

# One Health: a perspective from the human health sector

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## Summary

Despite emerging consensus that the One Health concept involves multiple stakeholders, the human health sector has continued to view it from a predominantly human health security perspective. It has often ignored the concerns of other sectors, e.g. concerns that relate to trade, commerce, livelihoods and sustainable development, all of which are important contributors to societal well-being. In the absence of a culture of collaboration, clear One Health goals, conceptual clarity and operating frameworks, this disconnect between human health and One Health efforts has often impeded the translation of One Health from concept to reality, other than during emergency situations. If there are to be effective and sustainable One Health partnerships we must identify clear operating principles that allow flexible approaches to intersectoral collaborations. To convince technical experts and political leaders in the human health sector of the importance of intersectoral cooperation, and to make the necessary structural adjustments, we need examples of best practice models and trans-sectoral methods for measuring the risks, burden and costs across sectors. Informal collaborations between researchers and technical experts will play a decisive role in developing these methods and models and instilling societal well-being into the human health sector's view of One Health.

## Keywords

Human health – Intersectoral collaboration – One Health.

## Introduction

A One Health approach to health and care enables the animal, human and environmental health sectors to cooperate with each other to tackle issues of common interest (1, 2, 3). The novelty of this approach, ironically, serves as a limiting factor too, given the differences in the expectations and operating incentives of each sector. The complexity of this 'coming together' frequently becomes difficult to manage (4). Not surprisingly then, the operationalisation of the One Health approach to health continues to remain a challenge (5, 6). This paper describes the principal challenges and enablers that have so far influenced the adoption of the One Health approach, as observed from the perspective of public health researchers.

## The human health approach to One Health

Initial discussions related to One Health (7, 8) took place against the backdrop of global anticipation of an impending pandemic. Not surprisingly, the focus was on health protection, revolving around infectious disease threats to human health from animal sources. Despite emerging consensus on the use of the One Health concept by multiple stakeholders (9), the strong focus on human health security has continued in recent declarations and consultations (10). Consequently, most of the initiatives led by the human health sector, such as the proposed zoonoses interventions in India (11), still approach the One Health arena from a human health perspective. Concerns related

to trade, commerce, livelihood issues, environmental protection and sustainable development have been largely ignored. Initiatives related to ecosystem health, which usually emerge at the community level, have not been strong enough to influence the direction of change.

## The disconnect between human health and One Health efforts

The human health sector has had limited engagement with One Health efforts. This disconnect has historically been determined by the different operational incentives of the human and animal health sectors, i.e. a human health approach that focuses on clinical applications and the promotion of human well-being, and an animal health approach that focuses on food security and economic growth. Here, the authors highlight some of the principal factors that likely explain this limited engagement.

### The limited vision for implementing One Health

The human health sector views the improved health and well-being of humans as the intended outcome. While the activities of other sectors are motivated by animal welfare concerns and the need for food production and economic development, the human health sector invariably views human well-being as the intended outcome of all social activities and is guided by disease burden assessments. This necessarily brings it into conflict with other sectors that focus on relatively prosaic concerns, such as economic development or industry policies (12, 13, 14).

Given the difference in the incentive structures of the human, animal and environmental health sectors, the importance of common metrics to allow joint assessment of risks, costs and benefits across sectors has been regularly highlighted (4, 15, 16). However, in the absence of such metrics, it becomes difficult for the different sectors to identify common risks and deploy solutions in a collaborative fashion, except in emergency situations. This lack of a common language and consensus on measuring success has contributed to the inability of the global leaders of each sector to develop a shared vision for the implementation of One Health.

### A culture of apathy and ignorance

One can arguably say that, by virtue of its visibility and economics, the human health sector tends to be more insular in its approach, oblivious of other disciplines (17, 18). Even within the health sector, an overt emphasis on biomedical research (17, 19) has caused public health research to take a back seat. More so, since curative

health made rapid strides in a fast-growing billion-dollar economy, pushing preventive health further into the background (20). The dominance of basic science and human clinical perspectives in the discourse around zoonoses has resulted in a limited understanding among human-health researchers of the socio-political context of zoonoses and their risk factors (17). Furthermore, this relative lack of understanding within the human health sector has led to the perception that there is a difference in stature between human health and other sectors, making attempts for One Health collaboration even more tortuous.

The stand-alone approach of the human health sector is, the authors believe, one of the principal reasons that although collaboration with other sectors has proved possible in emergency situations (such as avian influenza outbreaks) it has not become the norm. Where it has been seen, it has been largely due to the leadership from the public health sector and not necessarily from the clinical sciences arena.

The insular approach of the human health sector manifests itself in its other functions as well, including research and capacity building. The Public Health Foundation of India, amongst other institutions, has demonstrated a pronounced research/policy disconnect in the area of zoonoses because of the lack of research output from non-clinical disciplines (17). Similarly, when it comes to capacity building, the regimented approach to medical education does not accommodate skill transfer or exposure to other disciplines (21).

### Governance lacking conceptual clarity

In the first few years after the declaration of the 'Manhattan Principles' (7), which were developed by international experts at a conference of the Wildlife Conservation Society in 2004, there was a series of discussions about the sectors, disciplines and activity areas that would be considered as coming under (and outside) the scope of One Health. No consensus was reached and this has led to confusion amongst different sectors regarding their expectations from the One Health approach and their role in implementing it, and questions as to which global institution should lead the One Health movement (6).

The lack of conceptual clarity regarding the scope of One Health, coupled with the failure of the international community to adapt to newer realities, has resulted in even less participation from the human health sector in One Health activities than would have been the case otherwise.

Another noticeable weakness of the One Health movement has been the absence of specific guidance frameworks or country-level case studies, which, in turn, leads to a lack of traction at the country level (6, 22). Bureaucratic silos

continue to prevail on the human health side, due to the limited understanding about the operating principles of One Health among the national leadership.

## The way forward

The human health sector forms an integral part of the One Health movement and its engagement needs to be strengthened by simultaneously recognising its existing achievements in forging alliances outside its comfort zone, and emphasising the transdisciplinary aspects of modern health sciences. Broadly, two levels of interventions are required to strengthen the engagement of the human health sector with the global One Health movement. These are described below.

### Technical and conceptual interventions

The global One Health movement has been made top-heavy in an attempt to carry everybody along, resulting in a lack of stewardship. Encouraging tripartite or bipartite collaborations between sectors for individual One Health initiatives, rather than involving multiple partners, would be one way to combat this. There are several existing examples that one could draw upon to build the implementation frameworks for the One Health concept. For example, integrated vector management considers all options for collaboration between the health sector (both public and private) and sectors that are responsible for other activities that may affect transmission risks, such as irrigation schemes, road construction, and urban development (23). Similarly, effective collaboration between tribal/rural development and forestry sectors, which creates an equilibrium between environmental conservation and sustainable livelihoods, is a model that could be adopted to help translate the One Health concept into practice (24).

The absence of trans-sectoral methods of measuring the risks, burden and costs across sectors has prevented public health workers from visualising the impact of human health interventions on animals and the environment. Recent efforts promoting the development of common metrics (25) are a step in the right direction. They will go a long way to convincing the political and technical leadership of each sector, especially the human health sector (and, within it, the proponents of clinical and biomedical approaches), that all sectors are equally important in achieving societal well-being and that interconnectedness is key.

The lack of appropriate country-level examples of implementing One Health approaches needs to be remedied by researchers and implementing agencies alike. Comparative assessments of different case studies need to go beyond the descriptive and identify operating principles

that can be generalised. In addition, national agencies can conduct self-assessments of One Health capacities, including needs assessment and a priority assessment, along the lines of the proposed framework for self-assessment of One Health capacities being developed by the relevant subgroups of the technical consultation which took place in Stone Mountain (United States) in 2010 (26).

### Systemic interventions

One Health cannot be considered as another discipline of public health in addition to human, animal and wildlife health. Rather, these individual disciplines should include One Health principles within their existing paradigms. It has to be an integral part of each sector and beyond. By beyond, the authors mean that it is necessary to clearly identify areas of joint action and pursue reform and structural adjustments to allow the philosophy emerging from science to determine the needs for governance. Most countries have formal inter sectoral coordination mechanisms formed for activities such as preparing for pandemics and implementing the international health regulations of the World Health Organization. Wherever possible, existing mechanisms need to be revitalised and their scope expanded to include other diseases and activity areas as well. In parallel to these efforts, informal collaborative mechanisms can easily be created among researchers and technical experts. These could provide alternative platforms for exchanging ideas and information outside the formal sector in addition to improving understanding of the culture and constraints of other sectors. Such initiatives will also need to be accompanied by longer-term efforts in building a culture of transdisciplinarity among the research, academic and practitioner communities across sectors.

## Conclusion

The centrality of human well-being to any interpretation of the One Health approach is undeniable. But human well-being cannot be realised in isolation from societal well-being and environmental soundness. Progression from human well-being to societal well-being will necessarily require a shared vision and a culture that is more collaborative and accommodative of other sectors concerned with One Health. Furthermore, sustainable and effective action will only be ensured when backed by enabling governance structures that have clearly defined roles and responsibilities for each sector.



## « Une seule santé » : le point de vue de la médecine humaine

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### Résumé

En dépit d'un début de consensus sur le fait que le concept « Une seule santé » suppose la participation de multiples acteurs, le secteur de la médecine humaine continue à l'envisager dans une perspective prioritairement axée sur la protection de la santé publique. Ce secteur a souvent ignoré les préoccupations d'autres secteurs, par exemple celles ayant trait aux échanges internationaux, au commerce, aux moyens de subsistance des populations et au développement durable, autant d'aspects qui contribuent pourtant de manière importante au bien-être sociétal. Faute d'une culture du travail en collaboration, d'objectifs précis « Une seule santé », de clarté conceptuelle et de cadres opérationnels, ce décalage entre la médecine humaine et les efforts « Une seule santé » a souvent empêché de traduire en réalisations concrètes le concept « Une seule santé », sauf dans certaines situations d'urgence. Pour mettre en place des partenariats « Une seule santé » efficaces et durables, il nous faut poser des principes opérationnels clairs qui soient suffisamment souples pour que des collaborations intersectorielles puissent se déployer. Il nous faut des exemples de bonnes pratiques et des méthodes intersectorielles d'évaluation des risques, des charges et des coûts répartis par secteur, afin de persuader les experts techniques et les responsables de la santé publique de l'importance de cette collaboration, mais aussi pour procéder aux ajustements structurels nécessaires. Les collaborations informelles entre chercheurs et experts techniques sont d'une importance décisive pour concevoir ces méthodes et modèles et pour que le bien-être sociétal trouve la place qui lui revient dans la vision « Une seule santé » en médecine humaine.

### Mots-clés

Collaboration intersectorielle – Médecine humaine – Une seule santé.



## La noción de «Una sola salud» vista desde el sector de la salud humana

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### Resumen

A pesar del creciente consenso respecto a la multiplicidad de interlocutores que necesariamente invoca el concepto de «Una sola salud», el sector de la salud humana ha seguido contemplando esta noción básicamente desde el punto de vista de la seguridad sanitaria humana, dejando a menudo de lado los problemas de otros sectores, como los ligados al comercio, los intercambios internacionales, los medios de subsistencia o el desarrollo sostenible, factores todos ellos que sin embargo son importantes para el bienestar de la sociedad. En ausencia de una cultura de colaboración, de claros objetivos en clave de «Una sola salud», de nitidez teórica y de marcos de trabajo, esta desconexión entre las iniciativas de salud humana y las de «Una sola salud» ha impedido con frecuencia trasladar este concepto de la teoría a la práctica, excepto en situaciones de emergencia. Para dar lugar a alianzas eficaces y duraderas en el marco de «Una

sola salud» debemos definir principios operativos claros, que permitan abordar la cooperación intersectorial con planteamientos flexibles. Para convencer a los expertos técnicos y responsables políticos del sector de la salud humana de la importancia de este tipo de cooperación e introducir los oportunos ajustes estructurales, necesitamos ejemplos de modelos de prácticas idóneas y métodos transectoriales para cuantificar los riesgos, cargas y costos en los distintos sectores. La colaboración oficiosa entre investigadores y expertos técnicos cumplirá una función decisiva a la hora de elaborar tales métodos y modelos y de introducir el criterio del bienestar de la sociedad en el concepto de «Una sola salud» visto desde el sector de la salud humana.

#### Palabras clave

Colaboración intersectorial – Salud humana – Una sola salud.



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