The European food production sector contributes to antimicrobial resistance (AMR) - a serious global health threat and a growing challenge for healthcare systems. Overuse and misuse of antibiotics in farming is associated with growing resistant bacteria that can spread to humans and requires a holistic approach.

Healthcare institutions across Europe serve a large number of meals to patients, visitors, and staff every day. Through sustainable procurement, healthcare procurers can encourage food producers to transition to sustainable food systems that respect animal welfare and do not rely on antibiotic use.

This workshop established a dialogue between procurers, food producers, consumers, health professionals, and scientists to promote solutions that help curb antimicrobial overuse and misuse in European food production.

This workshop was organised in the framework of HCWH Europe’s Healthcare Market Transformation Network. The overarching goal of this network is to leverage the healthcare sector’s purchasing power to drive policies and markets towards ethically produced, non-toxic, and sustainable products and services. We support healthcare organisations to make responsible purchasing decisions and move towards value-based procurement, reducing the overall cost of care whilst guaranteeing both human and environmental health and social justice throughout the supply chain.
SPEAKERS

ARIANNA GAMBA
Circular Healthcare Programme Manager - Health Care Without Harm Europe

Arianna leads the Circular Healthcare programme at HCWH Europe, with the goal of ensuring that European health systems drive markets towards toxic-free products that conserve finite resources, minimise waste, and contribute to an ethical supply chain and circular economy. She manages a portfolio of projects and oversees implementation of our EU advocacy strategy related to strategic public procurement, circular economy, and sustainable supply chains. After obtaining her Bachelor’s degree in International Relations, Arianna specialised in health with a European MSc in Health Economics and Management, where she wrote her thesis on Antimicrobial Resistance. She has international experience in the non-profit, intergovernmental, and business sectors in the areas of cooperation and development, international affairs, healthcare, and sustainability.

JEROEN DEWULF
Head of the department of Internal medicine, reproduction, and population medicine - Faculty of Veterinary Medicine of the University of Ghent

Jeroen serves as head of the department of Internal medicine, reproduction, and population medicine and leads the Veterinary Epidemiology Unit of the University of Ghent. Since 2009, he has been a member of the scientific committee of the Belgian Federal Agency for the Safety of the Food Chain (FASFC) and is the founder and chair of the Knowledge centre on antibiotic use and resistance in animals in Belgium (AMCRA). In addition, he is an entrepreneur and author.
ERIK RUIZ
Safer Pharma Project Officer - Health Care Without Harm
Europe

Erik has experience in organisations working in the field of public health and development cooperation in the EU. He holds a Masters in Political Science from the Universite Libre de Bruxelles, and undertook a Postgraduate programme in European Political Economy and Innovation from the London School of Economics and Political Science. At HCWH Europe he works towards raising awareness amongst European healthcare professionals about antimicrobials used in food production and their effect on the development of antimicrobial resistance.

SARAH WALPOLE
Infectious diseases and general medicine specialist trainee doctor - Newcastle upon Tyne Hospitals NHS Foundation Trust

Sarah is an infectious diseases and general medicine specialist trainee doctor based in North East England. She champions planetary health with the Association of Medical Education in Europe (AMEE). She has previously worked as Medical Activities Manager for Medecins Sans Frontieres in DRC, as Lead Postgraduate Faculty for Doctors Worldwide in Bangladesh, and as MedGlobal telemedicine volunteer supporting Bangladeshi doctors remotely. She was previously the National Medical Director’s Clinical Leadership Fellow at the National Institute of Health and Clinical Excellence.

GONZALO PALOMO GUIJARRO
Secretary of the Spanish Society of Organic Farming (SEAE)

Gonzalo is a principal advisor, trainer, and researcher of ACTYVA - a multi stakeholder cooperative in the South West of Spain. His expertise includes organic husbandry, antibiotic resistance, animal health, and agroforestry. In addition to research, he also practises organic farming, is the secretary of the Spanish Society of Organic Farming (SEAE), and he is president of Extremadura Sana, an association of regional organic farmers and advisors.
DENNIS LARS OLOF STEFFENSEN
Procurement and data analyst - City of Copenhagen

Dennis works as a procurement and data analyst at the City of Copenhagen. He works on food procurement with a focus on Sustainable Development Goals (UN SDGs).

PROF. EDDA WEIMAN
Medical Director - Children's hospital for chronic diseases (Bavaria)

Edda is a paediatrician, endocrinologist, and public health specialist with international work experience. She serves as a Medical Director of a children’s hospital for chronic diseases in Bavaria, and as a Professor of Child Health at the Technical University of Munich and Honorary Associate Professor of Health Information Systems at the University of Cape Town. She is an award-winning researcher covering various topics, including child health, environmental health, climate change and health, and hospital management.
WHY WE MUST TAKE ACTION TO PREVENT ANTIMICROBIAL RESISTANCE: A DOCTOR’S PERSPECTIVE

Doctors use antimicrobials daily to treat patients’ infections, alleviate symptoms, and improve quality of life. Sarah Walpole presented her perspective as a doctor on how to reduce the risk of AMR.

Sarah describes the AMR crisis as an iceberg, where we can only see the tip of it. There are many impacts that we are still not able to quantify. The lack of specific One Health training on the different disciplines tackling AMR means that collaboration between professionals from different disciplines is vital. Doctors need to address the interaction between the environment and human health and deliver healthcare in a way that does not harm the environment.

The climate crisis is a good example of this interaction. Climate change is increasing the spread of infectious diseases, and at the same time, 20% of carbon emissions of the UK’s healthcare sector come from medicines and chemicals. Strategies that help to reduce overprescription can have an impact both on carbon emissions and the mitigation of AMR according to Walpole.
Antimicrobials are essential tools in healthcare, especially for people who are already compromised and have recurrent infections, e.g. newborn children, the elderly, or people with rare diseases, or undergoing cancer treatment. Resistant bacteria have a higher impact in the global south, the burden of AMR will be particularly felt in countries that have less resources to treat patients and poor strategies for monitoring the infections or infrastructural gaps.

The development of new antibiotics has slowed significantly over the past two decades, partially because the return on investment is considered too low. There is limited incentive for developing new antibiotics and companies focus on developing medicines that have a higher return on investment, such as oncology products. Existing antimicrobials become ineffective due to drug-resistant microbes and no new antimicrobials are being developed to replace them.

These challenges require a creative approach and healthcare professionals have an important role to play: a multidisciplinary strategy is now essential.
Jeroen Dewulf focused on how antibiotics are used in food producing animals and their impact on AMR in humans.

Antimicrobials are used in animals across the world in a variety of forms. This has an impact on the development of drug-resistant bacteria in humans. There is a clear correlation between the use of antibiotics and the presence of resistant bacteria. Jeroen suggests that the more antibiotics are used, the more resistant bacteria we can find. Antibiotic resistant bacteria can be transferred to humans through different routes, including direct contact with animals and through the environment. Resistant bacteria enter the environment through the organic waste that animals produce.

According to the ESVAC report, there is a huge variation in the use of antibiotics in food production in Europe. Scandinavian countries have an exceptionally low use of antimicrobials, whereas southern and eastern European countries tend to have higher use. The reduction of the use of antimicrobials in animals has been successful in the last 10 years, with a reduction of around 30% in the use of antimicrobials.
There are peaks in antibiotic use during critical life-cycle moments, i.e. birth, weaning, and fattening. The systematic use of antimicrobials for preventative reasons is the main unnecessary use of antimicrobials in farming that must be reduced.

According to professor Dewulf, the future looks hopeful. Resistance is not a continuously growing trend anymore, and we are now in a slow downward trend. This highlights how crucial the work of farmers and veterinarians is in preventing AMR.
CRITERIA TO ENSURE RESPONSIBLE ANTIMICROBIAL USE IN FOOD PRODUCTION

Erik Ruiz presented new procurement criteria for food produced with responsible antimicrobial use created by a multidisciplinary working group of procurement experts, veterinary medicine experts, medical doctors, sustainability managers, and catering managers. The main goal of these criteria is to reduce antimicrobials in farming, which accounts for an estimated 73% of total antimicrobial use worldwide.

These criteria are unique as they have a strong focus on the needs of European hospitals and specifically target farming practices that rely on antibiotics that are crucial for healthcare systems, such as colistin. The criteria have been divided into two main categories:

1. Rationalise the use of antibiotics
2. Improve animal welfare practices that lead to increased antibiotic use

The full set criteria can be found on the HCWH Europe website. Examples include:

- Group treatment of species that can be treated individually should not be standard practice.
- Highest-priority critically important antimicrobials (defined by the WHO) should only be used individually and when no other treatments are effective.
- Only animals requiring treatment should have access to medicated feed and water.
- Animals should not be subject to mutilation, e.g. tail docking or debeaking.

The criteria can be adapted to the particular needs of individual healthcare institutions and should not be used to punish certain producers, but to improve their farming practices. The questionnaire should be filled by a veterinarian and procurers should be flexible in its implementation helping producers to adapt their farms in reasonable time.

FULL PRESENTATION
The second session involved a roundtable discussion on how to engage food producers in prudent antimicrobial use and the role of hospitals and procurers. The following is a summary of the main takeaway messages from this discussion:

- Overall, there has been a significant reduction in the use of antibiotics in farming in the last 10 years. Changes introduced by the Veterinary Medicinal Products Regulation, applicable from 28 January 2022 will have an important impact on the use of antibiotics in food producing animals. Although veterinarians and producers have done excellent work in the last years to reduce the use of antibiotics, there is still an excessive use of antibiotics in the life cycle of animals, e.g. birth and weaning, that could be further reduced.

- New procurement initiatives to reduce the need for antibiotics must take into account the needs and capacities of producers. Initiatives such as criteria to reduce the need for antibiotics are welcomed but they should be flexible, proportionate, and used to help producers understand their important role in mitigating the risk of AMR.

- Intensive farming systems generally use more antibiotics than organic farming, but this isn’t always the case and does not need to be. Identifying and tracking intensive farms that rely on antibiotic use would be the most effective approach to target antimicrobial overuse and misuse in farming.

- Hospital procurement teams are challenged to prioritise costs over the sustainability of meals. According to the estimations of the experts present in the roundtable, procurement services of European healthcare have an approximate budget of €3.5 per meal per person. Reducing meat quantities and serving better quality meat will help to reduce antibiotic use, promote better animal welfare, and also improve the healthy nutrition of hospital meals. The reduced meat portions should be supplemented with plant-based alternatives, improving health outcomes and making menus more affordable.
• There is a pressing need to improve the nutritional quality of meals in hospitals and to adhere to patient-specific dietary requirements. Especially because patients have stricter dietary needs and restrictions based on their health condition or underlying medical issues. To make hospital meals more transparent is needed as well as incentives to make healthier meals more financially viable for hospitals.

• Food supply chains, and as a consequence budgets, have been greatly affected by the war in Ukraine. Procurers now face the challenge of having to build the same number of meals with a reduced budget. This is leading to reduced food quality and the issue of antibiotic use is relegated as affordability becomes a leading priority.

• In light of the ongoing revision of the animal welfare legislation the workshop participants discussed animal welfare labels. Existing labels do not cover all the necessary animal welfare criteria to ensure responsible use of antibiotics. The development of more specific labels would help procurers implement animal welfare criteria.
Health Care Without Harm (HCWH) Europe is the European arm of a global not-for-profit NGO whose mission is to transform healthcare worldwide so that it reduces its environmental footprint, becomes a community anchor for sustainability and a leader in the global movement for environmental health and justice. HCWH’s vision is that healthcare mobilises its ethical, economical, and political influence to create an ecologically sustainable, equitable, and healthy world.