

Tackling a “Wicked Problem”

Implementing a multisectoral approach to antimicrobial resistance

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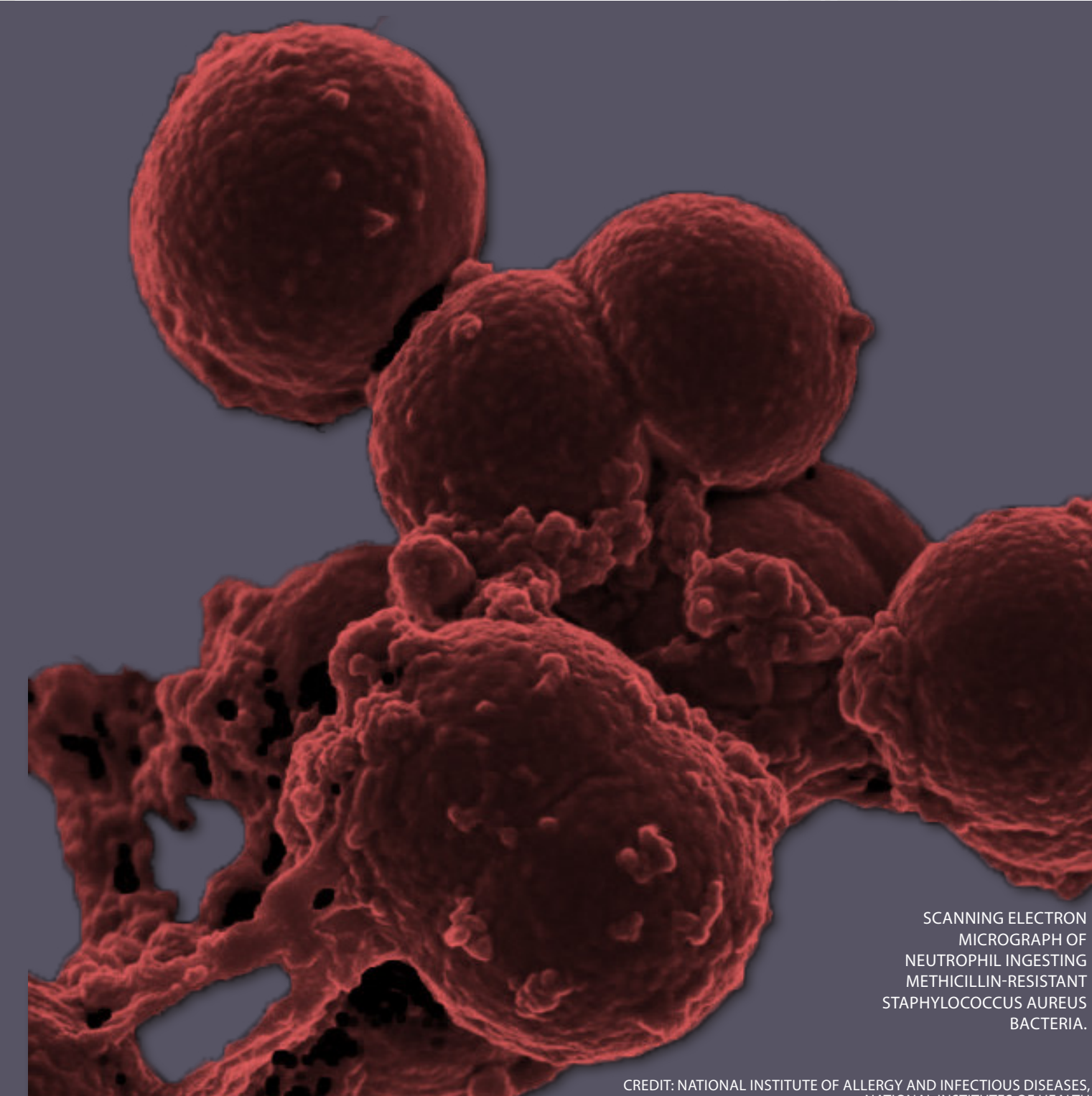
A MULTI-COUNTRY REVIEW

BACKGROUND

Multisectoral coordination mechanisms, often known as One Health platforms, come in many shapes and sizes, but share a common purpose of promoting cross-disciplinary collaboration among animal, human and environmental health stakeholders. Many of these platforms have been established and supported to address the threat of zoonoses with pandemic potential, such a Highly Pathogenic Avian Influenza, Ebola and MERS. However, during ‘peace time’, that is, the absence of major outbreaks, these platforms struggle for international and national political and financial support.

Rare, episodic and unpredictable health threats are a poor basis for establishing enduring mechanisms that link human, animal and environmental health professionals in the application of One Health approaches. Antimicrobial resistance (AMR), on the other hand, is a known, ubiquitous and cross-cutting threat. AMR, the capacity of bacteria and other pathogens to develop resistance to antibiotics, has sharply increased in the past 15 years and is a major worldwide concern. AMR has been described as a ‘wicked problem’, one that has a complex mixture of social, cultural, medical, technological and economic elements.

AMR is not exclusively a human health problem. Multiple studies report that over 60% of all antibiotic use occurs in animal production, mainly as a growth promoter. In addition, contamination of water supplies with antibiotics from animal waste runoff and improper disposal of leftover drugs is a significant mechanism for the spread of resistance. AMR could be an ideal problem for One Health platforms to tackle to demonstrate current and future value to diverse advocates and skeptics.



SCANNING ELECTRON MICROGRAPH OF NEUTROPHIL INGESTING METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS BACTERIA.

CREDIT: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES, NATIONAL INSTITUTES OF HEALTH

OBJECTIVES

- This presentation examines 15 current national One Health platforms in Africa and Southeast Asia whose origins stem from either the Highly Pathogenic Avian Influenza (HPAI) outbreaks in the past 10 years or in reaction to the West Africa Ebola outbreak.
- We document the extent to which these platforms have begun to address AMR, as well as the types of challenges and opportunities encountered in adding AMR to their original focus on zoonotic pandemic threats.

METHODOLOGY

A brief survey and follow up telephone interviews with platform staff were conducted. Global Health Security Agenda (GHSA) National Road Maps and JEE National Action Plans were examined for explicit reference to One Health platforms and AMR actions. In addition, we provide results from the P&R project Platform Self-Assessment process and tool.

COUNTRY CASE STUDIES

Kenya

AMR programming and planning has been centered in the Ministry of Health. At the same time, a separate entity, the Zoonotic Disease Unit, was tasked with preparedness and response to infectious disease outbreaks. Over the past 3 years Kenya has moved to incorporate AMR and zoonotic diseases in a National One Health Office (NOHO). Draft terms of reference and an organizational structure for the NOHO are in place. This is a good example of how a One Health platform has broadened its focus beyond pandemic threats to include other health concerns that require collaboration across ministries and disciplines.

Uganda

The national One Health platform was launched in 2017 formalizing collaboration among Health, Agriculture and Livestock, Water and Environment and Wildlife agencies. The new 2018-22 One Health strategic plan moves AMR activities from the Ministry of Health into the One Health platform. This is a good example of how national strategic plans and the establishment of a formal platform spur collaboration.

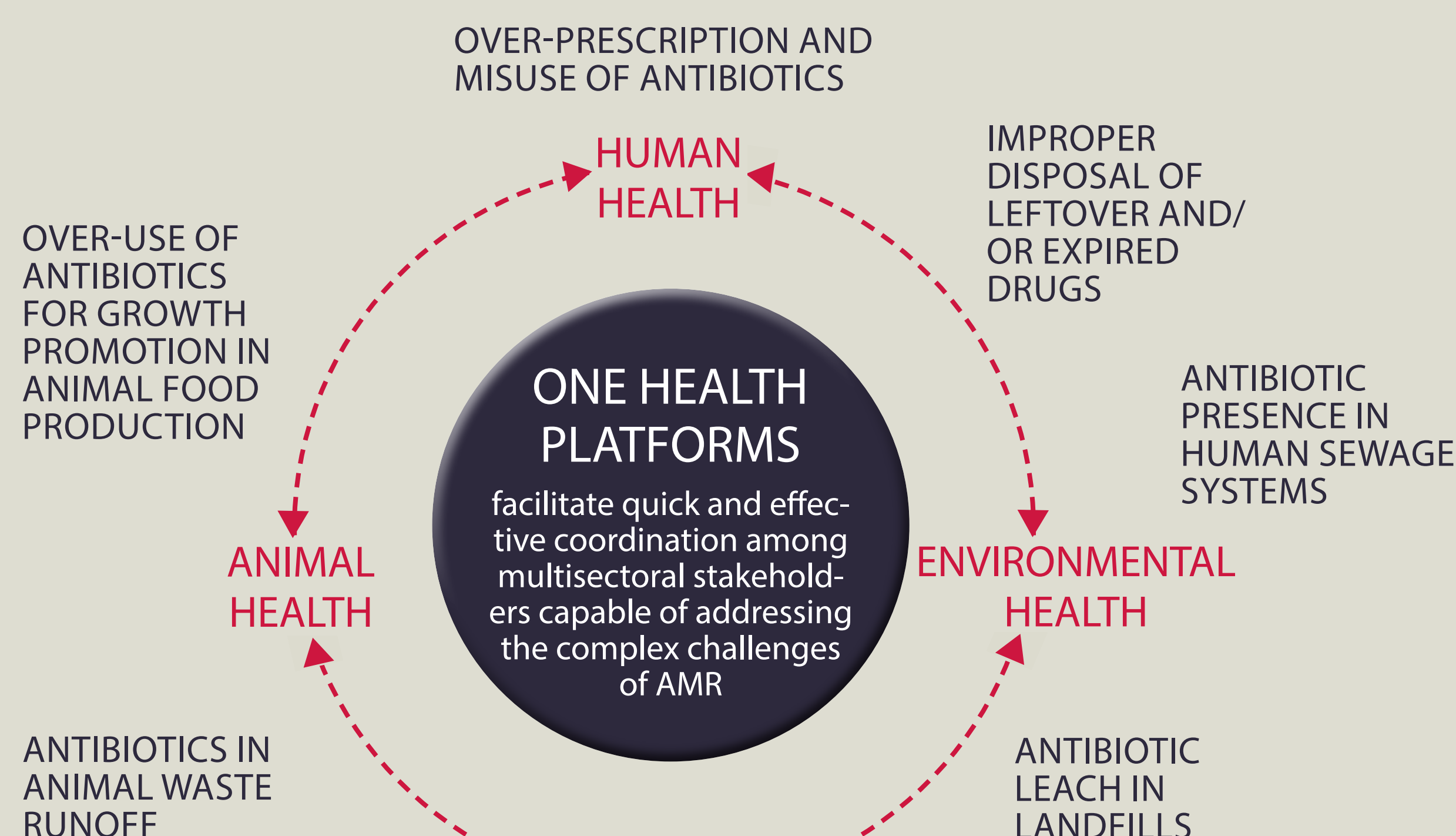
Indonesia

AMR activities are currently led by the Ministry of Health through the National Committee for AMR. The National AMR Action Plan is being developed by the Ministry of Health and the national One Health platform has no formal role. This is a case where AMR strategy pre-dates the One Health platform, limiting the platform's ability to take a leadership role on AMR activities.

Laos

The original effort to establish a national One Health platform focused on emerging pandemic threats and did not include AMR as part of its mandate. The national AMR strategy is now in draft form awaiting final approval. In the meantime, the terms of reference for the One Health platform are being revised to include AMR in the mandate of the technical working group. Here is a case where the existence of a One Health platform pre-dates a national AMR strategy, providing the opportunity to add AMR activities to role of the platform.

THE COMPLEX PROBLEM OF AMR



SELECTED RESULTS

- Multisectoral coordination mechanisms can focus beyond pandemic threats to include other health concerns that require collaboration across ministries and disciplines.
- Formalized national strategic plans and multisectoral coordination mechanisms spur collaboration across ministries.
- Countries that develop AMR strategies after the organization of a multisectoral coordination mechanism have incorporated AMR activities expanding the remit of the mechanism.
- Countries that develop AMR strategies prior to the organization of multisectoral coordination mechanisms can experience limited potential of the platform to take a leadership role on AMR activities.

CONCLUSION

The locus for organizing and coordinating AMR activities varies across countries. Great potential exists in applying lessons learned from multisectoral coordination mechanisms developed to target zoonotic diseases to address the multifaceted and on-going challenge posed by AMR. Many of these organizations are expanding the scope of their activities beyond zoonotic diseases in reaction to JEE assessments and Global Health Security Agenda Roadmaps. AMR provides advocates for and practitioners of One Health approaches an opportunity to tackle a worldwide health threat and demonstrate the efficacy of multisectoral coordinating mechanisms.