Beyond Operationalizing: The Need for Evaluation in One Health

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Some of the authors of this publication are also working on these related projects:

- Nipah Virus Outbreak Investigation View project
- Understanding the ecology of Antimicrobial Resistance (AMR) in wildlife View project

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Background

What is One Health?

Many global health challenges have ecological or animal origins. Some of these include:

- NIV/AIDS
- West Nile Virus
- Avian Influenza
- Rift Valley Fever
- Antimicrobial Resistance from food production
- Severe Acute Respiratory Syndrome (SARS)

Recognizing that the health of animals, humans, and the environment are interdependent, One Health calls for multidisciplinary and cross-sectoral approaches to address health risks through these channels. While most often applied to mitigating the threat of zoonotic diseases, its scope has expanded to incorporate food security, poverty, gender equality and health systems strengthening.

Current State of One Health: From concept to implementation

Since the formal introduction of the term in 2003, One Health has gained notable attention. In 2010, the Food and Agriculture Organization (FAO), World Health Organization (WHO), and World Organization for Animal Health (OIE) established a One Health Working Group that was tasked with addressing the risks to human, animal and ecosystem health. A number of important initiatives have been underway over the past 15 years, but have often been limited to a single phase of the disease transmission process (i.e. prevention or control). Interventions have also been limited to a single discipline or certain type of analysis (i.e. economic, epidemiological) with environmental drivers often excluded from the implementation.

How ‘One Health’ was applied in the literature was often unclear

- Majority of the literature base called for One Health approaches, but did not identify how interventions would influence linkages between animals, humans and the environment.
- Interventions were often limited to a single phase of the disease transmission process (i.e prevention or control).
- Interventions were usually limited to a single discipline or certain type of analysis (i.e. economic, epidemiological) with environmental drivers often excluded from the implementation.
- Reported metrics did not represent the integrated nature of One Health (i.e. DALYs averted, livestock productivity, impact on ecosystem services).

Discussion

Evaluation of One Health interventions is not widely employed

- Articles referenced effectiveness of One Health approaches without citing measured outcomes
- Reported outcomes are often based on modeled projections

When interventions were evaluated, assessments rarely followed a systematic methodology

- Effectiveness was often assumed without supporting evidence
- Efficacy was usually determined subjectively through stakeholder perceptions

A small sample of papers did conduct systematic evaluations of their approach, however, different metrics were usually reported making it difficult to compare outcomes across interventions.

Towards Mainstreaming Evaluation

Determine a set of target metrics that demonstrate outcomes across the One Health continuum to identify best practices and entry points for intervention

- May identify where contributions are being made in other parts of the public health system from more systematic One Health approaches

Acknowledgements

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