

# READY NEXT TIME

TB and Antimicrobial  
Resistance Briefing



## Summary Recommendations

- ✓ Governments and global health funders should prioritise policy initiatives and investments with the potential to deliver triple-impact across PPPR, TB and AMR.
- ✓ Stewardship initiatives that reduce the inappropriate use of key antibiotics can prevent the emergence of antibiotic resistance, including against vital TB treatments.
- ✓ Increasing access to drug susceptibility testing is crucial to reducing the development of resistance and delivering quality-care for people with AMR-prone infections.
- ✓ Surveillance systems can be strengthened by building on existing TB and AMR infrastructure to deliver routine, case-based data across all levels of the health system.
- ✓ Public investments in the research and development of faster diagnostics and novel antibiotics are urgently needed if doctors and patients are to stay ahead in the race against drug-resistance.

# Background

The Ready Next Time report sets out key areas of overlap between efforts to strengthen pandemic prevention, preparedness and response (PPPR) and to end tuberculosis (TB), based on extensive literature review and interviews with leading experts. The prevention and response to antimicrobial resistance (AMR) is a key theme across both agendas. This briefing explores the overlap between the three agendas in further detail, and considers areas for investment with the potential for **triple-impact**.

## AMR

AMR refers to a situation in which a microbe, like a bacteria, has become resistant to the antimicrobials traditionally used to kill them, such as antibiotics. This increases the threat posed by otherwise curable infections and undermines treatments for other conditions that rely on antimicrobials, such as chemotherapy for cancer.

## AMR & TB

Multi- and extensively drug resistant strains of TB have existed for decades. Drug-resistant TB (DR-TB) is by far the most prevalent form of AMR today. While the World Health Organization (WHO) estimates that 450,000 fell ill with DR-TB in 2021, only 161,746 were enrolled in treatment.

## AMR & PPPR

A deadly pathogen that develops resistance to all available treatments leaves the world in much the same position as a novel pathogen with no available treatments. AMR therefore is included within WHO's core framework for assessing a country's capacity for PPPR, the Joint External Evaluation (JEE), because it "poses a substantial and evolving threat to disease control and global health security".

## ***Prevention: Stewardship***

Drug-resistance can develop quickly when antibiotics are used inappropriately, including through over-the-counter sales. A number of anti-TB drugs are included on the WHO's 'Access, Watch and Reserve' (AWaRE) list of antibiotics, because they are at particularly high risk of AMR. Ensuring the AWaRE classification is integrated into national essential medicines lists, developing more robust policy and enforcement frameworks, and working more closely with the private and informal health sector are all crucial for preventing AMR, including DR-TB.



## ***Detection: Testing and surveillance***

Doctors need to be able to quickly understand if an infection is resistant to key drugs before they initiate treatment. Increasing access to drug susceptibility testing (DST) is crucial in the response to AMR as a whole and for TB in particular, where DST is recommended for every patient. Expanding DST capacity, particularly at more decentralised levels of the health system offers the potential to drive progress on both agendas.



Understanding the prevalence of different resistance patterns is important for evidence-based health policymaking. The surveillance of DR-TB has historically taken place through intermittent prevalence surveys. Broader AMR surveillance systems, which often exclude DR-TB, have taken a case-based approach but struggled to gather data beyond reference laboratories. By building on respective strengths, investing in an integrated approach to AMR surveillance could deliver routine, case-based data from across the health system.

## ***Innovation: Better tests and treatments***

Testing and treatment of AMR infections are hampered by a lack of effective and efficient tools. Culture-based DST often takes many weeks to deliver results. Despite three new anti-TB drugs coming to market in the last decade, treatment regimens remain long, side-effect prone and prohibitively expensive. Developing molecular DST tools that can be deployed in decentralised and low-resource contexts and discovering novel antibiotics and regimens will be crucial to making progress on AMR and DR-TB. With traditional market-based incentives failing to mobilise large-scale private sector investment, intelligent public investment is needed to fast track this innovation.



## **CONCLUSION**

The *Ready Next Time* report is motivated by the understanding that finding interventions with impact across multiple priorities will be crucial to mobilising additional investments in public health at a time of unprecedented pressures on public finances. There is a clear opportunity for triple-impact at the intersection of the PPR, AMR and TB agendas. To ensure that they can leverage this potential triple-impact, policymakers will need to be intentional about policy initiatives and investments from the outset. Shaping governance, accountability and funding streams for PPR, AMR and TB accordingly will be crucial to enabling this.

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