



# Working Together to Fight Antimicrobial Resistance



Funded by  
the European Union



Food and Agriculture  
Organization of the  
United Nations



World Organisation  
for Animal Health  
Founded as OIE



Addressing antimicrobial resistance in human health, the environment, and animal and agricultural production is an urgent priority.

# What is antimicrobial resistance?

**Inappropriate, excessive use of antimicrobials is a threat to global health.**

Antimicrobial resistance (AMR) is a naturally occurring genetic modification of microorganisms (such as bacteria, viruses, parasites, and fungi) that makes them increasingly resistant to antimicrobial drugs (antibiotics, antifungals, and antiparasitics, among others). Although this is a natural process, the inappropriate, excessive use of antimicrobials accelerates its pace and intensity, so that today AMR has become a threat to global health.

Antimicrobial-resistant microorganisms are found in people, animals, food, and the environment (in water, air, and soil) and are transmitted from one to another.

Poor infection control, inadequate sanitary conditions, and improper handling of food foster the spread of antimicrobial-resistant microorganisms.

## Why is antimicrobial resistance a global threat?

AMR poses a growing threat to global health, as infectious diseases are becoming increasingly difficult to cure, making treatment longer and more expensive. There are many examples of inappropriate use of antibiotics in everyday life, including those used to treat viral infections (such as a cold or a flu) in people, and those used in animal production to promote growth or prevent disease in healthy animals.

AMR requires a global response, because it is jeopardizing the potential attainment of the Sustainable Development Goals (SDGs). Some common and potentially life-threatening infections (such as pneumonia and postoperative infections, as well as HIV, tuberculosis, and malaria) are becoming increasingly difficult to treat due to antimicrobial resistance. If not controlled, this could have significant social, economic and health security consequences that could affect countries' development.



***50% of antibiotics are prescribed, distributed, or sold inappropriately.***



***Antibiotics can be purchased without a prescription in 80% of the countries of the Americas.***

## A threat that requires teamwork

Preventing and fighting AMR is a responsibility shared by the sectors that deal with human health, animal health, and the environment, requiring a multisectoral, global, coordinated response.

In 2010, the Food and Agriculture Organization of the United Nations (FAO), the World Organization for Animal Health (WOAH) and the Pan American Health Organization (PAHO) made a firm commitment to fight AMR and have been working together ever since to mitigate risks to human health, animal health, and the environment. The European Union (EU) also joined this commitment and has been implementing action plans to fight AMR since 2011.



*Due to poor monitoring and limited data collection in many countries, estimates of antimicrobial consumption in global agriculture range from 63,000 to 240,000 tons per year.<sup>1</sup>*



*Only 6 of the world's top 50 pharmaceutical companies produce antimicrobials.*

# One mission: Working together to fight antimicrobial resistance

## Relationships with the main actors in the global fight against AMR

PAHO, FAO, the WOAH and the EU have teamed up to implement the project “Working together to fight antimicrobial resistance” under the One Health approach.

Under this four-year initiative (2020–2023), seven countries—[Argentina](#), [Brasil](#), [Chile](#), [Colombia](#), [Paraguay](#), [Perú](#) y [Uruguay](#) — will receive support for implementation of their national action plans to fight antimicrobial resistance.

The national action plans of the participating countries are in different stages of implementation. The process calls for a multisectoral situation analysis on AMR in order to identify gaps, opportunities, and next steps to strengthen implementation, in accordance with each country’s specific objectives under the One Health approach.

The initiative will make it possible to establish relationships with the main actors fighting this threat at the global level; share experiences; advocate for the adoption of best practices in the use of antimicrobials in human health, animal health, and the agro-industry; and promote collaborative actions, including access to knowledge on best practices in the European Union.

One major challenge for this project is to develop effective risk communication for awareness-raising, health promotion, and training aimed at generating knowledge about AMR to different audiences. To this end, a network of communicators on AMR is being established, composed of journalists, officials from Ministries of Health, Agriculture and Livestock and representatives of PAHO, FAO, the WOAH, and the EU.



# Objective

Contribute to the fight against antimicrobial resistance under the One Health approach.

## Project components

### Action plans



Support countries in the implementation of national action plans against AMR

### Surveillance



Strengthening surveillance of AMR in people and animals

### Collaboration



Establishment of public-private partnerships to promote the responsible, prudent use of antimicrobials and strengthening AMR-related legislation

### Investigation



Strengthening research and innovation on AMR, as well as alternatives to antibiotic use

## Main activities

- Technical assistance and professional training for the implementation, monitoring, and evaluation of national action plans
- Training and education in disease prevention and control
- Support for creating dissemination, awareness-raising, and promotion processes to contain AMR
- Exchange of good practices and experiences in implementing national action plans and good practices among participating countries
- Training and education for strengthening AMR surveillance in human health, animal health, and food safety
- Training and education in integrated AMR surveillance
- Training and education to increase surveillance of the use of antimicrobials
- Public-private partnerships to promote the responsible, prudent use of antimicrobials
- Training and education to promote the responsible, prudent use of antimicrobials and good health and agricultural practices in the private sector
- Identification of strategic guidelines for promoting good health and agricultural practices
- Training and education to strengthen legislation related to AMR in the agri-food sector
- Provision of a means of detecting veterinary medicines not registered with the ministries of agriculture
- Promotion of research and innovation in One Health and international collaboration between Latin America and the European Union

## Impact

The countries implement strengthened national action plans

The countries have robust processes for collecting and analyzing data on AMR to evaluate policies and interventions to combat AMR

The countries have strategic public-private partnerships with the agri-food industry and have strengthened national legislation related to AMR

The countries have a regional and international research network on AMR



# Engagement with other actors

Collaboration with key actors in partner countries is a core aspect of the project. Many of them have intersectoral coordination mechanisms in place in which One Health sectors and actors are represented at the national level.



National authorities and technical teams from ministries and national institutes of health



Public policy and decision-makers



National authorities responsible for regulating medicines and health technologies



Journalists and opinion leaders



Universities and faculties of medicine, veterinary medicine, pharmacy, and nursing



Professional associations of doctors, nurses, pharmacists, veterinarians, and livestock breeders



European Union delegations in the project's target countries



Pharmaceutical industry and companies selling and distributing antimicrobials



Consumers, patient associations, and other civil society groups



General population



Public veterinary services and private veterinarians



Rural farmers



Associations of farmers and the animal feed industry



National authorities and technical teams from ministries of agriculture and livestock



National authorities and technical teams from ministries of the environment





### **30 countries in the Region of the Americas have completed or are developing national AMR action plans.**

Global Database for Antimicrobial Resistance Country Self Assessment. <https://amrcountryprogress.org/>



## **Fighting antimicrobial resistance in human health**

This is a joint effort with ministries of health, national authorities responsible for regulating medicines, medical students, universities, and civil society organizations. The aim is to strengthen infection prevention and control at the hospital level, support the development of lists of essential medicines and treatment guidelines, foster laboratory and surveillance networks, promote research and access to knowledge, and raise awareness among different sectors and population groups on the appropriate use of antibiotics in order to encourage such practices.

## **Prevention of antimicrobial resistance in animal health and food safety**

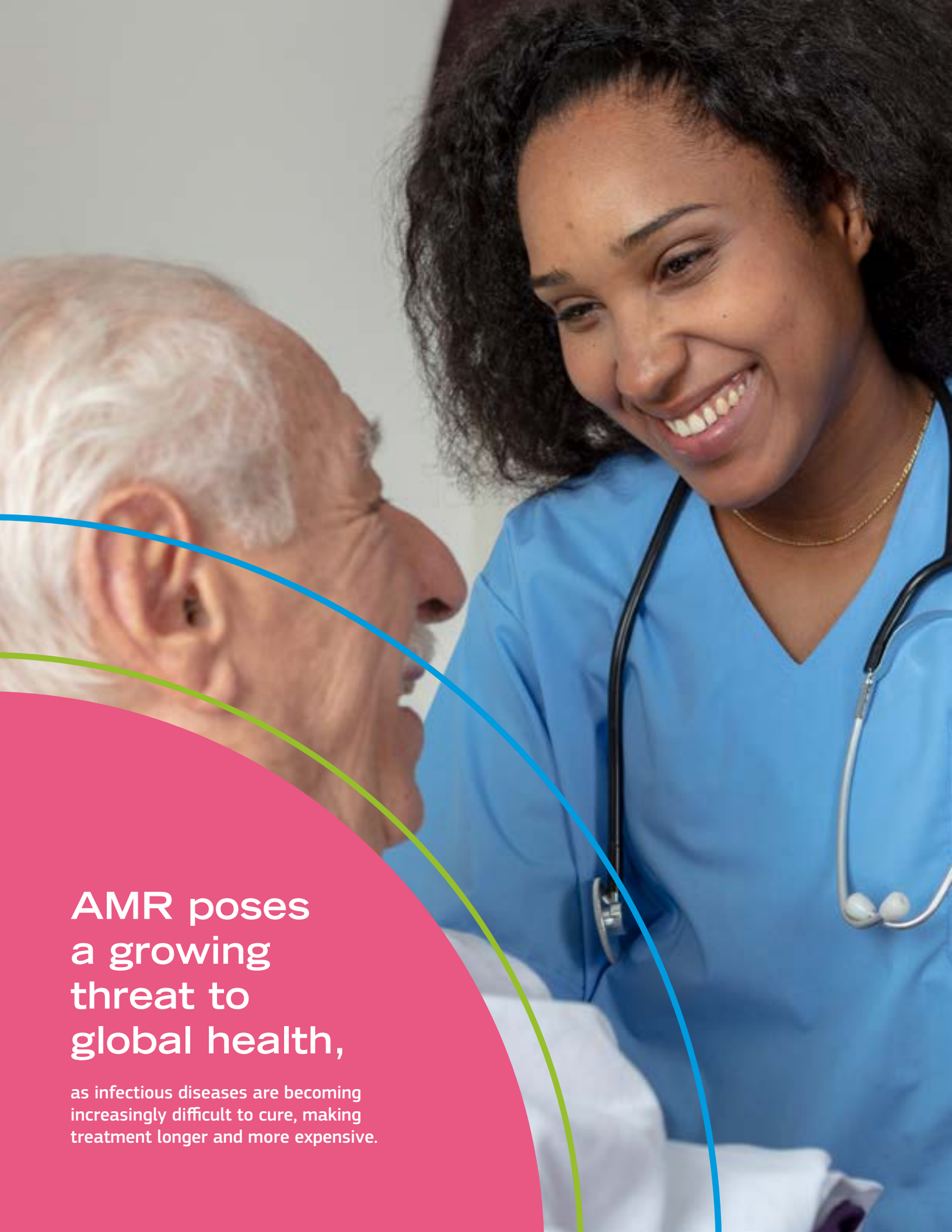
This is a joint effort with ministries of livestock, agriculture, fisheries and aquaculture, environment, and related institutions; veterinary doctors, medical and veterinary students, and students in other academic centers; primary producers of food of animal origin, manufacturers of animal feed, and representatives of the food processing industry, among others. By consolidating policy, legislative, institutional, and health strategy frameworks, the aim is to strengthen AMR governance in the countries from the food production sector, improve surveillance, and increase the capacity of national reference laboratories, following the WOH international standards. It also seeks to forge public-private partnerships for technical assistance and a commitment to the responsible, prudent use of antimicrobials, the strengthening of national AMR-related legislation, and support for technological innovation and good practices in health management and animal welfare.

## **One Health**

*This concept is based on the notion that human health and animal health are interdependent and are linked to the health of the ecosystems in which they coexist.*

*The One Health approach is particularly relevant for food safety, zoonosis control, and antimicrobial resistance.*

*PAHO, FAO, the WOH, and the EU support and apply this concept as a global collaborative approach to understanding risks to human and animal health and the health of ecosystems as a whole.*



# AMR poses a growing threat to global health,

as infectious diseases are becoming increasingly difficult to cure, making treatment longer and more expensive.



# About us

- PAHO provides technical support and leadership to Member States to fight AMR and implement national action plans in accordance with the One Health approach. It promotes the exchange of experiences and advocates for the adoption of best practices and collaborative actions among countries.
- FAO supports governments and food producers in its Member States so that they can take steps to minimize the use of antimicrobials and reduce antimicrobial resistance, considering the needs of the food and agriculture sectors. As a multidisciplinary organization, FAO promotes AMR containment along the agri-food chain, following the One Health approach.
- The WOAH develops global standards and promotes the responsible, prudent use of antimicrobials, animal welfare, and good production practices for terrestrial and aquatic animals to preserve therapeutic efficacy and prolong the use of antimicrobials, both in animals and humans. It also promotes public/private-sector integration.
- The European Union brings its experience and expertise in AMR to this project, through the Directorate-General for Health and Food Safety, the Directorate-General for Research and Innovation, and the following agencies: European Centre for Disease Prevention and Control (ECDC), European Food Safety Authority (EFSA) and European Medicines Agency (EMA).

## Contact information

### Project website:

<https://www.paho.org/en/together-fight-antimicrobial-resistance>

PAHO: Pilar Ramón-Pardo: [ramonpap@paho.org](mailto:ramonpap@paho.org)

FAO: Marisa Caipo: [Marisa.Caipo@fao.org](mailto:Marisa.Caipo@fao.org)

WOAH: Luis Barcos: [l.barcos@woah.org](mailto:l.barcos@woah.org)

UE: Zahra Piñero Lozano: [zahra.pinero-lozano@eeas.europa.eu](mailto:zahra.pinero-lozano@eeas.europa.eu)



**700 000 personas mueren cada año a causa de la RAM.**

*Jim O'Neill. Review on Antimicrobial Resistance. Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations. 2014*  
<https://amr-review.org/Publications.html>

## **Antimicrobial resistance and COVID-19**

*The project will also support countries' efforts to reduce the effects of the SARS-CoV-2 virus, which causes coronavirus disease (COVID-19).*

*AMR could increase COVID-19-related deaths, as some patients may develop secondary bacterial infections during hospitalization.*

*At the same time, the COVID-19 pandemic threatens to further weaken the efficacy of antimicrobials, since increased use can lead to more treatment-resistant bacterial infections.*

*The challenge posed by infections from antimicrobial-resistant microorganisms could become a huge additional burden on all health systems, which are already overburdened by the COVID-19 response.*

WORKING  
TOGETHER  
TO FIGHT  
ANTIMICROBIAL  
RESISTANCE

<https://www.paho.org/en/together-fight-antimicrobial-resistance>