

ON THE VALUE OF VIEWING ANTIMICROBIAL RESISTANCE AS A THREAT TO INTERNATIONAL SECURITY

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In recent years, antimicrobial resistance (AMR) has been increasingly described as a threat to national and global health security. However the utilization of security terminology in reference to health issues has generally been regarded as a negative development, one that should be avoided. We consider the benefits and drawbacks of utilizing this descriptor, concluding that, on balance it can serve as an important tool in assisting leaders and decision-makers address the complex challenge that AMR presents.

Until the end of the cold war, adverse health events such as disease outbreaks rarely gained significant international attention. Instead, the realm of high politics was reserved for such issues as nuclear disarmament, free trade agreements, and intrastate wars (1). During this period, health crises were usually designated by governments as a second order issue and responsibility to respond was normally delegated to their respective health minister and associated ministry. Since the 1990s, however, a series of significant global health events, such as the 2003 SARS outbreak, the spread of H5N1, the 2009 H1N1 influenza pandemic and most recently, the 2014 West African Ebola outbreak, have repeatedly demonstrated how adverse health events not only cause significant human morbidity and mortality, but that they can also inflict extensive economic damage, social dysfunction and political instability (2). Moreover, when diseases cross species barriers they can negatively affect animal health as well as environmental systems, which in turn can have wider systemic impacts (3). Consequently, today there is much greater awareness by politicians, the general public, the media and other stakeholders of how health concerns can adversely impact societies, than at any previous point in history.

Concurrent with these events has been a trend to view some health issues as security “threats”. This “securitization” of selective health issues has, however, been met with resistance from a number of quarters, most notably by a few prominent governments including Brazil, Thailand and Indonesia, as

well as sections of the academic community (4). The central criticisms that have been raised of securitizing health issues extend from such matters as language translation (i.e., the word “security” has an explicit military connotation in some languages and cultures) through to claims that framing health issues as security threats distorts global public health priorities and expenditure (5), infringes human rights and civil liberties (6), and prioritizes issues of concern to high-income countries while sidelining those of the rest (majority) of the world (7). Notwithstanding these legitimate criticisms, several prominent public health leaders, such as Dame Sally Davies, the United Kingdom’s chief medical officer (8), as well as institutions like the World Health Organization (WHO) and the US Centres for Disease Control and Prevention (CDC) have chosen to explicitly describe antimicrobial resistance (AMR) as a global health security threat (9, 10). Furthermore, some national governments, such as the United Kingdom, have even gone as far as to elevate AMR to the top of their national risk registers, substantiating AMR as a risk to national security. So what does this mean?

Within the field of security studies, the term “securitization” has a distinct meaning. The originators of this term – Barry Buzan, Ole Wæver and Jaap de Wilde – published their seminal work *Security: A New Framework for Analysis* in 1998 (11). In it, Buzan, Wæver and de Wilde opined that in order to successfully securitize an issue, securitizing actors needed to engage in securitizing moves through speech acts (i.e., speeches, publications, etc.) to gain audience acceptance.

Where that acceptance was forthcoming, securitizing actors could be authorized to take exceptional measures to mitigate the “threat”. The Copenhagen School, as this theoretical framework has become known, went on to argue that securitization should be seen as a failure of public policy processes because by invoking security language it elevates an issue out of the sphere of ordinary politics; securitization hyperpoliticizes its subject matter, shutting down democratic debate and dialogue about other ways to tackle the securitized issue, and thus should be viewed as a negative development rather than celebrated.

Since the Copenhagen School put forward this framework, it has been used to great effect to understand and unpack how some issues become framed as security threats while others do not. For example, in the context of global health, this framework can potentially help explain why on one hand, pandemic influenza has become viewed as “the world’s most feared security threat” by the WHO and governments despite its relative infrequency (12), while malaria on the other hand – which kills an average of 800,000 children under five years of age per year – continues to be treated as a standard public health issue (13). Given this example appears to evidence at least some of the concerns that have been expressed about the securitization of health issues, it is pertinent to ask: what are the benefits and drawbacks of securitization and why should governments and politicians be encouraged to think about the securitization of AMR?

Security issues are, at their core, fundamentally about survival (14). They are important because lives are at risk from an existential threat, often perceived to be imminent. Understandably and appropriately, therefore, security concerns gain the attention of leaders and decision-makers, who possess the ability to then authorize measures aimed at mitigating the threat. Where additional resources are required to tackle the threat, they are usually made available. This is because when confronted with the (perceived) reality of an imminent threat to survival, it tends to focus people’s attention on dealing with the problem. Countermeasures are more rapidly authorized and, if necessary, deployed. In this respect, successful securitization encompasses several elements. It prioritizes the perceived threat, coalesces attention on the need to deal with that problem, and mobilizes resources that enable, support and facilitate rapid action to deal with the risk of it materializing. Further, such rapid, decisive action is usually what is expected of governments by their citizens as part of the “social pact”(15). Thus, despite the negative criticisms surrounding securitization, members of the general public expect – and sometimes demand – that their leaders take exceptional measures to keep them safe. Where there is a failure to act, or a government’s actions are deemed inept or

inadequate, it can excite much public and media debate about government responsibility and legitimacy (16).

Over the last few years, governments have been increasingly apprised of the menace AMR presents to the health and welfare of their (human) populations. The O’Neill report estimates that currently, 700,000 people die from AMR infections per year and that without intervention, this is projected to increase to 10 million deaths per year. Economically, AMR is already causing significant losses; it is estimated to be costing the United States US\$ 20 billion per year, and is calculated to cost US\$ 100 trillion in cumulative global economic output by 2050 (17). Despite the obvious and appropriate concerns related to future human health, AMR is a complex problem – a so-called One Health policy problem because AMR also critically affects animal health and wellbeing (18). Antimicrobials are provided to livestock animals the world over not only to treat and prevent infection, but also to increase food productivity. As a result, AMR also adversely affects animal and environmental health, potentially greatly impacting on related economic sectors of national economies around the world (19).

Having said this, it is understandable that governments may hold divergent views on the level and extent of threat AMR presents. It can also be appreciated that some governments believe it necessitates more attention and resources than are currently being allocated, but it equally much be acknowledged that much of this depends on national contexts and experiences. Indeed, for those countries struggling to gain access to medicines (such as antimicrobials), confronting AMR may justifiably be less of a priority when compared to, for instance, addressing the more immediate need of treating malaria.

In this context it is also important, as critics of securitization have sought to highlight, to acknowledge that framing health issues as security threats can distort public health priorities and funding, prioritizing those of particular concern to high-income countries over those that may culminate in higher morbidity and mortality. It can also lead to extreme measures implemented in authoritarian (top down) ways (i.e., mandatory vaccination, forced quarantine), as once it is accepted as a security threat (i.e., imminent threat to survival) there is often limited opportunity for debate on the measures needed to mitigate the threat. By its very nature, decisive action is required to confront the threat and governments may seek to take measures and engage actors that in other situations would be deemed unacceptable to the public (e.g., using police and/or military personnel to enforce the quarantine of people diagnosed with resistant organisms). We acknowledge these inherent dangers within securitization and recognize it must be approached cautiously and with due regard to fundamental human rights and public health principles. Nonetheless, on balance, we see there is a genuine need for securitizing AMR.

Advancing the call for the securitization of AMR as a threat

In spite of the criticisms of securitizing health issues, we see a number of advantages to the securitization of AMR as a global health “security” issue. First, AMR is not a problem that should be of concern to only high-income countries. It is a health concern that will potentially adversely impact the health of human populations the world over, including those who do not currently have ready or sustainable access to medicines. As such, while some countries may be tempted to delay immediate action while they seek to focus on other, more pressing health issues, it warrants being given high priority by all countries. As already discussed, one of the benefits of securitization is that it can help elevate the problem for the simple fact that security issues matter.

Second, unlike many other health challenges AMR adversely affects animal health in addition to human health, both of which are also linked with environmental health. For example, disposal of inadequately treated human and animal waste into the environment facilitates the spread of resistant microbes and resistance genetic material within and across the human, animal and environmental sectors (18). In this respect, the impacts arising from this particular health issue extend far beyond the majority of conventional health concerns – it is, quite literally, a One Health problem and, with the exception of the resistant microbes, a menace to planetary life. This creates an additional level of complexity for dealing with the spread of AMR, as it requires synchronized corrective action across a variety of human, animal, and environmental health contexts. Moreover, in order for any mitigation strategy to be genuinely successful, measures must be enacted simultaneously worldwide. Herein lies yet another problem though. For in order to elicit a successful mitigation strategy, policy-makers require solid evidence on what is driving AMR and what mitigation strategies are effective in helping slow down and/or improve the problem. Although much is known about what is inducing AMR, specifically that the rate of resistance is linked to the rate of use (19), there is still much uncertainty and this uncertainty complicates the development and effective communication of policy (18, 20, 21).

For example, there still remains much ambiguity regarding the geographic (domestic and international) spread of AMR. This uncertainly hinders development of policy in areas such as recycled water, untreated human and animal waste, and in the international trade of food, particularly meat. Furthermore, as a human-made problem, AMR is closely linked to stakeholder behaviour and modification of that behaviour is crucial to addressing the problem. The very nature of a complex policy problem though is that no policy will appease all stakeholders (18). There will be losers. Before we can even

begin to implement policy aimed at modifying stakeholder behaviour, policy-makers should be informed about the enablers and barriers underpinning behaviour, which at the present time is another area of uncertainty (20, 21). Following this, stakeholder engagement will be critical and will require delicate negotiation and diplomacy.

In this respect, if AMR is viewed as a “threat”, leaders and decision-makers may be more inclined to make resources available to address the areas of current uncertainty. This will inevitably mean more research into what mitigation measures prove effective and necessary, as well as research into their implications for relevant stakeholders. In addition, as a global threat it builds and strengthens the case for increased investment in research and development for new antimicrobials and diagnostic tools, and allows for further investigation into behavioural change policies designed to reduce emergence. Lastly, when successfully securitized at the global level, it necessitates that policy discussions on how to deal with the threat are also global, thus going some way to further democratize and universalize the process for arriving at policy solutions, principally as all stakeholders – and, importantly, all countries – will have an opportunity to input into those deliberations. In short, if AMR is accepted to be a global threat, it follows that global responses that engage all relevant parties must be designed and implemented.

Conclusion

AMR is a complex problem that requires concerted, multisectoral global effort to address. It also necessitates that we, as an international community, act in unison if we ever hope to successfully mitigate the worst excesses of this phenomenon. As with other complex challenges (e.g., climate change), recent history suggests that we still have much to learn in how to achieve consensus on the nature of the problem, let alone implementing mitigation strategies in a timely manner to avert catastrophe. In this regard, securitization is not, and should never be, viewed as the panacea for AMR. It is, however, we argue an important tool that can potentially be utilized to great effect. Not only to elevate and focus attention on the problem, but also to convince our leaders of the need to dedicate the necessary resources to develop effective mitigation strategies, pharmaceuticals and diagnostic tools. Arguably, for the battle ahead with AMR, we will need all the tools we can muster. ■

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