Committee: World Health Organization (WHO)

Issue: Combating Antimicrobial Resistance through a One Health Approach

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Introduction

Antimicrobial medicines have transformed modern medicine by making previously fatal infections treatable and by enabling procedures such as surgery, organ transplantation, chemotherapy, neonatal care, and intensive care. However, the effectiveness of these medicines is increasingly threatened by antimicrobial resistance (AMR), a biological phenomenon in which microorganisms survive exposure to medicines that were once effective against them. Although resistance can occur naturally through genetic mutation and evolution, its emergence and spread are accelerated by the inappropriate and excessive use of antimicrobials in humans, animals, and plants, as well as by poor infection prevention, weak sanitation systems, inadequate waste management, and environmental contamination.

AMR is not limited to antibiotics or bacterial disease. It also includes resistance to antivirals, antifungals, and antiparasitic medicines. Nevertheless, bacterial resistance to antibiotics receives particular attention because resistant bacterial infections already impose a substantial global burden and threaten the foundations of routine health care. The World Health Organization has identified AMR as one of the leading global public health threats. Global estimates indicate that bacterial AMR was directly responsible for more than one million deaths in 2021 and was associated with several million additional deaths. The burden is distributed unequally: low- and middle-income countries often face particularly severe risks because of limited access to diagnostics, shortages of trained professionals, weak laboratory capacity, inadequate water and sanitation infrastructure, and irregular access to quality-assured medicines.

The causes and consequences of AMR extend far beyond hospitals. Antimicrobials are used in livestock, aquaculture, and crop production to treat and prevent disease, while resistant microorganisms and resistance genes can move among humans, animals, food systems, soil, and water. Pharmaceutical manufacturing effluent, hospital wastewater, untreated sewage, animal manure, and agricultural runoff may create environmental reservoirs in which antimicrobial residues and resistant organisms circulate. International

travel, trade, migration, and food distribution further allow resistant pathogens to cross borders rapidly.

For these reasons, AMR cannot be effectively addressed through the human health sector alone. The One Health approach recognizes that the health of humans, animals, plants, and ecosystems is closely interconnected. It calls for coordinated governance, surveillance, prevention, stewardship, research, financing, and accountability across sectors. The Quadripartite organizations - the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), and the World Organisation for Animal Health (WOAH) - have established a shared framework for such cooperation. The committee must therefore consider how Member States can reduce the emergence and transmission of resistance without restricting equitable access to essential medicines, damaging food security, or imposing unrealistic obligations on countries with limited financial and technical capacity.

Definition of Key Terms

Antimicrobial Resistance (AMR)

The ability of microorganisms, including bacteria, viruses, fungi, and parasites, to survive or continue multiplying despite exposure to antimicrobial medicines that were previously effective. Resistance makes infections more difficult or, in some cases, impossible to treat.

Antibiotic Resistance

A form of antimicrobial resistance specifically involving bacteria and antibiotics. Antibiotic resistance does not mean that the human body becomes resistant; rather, bacteria develop or acquire mechanisms that allow them to withstand treatment.

One Health

An integrated and unifying approach that aims to sustainably balance and optimize the health of people, animals, plants, and ecosystems. In the context of AMR, One Health requires collaboration across medicine, veterinary practice, agriculture, food production, environmental management, trade, finance, education, and research.

Antimicrobial Stewardship

A coordinated set of actions designed to promote the responsible use of antimicrobials. Stewardship includes selecting the appropriate medicine, dose, route, and

duration; avoiding unnecessary treatment; using diagnostics when possible; monitoring antimicrobial use; and preserving the effectiveness of existing medicines.

Antimicrobial Use (AMU)

The use of antimicrobial agents in humans, animals, plants, or other settings. AMU may be measured through prescriptions, sales, consumption, or standardized indicators and is essential for identifying patterns that may contribute to resistance.

Surveillance

The continuous and systematic collection, analysis, interpretation, and sharing of data. AMR surveillance measures resistance patterns, while AMU surveillance tracks antimicrobial consumption and use. Integrated One Health surveillance seeks to connect relevant data from human, animal, plant, food, and environmental sectors.

Selection Pressure

The evolutionary pressure created when antimicrobial exposure eliminates susceptible microorganisms while allowing resistant organisms to survive and reproduce. Unnecessary treatment, inappropriate dosing, and antimicrobial residues in the environment can increase selection pressure.

Critically Important Antimicrobials

Antimicrobial classes that are particularly important for treating serious human infections, especially when few or no alternatives exist. Their use in animals and agriculture is therefore a major policy concern and is addressed by WHO and WOAH guidance.

Access-Excess Dilemma

The policy challenge of reducing inappropriate or excessive antimicrobial use while ensuring that patients and animals with genuine infections retain timely access to effective, affordable, quality-assured medicines and diagnostics.

History

Discovery and expansion of antimicrobial medicines

The modern antimicrobial era began with discoveries such as penicillin and sulfonamides in the early twentieth century. Their widespread introduction sharply reduced mortality from bacterial infections and contributed to the rapid expansion of surgery, maternal care, cancer treatment, and other medical procedures. However, resistance appeared soon

after the introduction of many antimicrobial classes. In his 1945 Nobel lecture, Alexander Fleming warned that inadequate exposure to penicillin could select resistant bacteria, demonstrating that the risks associated with antimicrobial misuse were recognized from the beginning of the antibiotic era.

Growth of antimicrobial use across sectors

During the second half of the twentieth century, antimicrobial use expanded in both human medicine and food production. In many countries, antibiotics became available without adequate prescription controls, while livestock producers adopted them for treatment, disease prevention, and, in some jurisdictions, growth promotion. Intensification of animal production increased demand for disease control, and limited veterinary access encouraged routine or unsupervised use. At the same time, insufficient investment in water, sanitation, hygiene, vaccination, and infection prevention allowed infections to remain common, creating further demand for antimicrobials.

Recognition of AMR as a global governance issue

By the late twentieth and early twenty-first centuries, multidrug-resistant tuberculosis, methicillin-resistant Staphylococcus aureus, drug-resistant malaria, resistant gonorrhoea, and resistant Gram-negative bacterial infections had become major public health concerns. WHO and its partners increasingly emphasized national surveillance, infection prevention, laboratory capacity, and responsible prescribing. In 2015, the World Health Assembly adopted the Global Action Plan on Antimicrobial Resistance through resolution WHA68.7. The Plan established five strategic objectives: improving awareness, strengthening surveillance and research, reducing infections, optimizing antimicrobial use, and developing sustainable investment in medicines, diagnostics, vaccines, and other interventions.

Development of the One Health framework

The 2015 Global Action Plan encouraged Member States to create multisectoral national action plans. In 2016, the United Nations General Assembly held its first High-Level Meeting on AMR, elevating the issue from a technical health concern to a political and development priority. Cooperation among WHO, FAO, and the former OIE expanded, and UNEP formally joined the partnership in 2022, creating the Quadripartite. The One Health Joint Plan of Action 2022-2026 subsequently established a shared framework for addressing interconnected health threats, including AMR, at the human-animal-plant-environment interface.

Renewed global commitments

In 2024, the Seventy-seventh World Health Assembly adopted resolution WHA77.6, calling for accelerated national and global action and endorsing WHO's strategic and operational priorities for addressing drug-resistant bacterial infections in the human health sector from 2025 to 2035. Later that year, the United Nations General Assembly adopted a new Political Declaration on AMR following its second High-Level Meeting. Governments committed to reducing deaths associated with bacterial AMR, strengthening and financing national action plans, expanding surveillance, improving access to diagnostics and treatment, and reducing inappropriate antimicrobial use in agrifood systems through a One Health approach.

In 2026, the global framework was further strengthened. The Quadripartite issued guidance on One Health integrated surveillance of AMR and antimicrobial use, emphasizing coordinated governance, context-appropriate surveillance systems, laboratory and epidemiological capacity, integrated data analysis, and information sharing across sectors. On May 23, 2026, the Seventy-ninth World Health Assembly adopted the updated Global Action Plan on Antimicrobial Resistance 2026-2036, providing a renewed One Health framework for coordinated global, regional, and national action over the following decade.

Key Issues

Inappropriate and unequal antimicrobial use in human health

One of the most visible drivers of AMR is the inappropriate use of antimicrobials in human medicine. Antibiotics may be prescribed for viral infections, used without diagnostic confirmation, taken in inappropriate doses or durations, or obtained without adequate medical supervision. Limited access to trained professionals and diagnostics may also lead patients to rely on informal providers or incomplete treatment. These practices increase selection pressure and may allow resistant microorganisms to survive and spread.

However, policies focused only on reducing consumption can create new inequities. Many deaths from infection still occur because effective antibiotics are unavailable, unaffordable, delayed, or of poor quality. The committee must therefore address both excessive use and inadequate access. Stewardship should not mean denying necessary care; it should ensure that the right patient receives the right medicine at the right time, supported by reliable diagnostics and evidence-based clinical guidelines. Delegates must consider how

national and international stewardship targets can reduce unnecessary antimicrobial use without creating additional barriers to essential treatment.

Antimicrobial use in animals, aquaculture, and plant production

Antimicrobials are essential for animal health and welfare, but their routine use in large groups of healthy animals can accelerate resistance. The use of medically important antimicrobials for growth promotion is especially controversial because it exposes large microbial populations without a direct therapeutic purpose. Routine preventive use may also become a substitute for vaccination, biosecurity, appropriate stocking density, clean water, and veterinary supervision. Resistant organisms may then spread through direct contact, food products, manure, wildlife, water, and international trade.

Agricultural policy must account for differences among production systems. A rapid prohibition without technical or financial support could threaten food security, farmer livelihoods, and animal welfare, particularly in countries where veterinary infrastructure is weak. Successful reform therefore requires phased targets, disease-prevention investments, access to vaccines and diagnostics, improved husbandry, and support for small-scale producers. Delegates must determine how far global restrictions on agricultural antimicrobial use should be standardized and how developing countries should be supported during the transition toward lower antimicrobial dependence.

Environmental contamination and resistance reservoirs

The environment is not merely a passive route of transmission. Waste streams containing antimicrobial residues, resistant microorganisms, and resistance genes can create conditions that favor the persistence, transmission, and exchange of resistance. Important sources include pharmaceutical manufacturing, hospitals, households, farms, slaughterhouses, aquaculture, sewage systems, and municipal waste. Inadequate wastewater treatment and sanitation can release these materials into rivers, soil, groundwater, and coastal ecosystems.

Environmental AMR remains less consistently regulated and monitored than antimicrobial use in human or animal health. Many national action plans lack comprehensive discharge standards, routine environmental surveillance, or clearly assigned institutional responsibility. Developing international standards is challenging because the relationship between environmental antimicrobial concentrations and clinically significant resistance can vary by organism, compound, and ecosystem. Nevertheless, scientific uncertainty should not justify inaction where measures such as improved wastewater treatment, sanitation, and

responsible pharmaceutical manufacturing provide broader public health benefits. The committee must consider whether environmental AMR standards should be globally harmonized or adapted according to national infrastructure, risk profiles, and financial capacity.

Fragmented and unequal surveillance systems

Surveillance is necessary to identify resistant pathogens, track antimicrobial use, guide treatment, detect outbreaks, and evaluate policy. WHO's Global Antimicrobial Resistance and Use Surveillance System (GLASS) has expanded participation and standardized international reporting, while WOAH's ANIMUSE system supports the collection of antimicrobial-use data from the animal sector. Nevertheless, data quality, national representativeness, reporting methods, species coverage, and regulatory capacity remain uneven. Environmental and plant-sector surveillance is particularly limited.

A One Health approach requires more than collecting separate datasets. Countries need shared definitions, compatible laboratory methods, interoperable information systems, clear data-governance rules, and regular communication between ministries and sectors. Low-resource countries may lack laboratories, trained personnel, transportation systems for samples, or stable digital infrastructure. If international reporting requirements are imposed without financing and capacity-building, surveillance systems may remain incomplete or divert resources from immediate health needs. Delegates must therefore determine how international surveillance can become sufficiently standardized for meaningful comparison while remaining achievable for countries with limited technical and financial capacity.

Insufficient infection prevention and health-system capacity

The most sustainable way to reduce antimicrobial use is to prevent infections from occurring. Vaccination, clean water, sanitation, hand hygiene, safe childbirth, infection prevention and control in health facilities, biosecurity on farms, and safe food production all reduce the need for antimicrobial treatment. Yet these basic systems remain underfunded in many countries. Hospitals without adequate staffing, isolation capacity, sterilization, or microbiology services may experience repeated transmission of resistant organisms. Similar challenges occur in farms lacking veterinary care, disease surveillance, biosecurity, and safe waste management. Measures to address AMR must therefore extend beyond restrictions on antimicrobial consumption, and delegates should consider how international financing and technical assistance can strengthen these preventive systems in lower-resource settings.

Weak research and development incentives

The antibacterial development pipeline remains insufficient, particularly for pathogens resistant to last-resort medicines. Antibiotics often generate lower and less predictable financial returns than medicines for chronic diseases because new antibiotics should be used sparingly to preserve their effectiveness. Small biotechnology companies face high scientific and commercial risks, while traditional sales-based incentives may conflict with antimicrobial stewardship. Similar challenges affect the development of rapid diagnostics, vaccines, bacteriophages, antifungals, and alternatives to antimicrobials in animal health.

Research policy must therefore balance innovation, access, and conservation. Push incentives reduce development costs through grants, research funding, and public-private partnerships, while pull incentives can reward successful products through subscription models, milestone payments, or market-entry rewards that reduce dependence on sales volume. Any global mechanism must also consider affordability, transparent pricing, responsible marketing, and equitable availability. Delegates must determine how governments and international organizations can reward antimicrobial innovation without encouraging unnecessary consumption or allowing new treatments to remain inaccessible to lower-income populations.

Major Parties Involved and Their Views

State Actors

United States of America

The United States treats AMR as a national security, public health, agricultural, and biomedical innovation challenge. Its approach includes hospital antimicrobial stewardship requirements, surveillance through public health agencies, infection-prevention programs, investment in diagnostics and antimicrobial research, and restrictions on the use of medically important antimicrobials for production purposes in food-producing animals. The United States supports stronger international surveillance, research partnerships, and innovation incentives, particularly through cooperation between governments, academia, and the private sector. At the same time, its domestic AMR governance is divided among multiple federal and state authorities, meaning that international commitments must often be implemented through several regulatory systems. In negotiations, the United States is therefore likely to

place particular emphasis on innovation, surveillance, measurable outcomes, and public-private cooperation.

India

India carries a high burden of infectious disease and antimicrobial resistance while also serving as a major producer of generic medicines and active pharmaceutical ingredients. Its policy priorities include improving access to affordable treatment, strengthening prescription controls, expanding laboratory networks, regulating inappropriate antimicrobial formulations, improving water and sanitation, and reducing pharmaceutical pollution. India has developed national AMR strategies based on One Health principles, although implementation capacity differs among states and sectors. Its position is particularly relevant to the access-excess dilemma: stronger stewardship must coexist with affordable access to essential antimicrobials and diagnostics. India therefore emphasizes capacity-building, technology access, sustainable financing, stronger health systems, and implementation strategies that account for differences in national resources and development levels.

People's Republic of China

China is an important actor in the global AMR response because of its large population, extensive health-care system, major livestock and aquaculture sectors, and significant role in pharmaceutical manufacturing. The country has adopted national action plans addressing antimicrobial stewardship, surveillance, infection prevention, research, and antimicrobial use in agriculture. China has also strengthened restrictions on antibiotic use in health-care institutions and has taken measures to reduce the use of antimicrobial growth promoters in animal production. Its AMR policies increasingly reflect a One Health approach linking human health, agriculture, and environmental management. In international negotiations, China has strong interests in improved surveillance and research cooperation while also emphasizing national implementation capacity, food security, pharmaceutical access, and measures that can be adapted to different economic and production systems.

International Organizations and Multilateral Bodies

World Health Organization (WHO)

WHO leads the global human-health response to AMR. It develops normative guidance, coordinates GLASS, publishes priority pathogen lists, evaluates antibacterial research pipelines, supports national action plans, and promotes stewardship through tools

such as the Access, Watch, and Reserve (AWaRe) classification of antibiotics. WHO's position emphasizes people-centred health systems, infection prevention, equitable access, reliable diagnostics, surveillance, responsible antimicrobial use, research and development, and sustainable financing. As the committee's parent organization, WHO provides the central framework for debate but depends on Member States and cooperation with other sectors and international organizations to implement One Health measures.

Food and Agriculture Organization of the United Nations (FAO)

FAO addresses antimicrobial use and resistance in food and agriculture. It supports countries in improving animal husbandry, biosecurity, plant health, food safety, surveillance, and alternatives to antimicrobials. Through initiatives such as RENOFARM, FAO promotes reducing the need for antimicrobials on farms rather than relying exclusively on prohibition. FAO emphasizes that food security, animal welfare, farmer livelihoods, and differences among national production systems must be considered when developing global AMR policies.

World Organisation for Animal Health (WOAH)

WOAH develops international standards for animal health and veterinary services and manages ANIMUSE, a global system for antimicrobial-use data in animals. It promotes veterinary oversight, transparent reporting, disease prevention, and the responsible use of antimicrobials, including the progressive elimination of antimicrobial use for growth promotion without risk analysis, particularly for antimicrobials important to human medicine. WOAH also stresses that restrictions are unlikely to succeed without strong veterinary institutions, disease prevention, vaccines, diagnostics, trained professionals, and access to quality veterinary medicines.

United Nations Environment Programme (UNEP)

UNEP focuses on the environmental dimensions of AMR, including pharmaceutical manufacturing effluent, sewage, agricultural runoff, hospital waste, and contaminated ecosystems. It considers environmental prevention a core part of the One Health response and promotes stronger wastewater treatment, pollution control, monitoring, sanitation, and sustainable pharmaceutical and agricultural production. UNEP also supports integrating environmental ministries and regulators into national AMR governance, which has historically been dominated by health and agriculture agencies.

One Health Global Leaders Group on Antimicrobial Resistance

The One Health Global Leaders Group is an independent advisory body that raises political attention and advocates accelerated action on AMR. It promotes measurable targets, accountability, sustainable financing, and implementation of national action plans across sectors. Although it does not create binding international law, it influences the global AMR agenda by connecting political leaders, experts, civil society, international organizations, and the private sector.

Timeline of Relevant Resolutions, Treaties and Events

Foundational Scientific and Policy Milestones

Date	Description of event
September 1928	Alexander Fleming discovers penicillin, beginning the modern antibiotic era.
December 1945	In his Nobel lecture, Fleming warns that inadequate exposure to penicillin could select resistant bacteria.
May 2001	WHO publishes the Global Strategy for Containment of Antimicrobial Resistance.

Global Governance and the One Health Framework

Date	Description of event
May 25, 2015	The World Health Assembly adopts the Global Action Plan on Antimicrobial Resistance through resolution WHA68.7.
October 5, 2016	The United Nations General Assembly adopts the first Political Declaration of the High-Level Meeting on Antimicrobial Resistance, recognizing AMR as a global political priority.
October 2016	WHO launches the Global Antimicrobial Resistance Surveillance System, later expanded to include antimicrobial use and renamed GLASS.

April 2019	The UN Interagency Coordination Group on Antimicrobial Resistance publishes its final report, calling for urgent multisectoral action and stronger global governance.
November 2020	The One Health Global Leaders Group on Antimicrobial Resistance is established.
March 2022	UNEP formally joins WHO, FAO, and WOAH, establishing the Quadripartite collaboration for One Health.
October 2022	The Quadripartite launches the One Health Joint Plan of Action 2022-2026.
February 7, 2023	UNEP publishes Bracing for Superbugs, strengthening the environmental dimension of the One Health response.

Renewed Commitments and Current Reporting

Date	Description of event
June 1, 2024	The Seventy-seventh World Health Assembly adopts resolution WHA77.6 on accelerating national and global responses to AMR.
September 26, 2024	The UN General Assembly holds its second High-Level Meeting on AMR and adopts a new Political Declaration with 2030 commitments.
October 7, 2024	The United Nations General Assembly formally adopts the 2024 Political Declaration on AMR as resolution A/RES/79/2.
October 13, 2025	WHO publishes the Global Antibiotic Resistance Surveillance Report 2025, analyzing resistance data reported by more than 100 countries.

May 23, 2026	The Seventy-ninth World Health Assembly adopts the updated Global Action Plan on Antimicrobial Resistance 2026-2036, establishing a renewed global One Health framework.
2026	The Quadripartite publishes guidance on One Health integrated surveillance of antimicrobial resistance and antimicrobial use.
2026	The Quadripartite publishes its second biennial report on implementation of the Global Action Plan, assessing progress and persistent gaps in national AMR action across sectors.

Evaluation of Previous Attempts to Resolve the Issue

The international community has made substantial progress in recognizing AMR as a One Health challenge. The 2015 Global Action Plan created a shared policy framework, the 2024 UN Political Declaration established renewed global commitments and 2030 targets, and the updated Global Action Plan 2026-2036 now provides a renewed framework for the coming decade. WHO's GLASS and WOAH's ANIMUSE have expanded global reporting, while the Quadripartite has strengthened cooperation across human health, animal health, agriculture, and the environment. These initiatives have improved political recognition and produced common technical standards that did not previously exist.

Nevertheless, implementation remains uneven. Many national action plans are not fully costed, financed, monitored, or integrated into national budgets. Coordination committees may exist formally but lack authority over ministries, regulators, hospitals, farms, manufacturers, and local governments. Some countries have strong human-health surveillance but little animal or environmental data; others report antimicrobial sales without being able to connect them to species, disease, or prescribing behavior. The existence of a plan therefore does not necessarily demonstrate operational capacity or measurable impact.

Stewardship programs have reduced unnecessary prescribing in some hospitals and countries, but their success depends on diagnostics, clinical pharmacists, microbiology laboratories, trained prescribers, and reliable medicine supply. Where these systems are absent, restrictive policies may delay treatment or encourage informal markets. Public-awareness campaigns have also produced mixed results. Messages advising the public

not to demand antibiotics are useful, yet behavior is shaped by broader structural factors, including consultation costs, pharmacy regulation, time pressure on clinicians, poor access to diagnostics, and expectations of rapid treatment.

Actions in the animal sector show that major reductions are possible. Countries that combined mandatory reporting, veterinary oversight, producer benchmarking, vaccination, biosecurity, and technical support achieved larger and more sustainable reductions than countries relying on voluntary guidance alone. However, these models require administrative capacity and investment that may not be immediately available in low-resource settings. Global reduction targets must therefore be accompanied by financing and implementation pathways that avoid transferring costs unfairly to small farmers.

Environmental action remains one of the least developed components. UNEP and the Quadripartite have clarified the importance of waste streams and ecosystems, and the 2026 Quadripartite integrated-surveillance guidance provides a framework for connecting environmental information with data from other sectors. However, many countries still lack standards for antimicrobial manufacturing discharge, hospital effluent, sewage, manure, and aquaculture waste. In addition, environmental surveillance remains technically difficult and underfunded, limiting the ability of governments to identify hotspots and evaluate interventions.

Research and development initiatives have increased the number of candidates in the antibacterial pipeline, yet the level of innovation remains inadequate. WHO reported that only a limited share of antibiotics in clinical development met its criteria for innovation, and very few targeted critical priority pathogens. Push funding has supported early research, but the market for successful antibiotics remains fragile. At the same time, newly developed products may be unavailable or unaffordable in the countries with the greatest burden. Previous attempts have therefore struggled to align three objectives: stimulating innovation, ensuring global access, and preventing overuse.

Overall, previous efforts have succeeded in building political recognition, technical standards, and international institutions. Their central weakness is the gap between commitment and implementation. The committee should focus less on creating another general declaration and more on establishing practical mechanisms for financing, accountability, integrated surveillance, prevention, responsible use, environmental control, and equitable access.

Possible Solutions

Strengthening funded and accountable national action plans

Member States could update national action plans to include clearly assigned responsibilities, measurable indicators, implementation timelines, and costed budgets. One Health coordinating bodies should include representatives from health, agriculture, veterinary services, environment, water and sanitation, finance, education, trade, research, and local government. To avoid purely symbolic coordination, these bodies should receive legal authority, technical staff, and regular reporting obligations. International financing should prioritize countries that demonstrate transparent plans while recognizing different levels of national capacity.

Establishing integrated One Health surveillance

Countries could gradually build interoperable surveillance systems linking human AMR and antimicrobial use data with animal, food, plant, and environmental information. Standardized laboratory methods, quality assurance, representative sampling, and secure data-sharing agreements are essential. The committee may consider regional reference laboratories, shared digital platforms, pooled procurement of laboratory supplies, and mobile or genomic surveillance support for low-resource settings. Data should be translated into treatment guidelines, outbreak response, farm policy, procurement decisions, and environmental regulation rather than collected only for international reporting.

Expanding infection prevention across sectors

Reducing infection is the most equitable way to reduce antimicrobial demand. Human-health measures include vaccination, water and sanitation, safe childbirth, hand hygiene, infection prevention and control in health facilities, and improved coverage of primary care. Animal-sector measures include vaccination, biosecurity, adequate housing, nutrition, clean water, responsible stocking densities, veterinary services, and early disease detection. Plant-sector measures include integrated pest management, resistant crop varieties, and improved agricultural practices. These investments create benefits beyond AMR and should be incorporated into universal health coverage, food security, and climate-resilience programs.

Improving antimicrobial stewardship without restricting access

Stewardship programs could combine clinical guidelines, prescription review, pharmacy regulation, diagnostics, professional education, public communication, and monitoring of antimicrobial use. WHO's Access, Watch, and Reserve classification can guide

procurement and prescribing while preserving last-resort antibiotics. Governments should regulate non-prescription sales where feasible, but enforcement should be accompanied by affordable access to qualified care. Measures against substandard and falsified medicines are also essential because poor-quality products may expose microorganisms to inadequate concentrations and undermine patient trust.

Reducing inappropriate use in food and agriculture

Member States should progressively phase out the use of medically important antimicrobials for growth promotion and ensure that therapeutic use occurs under appropriate veterinary or professional oversight. Group treatment and routine prophylaxis should be limited by evidence-based criteria. However, restrictions should be paired with transition assistance, including vaccines, diagnostics, extension services, biosecurity grants, insurance mechanisms, and support for smallholders. National targets may differ, but reporting methods and minimum stewardship principles should be internationally comparable.

Controlling environmental release of antimicrobials and resistant organisms

The committee may consider encouraging enforceable environmental standards for pharmaceutical manufacturing, hospitals, farms, slaughterhouses, aquaculture, sewage systems, and municipal waste. Procurement agencies can require suppliers to disclose environmental risk-management practices and comply with discharge standards. Countries may establish monitoring at high-risk sites, strengthen wastewater treatment, improve manure management, and develop safe disposal systems for unused medicines. International financial institutions and development partners should support infrastructure investment in countries where basic sanitation remains inadequate.

Creating sustainable incentives for innovation and equitable access

A coordinated international financing mechanism could combine push incentives for early research with pull incentives for products that meet priority public-health needs. Subscription models or milestone rewards can delink revenue from sales volume, reducing pressure to oversell new antibiotics. Funding agreements could include access conditions, transparent development costs, appropriate licensing, stewardship plans, pediatric development, and availability in low- and middle-income countries. Similar incentives should support rapid diagnostics, vaccines, antifungals, bacteriophages, alternatives for animal health, and technologies for environmental monitoring.

Building a capable workforce and improving public understanding

AMR education should be integrated into the training of doctors, nurses, pharmacists, veterinarians, dentists, farmers, environmental professionals, laboratory personnel, and policymakers. Public communication should avoid blaming patients and should explain when antimicrobials are necessary, why prescriptions must be followed, and how infection prevention protects communities. Community organizations, schools, professional associations, and media platforms can adapt messages to local languages and cultural contexts.

Developing measurable international accountability

The 2024 Political Declaration and the updated Global Action Plan 2026-2036 create stronger global commitments, but progress requires transparent review. Member States could report a concise set of indicators on mortality, resistance prevalence, antimicrobial use, national financing, infection prevention, veterinary oversight, environmental action, and access to essential medicines. Reporting requirements should remain proportionate to national capacity, with technical support for states that lack reliable data systems.

Ultimately, the committee must preserve the effectiveness of antimicrobials while recognizing that resistance is shaped by health systems, food production, trade, poverty, pollution, and unequal access to technology. A successful resolution should avoid treating One Health as a general slogan. It should define who coordinates action, how implementation is financed, what data are collected, how progress is measured, and how countries with limited capacity receive sustained support. The objective is not the elimination of antimicrobial use, but the prevention of avoidable infections and the responsible, equitable use of effective medicines when they are genuinely needed.

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