

WHO

ROTAMUN'25

TABLE OF CONTENTS

Letter from Secretary General.....

Letter from Under Secretary General.....

Introduction to the Committee.....

History of the Committee.....

Introduction to the Agenda Item.....

Past Actions to Solve the Agenda.....

Definition of Key Terms.....

Discussion of the Agenda Item.....

Questions to

Ponder.....15

Further Reading.....

LETTER FROM SECRETARY GENERAL

Dear participants of ROTAMUN

On behalf of ROTAMUN Secretariat team it is my honor to welcome you all to our very first ROTAMUN conference and we are so proud to make this dream happen.

My name is Damla AKKAYA a junior student in Rota ... I will be serving as your Secretary-General for our first ROTAMUN conference.

ROTAMUN's mission is to provide education and training services to all students with the aim of raising individuals who are committed to the fundamental principles of the Republic of Turkey, have internalized Atatürk's principles and reforms, are aware of national and universal values, respectful, proficient in their native language, fluent in foreign languages, guided by reason and science, aspiring for a better world, following technological advancements, environmentally conscious, and engaged in sports and the arts. With this mission, our main purpose in preparing this conference, simulating debate atmosphere, discussing the latest events and taking little steps for solving critical global issues by prioritizing equity, diplomacy, peace and creativity.

Although it is our first MUN conference I'm sure that ROTAMUN will provide a unique and pleasant experience to all of you.

If you happen to have any problems, feel free to contact any member of the academic team.

Sincerely yours,

Damla akkaya
Secretary General

LETTER FROM UNDER SECRETARY GENERAL

Dear WHO Delegates,

I am beyond excited to welcome you to the World Health Organization committee. As your Under-Secretary-General, it's my absolute pleasure to be with you on this journey of diplomacy and collaboration.

In this conference, our agenda centers around a pressing global threat—antibiotic resistance. I encourage each of you to dive deep into your country's stance, come prepared to engage in thoughtful debate, and most importantly, work together toward impactful, realistic solutions. The world you're representing is counting on your voice, your ideas, and your leadership.

But while we're here to tackle serious challenges, don't forget to enjoy the ride. RotaMUN is also about building connections, learning from each other, and making memories that go far beyond committee sessions. So always remember to have fun.

I wish you a meaningful and memorable experience.

With best regards,

Ekin Çifçi

Introduction to the Committee

The WHO's official mandate is to promote health and safety while helping the vulnerable worldwide. It provides technical assistance to countries, sets international health standards, collects data on global health issues, and serves as a forum for scientific or policy discussions related to health. Its official publication, the *World Health Report*, provides assessments of worldwide health topics.

The WHO's purpose is to achieve the highest possible level of health for all the world's people, defining health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The main functions of the World Health Organization include promoting the control of epidemic and endemic diseases; providing and improving the teaching and training in public health, the medical treatment of disease, and related matters; and promoting the establishment of international standards for biological products.

The WHO fulfils these objectives through its functions as defined in its Constitution:

- To act as the directing and coordinating authority on international health work;
- To establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate;
- To assist Governments, upon request, in strengthening health services;
- To furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments; including epidemiological and statistical services;
- To provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
- To stimulate and advance work to eradicate epidemic, endemic and other diseases;
- To promote, in co-operation with other specialized agencies where necessary, the prevention of accidental injuries; the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene;
- To propose conventions, agreements and regulations, and make recommendations with respect to international health matters and to perform.

(shortened Article 2 of the Constitution)

History of the Committee

When the League of Nations was formed in 1920, it established the Health Organization of the League of Nations. After World War II, the United Nations absorbed all the other health organizations, to form the today's WHO. The constitution of the World Health Organization was signed by all 51 countries of the United Nations, and by 10 other countries, on 22 July 1946. It thus became the first specialized agency of the United Nations to which every member subscribed. Its

constitution formally came into force on the first World Health Day on 7 April 1948, when it was ratified by the 26th member state. The WHO formally began its work on September 1, 1948.

Introduction to the Agenda Item

Antibiotics have revolutionized medicine, saving countless lives since their discovery in the early 20th century. However, the origin of antibiotics is now overshadowed by the alarming rise in antibiotic resistance. Regrettably, the possibility for resistance to any therapeutic agent to evolve limits its ability to be effective. The next series of antibiotics must be developed, since resistance compromises efficacy (therapeutic effect). A pathogen's enhanced resistance to the preused standard therapy to which it was previously effective is referred to as tolerance to an antibacterial agent (in this case, an antibiotic). This global crisis stems from the relentless adaptability of microorganisms, driven by misuse and overuse of antibiotics. Antibiotic resistance has also emerged due to dose-related issues, a lack of accurate clinical disposal, and a lack of knowledge about the amount of antibiotics needed to treat disease.

The global issue regarding antibiotic resistance remains a pressing issue for public health, with a consistent upward trend in resistance prevalence over the past few decades. This phenomenon extends its reach to a broad spectrum of bacteria, making many antibiotics less effective or entirely impotent against infections. Consequently, once easily treatable common infections have become formidable barriers, resulting in prolonged hospitalizations, elevated healthcare expenses, and heightened mortality rates.

Recent developments in the profile of antibiotic resistance have forced the majority of drug companies to refocus their attempts on creating novel particles used in treating serious diseases. As traditional antibiotics lose their effectiveness, pharmaceutical research is shifting toward innovative approaches, such as antimicrobial peptides, phage therapy, and targeted drug delivery systems. This change reflects the urgent need to stay ahead of rapidly evolving bacterial strains. However, the process of developing new treatments is costly and time-consuming, making prevention strategies—like responsible antibiotic use in agriculture and healthcare—even more critical in the global fight against resistance.

The misuse of antibiotics in agriculture and animal farming is a major contributor to the growing problem of antibiotic resistance. In many cases, antibiotics are routinely given to livestock not to treat illness (prophylactic use), but to promote growth and prevent disease in overcrowded or unsanitary conditions. This widespread and often unnecessary use creates the perfect

environment for bacteria to evolve resistance. These resistant bacteria can then spread to humans through the food chain, direct contact, or the environment, making it harder to treat infections and threatening public health on a global scale.

We aim to form applicable and beneficial solutions on the antibiotic resistance spreading worldwide by discussing and exchanging ideas on this major global concern in our committee.

Past Actions to Solve the Agenda

1. Launch of the Global Action Plan (GAP) on Antimicrobial Resistance (2015)

The WHO launched the **Global Action Plan on Antimicrobial Resistance (GAP)** in 2015 as a comprehensive strategy to tackle the rising threat of antibiotic resistance. This plan was endorsed by all WHO member states and aimed to guide global, national, and local efforts to combat antimicrobial resistance (AMR).

2. World Antibiotic Awareness Week (WAAW)

WHO organizes the **World Antibiotic Awareness Week** every year in November to raise awareness about the importance of responsible antibiotic use and to encourage actions to combat antibiotic resistance globally. National and local campaigns in various countries promote awareness among the general public, healthcare providers, and policymakers by educational initiatives about proper antibiotic use, such as not using antibiotics for viral infections (e.g., colds and flu).

3. Antimicrobial Resistance Surveillance System (GLASS)

In 2015, WHO established the **Global Antimicrobial Resistance Surveillance System (GLASS)** to monitor the spread of resistance patterns across the world. This helps to collect and analyze data from participating countries on resistance patterns in common pathogens, to provide countries with tools to track resistance and improve their own surveillance systems.

4. Antibiotic Use in Agriculture

WHO has been actively engaged in addressing the overuse and misuse of antibiotics in agriculture (particularly in animals) since these practices contribute significantly to the development of antibiotic-resistant bacteria that can spread to humans. WHO also collaborates with various international partners, including the **Food and Agriculture Organization (FAO)** and the **World Organization for Animal Health (OIE)**, to address the “One Health”

dimension of AMR (the interconnectedness of human, animal, and environmental health).

5. The 2016 UN Political Declaration on Antimicrobial Resistance (AMR)

In 2016, WHO supported the **United Nations Political Declaration on Antimicrobial Resistance**, which was adopted at the UN General Assembly. This marked the first time that AMR was discussed at the political level by heads of state. The declaration called for countries to take action to address AMR, including developing national action plans, improving infection prevention, and ensuring access to effective antibiotics. It also emphasized the need for increased global cooperation and funding to combat AMR.

6. Publication of the WHO AMR Report

WHO publishes an annual **AMR report**, which provides data and insights into the global status of antimicrobial resistance, highlighting areas of concern, progress, and gaps. This leads to identify specific pathogens that are most concerning in terms of resistance, and to provide evidence-based recommendations for action at the country and global level.

7. Promotion of National Action Plans

WHO has been advocating for all countries to develop their own **National Action Plans (NAPs)** on antimicrobial resistance. These plans are meant to be aligned with the global action plan and tailored to the specific needs of each country.

8. Collaborating with Various Organisations on AMR

WHO has worked with several organisations on strategies to encourage the development of new antibiotics which can be listed as;

- Partnerships with **Global Fund**, **GAVI**, and the **Wellcome Trust** to fund and establish global financing mechanisms to support the development of new antibiotics and diagnostics (AMR initiatives).
- Collaboration with **GARDP (Global Antibiotic Research and Development Partnership)** to stimulate research into new antibiotic classes and alternatives to antibiotics.

9. Focus on Infection Prevention and Control (IPC)

WHO has highlighted the importance of **infection prevention and control (IPC)** as a way to reduce the need for antibiotics and prevent the spread of

resistant pathogens. Promoting vaccination to prevent infections that may otherwise require antibiotic treatment can be admitted as one of the propositions suggested.

Definitions of Key Terms

- **Antibiotic Resistance:** The ability of bacteria to withstand the effects of an antibiotic that would normally kill them or inhibit their growth.
- **Antimicrobial:** A general term for any substance that kills or inhibits the growth of microorganisms, including bacteria, fungi, and viruses.
- **Broad-spectrum Antibiotics:** Antibiotics that are effective against a wide range of bacterial species, both Gram-positive and Gram-negative.
- **Narrow-spectrum Antibiotics:** Antibiotics that are effective against specific families or types of bacteria.
- **Phage Therapy:** An alternative treatment that uses bacteriophages (viruses that infect bacteria) to target and destroy antibiotic-resistant bacteria.
- **Prophylactic Use (in agriculture):** The use of antibiotics to prevent disease rather than to treat an existing infection, especially common in livestock farming.
- **Multi-drug Resistant (MDR):** Bacteria that are resistant to multiple classes of antibiotics, making them harder to treat.

Discussion of the Agenda Item

1: Human Health and Clinical Use

- **Overprescription and Misuse in Healthcare**
 - Causes of overprescription (e.g., patient pressure, diagnostic uncertainty)
 - Lack of adherence to treatment guidelines
 - Use of antibiotics for viral infections (e.g., colds, flu)
- **Diagnostic Gaps and Tools**
 - Limited access to rapid diagnostic tools in low-resource settings
 - Need for better point-of-care tests to differentiate bacterial vs. viral infections
 - Encouraging adoption of antimicrobial stewardship programs in hospitals
- **Surveillance and Data Collection**
 - Strengthening national and global surveillance systems (e.g., GLASS by WHO)
 - Challenges in tracking resistance trends and antibiotic usage
 - Sharing of AMR data between countries and health systems
- **Hospital and Healthcare Facility Practices**
 - Infection prevention and control (IPC) measures

- Hygiene and sanitation standards in hospitals
- Spread of resistant bacteria in healthcare settings (e.g., MRSA, CRE)
- **Public Awareness and Behavior Change**
 - Educating the public about the dangers of antibiotic misuse
 - Campaigns promoting responsible use of antibiotics
 - Combating misinformation about antibiotics
- **Research and Innovation in Human Medicine**
 - Incentives for new antibiotic development
 - Alternatives to traditional antibiotics
 - Funding models for R&D and equitable access to new treatments

2: Agriculture and Veterinary Use

- **Non-Therapeutic Use in Livestock**
 - Use of antibiotics for growth promotion and disease prevention
 - Transitioning toward responsible, therapeutic use only
- **Food Safety and Monitoring**
 - Surveillance of antibiotic residues in animal products
 - Public health risks from contaminated meat and dairy
- **Sustainable Farming Practices**
 - Promoting biosecurity, vaccination, and improved animal welfare
 - Supporting small-scale farmers in transitioning to antibiotic-free practices
- **Transmission Pathways to Humans**
 - Zoonotic bacteria with AMR traits' transmission through direct contact, food, or environment
 - Addressing occupational risks for farm workers and handlers

3: Global Cooperation and Policy Frameworks

- **Global Action Plans**
 - WHO Global Action Plan on AMR and regional strategies
 - National Action Plans: implementation status and gaps
 - Role of the UN, FAO, OIE (WOAH), and other multilateral bodies
- **Cross-Border Data and Surveillance**
 - Sharing data on resistance trends and antibiotic usage
 - Establishing global databases and early warning systems
 - Standardizing data collection methods and definitions
- **International Trade and Regulation**
 - Harmonizing trade standards to prevent antibiotic misuse
 - Addressing concerns over imports with unregulated antibiotic use
 - Encouraging AMR clauses in trade agreements

- **Financial and Technical Assistance**
 - Supporting low-income countries with funding and infrastructure
 - Knowledge transfer and technology sharing
 - Role of the World Bank and international donors
- **Monitoring and Accountability**
 - Developing indicators for national progress
 - Peer review mechanisms and reporting obligations
 - Ensuring equitable participation in global decision-making

4: Environmental Dimensions

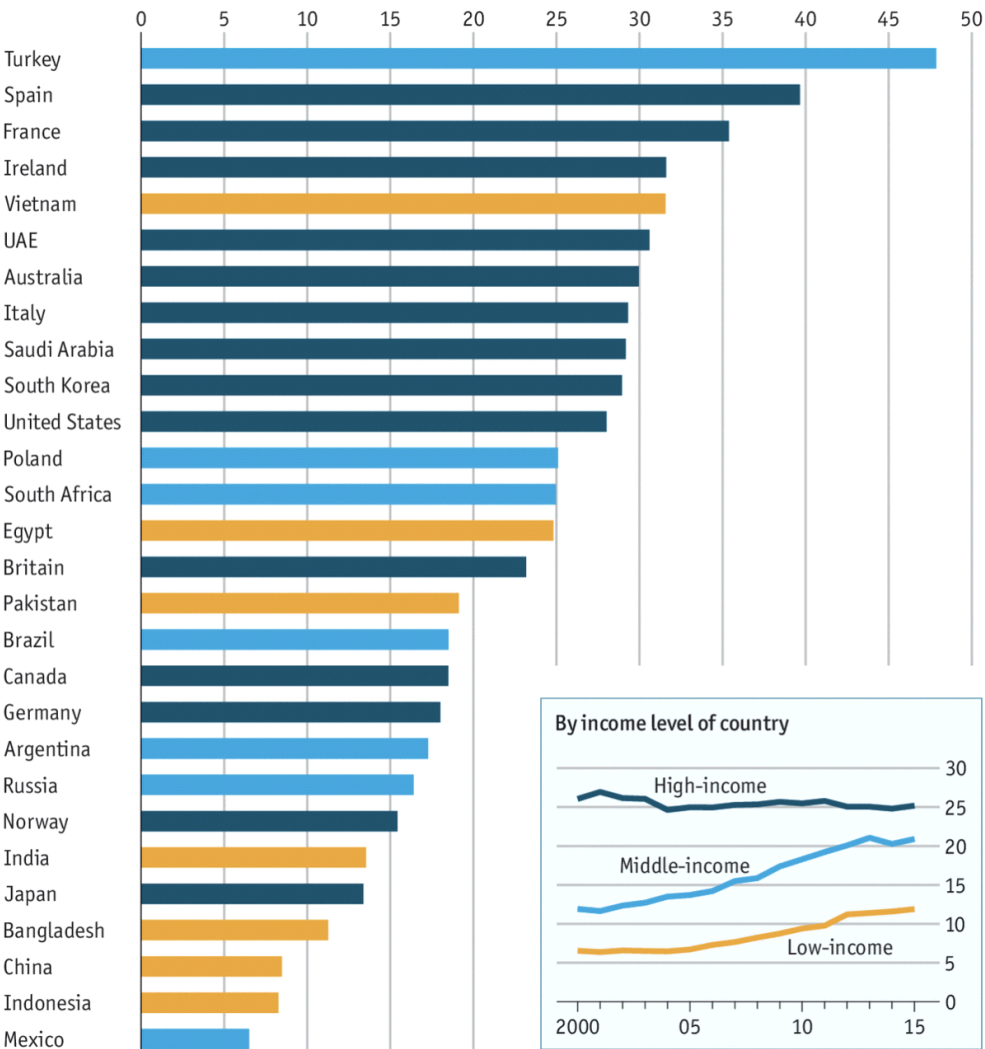
- **Pharmaceutical Waste and Pollution**
 - Discharge from manufacturing plants into water systems
 - Lack of environmental regulation in drug production
 - Encouraging cleaner production technologies
- **Agricultural Runoff**
 - Animal waste and manure used as fertilizer spreading resistant bacteria
 - Regulation and treatment of farm waste
 - Monitoring antibiotic levels in soil and water
- **One Health Integration**
 - Recognizing the environmental sector as part of One Health
 - Cross-sectoral collaboration among health, agriculture, and environment
 - Including environmental experts in AMR policy planning

Group 5: Innovation, Research, and Development

- **Alternative Therapies**
 - Development of bacteriophages, vaccines, and immunotherapies
 - Enhancing host immune response as a prevention strategy
 - Reducing reliance on antibiotics for common infections
- **Equity and Access**
 - Ensuring affordable access to new treatments globally
 - Preventing monopolies on new antibiotics
 - Balancing innovation with public health needs
- **International Collaboration**
 - Shared funding mechanisms and knowledge exchange
 - Encouraging open-access research for global benefit

Dose of reality

Daily dosage of antibiotics per 1,000 population, 2015



Source: "Global increase and geographic convergence in antibiotic consumption between 2000 and 2015", by Eili Klein et al., Proceedings of the National Academy of Sciences, March 2016

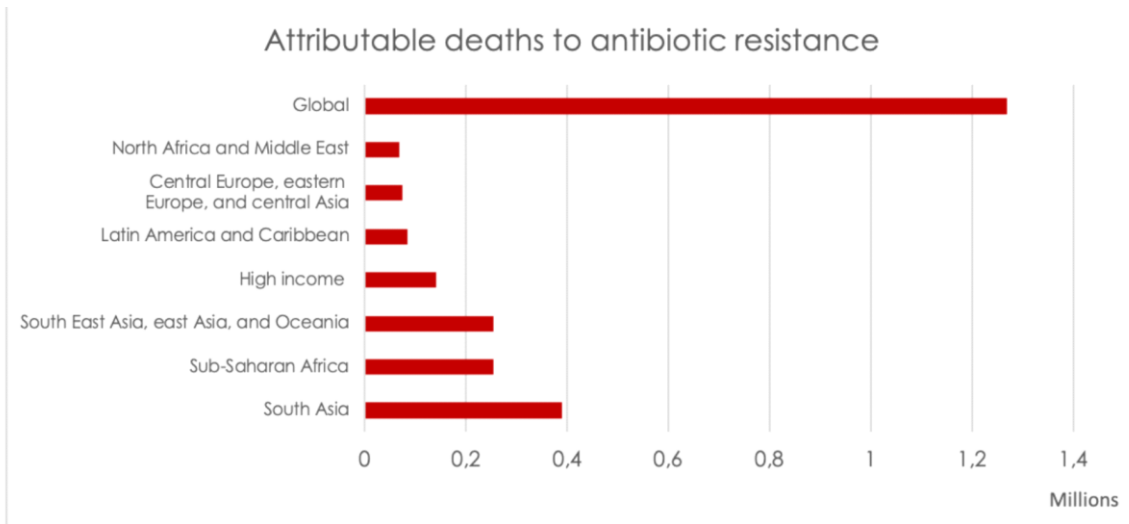
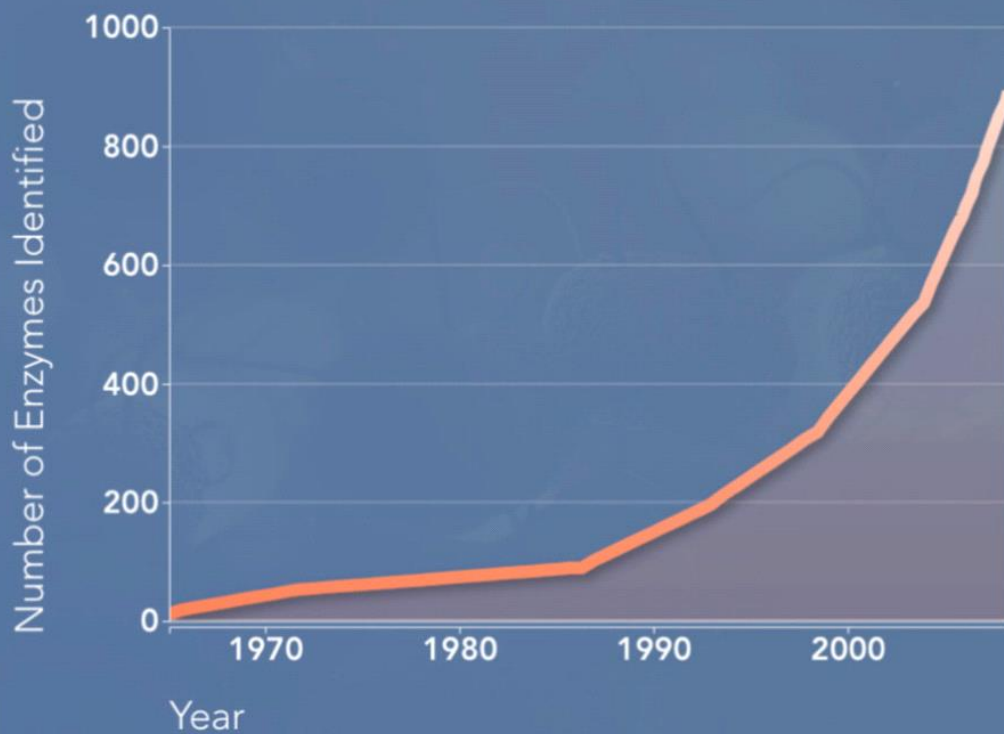


Figure1: Attributable deaths to antibiotic resistance. Numbers are from GRAM study.

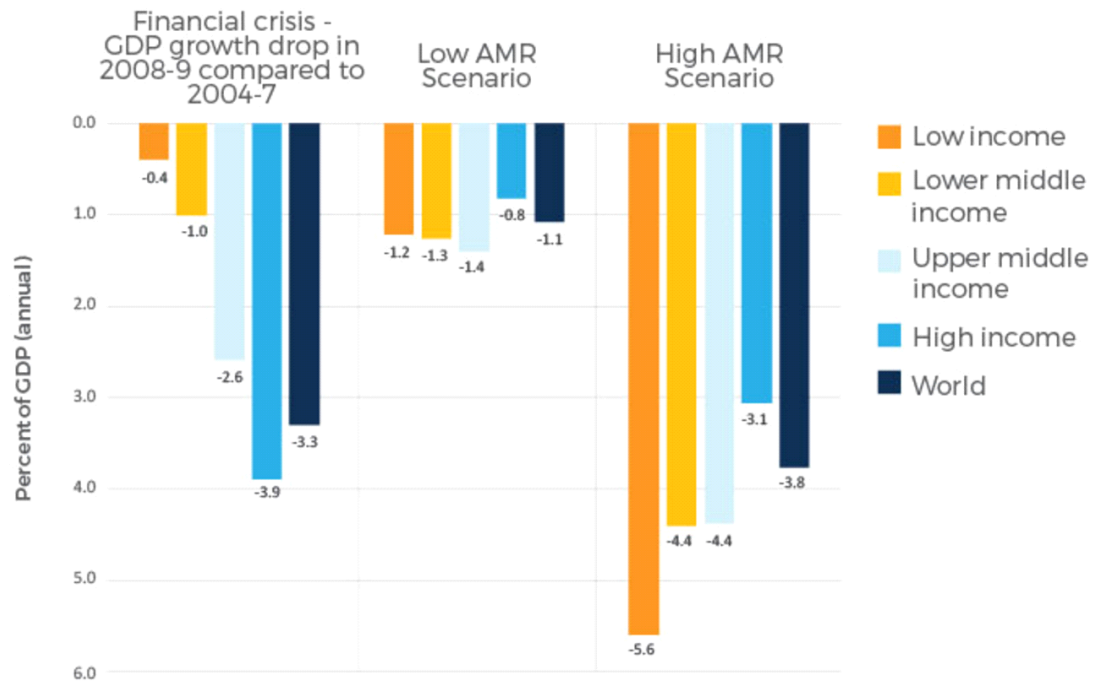
Increasing Antibiotic Resistance

Bacteria have rapidly evolved and developed proteins to resist and destroy antibiotics

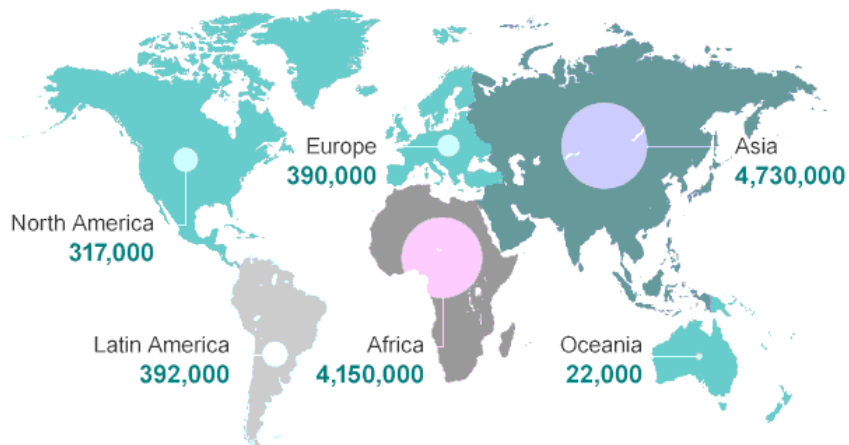
Antibiotic Resistance Enzymes (β -lactamase)



AMR WILL AFFECT THE POOREST COUNTRIES THE MOST



Deaths attributable to antimicrobial resistance every year by 2050



Source: Review on Antimicrobial Resistance 2014

New Antibiotic Approvals

While antibiotic resistance rises, fewer new antibiotics are being developed and approved.

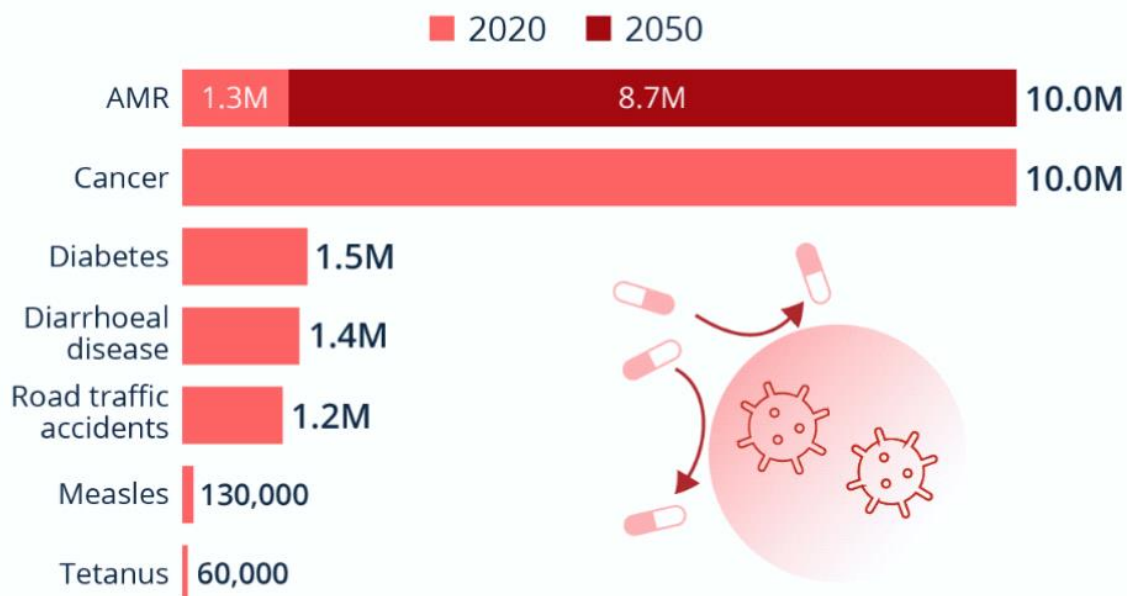


Clearvue Health

Ventola et al.

Deaths From Drug-Resistant Infections Set To Skyrocket

Predicted mortality from antimicrobial-resistant* infections (AMR) versus today's common causes of deaths



* resistant to antibiotics, antivirals, antifungals and antiparasitics
Source: Bracing for Superbugs 2023 (UN Environmental Programme)



statista

Questions to ponder

- What role should international cooperation play in solving AMR?
- How can public awareness about the dangers of AMR be increased?
- What responsibilities do wealthier nations have in supporting lower-income countries in fighting AMR?
- What are the challenges of enforcing international regulations on AMR?
- How can environmental protection efforts be aligned with AMR strategies?
- How can governments incentivize pharmaceutical companies to develop new antibiotics?
- What potential alternatives to antibiotics are being explored and supported?
- How can international collaboration on AMR research be strengthened?
- How can diagnostic innovation reduce unnecessary antibiotic use?

Further Reading

https://en.m.wikipedia.org/wiki/World_Health_Organization

<https://pmc.ncbi.nlm.nih.gov/articles/PMC10675245/#sec1-pharmaceuticals-16-01615>

<https://www.who.int/publications/i/item/9789241509763>

<https://www.reactgroup.org/news-and-views/news-and-opinions/year-2022/antibiotic-resistance-claims-more-than-1-2-million-lives-a-year-says-new-large-study/>

<https://journalistsresource.org/environment/drug-resistance-infections-economic-costs/>