



**APL MUN 2024 WHO
BACKGROUND GUIDE**

**Establishment of a commission to prevent
and combat Antimicrobial-Resistant
(AMR) Disease Outbreaks**

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Letter from the Executive Board

Dear Delegates,

We, as the Executive Board of this committee, are honored to officially welcome you all to APLMUN'24 and hope you have a wonderful time participating. MUNs have a purpose beyond simply understanding world relations and showing off how deep your research is. They are a platform where you can express your creativity and problem-solving skills in relation to real world issues. It allows students to think beyond their classrooms and institutions and behave as a global citizen.

We hope for productive debate and unique perspectives on the agenda that is quite vast and can be viewed from many angles. Understand the agenda, why it needs to be discussed in this platform, how member nations can work together to solve it and how you can present your unique solutions from the point of view of the country. If you are a first-timer or are simply confused on how to tackle the research on the agenda, this background guide is the best place for you to start. However, it is compulsory to do reading beyond the minimal information provided in this guide and present individual perspectives that will show us just how well prepared you are.

Beyond this, we hope you have an enriching experience that improves your skills in MUNs and beyond. All the best!

Yours Sincerely,

Akshayaa Thangaraj - Co-Chairperson

Taran Balakrishnan - Co-Chairperson

Bavinika Siva - Vice Chairperson

About the Committee

Founded in 1948, the World Health Organization is the United Nations agency that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable so everyone, everywhere can attain the highest level of health. The WHO leads and champions global efforts to achieve better health for all. By connecting countries, people and partners, we strive to give everyone, everywhere an equal chance at a safe and healthy life.

From emerging epidemics such as COVID-19 and Zika to the persistent threat of communicable diseases including HIV, malaria and tuberculosis and chronic diseases such as diabetes, heart disease and cancer, the WHO brings together 194 countries and work on the frontlines in 150+ locations to confront the biggest health challenges of our time and measurably advance the well-being of the world's people.

Understanding Antimicrobial Resistant (AMR) Diseases

Antimicrobial-resistant diseases, or AMR diseases in short form, are the diseases caused by mutated genomes of preexisting strains of bacteria and other microbial pathogens that may speciate into fresh, unrelated strains that are extremely resistant to manmade disease treatment methods. These disease-causing microbes are immensely resistant to existing antimicrobial measures like bactericidal antibiotics, bacteriostatic antibiotics, sterilizers, and internal/external disinfectants. AMR pathogens and diseases are a drastic concern for public welfare; as estimated by the WHO, without adequate and early intervention, AMR diseases could cause more than 10 million deaths per year by 2050.

Historical Context and Genesis of AMRs

The discovery and concern of global health organizations regarding AMRs is relatively recent, with limited historical discussion or documentation of such pathogens. Staph Aureus bacteria demonstrated an unexpected resistance to penicillin in the 1940s, which marked the first discovery of AMR disease pathogens. The WHO has addressed AMRs since the mid-1970s. AMRs form due to the overuse and misuse of antimicrobial drugs and substances by humans, horizontal gene transfer, contamination from heavy metals like lead and palladium, selective pressures of mutated microbial strains, etc. Microbes can rapidly evolve resistance from prolonged exposure to certain environments. Due to widespread and callous usage of specific drugs to treat diseases, microbes experience repetitive generations within the same environment, in contact with the antipathogenic substance. This leads to the resilient propagation of microbes through random genetic mutations and genetic drift.

Notable Example: MRSA

A notable example of an AMR disease is Methicillin-resistant Staphylococcus aureus (MRSA). MRSA is a form of staph bacteria that is almost completely immune to methicillin, penicillin, and amoxicillin, among other antibiotics. Initially localized in hospitals, MRSA quickly spread into major societies, affecting healthy individuals. Symptoms of MRSA include skin lesions, boils, abscesses, pneumonia, blood infections, and surgical site infections. MRSA is combated using a multifaceted approach involving more expensive drugs and treatments. Fortunately, MRSA can be avoided and has not caused a widespread epidemic as it is bacterial and limited by organic propagation.

Media Attention and Public Awareness

AMR diseases have become a cultural shock, earning the nickname "superbugs" in the media. "Superbugs" refer to any AMR diseases incubated through antibiotic misuse and long-term undiscovered growth. These pathogens usually are resistant to multiple commonly used antibiotics, making the treatment highly subjective, costly and difficult. Due to the rapid awareness of AMRs and their toxicity, as well as the necessity to curb their growth, significant strides have been taken towards an AMR disease-free future.

Methods to Inhibit AMR Growth and Spread

Prominent methods to inhibit the growth and spread of AMR diseases include:

- **Enhanced Hygiene and Control Methods:** As AMRs can be combated like other communicable diseases, improved hygiene practices are crucial.
- **Screening, Isolation, and Quarantining Methods:** Identifying and isolating AMR cases to prevent spread.
- **Research and Development of New Antimicrobial Treatments:** Developing new drugs and treatments.
- **Improvements in diagnosis and diagnostic methods to detect AMR and surge virulence** (AMR poses many issues with traceability and detectability).
- **GAP-AMR** the Global Action Plan to tackle AMR
- **GLASS** (Global Antimicrobial Resistance and Use of Surveillance system (GLASS) which was endorsed by World Health Assembly 68- resolution WHA68.7. Called the second program after GAP-AMR to assess AMR surveillance.
<https://www.who.int/initiatives/glass>
- **Antibiotic Stewardship:** Implementing policies to regulate the exact dosages and diagnoses of antibiotics to prevent overuse and misuse.
<https://www.pfizer.com/science/focus-areas/anti-infectives/antimicrobial-surveillance>
- **ATLAS-** by Pfizer which involves antimicrobial surveillance.
- **Completing Treatment:** Ensuring patients complete their prescribed antibiotic courses to avoid incomplete treatment, which can lead to AMR.

National Responses to AMRs

United States:

The USA has been proactive in reducing deaths due to AMR. The updated National Action Plan for CARB has reduced antibiotic resistance deaths by 18%. Key measures include:

- Promoting appropriate antibiotic use in human health, animal health, and the environment.
- Developing and implementing antibiotic stewardship programs.
- Increasing funding for research on new antibiotics, diagnostics, vaccines, and private-funded partnerships.
- Public awareness campaigns and educational programs by the CDC.
- Legislation such as the 21st Century Cure Act which was passed in December 2016 and The GAIN Act in 2012.

India:

- India has taken great strides in surveillance and countering AMR as well.
- Delegates may use the following document for detailed reference. ([WHO Article on Indian Participation](#))
- [Resource to view Chennai's contributions](#) - highlights the key factors that Chennai has played in disease prevention, including its articles about AMR threats.

China:

China has established two major National Action Plans (2016-20 and 2022-25). Efforts include:

The first action plan on AMR was launched in the year 2016. The latest one was launched in the year 2022.

- Developing enhanced surveillance systems.
- Implementing public and institutional education.
- Integrating data from various sources for a holistic view of AMR trends.
- Adopting the One Health approach across sectors.
- Developing new antimicrobial agents and diagnostic tools.

- Laws regulating clinical use of antimicrobials and banning their use as growth promoters in livestock.

United Kingdom:

The UK has launched a new 5-year National Action Plan (2024-29) as part of its 20-year vision to control AMR by 2040. Initiatives include:

The previous NAP ranged from 2019-2024

- Reducing antibiotic use in food-producing animals.
- Developing advanced surveillance systems.
- Encouraging research on new antibiotics and diagnostics.
- Promoting global cooperation in AMR prevention.
- Regulatory measures such as making antibiotics prescription-only and banning specific antibiotics in agriculture.

WHO centralized initiatives:

- The [Global Leaders group](#) to counter AMR is part of the One Health initiative. Delegates are advised to research further on the topic.
- Delegates are also advised to look into the policies implemented by influential players in the AMR field currently, including-
 - [Professor Dame Sally Davies](#)
 - [Dr. Ramanan Laxminarayanan](#)

Role and Importance of Commissions

Commissions have held great importance in the United Nations. Commissions allow for unified consensus combining multiple nations' perspectives, led by jointly elected officials considered competent to legislate important matters. They play a significant role in the regulation of policies in various fields and UN governing bodies, including the WHO.

WHO and its Commissions

In the WHO, important commissions include the Civil Society Commission, general meeting and working group commissions, and the regulatory steering committee. These commissions regulate activities of the WHO and its subordinate bodies, such as the CDC in the United States.

With regards to AMR, the WHO has implemented action plans including the Global Action Plan on Antimicrobial Resistance (2015), WHO antimicrobial stewardship programs (2001) and the WHO One Health Approach (WHO OHA).

Expectations of the Executive Board

Delegates are expected to:

- Conduct detailed research on AMRs, their biological significance, formation, and prevention methods. The delegates are expected to research **beyond the scope** of this background guide.
- Understand the particular relations between their individual nations and the methods in practice.
- Draft legislature for the commission to combat AMR disease outbreaks, including points about the commission, its mode of action, and its tenets.
- Engage in debates (formal and informal) and present working papers and commission drafting papers.
- Importantly, though the WHO is conventionally a resolution-centric committee, delegates in this committee will instead draft constitutional legislative papers for the formation of the commission to counter AMR, instead of a resolution, and thus do not need to adhere to standard resolution formatting.

Closing Remarks

Delegates are tasked with drafting a comprehensive framework for a commission to combat AMR disease outbreaks, aiming to establish a commission controlled by four patron nations by the end of the MUN conference. The conference will then vote on the proposed commission, aiming for consensus to advance the MUN conference of the WHO.

We would like to remind you once again that this is **only a preliminary document** for your surface level research. We hope that this is sufficient for all the delegates to start to wrap their head around the agenda and to obtain a foothold on where your research should begin. Delegates are encouraged to take their research **beyond the scope of this document**.

At the end of the day, if you've learnt something and enjoyed doing so, the committee can be considered a victory, so have fun while researching and broadening your horizons.

For any further enquiries, write to whomun@apl.edu.in

Regards,

The WHO Executive Board