional associations
- Policy makers and decision-makers
- Development partners and donors
- International organizations
- Civil society organizations
- Media and public information outlets

COMMUNICATION FRAMEWORK FOR COMBATING AMR

The following table shows the scope of communication for each target group. *

Target group	Expected outcome	Content of message / information	Communication channel and events	Communication method and tools
Citizens and the general public	Public knowledge, attitudes, and practices regarding antimicrobial resistance (AMR) will improve, leading to a reduction in the use of antimicrobials for reasons other than a doctor's prescription or medical guidance.	Use antimicrobials properly according to prescriptions and instructions, protecting your own and others' health • Avoid using antimicrobials inappropriately and do not share them with others • Obtain and use antimicrobials from pharmacies according to a prescription; do not use medicines of unknown origin from individuals • Share personal examples of responsible use on social media and with journalists • Learn to limit the use of antimicrobials for mild infections, such as seasonal colds, sinusitis, or sore throat. • Understand that antibiotics do not prevent or treat viral infections and are only effective against bacterial infections.	Public engagement on social media • Public participation • Social media influencers • Training and capacity-building activities	Communication materials • Mass media (television, radio) • Brochures and leaflets • Social media platforms • Educational programs (online courses)
Herders and farmers	To promote the appropriate and responsible use of antimicrobials.	You are responsible for providing the public with safe food • Use antimicrobials in animals according to prescriptions to ensure food safety • Herders and farmers must consult with a veterinarian before administering antimicrobials to animals • Obtain antimicrobials only from reliable sources • Never use antimicrobials for prevention or growth promotion • Educate other herders, farmers, and the public on the importance of responsible antimicrobial use • Antimicrobial resistance (AMR) creates long-term, costly treatment conditions for you and your animals • Antimicrobial-resistant bacteria can infect everyone, regardless of occupation, age, gender, or social status	Public participation • National and local media • Local radio and television channels • Distribution of posters and visual materials • Use of reputable artists/influencers • Reaching parents and herders through school children • Can be delivered via monasteries and temples • Through herders' associations and cooperatives	Video shorts, brochures, and leaflets • Informational and educational materials
Health sector workers, veterinarians, and veterinary para-professionals	To prescribe and dispense antimicrobials responsibly and prudently • To provide patients with sufficient guidance and instructions on the use of antimicrobials	Carefully consider whether it is truly necessary to prescribe antimicrobials before writing a prescription • Provide patients/animal owner with guidance on the proper and improper use of antimicrobials • Base antimicrobial prescriptions on sensitivity testing • When prescribing antimicrobials, refer to the list of veterinary-important antimicrobials • Encourage the proper use of antimicrobials according to instructions • Follow approved guidelines and maintain ethical conduct when dispensing antimicrobials • Promote good practices in antimicrobial use and related advertising • Provide the public with information on treatments that may not require antimicrobials or an alternative treatment • When visiting herder households or farms to prescribe medicines, discuss antimicrobial resistance (AMR) and animal health with herders to increase their understanding • Be aware that inappropriate use of antimicrobials can lead to the emergence of superbugs resistant to treatment	Visit herder households and farms for meetings • Organize training and capacity-building seminars • National and local media • Visit schools to provide information • Conduct events, fairs, and exhibitions targeting herders and farmers • Continuous professional skills development	Information leaflets • Posters • Training materials and lessons • Television and radio discussions • Standard operating procedures and manuals

COMMUNICATION FRAMEWORK FOR COMBATING AMR (continued)

Target group	Expected outcome	Content of message / information	Communication channel and events	Communication method and tools
Professionals in the environment, plant, and crop sectors	Management of antimicrobial waste and occupational safety • Increasing knowledge and understanding of AMR and the environment • Improving monitoring and evaluation and refining implementation plans	Pay attention to the effects of antimicrobial residues • Ecosystems impact environmental health and ultimately human health. Since the environment receives and transmits antimicrobials, it plays a crucial role in combating AMR • The main causes of AMR are the inappropriate and excessive use of antimicrobials in human health, food production, animal husbandry, and agriculture, as well as improper management of waste from households, herders/farmers, factories, and human and veterinary health facilities • In plant and crop production, try alternative methods before using pesticides	National and local media • Websites or online seminars • Regular national events on water • Training for environmental specialists (e.g., on monitoring and policy development) • National and local-level training on environmental issues	Information leaflets • Television/radio discussions • Training materials and lessons
Human and veterinary pharmacists	To sell antimicrobials responsibly • To provide clients with guidance on the proper use of antimicrobials	Sell antimicrobials only when necessary and, whenever possible, with a doctor's prescription • Advise patients/animal owners on the proper and improper use of antimicrobials • AMR is a global health issue affecting humans, animals, plants, and the environment • Improper and excessive use of antimicrobials is a major cause of AMR	Organize training and capacity-building seminars • National and local media	Information leaflets • Posters • Training materials and lessons • Television and radio discussions • Social media
Drug (medicine) manufacturers	To strengthen manufacturing capacity • Research and development of new medicines	Releasing antimicrobials into the environment increases AMR • Follow proper measures for managing antimicrobial waste • Prudent use of antimicrobials helps reduce AMR • Adhere to guidelines and measures for managing the import, production, distribution, and disposal of medicines and pharmaceutical products • Support a certified medicine distribution system to improve access to quality medicines and pharmaceutical services	Consultation meetings with stakeholders • Capacity-building seminars for producers and inspectors	Information leaflets • Posters • Training materials and lessons

* This table is a brief summary of the full table and its contents. To view the full table, use the QR code below.



IMPLEMENTATION

For a proper implementation of the work plan, a dedicated person/focal point should be assigned under each organization who will be responsible for all AMR communication related activities of the organization. Moreover, partnerships play a crucial role in developing and implementing a comprehensive communication strategy on AMR. Collaborating with relevant organizations can help broaden the reach, enhance credibility, and leverage shared resources.

As for resource mobilization for the implementation of the communication activities, the Multi-Partner Trust Fund for AMR in Mongolia may provide opportunities. Food and Agriculture Organization of the United Nations (FAO), United Nations Environment Programme (UNEP), World Health Organization (WHO), and the World Organisation for Animal Health (WOAH) are to support developing the capacity of Mongolia to implement this Communication Strategy.

MONITORING AND EVALUATION

Monitoring and evaluation are crucial components of a communication strategy on AMR in health, and an integral part of effective social and behavior change communication. They allow for the assessment of the effectiveness and impact of the communication efforts, ensuring that the strategy is achieving its intended objectives. Metrics should be established to assess the impact of the communication efforts over time. This may include tracking changes in behavior related to antibiotic use or conducting surveys to measure awareness levels.

By implementing a robust monitoring and evaluation framework, stakeholders can gain valuable insights into the effectiveness of their communication efforts. This allows for evidence-based decision-making, optimization of resources, and continuous improvement of the strategy over time. Here are some considerations to develop an effective monitoring and evaluation framework:

- Defining specific, measurable, attainable, relevant, and time-bound (SMART) objectives for the communication strategy is the first requirement to establish a monitoring and evaluation framework. These objectives should align with the overall goals of reducing AMR.
- Determining Key Performance Indicators (KPIs) that will be used to measure progress towards achieving the objectives would be the second most important requirement to develop the monitoring and evaluation framework. Examples of KPIs include changes in awareness levels among target audiences, adoption of responsible antibiotic use practices by farmers or professionals, or reduction in antibiotic sales/use within specific populations.
- It is necessary to select appropriate methods for collecting relevant data to evaluate the effectiveness of communication efforts. These methods may include surveys, interviews, focus groups, social media analytics, and analysis of sales records or prescription data.
- Conducting a baseline assessment prior to implementing the communication plan to establish initial levels of knowledge, attitudes, and behaviors related to AMR and responsible antibiotic use will serve as a benchmark against which progress can be measured.

- Implementation of a systematic process of ongoing monitoring might be necessary to track the implementation and progress of the communication strategy. This may involve regular surveys or assessments to measure changes in awareness, knowledge, attitudes, and behaviours related to AMR and responsible antibiotic use over time.
- The collected data should be analysed using appropriate statistical methods or qualitative analysis techniques. This will allow for a comprehensive understanding of trends, patterns, and insights related to the impact of the communication strategy.
- Regular reports should be prepared by summarizing the findings from monitoring and evaluation activities. This may include presenting key results, discussing any challenges encountered, drawing conclusions, and making recommendations for future improvements or adjustments to the communication strategy.
- A process of getting feedback from the stakeholders such as farmers, physicians, veterinarians, environment specialists and policymakers regarding their perceptions of the communication efforts should be established. This can be done through surveys, focus groups discussions, or interviews. Their inputs should be accounted in refining future messaging or strategies.
- Last but not least, the communication strategy should continuously be adapted and refined based on insights gained through monitoring and evaluation activities. Regular review of the strategy's effectiveness and adjusting as needed is imperative to ensure it remains relevant and impactful.



Development of the Mongolia National Communication Strategy for Antimicrobial Resistance (AMR) (2027-2030)



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- S. Ganbolor, Specialist in Appropriate Use of Antimicrobials, MEEG

ANNEX: AMR communication materials developed for Mongolia

(To download materials, see the last page.)

**АНТИБИОТИК БОЛОН
БУСАД БИЧИЛ БИЕТНИЙ
ЭСРЭГ ЭМИЙГ ЖОРЫН
ДАГУУ ХЭРЭГЛЭХГҮЙ БОЛ
БИЧИЛ БИЕТНИЙ
ТЭСВЭРЖИЛТ* ҮҮСНЭ.**

ИНГЭСНЭЭР АЛИВАА
ӨВЧНИЙГ ЭМЧЛЭХЭД
УЛАМ ХЭЦҮҮ
БОЛОХЫН ЗЭРЭГЦЭЭ
ДАРААХ АСУУДЛУУД
ТУЛГАРДАГ:

- ЭРҮҮЛ МЭНДИЙН
ЗАРДАЛ ИХСЭХ
- ЭМНЭЛГИЙН ОР
ХОНОГ УРТСАХ
- НАС БАРАЛТАД
ХҮРЭХ

ХАРИУЦЛАГАТАЙ
БИЧИЛ БИЕТНИЙ
ЭСРЭГ ЭМ БЭЛДМЭЛ
ХЭРЭГЛЭЭ

МЭДЛЭГ ОЛГОЁ. НӨЛӨӨЛЬЕ. ЯГ ОДОО.



МЭДЛЭГ ОЛГОЁ. НӨЛӨӨЛЬЕ. ЯГ ОДОО.

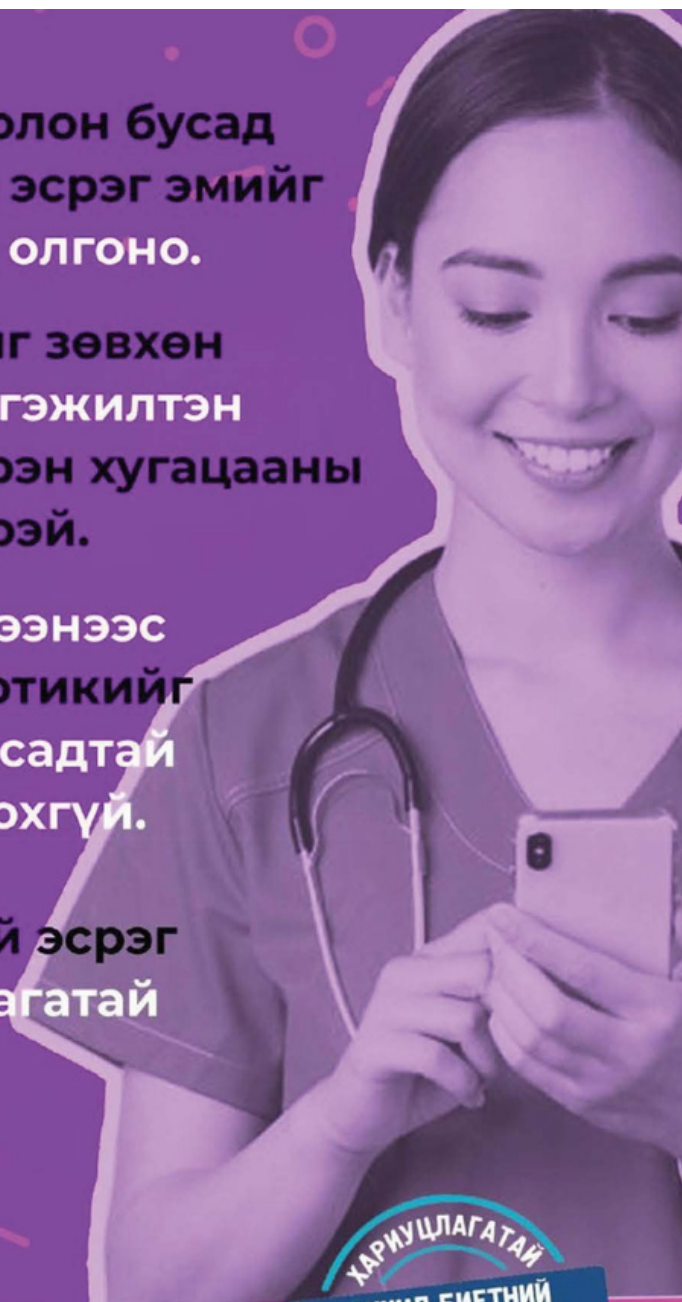


- Антибиотик болон бусад бичил биетний эсрэг эмийг зөвхөн жороор олгоно.

- Антибиотикийг зөвхөн эмнэлгийн мэргэжилтэн зөвлөснөөр бүрэн хугацааны дагуу хэрэглээрэй.

- Өмнөх эмчилгээнээс үлдсэн антибиотикийг хэрэглэхгүй, бусадтай хуваалцаж болохгүй.

- Бичил биетний эсрэг эмийг хариуцлагатай хэрэглээрэй.



МЭДЛЭГ ОЛГОЁ. НӨЛӨӨЛЬЕ. ЯГ ОДОО.



БИЧИЛ БИЕТНИЙ ТЭСВЭРЖИЛТИЙН ЭСРЭГ БИД ХАМТДАА!

БИДНИЙ ЭРҮҮЛ МЭНД МАЛ АМЬТДЫН ЭРҮҮЛ
МЭНД БОЛОН ХҮРЭЭЛЭН БУЙ ОРЧНООС
ШУУД ХАМААРАЛТАЙ.



МЭДЛЭГ ОЛГОЁ. НӨЛӨӨЛЬЕ. ЯГ ОДОО.



ТАНЫ ТУСЛАЛЦАА ХЭРЭГТЭЙ

Бид бүгдээрээ
оролцох
үүрэгтэй!

— ЗОХИСТОЙ ХЭРЭГЛЭЭГ —
АНТИБИОТИКИЙН
— СУРТАЛЧЛАХАД —



Ивээн тэтгэгч:



World Organisation
for Animal Health
Founded as OIE

Хэрэгжүүлэгч:



ЗАСГИЙН ГАЗРЫН ХЭРЭГЖҮҮЛЭГЧ АГЕНТЛАГ
МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР

ТАНЫ ТУСЛАЛЦАА ХЭРЭГТЭЙ

ЗОХИСТОЙ ХЭРЭГЛЭЭГ
АНТИБИОТИКИЙН
СУРТАЛЧЛАХАД



ТЭМЦЬЕ

#НЯНГИЙН ТЭСВЭРЖИЛТИЙН ЭСРЭГ

- Антибиотикийг хяналтгүй эсвэл хэтрүүлэн хэрэглэх нь нянгийн тэсвэржилтийг үүсгэж, хүн болон малын эрүүл мэнд, тавлаг байдлыг алдагдуулах эрсдэл дагуулж байна
- Гэхдээ та бид АНТИБИОТИКИЙГ ЗОХИСТОЙ ХЭРЭГЛЭСНЭЭР эмийн үйлчилгээг нь хадгалахад туслаж чадна.

Ивээн тэтгэгч:



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Хэрэгжүүлэгч:



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МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР



Антибиотик нь зайлшгүй шаардлагатай эм учраас



Халдварыг устгах чадвараа хадгалахад нь тусалцгаая

БҮГДЭЭРЭЭ БАРИМТЛАХ “ЗӨВХӨН” 5 ЗАРЧМУУД

1



Антибиотикийг зөвхөн **малын эмчийн жороор** хэрэглэнэ

2

Антибиотикууд **бүх халдварыг устгаж чадахгүй** учраас зөвхөн шаардлагатай тохиолдолд хэрэглэнэ



3



Зөвхөн жорын дагуу, тохирсон **тун хэмжээгээр** хэрэглэнэ үү

4

Зөвхөн **зөвшөөрөгдсөн** эмийн сангуудаар худалдаална



5



Зөвхөн **вакцинжуулалт болон эрүүл ахуйн сайн дадалтай** хослуулан хэрэглэнэ үү



ТАНЫ
ОРОЛЦОО
ХЭРЭГТЭЙ
БАЙНА

“ ХЭРЭГЛЭГЧИЙГ ТӨЛӨӨЛӨН
ТА ТУСАЛЖ ЧАДНА
БИД БҮГДЭЭРЭЭ
ОРОЛЦОХ ҮҮРЭГТЭЙ ”



Ивээн тэтгэгч:



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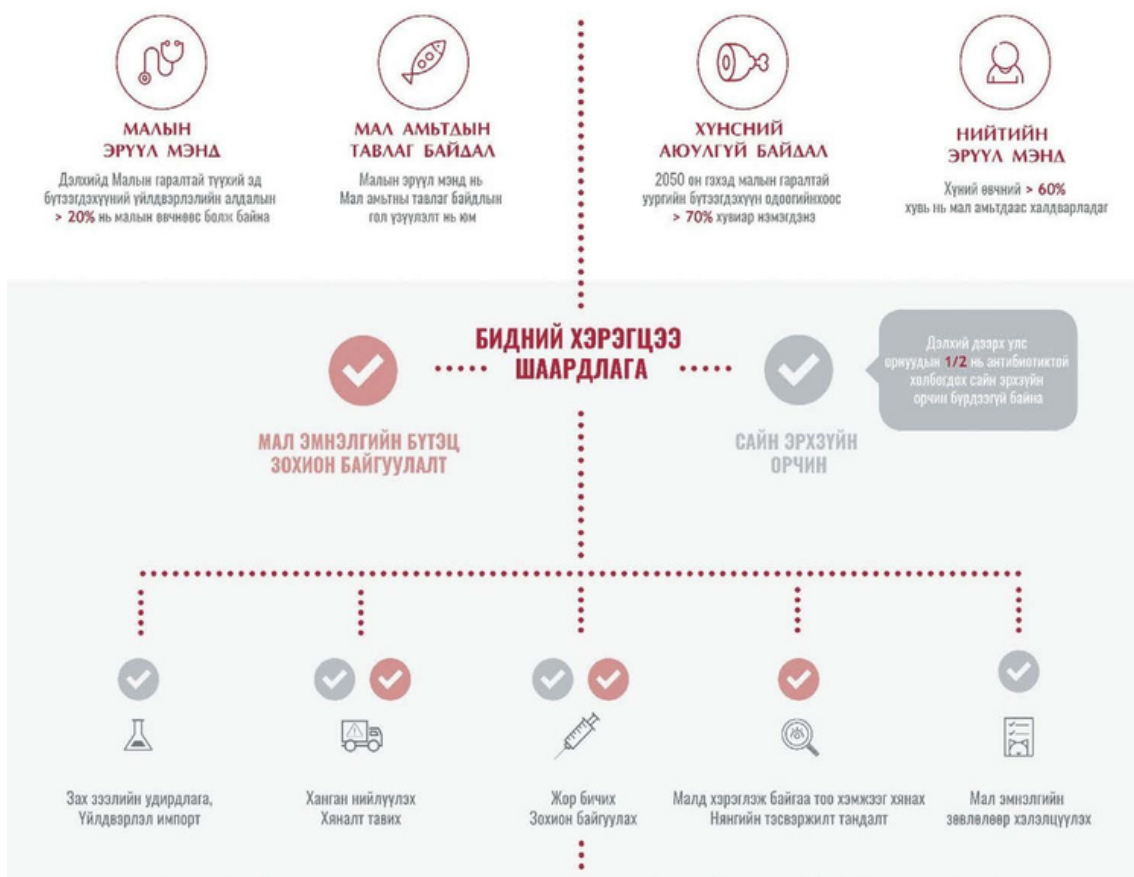
Хэрэгжүүлэгч:



ЗАСГИЙН ГАЗРЫН ХЭРЭГЖҮҮЛЭГЧ АГЕНТЛАГ
МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР

АНТИБИОТИКИЙН ХАРИУЦЛАГАТАЙ БОЛОН ЗОХИСТОЙ ХЭРЭГЛЭЭ МАЛ ЭМНЭЛЭГТ

АНТИБИОТИКИЙН АНАГААХ ЧАДВАРЫГ ХАДГАЛАХ НЬ



ДЭЛХИЙН МАЛ АМЬТНЫ ЭРҮҮЛ МЭНДИЙН БАЙГУУЛЛАГААС ЗАСГИЙН ГАЗАР ХООРОНДЫН СТАНДАРТ ТОГТООХ НЬ



WORLD ANTIBIOTIC AWARENESS WEEK
www.oie.int/antimicrobial-resistance

#AntibioticResistance

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МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР

АНТИБИОТИКИЙН

ЗОХИСТОЙ ХЭРЭГЛЭЭГ
СУРТАЛЧЛАХАД

World AMR Awareness Week (WAAW)

Арван нэгдүгээр сар 18 -24

**БИД
БҮГДЭЭРЭЭ
ОРОЛЦОХ
ҮҮРЭГТЭЙ!**



ЗАСГИЙН ГАЗРЫН ХЭРЭГЖҮҮЛЭГЧ АГЕНТЛАГ
МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР



UN Multi-Partner
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Founded in 1924



Антибиотик нь зайлшгүй
шаардлагатай эм учраас



Халдварыг устгах чадвараа
хадгалахад нь тусалцгаая

БҮГДЭЭРЭЭ "ЗӨВХӨН" 5 ЗАРЧМЫГ БАРИМТАЛЪЯ

1

Антибиотикийг
зөвхөн малын
эмчийн жороор
хэрэглэнэ

2

Антибиотикууд бүх
халдварыг устгаж чадахгүй
учраас зөвхөн шаардлагатай
тохиолдолд хэрэглэнэ

3

Зөвхөн жорын
дагуу, тохирсон
тун хэмжээгээр
хэрэглэнэ үү

4

Зөвхөн зөвшөөрөгдсөн
эмийн сангаас худалдан
авъя

5

Зөвхөн вакцинжуулалт
болон эрүүл ахуйн сайн
дадалтай хослуулан
хэрэглэнэ үү

ХЭРЭГЛЭГЧИЙГ
ТӨЛӨӨЛӨН

ТА ТУСАЛЖ ЧАДНА БИД
БҮГДЭЭРЭЭ ОРОЛЦОХ
ҮҮРЭГТЭЙ



ЗАСГИЙН ГАЗРЫН ХЭРЭГЖҮҮЛЭГЧ АГЕНТЛАГ
МАЛ ЭМНЭЛГИЙН ЕРӨНХИЙ ГАЗАР



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Download all materials and communication resources:





ХҮНС, ХӨДӨӨ АЖ АХУЙ,
ХӨНГӨН ҮЙЛДВЭРИЙН ЯАМ



ЭРҮҮЛ
МЭНДИЙН ЯАМ



БАЙГАЛЬ ОРЧИН, УУР АМЬСГАЛЫН
ӨӨРЧЛӨЛТИЙН ЯАМ



World Organisation
for Animal Health



World Health
Organization



Food and Agriculture
Organization of the
United Nations