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Policy gaps fueling antimicrobial resistance worldwide.

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Introduction

Antimicrobial resistance (AMR) is no longer a looming threat—it's a present-day crisis. With an estimated 4.95 million deaths associated with AMR in 2019 alone, and projections of up to 10 million annual deaths by 2050, the urgency to act is undeniable. Yet, despite global recognition, policy gaps continue to undermine efforts to contain this silent pandemic. From fragmented surveillance systems to weak regulatory enforcement, the cracks in our global response are allowing resistant pathogens to flourish. AMR transcends borders, affecting high-income and low-income countries alike. However, the burden is disproportionately heavier in low- and middle-income countries (LMICs), where healthcare infrastructure is often under-resourced and regulatory oversight is limited. The World Health Organization (WHO) has identified AMR as one of the top 10 global public health threats, emphasizing the need for coordinated international action [1, 2].

Effective AMR control requires robust surveillance to track resistance patterns. Yet, many countries lack comprehensive systems. In India, for example, AMR surveillance is limited to a handful of tertiary hospitals, leaving rural and primary care settings unmonitored. Without representative data, policymakers cannot design targeted interventions. Over-the-counter (OTC) antibiotic sales remain rampant in many regions. A 2025 BMJ study found that banning OTC antibiotic sales in LMICs significantly reduced pediatric antibiotic use. However, enforcement is inconsistent, and irrational fixed-dose combinations continue to flood markets [3, 4].

Ironically, while some regions suffer from antibiotic overuse, others face shortages of effective drugs. The WHO's Global Action Plan calls for equitable access to quality antimicrobials, but many LMICs struggle with supply chain issues and substandard medications. Antibiotic production can lead to environmental contamination, creating resistance hotspots. A 2025 ReAct policy brief highlighted the lack of transparency and regulation in pharmaceutical manufacturing, especially in LMICs. Wastewater from factories often contains high concentrations of active antibiotics, fueling resistance in surrounding communities [5, 6].

Despite the growing threat, investment in AMR research remains inadequate. A recent European study revealed significant gaps in funding for non-human sectors and non-bacterial pathogens. Without sustained investment, the pipeline for new antibiotics and diagnostics will remain dry. The One Health approach—integrating human, animal, and environmental health—is essential for AMR control. Yet, coordination across sectors is often lacking. Veterinary antibiotic use remains poorly regulated, and environmental policies rarely intersect with health strategies [7, 8].

Unlike diseases such as HIV or TB, AMR lacks a strong advocacy base. As Dr. Raman Gangakhedkar noted, "Every death due to AMR remains an anecdote, not a call for change". Public campaigns are sporadic, and community engagement is minimal. Having a policy is not enough—implementation is key. India's National Action Plan on AMR, launched nearly a decade ago, has seen limited progress due to weak enforcement and lack of funding. Similar gaps exist in other countries, where action plans remain largely aspirational [9, 10].

Conclusion

The 2025 UN General Assembly's Political Declaration on AMR set ambitious targets,

including reducing AMR-related deaths by 10% by 2030 and ensuring 60% of countries have funded national action plans. But without closing the policy gaps, these goals will remain out of reach. AMR is not just a scientific challenge—it's a governance crisis. The time to act is now. As Dr. Gangakhedkar aptly put it, "We have a policy, but no progress". Let's change that narrative before we truly run out of cures.

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