Benefits and challenges of existing and new tools against AMR

Welcome to The AMR Global Health Academy Newsletter

June 2025

The AMR Global Health Academy serves the global health professional and antimicrobial steward in low- and middle-income countries with a free online educational curriculum designed to advance AMR knowledge and best practices. Every month, via the Newsletter, we share important updates from the AMR field, especially as it relates to AMR testing, diagnostics, and surveillance. We feature news stories, articles, events, resources, and AMR champions battling the real-world AMR problems.

The AMR Academy has numerous courses and educational activities designed to empower AMR stewards, particularly global health professionals from LMICs. We recently launched the first in our 2025 **AMR Problem Solving Case Study series** (soon available in French, Portuguese, and Spanish). You may be familiar with these from **last year**. This year we are focusing on the community and journalism to drive action against AMR.

To join the AMR Global Health Academy, enroll in the Global Health Continuing Professional Development (GHCPD) free online AMR courses **here**.

AMR GHCPD Faculty

Global Health Continuing Professional Development (GHCPD) faculty are global and regional experts in their field and drive the educational curriculum to ensure information is relevant, pertinent, and applicable to the needs of learners from low resource settings. Here we would like

to profile a faculty member who generously continues to support the GHCPD educational platform.

Segundo R. Leon is Professor of Medical Technology and Global Health, also is the General Director of Research and Social Responsibility for San Juan Bautista University in Lima. He has worked in Peru for over 25 years, performing epidemiology and laboratory-based work in multiple US-funded, primarily NIH-sponsored studies with integrated, quantitative/qualitative methodologies. He is also a former Professor of Medicine at San Marcos National University and a study coordinator at the Peruvian University Cayetano Heredia's (UPCH) sexual health laboratory. His research career began at the UPCH, where he directed field operations for the Community Popular Opinion Leader HIV/STD Prevention Trial. In that capacity, he coordinated all field activities for the trial, which took place in three cities in coastal Peru. Later, he coordinated a smaller extension of that study (Comunidades Positivas). Most recent, he became part of the research team leading the implementation of two major tuberculosis projects, the DETECT project part of the CETR consortium and the LIMAA project part of the TBRU consortium in Peru, both funded by NIH. The experience of managing these large, community-based studies which were methodologically challenging, similar to the proposed study, and his subsequent experience of directing a multimillion-dollar research portfolio at Socios En Salud with mainly Harvard-based researchers has prepared him for leading the Research Department in Lima. Lastly, he joined San Juan Bautista Private University as research professor. His early work addressed the laboratory implementation of sexual transmitted diseases and HIV testing and counseling in Peru to support a larger NIMH trial conducted in five countries, and Peru was one of the sites. His team found during rapid ethnography and epidemiological work a previously unknown vulnerable populations (for HIV) of men who have sex with men; unemployed heterosexually identifying men that had sex with men; and women, all of whom shared social networks within urban and rural communities where condomless intercourse and high numbers of new sexual partners was common. He served as the project coordinator and laboratory director for this study. Additionally, he has worked on the implementation of different strategies to reach vulnerable and most at-risk populations to implement interventions to decrease STI and HIV incidence. He learnt that syphilis is a neglected disease that needs more attention identifying high rates of syphilis reinfection among men who have sex with men and other populations in different Peruvian cities. His role in these studies was as director of field work and then coordinator of the whole study, allowing him to implement the first studies on quinolone-resistance on treponema pallidum, and collaborating in studies regarding AMR in enterobacteria. Most recent, he started working on tuberculosis, including its diagnostics, immunology, resistance and comorbidities. Now, he leads two projects, one focused on HIV and sexual transmitted infections in Venezuelan migrants living in Lima, Peru, and other oriented in understand the relationship between Tuberculosis and COVID-19 at immunological level in collaboration with UCSF.

News Story

Adverse effects of mass drug administration of an antibiotic to slow childhood mortality

Source: Photo by Towfiqu barbhuiya on Unsplash

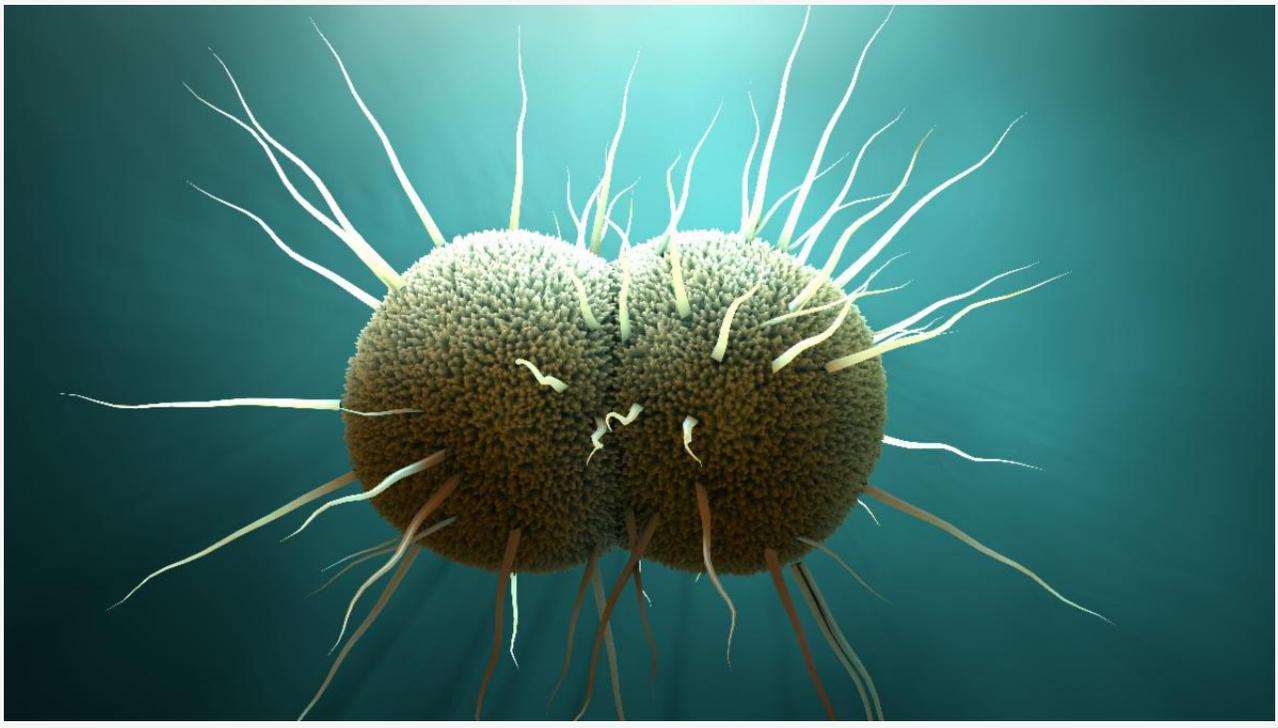
Several years ago, a cluster-randomized **trial**, MORDOR, looked to reduce childhood mortality through mass distribution of a broad-spectrum antibiotic (oral azithromycin). Mass administration led to 13.5% lower mortality overall, with higher reductions in childhood mortality amongst children 1-5 months of age. Because of these results, WHO conditionally recommended mass drug administration for children 1-11 month of age in high mortality areas and such programs were implemented across sub-Saharan Africa.

A recently published follow-up **study** from Malawi observed sustained elevation of macrolide resistance in *Streptococcus pneumoniae* more than three years after receiving the twice-yearly doses of azithromycin. Interestingly, the authors suggest that macrolide resistance potentially spreads to untreated populations after administration. These results highlight the critical need for antimicrobial stewardship and monitoring, particularly where mass drug administration programs are implemented.

An associated news story can be found **here**.

Article Spotlight

A meningococcal vaccine that cross-protects against Neisseria gonorrhoeae



An existing vaccine for meningococcal B disease (4CMenB) appears to protect not just against four serogroups of *Neisseria meningitidis*, but also infers some cross-protection against *Neisseria gonorrhoeae*. A **recent** systematic review and meta-analysis found that the vaccine was 23-47% effective against gonorrhea. An effective vaccine against gonorrhea would alleviate the need for antibiotics to treat infection and potentially slow the rise of antimicrobial resistance.

As such, England's National Health Service (NHS) has recently decided to launch a vaccination campaign against gonorrhea using this vaccine. This was in part based on a 2022 public health impact and cost-effectiveness **study** of the vaccine. See the press release **here**.

Creating AMR Awareness

The **Science for Africa Foundation** has launched a journalism competition to celebrate impactful and compelling stories, features, or campaigns that raise awareness and educate the public on AMR. The goal is to inspire behavior change and amplify the role of media in protecting public health. Call for applications can be found **here**. Deadline: 4 July 2025, 1700HRS, East African Time (EAT).

The **GHCPD platform** consistently presents new research and innovations in diagnostics and testing to drive AMR awareness.

In Case You Missed It

On 2 June 2025, the Hamburg Joint Statement on AMR was presented entitled *Scaling Solutions and Financing for Antimicrobial Resistance Mitigation*. Read the Statement **here**. Following key political discussions in **2024**, this Joint Statement aimed to turn the political commitments into impactful action. Also, see **here** for a summary from the International Centre for Antimicrobial Resistance Solutions (ICARS), a co-host of the discussion.

In Bangkok in March 2025, a multi-country workshop *Mainstreaming AMR interventions into PHC* was organized by the Asia-Europe Foundation (ASEF) in partnership with WHO and the Government of Thailand. This workshop was intended to promote actions to control AMR through investments in primary health care. Participants exchanged best practices, challenges, opportunities, and possible solutions to mainstreaming the WHO people-centred core package of AMR interventions into primary care, while key priorities were identified. See **here** for more.

EMA (European Medicines Agency) has revised recommendations on the use of azithromycin for a variety of conditions, including and especially the removal of certain indications. Azithromycin has been one of the top most prescribed antibiotics; however, it has a high risk for antimicrobial resistance and is currently in WHO's Watch category (**AWaRe classification**). These changes should ensure more prudent use of the drug and better monitoring. See **here** for more.

A 2024 survey amongst health professionals working in French ICUs provided keen insights into strengths and challenges in combating invasive candidiasis, a life-threatening infection with antimicrobial resistance increasing. See the publication **here** and an associated news article **here**.

The Wellcome Trust released a new report entitled, *Vaccination to prevent antimicrobial resistance: new evidence, future priorities and policy implications*. See **here** for the report.

Don't Miss

The Global AMR Innovators Conference (GAMRIC) – previously the ESCMID-ASM Joint

Conference on Drug Development for AMR – will be held 1 – 3 Oct 2025 in London, UK. See **here** for initial details. Registration opened on 5 May.

ICARe (Interdisciplinary Course on Antibiotics and Resistance) will be held 11-19 October 2025 in Annecy, France. See **here** for details. Applications will open in March.

IDWeek 2025, the annual meeting of the Infectious Diseases Society of America will be held 19-22 October 2025 in Georgia, USA. See **here** for details.

ASM Global Research Symposium on the One Health Approach to Antimicrobial Resistance (AMR), hosted in partnership with the Centre for Infectious Disease Research (CIDR) at the Indian Institute of Science (IISc) will be held 29-31 Oct 2025. See **here** for details.

The journal *Antibiotics* is planning for a special issue entitled, "Antibiotics: Utilization, Resistance, and Infection Prevention". The editors are inviting submissions for this special issue that addresses various aspects of AMR, including its mechanisms, transmission dynamics, and global impact. Manuscript submissions are due 31 October 2025. Please see **here** for more information.

The 10th AMR Conference 2026 will be held 3-4 March 2026 in Basel, Switzerland. Once available, details will be **here**.

2026 Gordon Research Conference (GRC), *Antibacterials of Tomorrow to Combat the Global Threat of Antimicrobial Resistance*, will be held 8-13 March 2026 in Tuscany, Italy. See **here** for more details.

ESCMID Global 2026, the annual meeting of the European Society for Clinical Microbiology and Infectious Diseases, will be held 17-21 April 2026 in Munich, Germany. See **here** for more.

What's Next

Innovative tools, such as mass drug administration or cross-protecting vaccines, show incredible promise in saving lives and reducing infection. Continuing to monitor the implementation of these interventions will be critical to ensure unexpected harms remain negligent or can be quickly identified and risks managed so that the AMR crisis is not further exacerbated. Better yet, we will combat the crisis by reducing prevalence rates and death.

Support for this initiative has been provided through an unrestricted educational grant from bioMérieux.