

# Antimicrobial Resistance

Health Diplomacy Alliance



## What is AMR?

Antimicrobial resistance (AMR) occurs when bacteria, viruses, fungi, and parasites no longer respond to antimicrobial medicines. These medicines include antibiotics, antivirals, antifungals, and antiparasitics used in human health, animal health, plant health, and food systems. As a result of resistance, infections become harder or impossible to treat, illness lasts longer, treatment becomes more expensive, and the risk of severe disease, disability, and death increases (World Health Organization 2023).

Every year, drug-resistant infections claim millions of lives, costing health systems and economies trillions of dollars and threatening to unravel decades of medical progress. Yet, the global policy response remains fragmented, underfunded, and dangerously slow. That is why we are launching **✓ Check the Box**, a coordination mechanism to translate political commitments on AMR into measurable, traceable action.

### Global Burden of AMR



In 2021, bacterial AMR was associated with **4.71 million deaths** and directly attributable to **1.14 million deaths** globally. Under the reference forecast, annual deaths directly attributable to bacterial AMR could rise to 1.91 million by 2050, while annual deaths associated with bacterial AMR could reach **8.22 million**. Cumulatively, the reference scenario forecasts 39.1 million deaths attributable to AMR and 169 million deaths associated with AMR between 2025 and 2050.



The burden is also changing by age. Between 1990 and 2021, deaths attributable to AMR among children younger than five decreased by more than **50%**, while AMR mortality among adults aged 70 years and older increased by more than **80%**. This finding matters for policy design.



AMR remains a child survival issue in many low-resource settings, predominantly where neonatal sepsis, pneumonia, diarrheal disease, and limited access to quality care interact (Naghavi et al. 2024).

### Resistance and Regional Trends

The resistance data point in the same direction. WHO's 2025 Global Antibiotic Resistance Surveillance Report found that one in six laboratory-confirmed bacterial infections causing common infections in people worldwide in 2023 were resistant to antibiotic treatment. Between 2018 and 2023, resistance rose in more than 40% of monitored pathogen-antibiotic combinations, with average annual increases of 5-15%. Resistance is not evenly distributed. WHO estimated that resistance was highest in the South-East Asia and Eastern Mediterranean regions, where one in three reported infections were resistant, and in the African Region, where one in five infections were resistant (WHO, 2025).

These trends should be interpreted cautiously. Higher reported resistance may indicate rising infections, stronger detection, or both, while weak surveillance may obscure the true burden. Monitoring should therefore assess not only resistance rates but also surveillance coverage, data quality, and the use of evidence in procurement, treatment guidelines, infection prevention, and stewardship.

### Socio-economic Burden

AMR threatens economic growth, poverty reduction, food security, and livelihoods. The 2024 UNGA Political Declaration noted that AMR could generate US\$1 trillion in additional healthcare costs per year by 2050 and US\$1 trillion to US\$3.4 trillion in annual GDP losses by 2030. It also noted that treating drug-resistant bacterial infections alone could cost up to US\$412 billion annually, alongside **US\$443 billion** in workforce participation and productivity losses (UNGA, 2024).

## Political Commitments and Targets

Global political commitment to AMR has developed in stages. The 2001 WHO Global Strategy for Containment of Antimicrobial Resistance helped frame AMR as a coordinated global health threat. The 2015 Global Action Plan provided the common technical framework, including objectives on awareness, surveillance and research, infection prevention, optimized use of antimicrobials, and sustainable investment. The 2016 UNGA Political Declaration elevated AMR to Heads of State and Government level and reinforced the role of national action plans.

The 2022 Muscat Ministerial Manifesto shifted the focus toward more numerical targets, including targets related to access group antibiotics and antimicrobial use in agri-food systems. The 2024 UNGA High-Level Meeting then consolidated this movement by adopting a more measurable accountability framework. The declaration committed to reducing global deaths associated with bacterial AMR by 10% by 2030 against the 2019 baseline of 4.95 million deaths. It also called for US\$100 million in catalytic funding to help at least 60% of countries achieve funded national action plans by 2030 (UNGA, 2024).

The declaration also included targets and commitments on access group antibiotics, infection prevention and control, WASH in health care facilities, agrifood antimicrobial use, surveillance, TrACSS participation, biennial global reviews, an updated Global Action Plan by 2026, an Independent Panel for Evidence for Action against AMR, and a 2029 High-Level Meeting. This target architecture is significant because it moves AMR diplomacy beyond general language on concern and cooperation. However, it also creates a new challenge: once targets become more specific, the implementation gap becomes more visible.



## The Commitment-Delivery Gap

The 2024 UNGA Political Declaration introduced a more delivery-oriented framework, including the target of reducing global deaths associated with bacterial AMR **by 10% by 2030**. The central question is no longer whether AMR is recognised as a priority, but whether that recognition has been translated into costed plans and sustained delivery across human, animal, food, plant, and environmental sectors

### Higher AMR exposure

- High resistance
- Infectious disease burden
- Weak detection
- Treatment pressure

1 in 3  
SEA + EMR

1 in 5  
Africa

### Lower response capacity

- Weak labs
- Limited diagnostics
- Higher health spending
- Constrained budgets

28M  
poverty risk

TrACSS data show that the global AMR response has achieved broad formal uptake, but much weaker implementation. In 2023, 178 countries had developed and endorsed multisectoral AMR national action plans (Quadripartite Joint Secretariat on AMR 2025).

However, of 177 responding countries, only 121, or 68%, reported implementing some elements of their plans. More importantly, only 49 countries, or 28%, had a fully costed and budgeted national action plan that was being implemented and monitored effectively. Only 20 countries, or 11%, had made financial provisions in national budgets to support implementation (FAO et al. 2023).

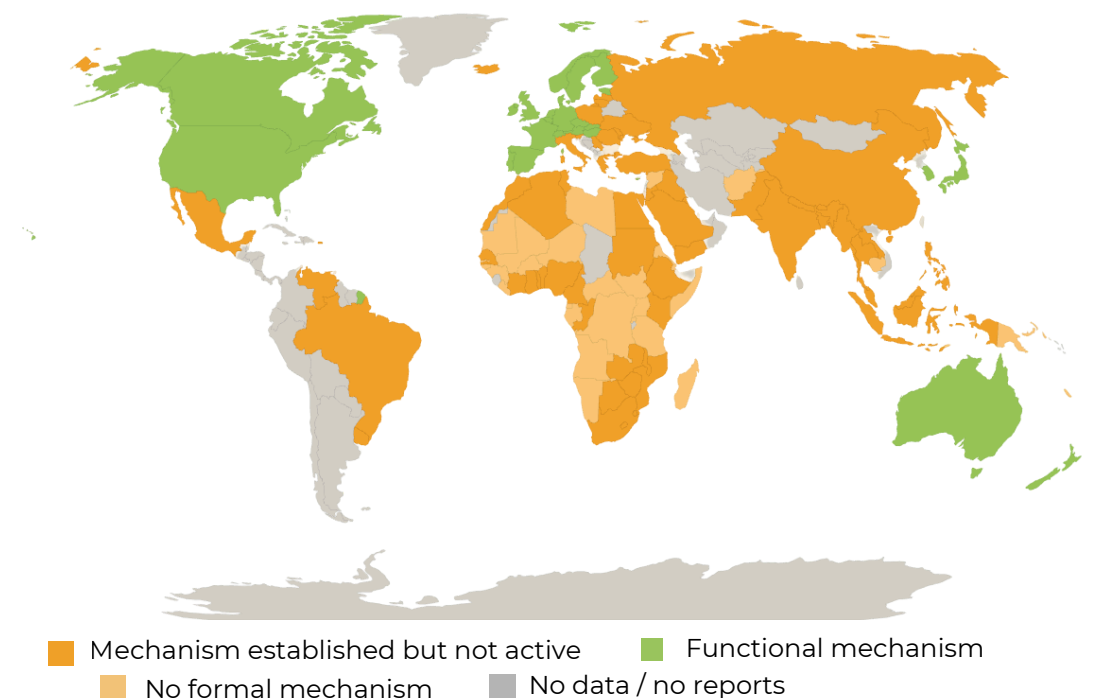
The gap is therefore between countries that have adopted plans and those that have the fiscal and institutional capacity to implement them.

Most countries with plans are also outside the funded-delivery category. This creates a tiered implementation structure. At the top are a limited number of countries where AMR plans are costed, budgeted, implemented, and monitored.

A larger group of countries have plans that remain only partially implemented, poorly linked to domestic financing, or dependent on short-term external support. A further group have no plan, or plans still under development, where the absence of planning typically coincides with weak financing, fragmented coordination structures, limited surveillance, and reduced capacity to absorb future AMR shocks.

This pattern is significant because the countries with the weakest delivery capacity are often those most exposed to AMR consequences. WHO's 2025 GLASS report indicates that resistance is highest in the South-East Asian and Eastern Mediterranean regions, where one in three reported bacterial infections was resistant in 2023, and in the African Region, where one in five infections was resistant. WHO also notes that resistance is more prevalent and worsening in settings where health systems lack the capacity to diagnose or treat bacterial pathogens. This points to AMR as both a health system and an equity problem. The conditions that make AMR harder to detect and treat, including weak laboratories, limited diagnostic access, shortages of effective medicines, and poor infection prevention, are the same conditions that make national action plans harder to implement.

Global map of the implementation status of AMR NAPs by country, TrACSS 2023



## Governance

The same implementation gap is visible at the level of governance. AMR requires coordinated action across multiple sectors, yet in 2023 only 92 countries, slightly more than half of respondents, reported having a functional multisectoral coordination mechanism with technical working groups, clear terms of reference, and funded activities. This indicates that many countries have established formal coordination structures without the funded arrangements necessary to make them operational (World Health Organization, 2024).

## Monitoring

Regulation shows a similar pattern. While 160 of 177 countries, 90%, reported regulation on the sale and prescription of antimicrobials for human use, only 85 countries, or 48%, reported monitoring total antibiotic sales at a national level. The presence of regulation does not, therefore, demonstrate enforcement, market oversight, or behavioral change. This distinction matters, as AMR policy can appear stronger on paper than it is in practice (World Health Organization, 2024).

Surveillance has expanded significantly, particularly through GLASS. WHO's 2025 report draws on more than 23 million bacteriologically confirmed infections, with 104 countries reporting 2023 data, an important strengthening of the global evidence base. However, surveillance remains strongly dependent on laboratory capacity, diagnostic access, reporting systems, and the representativeness of surveillance sites. Countries with weaker systems may therefore not have lower AMR burdens but rather less visible ones (World Health Organization, 2025).

## Prevention

Prevention infrastructure remains another major delivery constraint. In middle- and low-income countries, 37% of health care facilities lacked basic water services in 2023, while 54% lacked basic hygiene services. Only 25% had basic waste management and 19% had basic sanitation.

These deficits are significant because AMR prevention depends not only on stewardship but also on the basic ability of facilities to prevent infections from occurring and spreading. Where WASH systems are weak, infection prevention becomes much harder to sustain. (UNICEF/WHO, 2024).

### What is Check the Box AMR?

Check the Box AMR is a coordination mechanism initiative developed by the Health Diplomacy Alliance to assess whether AMR commitments are translating from declaration to measurable, traceable action. Its starting point is that political declarations, national action plans, and global targets are necessary but insufficient; they do not by themselves demonstrate delivery. The central question is therefore not whether a commitment exists, but whether it is assigned to an institution, linked to financing, placed within a timeline, and reported through a credible monitoring process.



This matters because recent AMR data show that policy adoption has moved further than funded implementation. For the Health Diplomacy Alliance, Check the Box AMR provides a political and diplomatic space to make these gaps visible and actionable. It brings together governments, technical agencies, civil society, academia, youth actors, AMR survivors and partners around a shared question: which commitments are being delivered, which remain unfunded, and where political attention is most urgently needed.

Across governance, regulation, surveillance, and prevention, the evidence points to the same pattern: commitments exist, but delivery remains limited by weak financing, fragmented coordination, and insufficient accountability. The distance between political declaration and operational reality is the central challenge, and it is not yet being systematically tracked.

## How do we do it?

### Diplomatic and Political Engagement

AMR will be treated as a political issue rather than a technical agenda alone. HDA will use diplomatic spaces to keep AMR visible at the decision-maker level, including in sectors not traditionally central to AMR discussions, such as finance, trade, and foreign affairs. This is necessary because AMR commitments are often made globally, while implementation depends on national institutions with different mandates, budgets, and incentives.

### Cross-Sector Coordination

Check the Box AMR will use diplomatic spaces to assess whether existing One Health coordination mechanisms, including those supported by the Quadripartite, are translating into funded, operational delivery at national level. HDA's role is not to duplicate technical coordination but to ensure that political and diplomatic attention supports the implementation of AMR commitments across sectors and borders.

### Monitoring and Follow-through

The initiative will support more transparent follow-up on AMR commitments, identifying where progress is documented, where commitments remain unfunded, and where reporting is insufficient to assess implementation. The aim is to strengthen the evidence base on delivery and identify where political attention is most needed.

### Science-Policy Translation

Check the Box AMR will draw on existing surveillance, financing, WASH, access, and implementation evidence, including the work of the Independent Panel for Evidence for Action against AMR, to inform diplomatic engagement and frame practical policy questions for decision-makers. The purpose is to ensure that political discussions reflect national context and operational realities across different settings.

## The Path Ahead

AMR is ultimately an implementation problem. Global commitments, national action plans, and technical targets have expanded, but delivery remains limited by weak financing, fragmented coordination, uneven surveillance, and insufficient accountability. **Check the Box** AMR responds to this gap by assessing whether commitments are linked to institutions, budgets, timelines, and credible monitoring processes at global, regional, and national levels.

HDA will engage not only in global diplomatic forums but also in regional political processes, where implementation decisions are often made and where the gap between commitment and delivery is most visible. A central purpose of this engagement is to ensure that political declarations and summits are used as opportunities to revisit commitments that have not yet been met, moving AMR from a recurring agenda item to measurable progress. Strengthening accountability across these levels is essential to ensure that effective antimicrobials remain a foundation of modern medicine and that political commitments translate into practical action.

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## About us:

The Health Diplomacy Alliance (HDA) is a not-for-profit member organization established in January 2024, using diplomacy as an instrument to address health challenges shaped by geopolitics and national and regional priorities.

We work at the intersection of health, foreign policy, and political dynamics, promoting collaboration where political interests create challenges and technical solutions alone are not enough.

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