Time is running out. The UN General Assembly High level meeting on AMR 2024 must be a TURNING POINT to accelerate the global response to antibiotic resistance.
Antimicrobial resistance (AMR) is often described in technical and medical language which so far has been unable to mobilize policy makers and the general public to the extent needed. To address this problem, a more engaging framing of the issue should be adopted, and governments should define a clear vision which reflects what people expect from their governments and health systems: accessing effective antibiotic treatment, when it is medically required.

To mark this paradigm shift in how AMR is understood, and to set a clear direction and a positive agenda for the global response, governments should adopt the following vision for the global collective action:

"Reduce the burden of bacterial infections and ensure equitable and sustainable access to effective antibiotic treatment for all - for a world free from untreatable infections."

Five core points for a new narrative:

1. Antibiotic resistance is one of the greatest and most urgent cross-border health crises of our time - but still not addressed as such!

Effective antibiotics are a prerequisite for providing both basic and advanced modern healthcare in all countries. Without effective antibiotics to protect against infections care for prematurely born babies is difficult, cancer treatment outcomes deteriorate, and routine and life-saving surgeries such as organ transplants become less safe, and in some cases, untenable. Within the broader term of antimicrobial resistance, ‘antibiotic resistance’ should continue to be emphasized as a more urgent global risk to address.

In 2019 antibiotic resistance claimed 1.27 million lives. 1/5 of these deaths was children under the age of five. As such antibiotic resistance claimed more lives than both HIV and malaria, yet the global attention and the resources made available to address antibiotic resistance are a fraction in comparison.

2. Antibiotic resistance reflects ‘global inequity’ and there will be no sustainable development without effective antibiotics

Antibiotic resistance is prevalent and increasing in all countries in the world, yet the majority of people that die from resistant infections are based in South Asia, South-East Asia and Sub-Saharan Africa. Antibiotic resistance hits the hardest where the burden of infectious diseases is high, where WASH infrastructure is limited, infection prevention weak and health systems under-resourced, as well as where lack of access to existing and novel antibiotics is widespread. It is also influenced by underlying issues such as other diseases, malnutrition as well as gender and social determinants of health.

Low- and middle-income countries have the least financial means to prevent and address drivers of resistance. At the same time antibiotic resistance may push millions of people into poverty, stunt economic growth and threaten food security which make it a serious concern for poverty eradication efforts. These inequity dimensions and the multiple connections to sustainable development issues cannot continue to go unaddressed in the global response to antibiotic resistance.
3. Sustainable access to effective antibiotics should be the end goal of global efforts to address antibiotic resistance

Antibiotic use and misuse are core drivers of resistance. Yet global antibiotic consumption has increased since the last UNGA political declaration in 2016. At the same time, millions of people die every year due to lack of access to effective antibiotics, including one million children who die of preventable sepsis and pneumonia. Global action to address resistance development must carefully balance measures to urgently reduce overconsumption of antibiotics, against the need to improve access to both new and old effective antibiotics in order to tackle the massive problem of 8.8 million people dying from bacterial infections every year – the second leading cause of death globally.

4. Securing effective antibiotics as a common resource is a global responsibility

Antibiotic resistance is a cross-border threat and effectively addressing it is, at its core, a question of whether the global community is collectively capable of managing a global common resource - effective antibiotics - in a far more sustainable and equitable way across all sectors. The most immediate challenge, is whether governments are able to enact the necessary system reforms towards more sustainable use of antibiotics across sectors - at both the speed and ambition that matches the urgency and the scale of the problem. Increased financial support for this urgent systems transformation work, in particular in low- and middle-income countries, is a necessity and ultimately a question of ‘pay now - or pay much more later’!

5. All hands are needed on deck

Antibiotic resistance is a natural phenomenon but is fuelled by excessive antibiotic use in humans, animals and in food production, as well as by insufficient infection prevention, among other drivers. Its global spread is facilitated through the environment, movements of people and animals (travel and trade). Climate change and environmental degradation likely also act to amplify drivers of antibiotic resistance. As such, antibiotic resistance is inherently a cross-sectoral ‘One Health’ problem requiring a ‘whole of government’ approach (not least finance ministers) as well as a ‘whole of society’ approach spanning from communities to the highest political level. Coordination, financing and monitoring of actions and interventions within and across sectors is necessary at local, national, regional and global level.
1. Financing:
Despite causing more deaths than HIV and malaria every year, international financing to address antibiotic resistance is dwarfed in comparison. The economic downturn caused by the Covid19 pandemic and other global events, means that many low- and middle-income countries face serious budget constraints and have to balance coexisting, competing and urgent public health needs, which makes relying solely on national budgets for the implementation of national action plans on AMR difficult. Only 24% of countries self-report to the WHO that they are effectively implementing and monitoring their NAPs. And just 10% report having allocated resources for the implementation in 2022 (TRACSS).

Governments made the commitment in the 2016 political declaration to mobilize “adequate, predictable and sustained funding and investments” for developments of national action plans. However, while the funding needs require counting in billions instead of millions, only USD 44 million was mobilised for AMR in 2020-2021. The 33M USD raised since 2019 by the Multi-partner Trust Fund to support LMICs in implementing their NAPs remains far from sufficient and increased international investments is required in low- and middle-income countries to address antibiotic resistance effectively. Finally, limited analysis has been done by governments and international donors to identify how existing investments made through other health programmes could be leveraged better to address AMR.

Member States should:

1. Bolster their commitment to have in place fully costed and funded ‘One Health national action plans on AMR’ by 2023.

2. Renew the 2016 financing commitment on raising additional resources incl. for expedited NAP implementation in LMICs, support for sustainability transformation of systems across sectors in LMICs, R&D of new diagnostics, antibiotics and vaccines and support for their roll out, as well as financing of well-functioning global governance structures. Ahead of the UN High-Level meeting, an ambitious investment case including cost estimates for both action and inaction should be developed.

3. Member states should call upon international health funders to identify options for existing health programme funding can integrate and track antibiotic resistance interventions and support countries in accessing the funds.

4. Governments should explore developing alternative financing models, incl. taxation options, and engage with multilateral development banks to review lending conditions in order to facilitate more investments in health.
2. WASH, vaccination and Infection prevention and control (IPC)

Widespread access to clean water remains a core challenge in many LMICs. Reports, including from the World Bank, have shown that lack of water, sanitation and hygiene (WASH) in health care facilities is a key driver of antibiotic use in low- and middle-income countries. In sub-Saharan Africa, only half of health care facilities have a water source on site and in the least developed countries only 21% of health care facilities have basic sanitation services. More than 1 billion people visit health care facilities with inadequate or no WASH services.

Investments to improve WASH, in particular in LMICs, will help reduce infections, hence reduce antibiotic use and resistance development and limit its spread. The WHO and UNICEF have estimated that the average basic WASH services cost only USD 0.60 per person each year in the least developed countries. Yet, currently, just 12% of all countries have the funds needed to reach the global targets set for WASH in health care facilities.

There is strong scientific consensus that IPC and WASH are some of the most cost-effective measures to reduce the burden of infections and limit the development of antibiotic resistance. Although significant strides were made globally in IPC during the COVID-19 pandemic, efforts to sustain the momentum have not been as effective. Most countries have national IPC programme and guidelines, but few have invested adequate resources and translated them in implementation and monitoring, particularly in low-income countries.

Vaccination is also a particularly effective tool to prevent infections and reduce antibiotic use. Universal coverage by the pneumococcal conjugate vaccine (PCV) has for example been suggested to avert 11.4 million days of antibiotic use per year in children younger than five, which is a 47% reduction in the amount of antibiotics used for pneumonia cases caused by *S. pneumoniae*.

**Member States should:**

1. Increase international and national investment in improving WASH infrastructures in particular in health-care facilities.

2. Increase global vaccination coverage, and ensure affordable access to critical vaccines with potential for lowering antibiotic use (e.g. the pneumococcal conjugate vaccines, the rotavirus vaccine and seasonal influenza vaccines).

3. Strengthen IPC efforts and initiate systematic monitoring at the global level to track national progress in IPC (could be similar to the WHO-UNICEF progress tracking of WASH and electricity services in health-care facilities).
3. Global sustainable access to effective antibiotics:

All use of antibiotics drives resistance, but excessive use and misuse of antibiotics is widespread across sectors. At the same time several millions continue to die due to lack of access to effective antibiotics. As such, lack of access to effective antibiotics remains one of the most pressing challenges and a cause of avoidable morbidity and mortality.

Since the 1980s few new antibiotics have been brought to market and most of them are modifications of existing classes of antibiotics. The WHO characterises the antibiotic pipeline today as ‘insufficient’. Significant scientific problems remain largely unresolved, crucial expertise is lost when medical chemists, researchers and companies continue to leave the field, and the R&D funding landscape is limited, fragmented and uncoordinated. Both new and old drugs must be kept effective for as long as possible incl. through stewardship. Access to point-of-care diagnostics are a prerequisite for correct diagnosis and avoiding unnecessary use, making the development of new diagnostic tools an urgent priority.

The COVID19 pandemic shed light on both the need to rebuild the whole research and development ecosystem to make it more need-driven and sustainable, as well as the responsibility of the public sector to take leadership in doing so. Ensuring sustainable access to effective antibiotics calls for a new paradigm for the R&D ecosystem – an end-to-end approach that addresses the challenges across the entire lifecycle of a drug.

Member states should:

1. **Implement an ‘end-to-end approach’ to antibiotic R&D** to ensure that all regulatory changes, incentives and interventions from the earliest stages of research to production, procurement and use enables the end goal of ensuring sustainable access to affordable, high-quality and effective antibiotics, diagnostics and vaccines for all.

2. **Reaffirm the R&D principles of the 2016 Declaration in article 10(c)** and increase public R&D leadership and investments significantly. Existing funding mechanisms should align themselves to the principles outlined in the 2016 Declaration to accelerate development of new antibiotics, diagnostics and vaccines, while ensuring equitable, affordable and sustainable access to end products.

3. **Provide the WHO with a clear mandate to develop global and regional R&D priorities linked to surveillance data and ensuring greater global coordination of antibiotic R&D.**

4. **Increase low-and middle-income countries involvement in global R&D, production and procurement efforts to ensure their health priorities are sufficiently met.**
4. Governance and accountability:
The need for a stronger and more impactful governance system to stimulate action is evident given the slow progress to act on antibiotic resistance despite the commitments made by all UN Member States in the Political declaration on AMR from 2016. Global governance structures for AMR have started to emerge, but are not fully formed. The ‘Independent evidence panel’ that was proposed by the IACG has not yet been established despite the fact that the number of research papers is growing exponentially, with more than 25,000 articles on AMR in the PubMed data base last year. It is an urgent priority to synthesise the current scientific evidence on resistance causes, drivers and development of antibiotic resistance.

The Quadripartite in many ways has done impressive work, however, it remains unclear who it reports to, and it lacks a politically defined vision, a clear mandate and supporting budget for their work. At national level countries should aim to have strong focal point for AMR NAP implementation with a broad mandate across sectors and sufficient overview of AMR-specific and AMR-sensitive work across sectors, and reporting to the highest level in the government. Moreover, it is pertinent that civil society, communities and other stakeholders are included in governance mechanisms at all levels to ensure that responses are driven by the actual needs on the ground.

Finally, lack of quality data on resistance prevalence, self-assessment of progress by countries and lack of specific and time bound targets for action makes it difficult to objectively assess progress and identify where action is falling behind. 106 out of 177 countries state they have an M&E framework in place, but just 40% indicate that they do regular data collection across all relevant sectors. In addition, only 27 out of 114 countries have published their AMR NAP implementation progress report in 202212.

Member states should:

1. Commit to strengthen global and national governance mechanisms that ensure political prioritisation at the highest level of the issue to enable increased financing.

2. Setting up the ‘Independent Evidence Panel’ without further delay.

3. Commit to complement self-assessment for tracking national action at global level with more objective and transparent monitoring and evaluation of implementation of national action plans on AMR.
5. Civil society and community engagement:
Both the global and national responses to AMR have so far been dominated by top-down approaches, with limited engagement and involvement of civil society and communities. Engaging and co-developing health interventions and programmes with these actors can reduce health disparities, improve trust and ownership, and increase the chances of success\textsuperscript{13}. Understanding the perspective of and listening to the voices of the people affected by an issue have been acknowledged as important for informing interventions in recent years in HIV, LGBTQ rights, climate change, etc. The process toward the HLM should therefore ensure robust consultation with civil societies and communities.

Engaging civil society organisations can leverage their expertise on a number of core issues such as access, stewardship, surveillance, behavioural change, communication and One Health approaches. Meaningful engagement of civil society and communities at global, national, and sub-national levels would strengthen their capacity to monitor progress for accountability. Despite this, the 2016 AMR declaration did not fully recognise the critical role of civil society and communities. The active engagement across the ‘One Health’ spectra of youth and women’s groups, medical professionals, researchers, antibiotic resistance survivors, veterinarians, and environmental groups to mention a few remains largely untapped.

As antibiotic resistance is not a disease it has no naturally affiliated community, as is seen with patient groups for HIV, Cancer and TB for example. More concerted efforts similar to the directed support given to civils society strengthening in HIV, TB, Malaria and malnutrition fields\textsuperscript{14} are therefore required from governments and global funders in order to strengthen and meaningfully engage civil society and communities in the global response to antibiotic resistance.

**Member states should:**

1. **Civil society and communities should be included in a meaningful \textsuperscript{15}, systematic, and transparent way** in governance structures (including multi-stakeholder platforms) at all levels.

2. Ensure engagement of **civil society and communities in the monitoring and evaluation** of AMR programs incl. as integral parts of accountability frameworks.

3. **Increase financial support** for civil society as well as for community-led and -based interventions.

4. Governments and international agencies should prioritise to **identify those communities and population groups most vulnerable and at risk of antibiotic resistance**, and invest in piloting targeted interventions to understand and address their specific needs.
6. One Health

Antibiotic resistance is a natural phenomenon but is fuelled by antibiotic use in humans, animals, livestock and crop production, with resistance being spread through the environment, and by movement of people and goods through travel and trade. Antibiotic resistance is inherently a cross-sectoral ‘One Health’ problem requiring a ‘whole of government’ approach – not least finance ministers. Taking a ‘One Health approach’ can help in complementing the anthropocentric view of the issue, breaking down silos, and offering a space for respectful discussions across sectors and reducing the discussion of what sectors are most to blame. When the ‘One Health approach’ is successful it can get experts from the different fields to start talking the same language, using the same definitions, seeing the problem in a similar way and sharing laboratory resources amongst others. Such improved coordination, financing and monitoring of actions and interventions within and across sectors is necessary at local, national, regional and global level.

Bottom-up approaches can deliver significant buy-in and be cost effective. The experience from ReAct’s regional work shows that in situations where it can be difficult to engage the political level on the ‘One Health approach’, empowering societies by working with communities, indigenous groups and environmental movements, small scale farmers, and school children for example can be a helpful alternative, as there is often a clear intuitive understanding of the relations between food, animals, environment, the microbiome and human health.

Governments should:

1. Together with the Quadrupartite adopt clear guidance on what it practically means to take a “One Health approach”.

2. Adopt an overarching vision (as proposed on page 1) to have one goal across all sectors to work towards.

3. Commit to collect surveillance data from different sources (humans, animals, agricultural produce, meat, soil, and other environmental sources) which allows for meaningful analysis of cross-sectional data that can be used to inform international, national and local policies and practices.
References


2. Ibid.

3. Ibid.


8. Ibid.


11. Af. 10(c) "Underline also that all research and development efforts should be needs-driven, evidence-based and guided by the principles of affordability, effectiveness and efficiency and equity, and should be considered as a shared responsibility: in this regard, we acknowledge the importance of delinking the cost of investment in research and development on antimicrobial resistance from the price and volume of sales so as to facilitate equitable and affordable access to new medicines, diagnostic tools, vaccines and other results to be gained through research and development"


About ReAct – Action on Antibiotic Resistance

ReAct is a global network founded in 2005 and is a multidisciplinary team of public health specialists, policy experts, microbiologists, physicians, nurses, pharmacists, and communications experts.

ReAct supports, advises and collaborates with international organisations, funders and regional political and economic communities. ReAct’s engages in policy shaping work in countries as well as at regional and global level including by being an active member in the newly started Multistakeholder Partnership Platform, responding to consultancy processes, and have had members both on WHO’s AMR Strategic Technical Advisory Group (STAG) and in the UN Interagency Coordination Group on AMR (IACG) in 2019.

ReAct’s policy work is informed by its extensive experience working in partnership with governments, civil society and communities, especially in low- and middle-income countries (LMICs), to catalyze action on antibiotic resistance and support the process to develop and implement national and sub-national action plans by complement top-down approaches with action from below. Through extensive experience and its wide-reaching network ReAct is known for its strong convening power within the AMR community.

A world free from untreatable infections