

# Antimicrobial Resistance 2024 Educational Series – Report January 2025

The Global Health Impact Group



## EXECUTIVE SUMMARY

The Global Health Impact Group (GHIG) Global Health Continuing Professional Development (GHCPD) program works with local faculty and regional partners to develop AMR educational materials relevant to learners from low- and middle-income countries. This year, we conducted a survey that informed us on AMR data and surveillance systems from countries and used this information to develop a course that would address information / knowledge gaps identified and build country capacities. We also established the AMR Global Health Academy in order to house all AMR educational courses and activities in a curriculum format specifically designed to advance the professional development of the microbiologist and build a community with networking opportunities. The enhanced communications of all our activities resulted in new partnerships and endorsements by academic institutions and professional organizations.

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### THE AMR GLOBAL HEALTH ACADEMY

The AMR Global Health Academy was established as an online educational hub to serve the global health professional and antimicrobial steward in low- and middle-income countries with networking and interactive activities beyond the free online courses on the the Global Health Continuing Professional Development (GHCPD) learning platform designed to advance AMR knowledge and best practices; launched through the GHCPD educational platform 21 November 2023, during AMR Awareness Week.

2

### SURVEY FOR SURVEILLANCE

GHIG conducted a qualitative survey to assess AMR testing being performed and evaluate surveillance program readiness. This information was used to inform the *AMR Surveillance Capacity* course.

3

### PROBLEM SOLVING CASE STUDIES

The AMR Problem Solving Case Study series provides learners an opportunity to apply their knowledge to real-world AMR situations and enhance critical thinking.

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### COURSE: BUILDING CAPACITY FOR AMR SURVEILLANCE IN LOW- AND MIDDLE-INCOME COUNTRIES

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### COURSE: BUILDING CAPACITY FOR AMR SURVEILLANCE IN LOW- AND MIDDLE-INCOME COUNTRIES

In December, GHCPD soft-launched the latest in its AMR course series - *Building Capacity for AMR Surveillance in Low- and Middle-Income Countries*. The 2-week course was again developed by local faculty to ensure content is relevant to the target audience (e.g. microbiologists, laboratory technician, surveillance and program managers, etc.). This course requires a higher level of learner engagement than previous courses with thought experiments and interactive activities. The lessons provide learners opportunities to approach practical problems and situations with the support of group discussions and faculty mentors.

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To date, **5,735 members from 162 countries** are enrolled in the Academy and actively taking courses. The launch itself reached **> 10,000 public health professionals and potential AMR stewards** in LMICs through registered emails and social media followers.



The Academy includes a rich curriculum with **14 free online educational courses and activities** designed to build AMR capacity in LMICs. The courses, housed on the GHCPD platform, are provided in English, French, Portuguese and Spanish, and include themes such as:

- Microbiology laboratory testing to address AMR
- The laboratory in the prevention and control of healthcare-associated infections: making healthcare facilities safer
- Building AMR surveillance capacity
- AMR case studies and problem-solving series

### AMR Academy Newsletter

In 2024, the Academy released **4 newsletters** to promote the Academy and all GHCPD AMR educational activities. The newsletters highlight AMR news stories, publications, events, etc. that relate to the role of testing and diagnostics. Then, we provide links to GHCPD courses that support the advancement of knowledge on these topics as well as highlight partner initiatives that also inform and connect learners to AMR resources and organizations (e.g. WHO GLASS, AVMA, etc.).

- o The newsletter features AMR champions – individuals who are highly active with GHCPD courses and discussions; sharing their experiences with other learners.
- o Newsletters are archived on the Academy website.

### Metrics:

- 5,735 AMR Global Health Academy members from 162 countries
- Academy launched to > 10,000 public health professionals and potential AMR stewards
- Academy curriculum includes 14 free online educational courses and activities
- 11 Academy Scientific Advisors featuring key organizations and thought leaders
- 4 newsletters released to promote the Academy and GHCPD AMR educational activities

### AMR Global Health Academy Members



## Academy Scientific Advisors

The Academy is guided by its board of **11 Scientific Advisors**, featuring key organizations and thought leaders (e.g. All India Institute of Medical Science, Brazil Society of Analytical Chemists, US CDC, Africa CDC, Institut Pasteur, University of Singapore School of Public Health, LSHTM). The role of Advisors is to provide strategic advice on focus and direction for the Academy, advice on curriculum development, and help promote the Academy.

## Advisors

- ▶ **Dr Yewande Alimi**  
One Health Unit Lead, Africa CDC Addis Ababa, Ethiopia
- ▶ **Dr Sayantan Banerjee**  
All India Institute of Medical Sciences Kalyani Kalyanilisten, India
- ▶ **Prof Yap Boum II**  
Director, Institut Pasteur de Bangui Central Africa Republic
- ▶ **Dr Tom Chiller**  
Chief, Mycotic Diseases Branch, U.S. Centers for Disease Control and Prevention Atlanta, US
- ▶ **Dr Charles K. Cooper**  
EVP & Chief Medical Officer, bioMérieux Baltimore, Maryland, US
- ▶ **Prof David Heymann**  
London School of Hygiene and Tropical Medicine London, UK
- ▶ **Dr Elizabeth Menezes**  
President, Brazilian Society of Clinical Analysis (SBAC) Brazil
- ▶ **Dr Mark Miller**  
Clinical, Research, and Diagnostics Expert on AMR Montreal, Quebec, Canada
- ▶ **Dr Teri Roberts**  
Research, Public Health and Diagnostics Expert on AMR Geneva, Switzerland
- ▶ **Dr Amadou Sall**  
Director, Institut Pasteur de Dakar Dakar, Senegal
- ▶ **Prof Yik-Ying (YY) Teo**  
Dean, Saw Swee Hock School of Public Health National University of Singapore Singapore

## 2

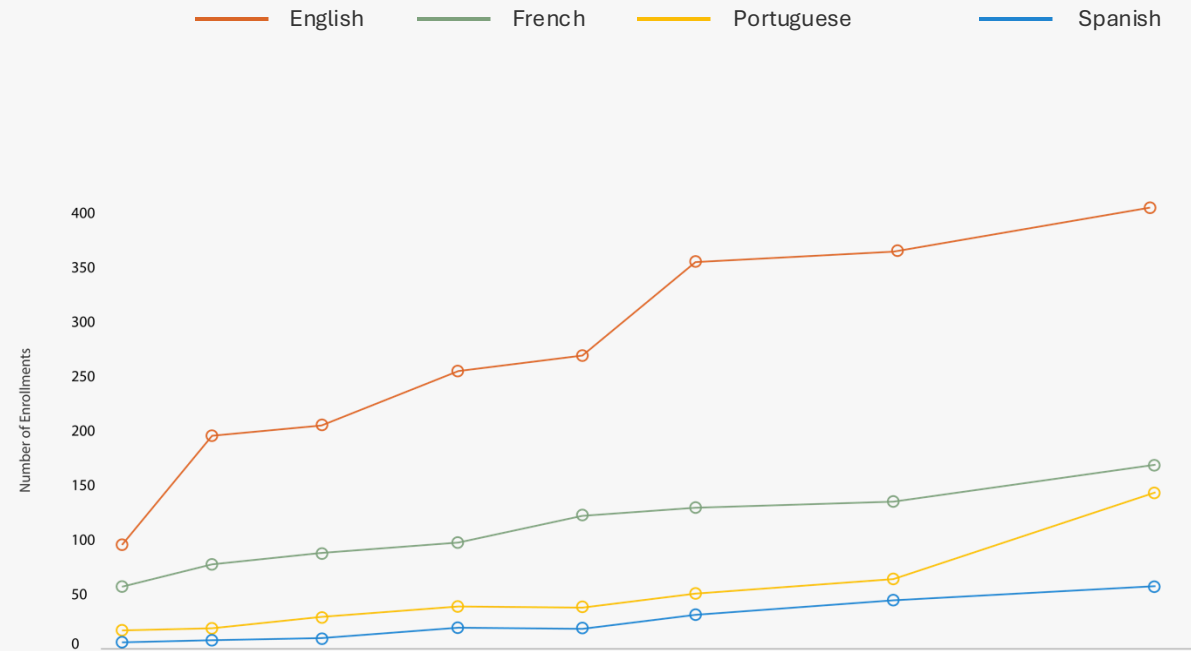
### PROBLEM SOLVING CASE STUDIES

The [AMR Problem Solving Case Study](#) series provides learners an opportunity to apply their knowledge to real-world AMR situations and enhance critical thinking.

- The series includes 3 complex, multi-faceted, problem-solving exercises developed by local faculty.
- Materials are translated into French, Spanish, and Portuguese and endure on the GHCPD educational platform as part of the Academy curriculum.
- We currently have a total of 753 enrollments in the problem-solving case studies series:
  - 495 unique enrollments in the English course.
  - 138 unique enrollments in the French course.
  - 39 unique enrollments in the Portuguese course.
  - 81 unique enrollments in the Spanish course.
- Qualitative responses are analyzed to assess learner engagement and knowledge and shared with faculty.

#### Metrics:

- 3 complex, multi-faceted, problem-solving exercises (available in English, French, Portuguese, and Spanish)
- 753 learners currently enrolled



## 3 SURVEY FOR SURVEILLANCE

GHIG conducted a qualitative **survey** to assess AMR testing being performed and evaluate surveillance program readiness. This information was used to inform the *AMR Surveillance Capacity* course.

Consultations conducted to complete the survey included **key stakeholders, country representatives, and faculty**. Examples of key stakeholders included:

- WHO AMR Unit Head: They were also conducting a survey and collaborated with us to align surveys and share findings.
- USAID Partnership for Supply Chain Management (PFSCM): Leveraged our survey to better understand country challenges with access to AMR diagnostics.
- Africa CDC: Used our survey to inform them of quality assurance for AMR.
- The Global Fund
- Country representatives
- Faculty

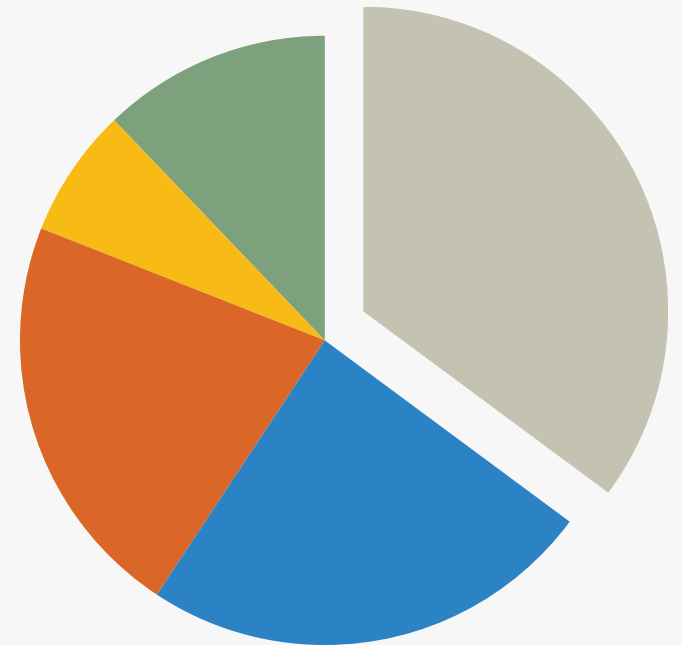
The survey informed us on the following:

- o Susceptibility testing being performed
- o Data systems for surveillance
- o Surveillance program readiness
- o Quality assurance programs
- o Supply chain barriers to AST

Findings were used to inform the *AMR Surveillance Capacity* course.

### Key Findings:

- Susceptibility testing is limited in scope (e.g. hospitals). Increased coverage is needed to support national surveillance of pathogens, particularly high-risk pathogens.
- Surveillance data systems are limited/do not exist. Individual laboratories are collecting and reporting data regionally/nationally but are unsure how this data is eventually being reported to GLASS.
- Most AMR national surveillance networks are meant to monitor and track the prevalence of AMR but are not fully equipped to handle outbreak responses. (i.e. real time monitoring and reporting)
- Some countries are publishing annual antibiograms but felt that more frequently published regional antibiograms (e.g. quarterly) would benefit clinicians and improve patient treatment and reduce AMR.
- Increased laboratory capacity is needed – e.g. trainings, quality assurance, data systems, reliable access to equipment and supplies.





## 4

### COURSE: BUILDING CAPACITY FOR AMR SURVEILLANCE IN LOW- AND MIDDLE-INCOME COUNTRIES

In December, GHCPD soft-launched the latest in its AMR course series - *Building Capacity for AMR Surveillance in Low- and Middle-Income Countries*. The 2-week course was again developed by GHCPD expert faculty to ensure content is relevant to the target audience (e.g. microbiologists, laboratory technician, surveillance and program managers, etc.). This course requires a higher level of learner engagement than previous courses with thought experiments and interactive activities. The lessons provide learners opportunities to approach practical problems and situations with the support of group discussions and faculty mentors.

The course will officially launch in 2025 on the GHCPD educational platform in English, French, Portuguese, and Spanish, in collaboration with regional faculty and partners, academic institutions, and professional organizations.

#### Curriculum:

Week 1) AMR Surveillance: Why, what does it tell us, and who benefits?

- The global burden of AMR
- AMR surveillance systems and models
- One Health
- Genomic surveillance

Week 2) Championing the AMR Surveillance Professional and Building Stronger Surveillance Systems

- Building / strengthening AST Capacity, surveillance, and antibiograms, including quality assurance
- Building the AMR champion
- Data for surveillance / Using GLASS
- Theories of behavior change to improve GLASS reporting
- Funding AMR programs

#### Learning Skills:

- Observational analysis: Attention and examination to assess risks and health outcomes
- Analytical thinking: Ability to break down complex issues to examine information in detail
- Critical thinking - Assessing the data / evidence and significance of that information to form well-reasoned / well thought out solutions
- Problem-solving: Using critical thinking to find solutions to problems
- Inference: Applying gained / prior knowledge / experience
- Creativity - Form novel and valuable concepts
- Collaboration - Essential skill that allows people to work together for the better of the community
- Decision making - Choosing amongst options by identifying the problem and applying information gathered to evaluate best possible solutions
- Communication: Sharing ideas, potential solutions, and conclusions with others
- Leadership - To lead, influence, guide, particularly with important decision-making



## 5

### COMMUNICATIONS AND ENGAGEMENTS

The GHIG / GHCPD mailing list includes > 12,000 potential AMR stewards in LMICs.

Communications promoting GHIG GHCPD AMR educational courses, activities and the AMR Global Health Academy have resulted in >7,000 social media impressions and >150 engagements with academic institutions, partners, professional organizations, etc. interested in our AMR work.

The AMR Academy, GHCPD courses, and all relevant communications acknowledges ‘support for this initiative has been provided through an unrestricted educational grant from bioMérieux’.



With each communication (e.g. AMR Academy Newsletter) we see a boost in enrollments – e.g. >1100 new learners with the first Newsletter release along with increased activity from existing learners.

All communications are shared with the AMR Academy Scientific Advisors, AMR faculty and partners to disseminate via their networks and post through their social media channels.

Communications include:

- Newsletters
- Announcements / flyers
- Launches (e.g. launches with regional partners, professional organizations)
- Email distributions
- Publications, reports
- Social media platform / posts
- Communications campaigns – e.g. profiling the Academy Scientific Advisors as part of our World AMR Awareness Week (WAAW) social media campaign.
- Websites (GHIG, GHCPD, AMR Academy)
- We also ask featured on e.g. partner websites, blogs.

Courses, activities, and announcements in English, French, Spanish, Portuguese.

New engagements / endorsements include:

- Global Antimicrobial Stewardship Partnership Hub (GASPH)
- British Society for Antimicrobial Chemotherapy (BSAC)
- Microbiology Society (Knocking Out AMR)
- Cameroon Society of Microbiology (2nd International Conference)
- The Brazilian Society of Clinical Analysts (SBAC)
- Universidad Privada San Juan Bautista (UPSJB), Peru
- Global Antibiotic Research & Development Partnership (GARDP)

Metrics:

- >12,000 potential AMR stewards reached
- >7,000 social media impressions
- >150 engagements