



First session

Agenda item
20 March 2021

**Synopsis for Antimicrobial Resistance in
Developing Countries**

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Note by the Secretary-General

The Secretary-General has the honour to transmit to the members of the World Health Organization the topic synopsis entitled “Antimicrobial Resistance in Developing Countries” (WHO/SYN/IIA/02.3).



Antimicrobial Resistance in Developing Countries

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Section I—Introduction

The World Health Organization (WHO), was founded on April 7, 1948, and headquartered in Geneva, Switzerland. Its primary concern is to monitor and respond to any health crises occurring around the globe, in addition to researching better methods to deal with common health concerns. The WHO website outlines its 6 main areas of focus as health systems, promoting health through the life-course, non-communicable diseases, communicable diseases, corporate services, and preparedness, surveillance and response.

Section II—Topic Background

Antimicrobial resistance, also known as AMR, is the ability of a microorganism to stop an antimicrobial from working effectively. A microorganism can be bacteria, viruses, or parasites. An antimicrobial, for example an antibiotic, inhibits the growth of these microorganisms. When antimicrobial resistance occurs, the microbe continues to thrive and multiply, leading to negative effects for its host because it ignores the antimicrobial, changing in response to the medicine. The ability of the microbe to resist the medication results in an ineffective treatment that can further spread the infection to others. For developing countries, this proves a hazard especially since antimicrobials are a rarity and a scarce resource since there are cost constraints. The effects of the resistance often result in death since infectious diseases lead to mortality and morbidity. Developing countries are at risk of an increase in infections. Nearly 9.2 million deaths are caused by infectious and parasitic disease and 98% of deaths in children occur in developing nations. To counter the effects of these health burdens, adequate research needs to be put in place to consider the problem of antimicrobial resistance and evaluate possible solutions. In May 2015, the World Health Organization adopted a global action plan on antimicrobial resistance. The action plan includes an open-access database that includes a country self-assessment questionnaire. The results from this program were used for analysis. The survey is established yearly for committees like WHO to evaluate the current situation of these developing countries. The global action plan began to be set in place in 2017 by numerous nations. The plan aspired to continue successful treatments and prevent infectious diseases with safe and effective medicines that are used in an appropriate manner, accessible to those who need them. There were also established guidelines on antimicrobials used in food-producing animals to limit the risks of an infection spreading into the human population. Another group, the Interagency Coordination Group (IACG) convened in 2016 to discuss antimicrobial resistance from the Secretary-General of the United Nations after a UN High-Level Meeting on this topic. The IACG brought together individuals and organizations across the UN, to discuss plant, animal, and human health in order to develop new standards to fight antimicrobial resistance. As of today, the fight against antimicrobial resistance continues to be a threat as new strains of bacteria and viruses are found to be more resistant towards antimicrobials. Even with increasing technology, the potential for a disease to spread without control can prove detrimental to developing nations struggling to provide adequate healthcare.

Section III—Possible Solutions

One possible solution to the issue of antimicrobial resistance includes establishing better regulations in order to prevent misuse or overuse of antimicrobials as most antimicrobials can be purchased without regulation or prescription. Another way is to improve the pharmaceutical system in the developing countries; reasons why people are turning to unlicensed vendors are for the shorter waiting times, the lack of consultation fees, and because unlicensed vendors are willing to negotiate prices. Training healthcare professionals more thoroughly about antimicrobials is important, as from country to country the dose, timing, and necessity of these antimicrobials varies. This will have a large impact on the effectiveness of the antimicrobials. Another consideration includes banning the use of antimicrobials in agriculture as farmers often spray them on plants and animals, spawning much more resistant bacteria. Doctors also struggle with up to date AMR patterns in their populations. The way to solve this is to send an international group of census workers to give the needed up to date patterns of AMR.

Section IV—Bloc Positions

African Bloc: Many areas in these countries do not require a prescription in order to access these medications. The quality of these tends to decrease due to the lack of good storage. A handful of countries in Africa have dealt with this by being involved with the Global Antibiotic Resistance Partnership (GARP), which sets guidelines for planning antibiotic resistance schemes.

Asian Bloc: Underdeveloped countries with unenforced or absent environmental regulations tend to have a higher incidence of AMR. The environmental conditions of the area cause many respiratory problems to occur and so in order to treat these problems people are given antibiotics for the wrong case. The Association of Southeast Asian Nations (ASEAN) has created a group called the “One Health” in order to combat the AMR.

Latin American Bloc: Multiple viruses are withstanding the drugs. Most of the diseases in Latin America come from hospital ambiance and the surrounding community. A project called FARMS-SAFE has been implemented in order to survey the areas that are mostly affected.

Middle Eastern Bloc: Many Middle-Eastern countries have seen high rises in the number of patients that are resisting drugs being given in. The main reason for this is because of uncontrolled amounts of medication and unsanitary conditions. MSF (Doctors Without Borders) has done many things in order to reduce the percentage of resistance.

Western Bloc: Most countries in the Western Bloc are more developed countries and have the resources to counteract disease outbreak. Still, the overprescription and overuse of medicines is concerning. In addition, the frequency of travel to and from other parts of the globe leaves these countries vulnerable.

Section V—Questions That Should Be Taken Into Consideration

What are your country's policies on the use of antimicrobials and how does it affect the healthcare of your country?

How will your country compete with the prices of unregistered vendors?

How will your nation attack the issue of regulation of these antimicrobials on agriculture and medicine?

What are some major groups/organizations that have helped to dilute the situation in your country?

What is a way that your nation can establish regulations that can be effective while not violating sovereignty?

Section VI—Helpful Sites and Resources

Database—World Health Organization—Antimicrobial Resistance (use menu at right)

bit.ly/39Yymf0 (Shortened URL from www.who.int)

Publication Database—World Health Organization—Antimicrobial Resistance (use menu at bottom)

bit.ly/32oDJSj (Shortened URL from www.who.int)

Article—Antimicrobial Resistance & Infection Control—The Threat of Antimicrobial Resistance in Developing Countries

bit.ly/2vbfDYl (Shortened URL from biomedcentral.com)

Potential Search Terms— Antimicrobial resistance, AMR, microbes, infectious diseases in developing countries, microorganisms, [country's] healthcare policies, resistant bacteria, [country's] antimicrobial resistance