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Critical Public Health

ISSN: 0958-1596 (Print) 1469-3682 (Online) Journal homepage: https://www.tandfonline.com/loi/ccph20

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To cite this article: A. Kamenshchikova, P. F .G. Wolffs, C. J. P. A. Hoebe & K. Horstman (2019): Anthropocentric framings of One Health: an analysis of international antimicrobial resistance policy documents, Critical Public Health, DOI: 10.1080/09581596.2019.1684442

To link to this article: https://doi.org/10.1080/09581596.2019.1684442

Published online: 30 Oct 2019.

CRITICAL PUBLIC HEALTH
https://doi.org/10.1080/09581596.2019.1684442

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RESEARCH PAPER

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Anthropocentric framings of One Health: an analysis of international antimicrobial resistance policy documents

A. Kamenshchikova[a,b], P. F .G. Wolffs[c], C. J. P. A. Hoebe[c,d] and K. Horstman[a]

[a]Department of Health, Ethics and Society, School of Public Health and Primary Care (CAPHRI), Maastricht University, Maastricht, The Netherlands; [b]Research Centre for Policy Analysis and Studies of Technologies (PAST-Centre), National Research Tomsk State University, Tomsk, Russian Federation; [c]Department of Medical Microbiology, School of Public Health and Primary Care (CAPHRI), Maastricht University Medical Center (MUMC+), Maastricht, The Netherlands; [d]Department of Sexual Health, Infectious Diseases and Environmental Health, South Limburg Public Health Service (GGD South Limburg), Heerlen, The Netherlands

ABSTRACT

One Health (OH) is an increasingly popular approach for addressing antimicrobial resistance (AMR) which is often presented as a shared health concern at the interface of human-animal-environment relations. OH is widely adopted as a framework for collaboration between organisations like the World Health Organisation and the World Organisation for Animal Health; furthermore it occupies a central position in international AMR policy documents. Scholars like Craddock and Hinchliffe have raised questions about whether a unified OH understanding of health allows us to comprehend the diversity of practices and knowledge involved in interdisciplinary and interorganisational collaborations. In this article, we aim to explore how the OH idea as a shared health concern is conceptualised in international responses to AMR. Therefore, we conducted a constructivist policy analysis of two types of international policy documents – 11 documents dedicated to AMR and a OH approach to it, and 12 documents with a focus on more general health issues that AMR regulations are built upon. The analysis of this policy arena makes clear that both sets of documents put human health at the centre, while the animal and environmental sectors are primarily framed as a risk for human health. Although human health is, more or less explicitly, considered to be the main problem, the animal and environmental health sectors are assigned responsibility for addressing this problem.

ARTICLE HISTORY
Received 28 August 2018
Accepted 20 October 2019

KEYWORDS
Antimicrobial resistance; One Health; policy analysis; anthropocentrism; post-humanism

Introduction

Within three decades after the introduction of penicillin, antibiotics have occupied an essential role not only in human medicine, but also in the veterinary and agricultural sectors. The history of the interrelations and conflicts between the human and non-human health sectors in Europe, as it was described by Kirchhelle (2018a, 2018b), shows how antibiotics became intertwined with health, sanitation, and food infrastructures, thus also shaping 'antibiotic infrastructures'. Antibiotics as infrastructure – 'usable systems' that are unnoticeable unless disrupted (Bowker & Star, 2000) – have been elaborated upon by Chandler (2019) and Chandler and Hutchinson (2016) to highlight how antibiotics are embedded into health and economic infrastructures through the ideas of sanitation, food production, healthy body, and human productivity. Such infrastructures can be seen as platforms that bring together the human, animal and environmental sectors. For instance, the spread of zoonotic diseases has led to close collaboration as well as shared health and sanitation

CONTACT A. Kamenshchikova a.kamenshchikova@maastrichtuniversity.nl

practices between stakeholders dealing with human health, farming, and wild life (Chien, 2013). At the same time, the rise of concerns over antimicrobial resistance (AMR) can intensify the competition between these sectors over the scarce resources of antibiotics (Chandler, 2019). Although both the human and animal sectors share a common aim to address zoonotic diseases, the means to achieve this aim may vary. While the human sector may focus on the optimisation of antibiotic prescription to maximise healthy living, the animal sector can be more economically driven and focuses on the maximisation of meat production (Degeling et al., 2017).

In an attempt to develop a comprehensive regulatory mechanism of inter-sectoral cooperation, a One Health (OH) policy framework has been adopted by international organisations such as the World Health Organisation (WHO), the World Organisation for Animal Health (OIE), and the Food and Agriculture Organisation of the United Nations (FAO). Starting from 2008 this framework has been explicitly utilised to address avian influenza (Chien, 2013). Since then, OH has become increasingly popular in the scientific and political arena for addressing such health issues as food safety, zoonoses, and AMR (Bidaisee & Macpherson, 2014; Coker et al., 2011; Kakkar & Abbas, 2011; Lee & Brumme, 2013).

While the OH framework for collaboration has occupied a central position in international health policy, health professionals have demonstrated different interpretations to this approach. A Delphi survey among human and animal health practitioners conducted in Australia by Degeling et al. (2017) revealed a variety of disagreements when prioritising between human health, animal health, and economic considerations. For instance, the survey showed that when formulating priorities for addressing AMR, human health professionals were keen to give a higher ranking to the emotional wellbeing of people, while those from the animal health sector gave greater consideration to animal health and economic concerns. In addition, in public health literature OH is described in different ways: as 'a seamless interaction between veterinary and human medicine' (Calistri et al., 2013), or as a 'perspective, covering animals and humans [...] as well as the environment' (O'Neill, 2016). Therefore, a tension arises in the AMR field between the search for a unified OH approach to address shared health concerns and the diverse priorities within this approach.

The OH search for consensus in explaining and addressing shared health concerns has been scrutinised by Hinchliffe (2015). He argues that a unified 'One World One Health' approach runs the risk of reducing the diversity of knowledge, practices, and values, i.e. the diversity of worlds, that are involved in the process of health making. Hinchliffe (2015) elaborates that through the attempt to give a unified explanation and propose a single solution for a shared health issue, OH has a tendency of reducing the complexity of interrelations between practices that take place in farms, clinics, or laboratories. Another social science researcher, Craddock (2015), argues that interorganisational collaborations may reflect conflicting values and interests of the involved organisations. She gives an example of product development partnerships for a tuberculosis vaccine and explains that pharmaceutical companies involved in such partnerships often focus on 'markets rather than diseases burdens'. An example can be found in the 2010 response to Q-fever in the Netherlands that caused substantial damage to Dutch farmers. Because Q-fever is not severe in animals, no mandatory vaccination was required, however, after the 2009 Q-fever outbreak in humans, it was decided to cull 40,000 pregnant goats in the hope that it would prevent further human outbreaks (Enserink, 2010). Craddock (2015) argues that the OH framework for collaboration can underline the power-dynamics between involved actors, such as pharmaceutical companies and small research centres, or, as illustrated in the second example, farmers and medical professionals.

Despite the ambiguous nature of OH discussed by Hinchliffe (2015) and Craddock (2015), Chien (2013) explains that it can be a suitable collaboration framework for international health agencies, such as the WHO, the FAO, and the OIE. This framework, she argues, can help to reduce conflicting interests and to improve communication between these organisations. Drawing on interviews with officials from international health organisations, Chien (2013) shows that OH has been perceived as a fruitful strategy for collaboration that allows the expertise of different organisations to complement each other without prioritising one over another.

Inquiries into the way OH aims to shape a unified understanding of health, and the ambiguities involved in such unified concepts raise the question of how the notion of OH is conceptualised in international health policy. To explore this question, we will focus on a product of OH collaborations, that is, international health policy documents. We will narrow our analysis to AMR policy documents, which is one of the areas where OH has become increasingly popular. Inspired by social science literature regarding the ambiguity of OH, here we aim to understand whether OH policy documents shape a unified AMR world, how it links and incorporates the diversity of human-animal-environmental knowledge on AMR, and what kind of collaborations and solutions to address AMR it suggests.

Theoretical approach

To analyse policy documents, we draw from constructivist policy analysis, and especially the work of Gusfield (1984) and Stone (2012). Both scholars have demonstrated how policy discourses are not neutral technical representations of problems and solutions, but specific normative constructions of reality. In his analysis of traffic regulation policies in the US, the sociologist Gusfield (1984) demonstrated, for instance, how dominant policy discourses implicitly constructed traffic accidents as being caused by the drivers, and not by, for instance, technological characteristics of the cars or motorway infrastructures. These policies presented 'drunk driving' as the cause of accidents. At the same time, a city infrastructure, which implied that all pubs could only be reached through the highway, was not at the focus of attention. It is not to say that drivers who consume alcohol were not contributing to traffic accidents, or that car characteristics did not cause these problems, rather, in his analysis Gusfield (1984) demonstrated how by focusing on a particular aspect of a problem (i.e. drinking and driving), policies shaped a certain reality of this problem that may exclude alternative framings, explanations, and solutions.

The political scientist Stone (2012) criticised the so called 'rationality project' that assumed that policies were developed by 'rational' and 'analytical' methods. She argued that policies were the result of struggles, conflicts and negotiations about values and definitions of problems and solutions. Policies were developed by continuously 'fighting' with words and by mobilising narrative plots, metaphors, numbers, analogies and symbols. Policy documents were an important actor in these fights: through articulating problems and solutions in a specific way, they aimed to shape specific realities and futures. According to Asdal (2008), policy documents were performative, in a sense that they not only described, but also created a specific reality. This reality was organised through the work of a network constituted by policy documents that were interconnected and co-dependent. Scholarship in the actor-network theory demonstrated how networks of diverse actors (including documents) both established an 'issue' and formulated rules for addressing this 'issue' (Asdal, 2015; Latour, 1988; Latour & Woolgar, 1986). Therefore, these networks became obligatory passage points that cannot be avoided when developing new strategies for tackling an 'issue' formulated by a network (Callon, 1986). In the context of AMR, policy regulations can be seen as such a network that builds a certain discourse about antibiotics, AMR and OH, thus establishing an obligatory passage point in addressing AMR in practice. Drawing from constructivist policy approaches, our analysis of international policy documents on AMR focuses on the specific meanings of OH, which entail particular causes and responsibilities for addressing AMR.

Methods

Our analysis of the OH policy arena deals with two types of international policy documents – eleven documents dedicated to AMR and OH, and twelve documents that focus on more general health issues. To select the documents dedicated to AMR and OH, we first identified thirty-three documents that were fully or partially devoted to AMR and that were produced by four major international agencies – WHO, FAO, OIE, and the European Commission. Second, we examined these documents based on the following criteria: 1) the document was fully devoted to AMR; 2) it proposed recommendations/

Table 1. Selected international One Health policy documents and EU regulations on AMR.

Title of policy documents	Author(s)	Year
A European One Health action plan against antimicrobial resistance	European Commission	2017
EU Guidelines for the prudent use of antimicrobials in human health	European Commission	2017
Global framework for development & stewardship to combat antimicrobial resistance. Draft roadmap	FAO, OIE, and WHO	2017
Antimicrobial resistance: A manual for developing action plans	FAO, OIE, and WHO	2016
Declaration by the pharmaceutical, biotechnology and diagnostics industries on combating antimicrobial resistance	International Federation of Pharmaceutical Manufacturers & Associations (IFPMA)	2016
UN Draft political declaration of the high-level meeting of the General Assembly on AMR	General Assembly of the United Nations	2016
Final report and recommendations: Tackling drug-resistant infections globally	J. O'Neill	2016
The OIE strategy on antimicrobial resistance and the prudent use of antimicrobials	OIE	2016
The FAO action plan on antimicrobial resistance 2016–2020: Supporting the food and agriculture sectors in implementing the global action plan on antimicrobial resistance to minimise the impact of antimicrobial resistance	FAO	2016
EU Guidelines for the prudent use of antimicrobials in veterinary medicine	European Commission	2015
WHO Global action plan on antimicrobial resistance	WHO	2015

standards for tackling AMR; and, 3) it incorporated OH as an approach to address AMR. From this, eight documents were selected for the main analysis. Third, following the same criteria, we examined references from the selected documents to identify other international documents that deal with AMR though the OH approach. In total, eleven international policy documents were included in the analysis (see Table 1).

International policy documents on AMR and OH were not developed from scratch, but they stemmed from existing health policy discourses, initiatives, and practices. In the selected AMR documents, we found systematic references to more general health documents produced by the same organisations – the WHO, the FAO, the OIE, but also the World Trade Organisation (WTO), the United Nations International Strategy for Disaster Reduction (UNISDR), and the United Nations Environmental Programme (UNEP). These documents provided context and were part of the network from which AMR OH policies have originated. Therefore, in order to understand AMR OH policies within the context of international health policies and to trace a rationale in its thought style, we decided to include those general policy documents that focused on the health of humans, animals, and the environment in the analysis. In total, twelve general health documents were analysed (see Table 2).

First, we double-read each document to define categories for analysis. Second, following our goal to understand how OH is conceptualised in AMR policies, the following analytical categories were established: types and kinds of relationships between human, animal, and environmental health; causal relations between AMR practices in the different health sectors; and roles and responsibilities of various professionals to control and prevent AMR. Then, using the NVivo 9 qualitative data analysis software (QSR International Pty Ltd, Doncaster, Victoria, Australia), we analysed each document in accordance with the established categories.

Roots of One Health: general international health regulations

Although, general health policy documents are not focused on AMR and often do not mention the concept of OH, they play an important role in the 'making' of OH. In order to become part of the international health policy network, OH regulations for AMR have to be aligned, in defining problems and solutions, with already established documents. Therefore, to better understand the content of AMR documents, in this section, we will first give an overview of the context in which these documents originated. In our analysis, we found four main characteristics of these general international health regulations.

Table 2. Selected general international health documents.

Title of policy documents	Author(s)	Year
Aquatic animal health code	OIE	2017
Terrestrial animal health code	OIE	2017
Bangkok principles for the implementation of the health aspects of the Sendai framework for disaster risk reduction 2015–2030	UNISDR	2016
Frontiers 2016 report: Emerging issues of environmental concern	UNEP	2016
Sendai framework for disaster risk reduction 2015–2030	UNISDR	2015
Operational framework for good governance at the human-animal interface: bridging WHO and OIE tools for the assessment of national capacities	WHO and OIE	2014
Rapid risk assessment for acute public health events	WHO	2012
One Health: Food and agriculture organisation of the United Nation strategic action plan	FAO	2011
The FAO-OIE-WHO Collaboration: Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces	FAO, OIE, and WHO	2010
International health regulations	WHO	2005
International plant protection convention	FAO	1997
The WTO Agreement on the Application of Sanitary and Phytosanitary Measures	WTO	1995

First, general health documents, not surprisingly, predominantly focus on improving, sustaining, and promoting the health of humans. Human health is understood quite broadly; as it involves not only the biological wellbeing but also the 'environment, health status, behaviours, social or cultural practices, health infrastructure and legal and policy frameworks' as factors that can shape human health (World Health Organization[WHO], 2012). These health policies often describe humans as vulnerable and those who must be protected from various environmental hazards. For instance, one of the documents emphasises the necessity to protect humans by trying to 'stimulate people-centred public and private investment in emergency and disaster risk reduction', thus putting human health at its centre (United Nations International Strategy for Disaster Reduction [UNISDR], 2016).

Second, animal health is recognised as being important in two different ways. On the one hand, animals are understood to be a resource for human health; on the other hand, they are considered as potential carriers of diseases. Animal health has to be secured because threats to animal health may transform into health risks for humans. One of the documents stated that 'good veterinary governance is key to improving national productivity and income generation as well as contributing to human health' (World Health Organization, & World Organization for Animal Health [WHO & OIE], 2014). Another document – *Frontiers 2016 report: Emerging issues of environmental concern* – raises a question about the consequences of inappropriate practices towards animals, such as the illegal smuggling of wildlife animals, which can influence human health. Although this document raises a concern about the appropriate behaviour with respect to animals, it mostly focuses on how misconduct towards animals can influence humans,

> But the attempt to smuggle an exotic animal through a major international hub only hints at the massive and lucrative illegal trade in live animals that threatens to decimate wild populations and ecosystems, even as it exposes entire cities and regions to corruption, violence and deadly diseases (United Nations Environmental Programme [UNEP], 2016).

Third, as far as international health documents deal with animal health, they largely focus on domesticated animals. These documents are looking at human practices dealing with animals as part of the human food chain, such as farming and veterinary medicine, while pointing to the responsibility of animal professionals, including farmers and veterinarians, for potential human health hazards coming from the animal sector. One of the documents, for example, states '*veterinarians* have a dual responsibility – the epidemiological *surveillance* of animal *diseases* and ensuring the safety and suitability of *meat*' (World Organization for Animal Health [OIE], 2017, emphasis original).

Fourth, most health policy documents do not mention how the environment affects human health. The notion of the environment, if it is mentioned in a document at all, is not operationalised, so it is quite difficult to grasp the meaning of what is understood as the 'environment'. The documents that do mention the environment point to the interdependencies between human, animal, and environmental

health. One of the documents discusses environmental health as something both valuable in itself and important for human and animal health (UNEP, 2016). This document states that long-term sustainable development is essential for healthy living, where health is understood broadly as an ecological phenomenon. The notion of the environment is understood through human practices, such as agriculture, manufacture, and waste production, which can influence and shape the healthy environment. It is stated that 'changes in the environment are usually the result of human activities, ranging from land use change to changing climate' (UNEP 2016).

International health policy documents can be seen as providing a context for a developing OH framework in AMR. These policy documents are dedicated to improving human health, thus emphasising human exceptionalism over animals and the environment. When the animal or environmental health is mentioned, it is often in terms of a function of human health. In the international AMR arena, important OH policy documents refer to and build upon these general health policy regulations. Analysis of these general regulations helps us to understand a rationale for developing international AMR documents that we will explore in the next section.

Continuity of human exceptionalism: One Health policies to tackle AMR

Although AMR is recognised by many international health organisations as a major problem that requires an OH solution, a closer look at the policy documents reveals that they define this problem in various ways. While some documents define AMR as a major threat for human health, arguing that 'it [AMR] needs to be seen as an economic and security threat' (O'Neill, 2016), other documents argue that AMR is a threat for both human and animal health. For instance, the *EU Guidelines for the prudent use of antimicrobials in veterinary medicine* states that 'AMR is not only an animal health and economic concern […], but is also a public health concern'. Other documents broaden the problem definition even further, describing AMR as a multispectral problem that 'pose[s] an extraordinary threat to human and animal health, and to the world ecosystem' (World Organisation for Animal Health [OIE], 2016). Different policy documents construct AMR differently, as either a problem of human health, of human and animal health, or of human, animal, and environmental health. In contrast however, our analysis of these documents shows that they construct OH in a very specific way.

First, one of the most pressing problems in the policy documents is that of antibiotic use in clinical health care as well as in the animal and agricultural sectors. Many documents emphasise that antibiotic use in clinical settings is a contributing factor to the rise of AMR in humans. Some of the documents make a circular link between the contamination of the environment with antimicrobials (that is, the result of animal, human, and manufacturing waste) with the potential risks of AMR transmission though the environment to humans,

> Antibiotics can reach the environment through three principal channels: animal waste, human waste and manufacturing waste. They can contaminate soil, crops and water sources and encourage the development of drug resistance amongst the pathogens with which they interact (O'Neill, 2016).

Second, similar to general health regulations, AMR OH policy documents focus on human health, framing the causality of human-animal relations as one directional. Humans are those who suffer from AMR, in terms of their physical wellbeing as well as economic prosperity, while animals are presented mainly as potential risk factors for human health. In the documents, these risks are connected to the direct transmission of resistant bacteria from animals to humans and to the economic losses due to animals' illness and death from AMR. As one of the documents states

> [T]he overarching principle for addressing antimicrobial resistance is the promotion and protection of human health within the framework of a One Health approach, [and] … this requires coherent, comprehensive and integrated multisectoral action, as human, animal and environmental health are interconnected (General Assembly of the United Nations, 2016).

In other words, animal health is part of OH, but only as a means to human health. This implicit causal relation is also expressed in the slogan of the OIE which reads 'Protecting animals, preserving our future' whereby animals are described as a necessary element for human health but not vice versa (OIE, 2016).

Third, the AMR OH world described in policy documents includes mostly domesticated and food producing animals. To be sure, AMR OH policies do not consider domesticated animals as a threat to human health in itself, instead, they focus on human practices like the use of antimicrobials in farming and veterinary medicine,

> Regarding food safety, standards have been developed by the FAO/WHO Codex Alimentarius Commission [. . .]. They provide methodologies to appropriately reduce the risk of the emergence of resistance or spread of resistant bacteria trough food that result from the use of antimicrobial agents in food-producing animals (Food and Agriculture Organization of the United Nations, World Organization for Animal Health, & World Health Organization [WHO, FAO, & OIE], 2017)

Consequently, AMR documents assign a particular responsibility for human health to the animal sector. According to OH policies, the animal sector specialists have a duty to take care of animals in accordance with the needs of human health. Therefore, the potential risks that human practices can pose on animals and wildlife are not widely considered.

Fourth, similar to the general health policy documents, AMR OH regulations do not provide a clear definition of the environment or environmental health. Not every document considers the environment, and when it is mentioned the operationalisation of what is considered to be 'environment' is often lacking. Some documents refer to the environment including elements such as water, air, soil, as well as wildlife that can be harmed through human and animal practices, and that can also constitute a substantial risk for human and animal health,

> The environment is increasingly acknowledged as a contributor to the development and spread of AMR in humans and animals, in particular in high risk areas due to human, animal and manufacturing waste streams, but strong evidence is still required to better inform decision-making in this area (European Commision, 2017).

Drawing from the international health policy discourses, policy documents that argue for the urgency of OH to deal with AMR globally stress, on the one hand, the interdependency between human, animal, and environmental health. However, on the other hand, these sectors are associated with each other in a very specific, asymmetrical way. OH policy documents tend to assign different roles to different sectors in AMR control and prevention. Humans are usually portrayed as those who experience the burden of AMR, while animals and environments are often defined as sources of this threat. In line with this, initiatives and actions proposed by the OH approach unintentionally reflect the asymmetrical and hierarchical relations between human, animal, and environmental health. AMR can be caused by different factors, including the use of antimicrobials by humans, clinical waste and the use of antimicrobials in the animal and environmental sectors, that involve farming, veterinary, agriculture and manufacturing. However, OH documents unintentionally frame the risks to human health as a driving force underlining the need for greater control and prevention of AMR in the human, animal, and environmental sectors (See Figure 1).

Discussion

In the context of social science research on OH, we used insights from constructivist policy studies to analyse the specific conceptualisations of OH in the international policy arena of AMR. Our study makes clear that AMR OH policy documents follow the discourses present in general international health regulations: they put human health at the centre stage, and the animal and environmental sectors are presented primarily as risks to human health. Moreover, veterinary and environmental practices are framed from a human centred perspective – animals that have not been domesticated are given minimal attention compared to livestock and pets. Although this framing might seem logical, as people are confronted with AMR initially as a human health problem, our analysis demonstrates the ambiguity of the OH policy framework for AMR. While the ideal of OH is presented as a collaboration between

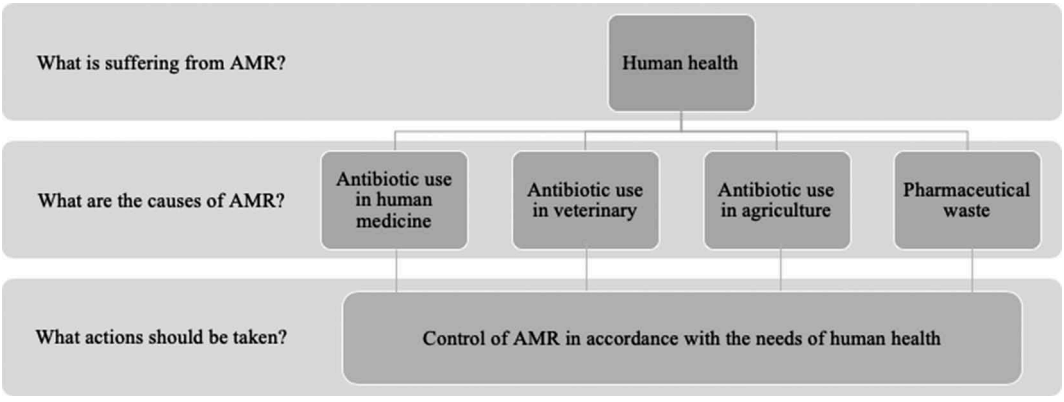

Figure 1. Hierarchical structure of AMR policies.

professionals from the human, animal and environmental sectors, this collaboration is, simultaneously but unintentionally, framed as hierarchical. This specific framing entails that the values of the human health sector prevail above the values of other non-human sectors.

Studying how OH has been adopted in the context of international cooperation against avian influenza, Chien (2013) shows that this framework for collaboration has been well perceived by officials of international organisations such as the WHO, the FAO, and the OIE. She describes that the representatives of these organisations understand OH as a framework that can help to reduce tensions between diverse interests and expertise, and that it can help to build a balanced approach to a shared health concern. However, focusing on a product of interorganisational collaborations in AMR, which is policy documents, here we showed that the ideals of a balanced and unified approach have not been fully translated into the documents utilising OH. On the contrary, AMR OH policy documents institutionalise the hierarchical relations between organisations working in the human, animal, and environmental sectors. As such, OH policies do not explicitly open up or create a discursive space for exploring and acting upon different values that are at stake in AMR prevention.

As we mentioned in the introduction, the ambiguous nature of OH has already been scrutinised by researchers like Craddock (2015), Hinchliffe (2015), and Wolf (2015). With Hinchliffe (2015) as well as Wolf (2015) arguing in their works that the OH framework runs the risk of oversimplifying and reducing the diversity of approaches and methods of various disciplines. Other authors highlight that OH can undermine certain values and motives of different sectors and local contexts (Craddock, 2015; Giles-Vernick et al., 2015; Smith et al., 2015). Our analysis provides similar findings with respect to AMR. While OH in theory may enable collaboration between the human-, animal- and environmental sectors, its implementation in policy documents, runs the risk of legitimizing the unequal, hierarchical structure of addressing AMR in these sectors.

The formulation of such hierarchical cooperation with human health interests at the top of the pyramid is in parallel with the historical discourses on AMR. Works on the history of antibiotics and antibiotic regulations by Bud (2007), Kahn (2016), and Kirchhelle (2018a, 2018b) showed how starting from the 1930s, antibiotics became an essential part of not only human medicine, but also farming and agriculture. Since then, the heated debates with regards to the roles and responsibilities of non-human sectors in the growing issue of AMR have been taking different shapes – from separation of burdens and responsibilities faced by the human and non-human sectors, to the interrelation of these burdens and the allocation of responsibilities exclusively to the animal and environmental sectors. The OH framework can be seen as an attempt to balance these debates and to distribute the AMR burdens and responsibilities between and within various sectors. However, the power to give definitions and to make decisions with respect to burdens and responsibilities still lies within the human health sector.

We can find attempts to reformulate an anthropocentric OH approach in works on post- humanism, for instance in Murdoch (2004) and Rock (2017). Referring to Marres (2007), Rock (2017) articulated that 'human problems cannot be understood accurately without taking non-humans into account' drawing attention to the inevitable multi-species entanglement in the understanding of health. Proponents of post-humanism provide a critical vision on the anthropocentric structures of modern science and politics, drawing attention to the complexity of multi-species communities that are interlinked with each other (Badmington, 2004; Murdoch, 2001; Rock, 2013). In line with this, Law (2015) develops a critique towards a one-world metaphysics, arguing that the unification of multiple realities enacted in practises of various professionals silence the least dominant of these realities (e.g. an ecological aspects of AMR). Instead, he argues, we should focus on crafting encounters across different practices, knowledge, and thus worlds. As opposed to the idea of a unified understanding of health, Law (2015) as well as Rock (2017) provoke us to rethink the concept of health through its multiplicity, which is exercised in the different realities of the human-animal-environmental sectors.

In the network of AMR policy documents, we can see that OH discourses have been predominated by anthropocentric ideals. Therefore, other ontologies that might exist in the animal and environmental sectors are not given an opportunity to establish a politically legitimate understanding of AMR that would be based on their practices, knowledge, and, therefore, their realities. Following the way Stone (2012) and Asdal (2015) understand policies – as performative documents that can shape a discursive space to deliberate new routes of dealing with urgent public problems – we may conclude that the discursive space shaped by OH AMR policy documents is rather narrow and would benefit from a broaden approach.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

C. J. P. A. Hoebe http://orcid.org/0000-0003-1815-0974
K. Horstman http://orcid.org/0000-0003-4048-4110

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