



# **WORLD HEALTH ORGANISATION**

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# Letter from the Executive Board

“Without health, people have nothing. Without health, we have nothing as humanity.” -Dr. Tedros Adhanom Ghebreyesus (*Director-General, WHO*)

Dear Delegates,

It is our distinct pleasure to welcome you to the World Health Organization at Viva MUN 2024. This is a committee simulated so many times, it is impossible to overstate its importance and relevance today. With the rise of so many epidemics, the work of the WHO remains integral for life to continue in many parts of the world. As you will come to learn, many countries under the scourge of war or other disasters have been unable to procure basic health and sanitation needs for its citizens. Here, this organization has played a vital role in saving and reconstructing many lives.

The agenda we have set for this committee also reflects an increasingly dangerous issue that is inevitable to soon evolve into a global crisis. If we choose to ignore this today, scientists have predicted that it is possible for minor cuts or infections to soon become fatal. Antibiotics, as we know it, could become a meaningless and irrelevant tool that wouldn't have a place in tomorrow's society. As intriguing as this may sound, we'll let you delve into research to comprehend the entire consequential depth of a seemingly inconspicuous – and certainly small – bug.

This background guide is intended to act as a launch pad for your research. In no way would this meager piece of introductory text suffice as your entire understanding of the agenda. This is only a fraction of the research that we would expect you to do. Whether this is your first conference or your tenth, we hope to see innovative, out-of-the box ideas evolve as rapidly as resistant bacteria during the course of the weekend.

Research well, debate hard, and most importantly, have fun while doing so! This isn't your standard project; we promise that you'll enjoy every bit of it. We have tried to make this background guide as self-explanatory as possible, but if there's anything you need, don't hesitate to contact us.

Good luck and happy researching!

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## The World Health Organization

The WHO is a specialized agency of the United Nations that is concerned with international public health. It is a member of the United Nations Development Group and was founded by the Economic and Social Council (ECOSOC). Its predecessor was the Health Organization, which was part of the League of Nations. The WHO came into existence on 7 April, 1948 with the Director General as Dr B. Chisholm. This date is celebrated today as World Health Day. It also became the first specialized agency of the United Nations to which every member subscribed. The logo for the WHO is the Rod of Asclepius, which is a symbol for healing.

The main areas that the organization's work focuses on includes:

- Health systems
- Promoting health through the life-course
- Non-communicable diseases
- Communicable diseases
- Corporate services
- Preparedness, surveillance and response

Today, the WHO aims for universal health coverage (health for all, regardless of financial status); international health regulations (rapid and well-coordinated response to international health emergencies); increasing access to medical products (affordability and local production); reducing social, economic and environmental detriments (working with other sectors to promote equal health); curbing the rise of non-communicable diseases (coordinate a coherent, multi-sectoral response at global, regional and local levels); achieving health related SDGs (building resilient health systems and effective health institutions for sustainable and equitable health outcomes).

## Superbugs: an overview

A superbug can be defined as a strain of bacteria that has become resistant to antibiotic drugs or an insect that is difficult to control or eradicate, especially because it has become immune to insecticides.

The most infamous superbug today is called Methicillin-resistant Staphylococcus aureus or **MRSA** in short. The reason why MRSA is so dangerous is because it has adapted to evade and grow resistant to most of the common antibiotics we use – such as penicillin – and is still constantly evolving. Researchers find it difficult to develop an antibiotic that MRSA is not resistant to.

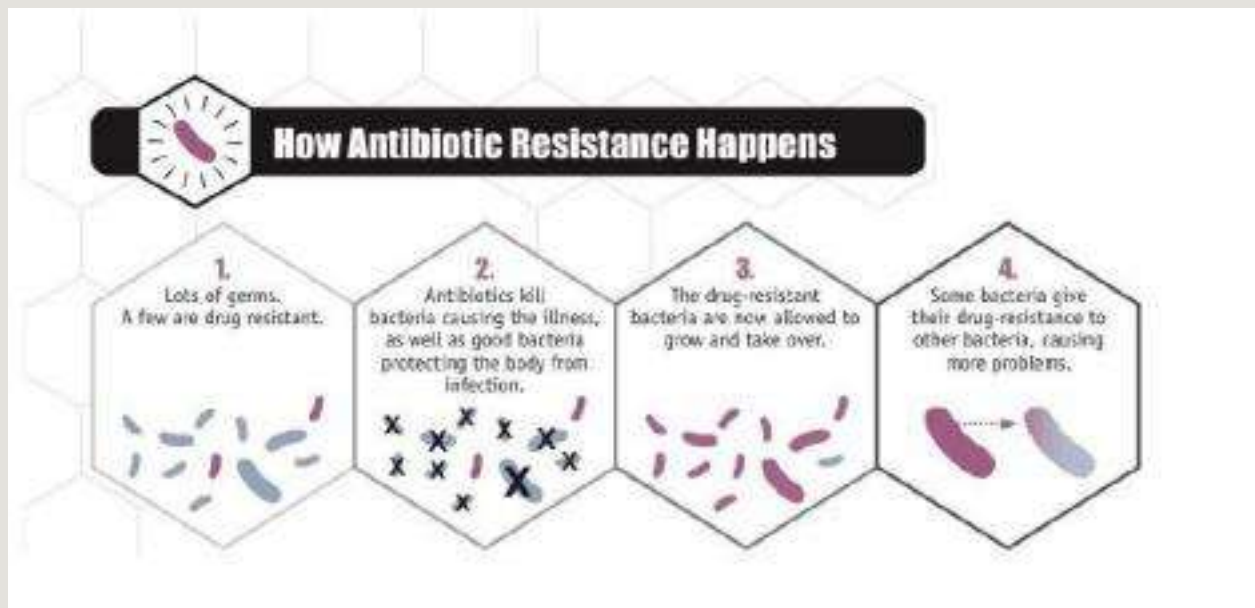
Resistance: This is when a bacterium is able to withstand an antibiotic drug. The drug will kill most of the bacteria in the colony, but the single bacterium that is unaffected by the drug will reproduce and create more identical bacteria that is also unaffected, or is resistant to the drug. Now the drug will not be useful in killing the bacteria and it can be called a superbug.

Now we'll come to the big question: how do bacteria become resistant to antibiotics? This ability of being resistant is generally known as *antimicrobial resistance* or AMR.

Below are the three ways through which AMR comes into the picture:

- Natural resistance in certain types of bacteria
- Genetic mutation
- Acquired resistance

When a person is prescribed a certain drug, they are always given a specific quantity and duration for the course of the medication. This is very important to follow strictly, because if the patient does not adhere to this, resistance is created in the bacteria. And once a bacteria acquires this ability, it becomes increasingly difficult to treat, as they may require alternative medications or higher doses, which is likely to be either more toxic or more expensive!



### Threats posed by superbugs

Superbugs have become increasingly dangerous, as aforementioned. This section covers why we need to solve the issue quickly, and the threats posed if we don't. The main issue that we face because of superbugs is the economic impact. Almost \$100 trillion will be spent on fighting superbugs by the year 2050. This money could be better spent in different areas, where it could be more useful. In committee, you will need to discuss the economic implications of superbugs, and how much money your country has been spending on this issue.

Apart from this, looking at the sheer number of people who have died due to an infection from a superbug would evidence the threat. It has a 5% mortality rate, which would mean 350 million people globally using today's population numbers. It is so dangerous because even simple infections caused by bacteria will be the cause of death. This scenario might resemble the days before penicillin was invented, and we will all be helpless because none of the antibiotics that we know to work will be effective on this.

## Antibiotic resistance

Antibiotic resistance is the ability of bacteria or other microbes to resist the effects of an antibiotic. Antibiotic resistance occurs when bacteria change in some way that reduces or eliminates the effectiveness of drugs, chemicals, or other agents designed to cure or prevent infections. The bacteria survive and continue to multiply causing more harm.

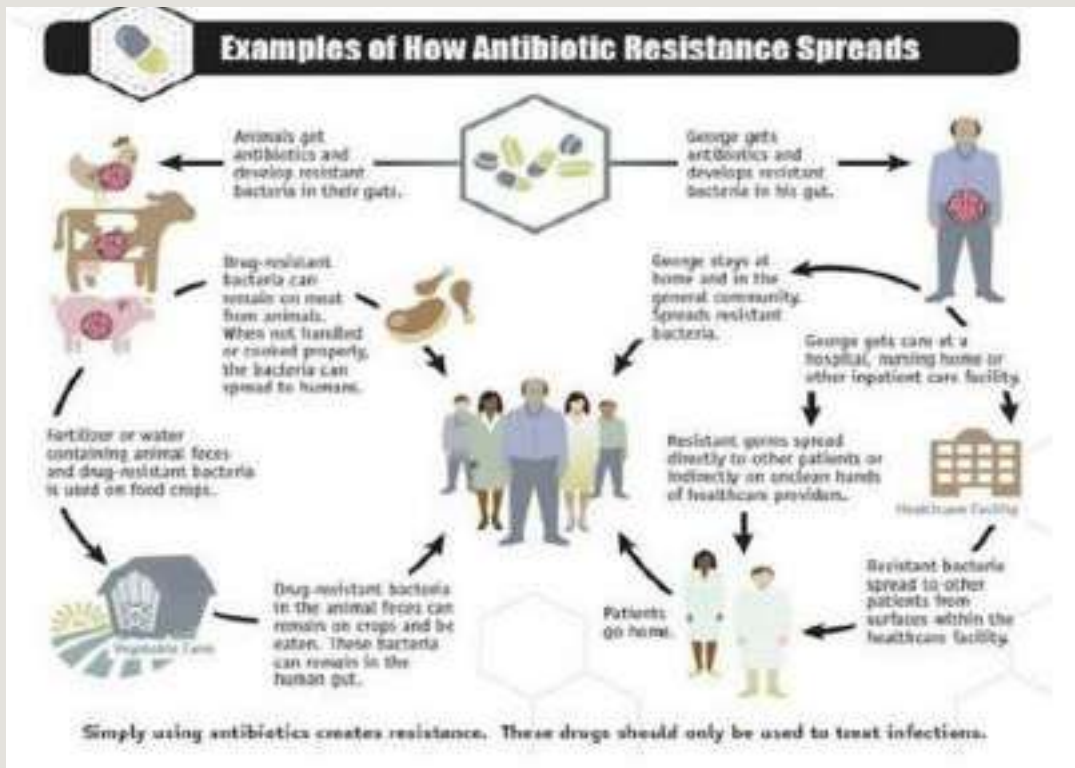
## Causes and Concerns

Antibiotic resistance has been called one of the world's most pressing public health problems. Almost every type of bacteria has become stronger and less responsive to antibiotic treatment when it is really needed. These antibiotic-resistant bacteria can quickly spread to family members, schoolmates, and co-workers - threatening the community with a new strain of infectious disease that is more difficult to cure and more expensive to treat. For this reason, antibiotic resistance is among CDC's top concerns. Antibiotic resistance can cause significant danger and suffering for children and adults who have common infections, once easily treatable with antibiotics. Microbes can develop resistance to specific medicines. A common misconception is that a person's body becomes resistant to specific drugs. However, it is microbes, not people, that become resistant to the drugs.



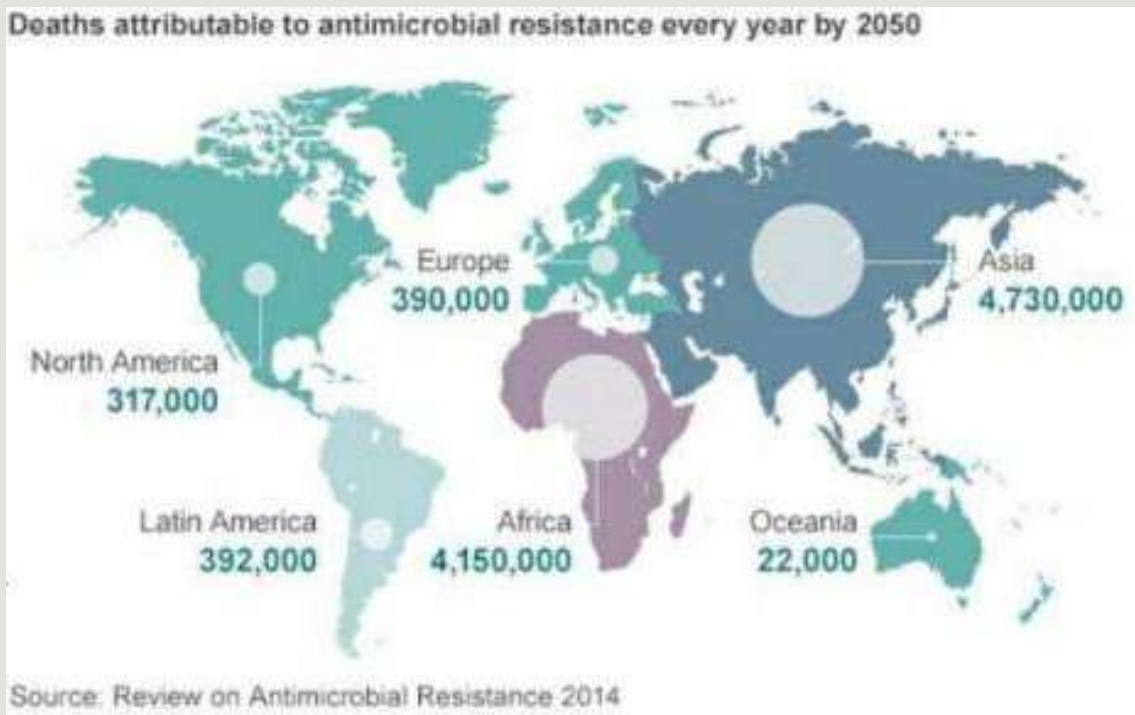


If a microbe is resistant to many drugs, treating the infections it causes can become difficult or even impossible. Someone with an infection that is resistant to a certain medicine can pass that resistant infection to another person. In this way, a hard-to-treat illness can be spread from person to person. In some cases, the illness can lead to serious disability or even death.



### Antimicrobial Resistance

Antimicrobial resistance occurs when microorganisms such as bacteria, viruses, fungi and parasites change in ways that render the medications used to cure the infections they cause ineffective. When the microorganisms become resistant to most antimicrobials they are often referred to as “superbugs”.



## **Causes and Concern**

Antimicrobial resistance occurs naturally over time, usually through genetic changes. However, the misuse and overuse of antimicrobials is accelerating this process. In many places, antibiotics are overused and misused in people and animals, and often given without professional oversight. Examples of misuse include when they are taken by people with viral infections like colds and flu, and when they are given as growth promoters in animals. Antimicrobial resistant-microbes are found in people, animals, food, and the environment (in water, soil and air). They can spread between people and animals, and from person to person. Poor infection control, inadequate sanitary conditions and inappropriate food-handling encourage the spread of antimicrobial resistance

## **Previous international action**

Doctors and the WHO are looking to find new antibiotics, but they are in short supply. The UK has promised a prize of \$1 billion for finding any new resistant strain of bacteria, and with China has pledged \$72 million to a fund supporting antibiotic research.

Most countries are beginning to realize this fact and are reducing their usage of antibiotics that they are administering to the patients. This lessens the chances of the further evolution of superbugs. Tracking the use of antibiotics is called *stewardship*. These programs use sophisticated software (and specially trained personnel) to track antibiotic use in intensive care units to ensure individual patients are prescribed appropriate antibiotics at the right time, take them for the exact duration needed or change prescriptions if required. In unmonitored hospital ICUs, correct use of antibiotics occurs in only half of cases. Under stewardship, that rate jumps to 80 per cent, according to Dr. Charles Frenette, medical director of infection prevention at McGill University Health Centre in Montreal. However, the main problem with stewardship is lack of funding for experts to improve the system.

To counter the built-in disincentives to antibiotic development, the U.S. passed the 2012 Generating Antibiotic Incentives Now (GAIN) Act to give promising new antibiotics priority review and make them more profitable by doubling their period of market exclusivity to 10 years. Five new antibiotics have been approved this way in the U.S. alone in the past 12 months, equalling the number in the previous decade. Regulatory changes that would make it easier and faster to recruit patients and move to the clinical trial stage have been cited as a critical in the fight against antibiotic-resistant bugs. To address this, the Europeans and Americans are working together to establish new regulations. The U.S. Congress is considering a bill, known as the Promise for Antibiotics and Therapeutics for Health (PATH) Act, which should streamline clinical trials for antibiotics that can treat superbugs. Health Canada told The Globe that, at this time, there's no need to change regulations "given that the science and guidelines to conduct trials evolve continually, and the current framework provides sufficient flexibility to accommodate changes in clinical trial design."



The WHO has also recommended the following:

- develop a comprehensive financed national plan
- strengthen surveillance and laboratory capacity
- regulate and promote the rational use of medicines
- enhance infection prevention and control
- foster innovation and research to develop new tools

The WHO also says that, although governments should take the lead in the fight against drug resistance, health professionals, civil society and patients themselves can also make important contributions, such as:

- doctors and pharmacists only prescribing and dispensing drugs that are required to treat a patient, rather than automatically giving the newest or best-known medicines
- patients not 'demanding' that doctors give them antibiotics when they may not be appropriate
- health professionals in healthcare facilities taking appropriate measures to reduce the spread of infection
- collaboration between human and animal health and agriculture professionals, due to the use of antibiotics in food animal production contributing to drug resistance
- governments and partners working closely with industry to encourage greater investment in research and development of new drugs and new diagnostic methods that can improve decision-making

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## Questions a resolution must answer

Q1. What steps is the United Nations required to take to alleviate the evolution of superbugs?

Q2. What is the role of a country's government for the same?

Q3. Discussing cost-efficient methods for LEDCs to combat superbugs

## Further reading

<http://www.who.int/en/>

<http://www.webmd.com/a-to-z-guides/news/20150417/superbugs-what-they-are> <https://newsinhealth.nih.gov/issue/feb2014/feature1>

Also, for first timers, we strongly recommend that you look at the following for help related to MUN procedure itself:

<http://bestdelegate.com/>

<http://bestdelegate.com/mun-made-easy-resolution-writing/>

<http://www.unausa.org/>

<http://bestdelegate.com/how-to-make-an-opening-speech/>

## Nature of Source/ Evidence

The Background guide is meant solely for research purpose and must not be cited as evidence to substantiate evidence statements made during the conference.

Evidence or proof for substantiating statements made during formal debate is acceptable from the following sources

### 1. United Nations and related U.N Bodies Reports:

Documents/Reports/Journals from United Nations and its various bodies will be accepted as credible proof during the formal business of the house.

Example:

United Nations: [www.un.org/en/](http://www.un.org/en/)

United Nations Development Program:

[www.undp.org](http://www.undp.org)

Economic and Social Council:

<http://www.un.org/en/ecosoc/>

## 2. News Sources:

**i. Reuters:** Any Reuter's article that clearly makes mention of the fact or is in contradiction of the fact being stated by a delegate in council.

**ii. State operated News Agencies:** These reports can be used in the support of or against the State that owns the News Agency. These reports, if credible or substantial enough, can be used in support of or against any country as such but in that situation, may be denied by any other country in the council.

Some examples are –

RIA Novosti<sup>8</sup> (Russian Federation),  
Islamic Republic News Agency<sup>9</sup> (Iran),

British Broadcasting Corporation<sup>10</sup> (United Kingdom),  
Xinhua News Agency<sup>11</sup> (People's Republic of China), etc.

Reuters Website- <http://www.reuters.com/>

RIA Novosti Website- <http://en.ria.ru/>

Islamic Republic News Agency (IRNA) Website <http://www.irna.ir/en/>

British Broadcasting Corporation (BBC News) Website <http://www.bbc.com/>

Xinhua News Agency Website- <http://www.xinhuanet.com/english/>

## 3. Government Reports:

These reports can be used in a similar way as the State Operated News Agencies reports and can, in all circumstances, be denied by another country. However, a nuance is that a report that is being denied by a certain country can still be accepted by the Executive Board as a credible piece of information.

Examples are Government Websites like:

State Departments: Ministry of Defense of the Russian Federation,  
Ministry of External Affairs of the Republic of India, Ministry of  
Foreign Affairs of the French Republic, etc.

Examples:

Ministry of Defense (Russian Federation) - <http://eng.mil.ru/>

Ministry of External Affairs (Republic of India)-  
<http://www.mea.gov.in/>

Ministry of Foreign Affairs (French Republic)-  
<http://www.diplomatie.gouv.fr/en/>

**ii. Permanent Representatives:** Reports of the Permanent Representatives of nations to multilateral organizations. For instance- Delegates may access the following link and click on a country's name to get the website of the Office of its Permanent Representative to the United Nations

<http://www.un.org/en/members/>

## 4. Multilateral Organizations

Documents from international organizations like the United Nations (UNO), North Atlantic Treaty Organization (NATO), Association of South East Asian Nations (ASEAN), etc. Documentation from Treaty based bodies like the Antarctic Treaty System, or the International Criminal Court may also be presented.