

Press Release

GARDP research reveals that people with multidrug-resistant infections in low- and middle-income countries don't have access to appropriate treatment

- Only 6.9% of people with drug-resistant infections in 8 large low- and middle-income countries received an appropriate antibiotic for their drug-resistant infection.
- Until now, the dominant AMR narrative has focused primarily on the overuse of antibiotics and ignored access to life-saving treatments.
- Improving access and developing effective new antibiotic treatments must be prioritized.

Geneva, Switzerland – 30 April 2025 – Research carried out by the Global Antibiotic Research & Development Partnership (GARDP) has revealed that a significant number of multidrug-resistant infections in low- and middle-income countries are not being treated appropriately, because of large gaps in access. The [study](#) suggests that more focus is needed in the global AMR response, with improving access to essential antibiotics and the development of new antibiotics effective against difficult-to-treat multidrug-resistant infections as global priorities.

The study, published in *The Lancet Infectious Diseases* journal, looked at which antibiotics were available to treat nearly 1.5 million cases of carbapenem-resistant Gram-negative (CRGN) infections across eight geographically diverse and populous low- and middle-income countries (LMICs). The study tabulated deaths associated with CRGN infections in 2019 using *The Lancet's* 2024 GRAM study estimates for the eight LMICs, including Bangladesh, Brazil, Egypt, India, Kenya, Mexico, Pakistan and South Africa, and used this and case fatality rates to calculate the total number of CRGN infections. The researchers then used sales data for six antibiotics that are active against CRGN infections to determine how many patients potentially received appropriate treatment.

The researchers found that in just 6.9% of cases were the appropriate antibiotics potentially available, ranging from as little as 0.2% to 14.9%. Such extreme gaps in access to antibiotic treatments can result in increases in AMR-related morbidity and mortality, which in LMICs is already the highest in the world. It can also contribute to the under or inappropriate treatment of these infections, which can further fuel poor patient outcomes and make infections more difficult to treat in the long run.

“For years, the dominant narrative has been that antibiotics are being overused, but the stark reality is that many people with highly drug-resistant infections in low- and middle-income countries are not getting access to the antibiotics they need,” said Dr Jennifer Cohn, GARDP’s Global Access Director and senior author of the study. “Some strong innovative government programmes do already exist and are attempting to address this, but we need more of them and they need more resources.”

For decades, antibiotic research and development (R&D) has been in decline with many large pharmaceutical companies withdrawing from the market. The same market failures that triggered this are also largely responsible for the lack of access, with antibiotics often more complex, more costly and less profitable to manufacture, with stricter regulatory requirements, compared to other drugs. Because of this, not only are very few new antibiotics being developed, but it has also become less attractive to produce those already on the market and to register and commercialise them beyond a small number of countries.

AMR is already one of the world’s biggest killers, with 4.71 million associated deaths each year. This work draws from and builds on the recent findings of the Global Burden of Antimicrobial Resistance (GRAM) study, which suggest that AMR has now reached an alarming tipping point. While AMR-related mortality has remained relatively stable in recent decades, a sharp rise is now expected, with the number of AMR-related deaths increasing by more than 70% by 2050. The primary reasons behind this sudden surge are the rise and spread of difficult-to-treat Gram-negative infections and a lack of access to effective



antibiotics across the globe. According to the GRAM study, more than 50 million deaths could be prevented through improvements to access.

While health ministries across the eight countries are developing strategic and impactful interventions to improve the care of AMR, gaps remain and more funding is needed for these programmes. The study's authors point out that there are likely many gaps that hinder access – from a lack of access to health facilities and the absence of diagnostics, to a lack of access to appropriate treatment, and they call for more research to be done to identify and address specific gaps in care.

“This research casts the spotlight on a much overlooked and increasingly dominant aspect of AMR, that there is now a massive treatment gap and people are dying because of it,” said Dr. Manica Balasegaram, Executive Director of GARDP. “This data shows a radical shift in focus is needed towards R&D and access efforts that are aimed at ensuring people get the antibiotics they need. Ultimately the priority should be saving people’s lives.”

GARDP is working to make sustainable and appropriate access possible by flipping the traditional antibiotic R&D model on its head to prioritize public health impact, affordability and development and access by working with high-burden countries to support product development and availability. Working with strategic partners in high-burden countries, GARDP and its partners are creating a new model where novel antibiotics can be developed more efficiently in ways that can attract developers and manufacturers, while ensuring people the world over can access the right treatments. GARDP’s unique public-private partnership model is focused entirely on developing and improving access to new antibiotic treatments that target World Health Organization priority pathogens, multidrug-resistant infections that pose the greatest threat to public health.

While the study only focused on eight countries, there is good reason to believe that this is indicative more broadly, with most new antibiotics only ever registered in a handful of wealthy countries. Uncertainties exist in the sources of the GRAM study and IQVIA, which were used for this analysis, but the gaps in treatment remain even with significant adjustments to the primary analysis. The authors stress that this is a first estimation and that more data is needed to tell the detailed story. The research was conducted and funded by GARDP in collaboration with colleagues at the Perelman School of Medicine (University of Pennsylvania), and the Center for Innovation in Diagnosis (University of Maryland School of Medicine).

GARDP

We are a not-for-profit global health organization driven to protect people from the rise and spread of drug-resistant infections, one of the biggest threats to us all. By forging the public and private partnerships that matter, we develop and make accessible antibiotic treatments for people who need them. Vital support for our work comes from the governments of Canada, Germany, Japan, Monaco, the Netherlands, Switzerland, the United Kingdom, the Canton of Geneva, the European Union, as well as the Bill & Melinda Gates Foundation, Global Health EDCTP3, GSK, the RIGHT Foundation, the South African Medical Research Council (SAMRC) and Wellcome. We are GARDP, the Global Antibiotic Research & Development Partnership. www.gardp.org

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