

Animal Health in the Face of Unprecedented Global Change

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The problem

Protecting animal health should be a socially relevant activity. Social relevance is gained by answering questions that society asks or solving problems it faces. Societies now face the problem of too many problems. Food insecurity, emerging diseases, habitat loss, pollution, climate change, and social conflict are happening concurrently rather than in isolation. Despite global changes such as urbanization, the extinction crisis, habitat degradation and globalization being the source of arguably the most important health challenges of the 21st century, veterinary engagement and leadership on these issue remains hard to find.

Life is made up of multiple, simultaneous assets, deficits and problems that interact to pull us closer to or further from critical tipping points. Unfortunately, we still largely train animal health professionals to simplify and attack health threats one at a time. Health gains made in the 19th and 20th centuries came largely from advances in knowledge on individual drivers of death and diseases. This strategy is growing less and less effective as the pace, scale, and variety of harbingers of doom pile on us.

Some have turned to One Health as the solution to our problem-by-problem approach to health. One Health emerged as a framework in the early 2000s to promote intersectoral action between human, animal, and ecosystem health sectors. To date, the vast majority of intersectoral action done under the banner of One Health has been done to address proximate human health risks and needs, such as zoonotic disease management and food insecurity (Gallagher et al 2022). One Health has come under scrutiny for being too anthropocentric and failing to include adequate attention to nonhuman well-being (Ferdowsian 2021). One Health has largely looked to manage animal health not for the moral and ecological value of healthy animals, but rather the extent that poor animal health affects human health and well-being. The preoccupation of One Health on zoonotic diseases for public health purposes has led to an emphasis on epidemiological approaches rather than socio-ecological systems approaches when conducting One Health research and practice (Gallagher et al 2022). Putting people at the top of a hierarchy of human, animal, and environment health has resulted in some suggesting that One Health reproduces a western-centric biomedical epistemology, rather than enabling novel intersectoral action on the interdependencies between human, animal, and environmental health (Davis and Sharp 2020). One Health in this light seems an inadequate solution for animal health professionals; those members of society expected to be animal health stewards and champions.

The solutions to modern health problems require us to maintain adaptable functionality so we can adjust to expected, unexpected and interrelated threats by preserving the social and environmental assets that give us and our animals health. Too often the bulk of training for animal health professionals target the pathophysiologic or etiologic origins of a harm rather than on the coordinated actions with society to preserve and protect health. Veterinary medicine is de facto training disease service specialists as dictated by national licensing expectations rather than holistic health professionals. Veterinary colleges tell their students that there are opportunities to learn about issues such as conservation, sustainability, or ecosystem health yet the vast majority of veterinary training deals with questions such as why is this animal sick and how can I return it to an 'unsick' state? Despite clear and escalating signs of increasing vulnerability to environmentally derived health threats, the global

response has been muted and efforts continue to fall far short. There have been calls for decades in the animal health realms for attention and investment on fostering healthy relationships with the world around us. Yet action remains sparse.

Although the response from the animal health professions continues to gain momentum, the current approach is not future ready. The combination of health crises like extreme weather events and epidemics plus the current high profile of One Health provides a unique opportunity for course correction in how animal health is conceived and delivered. Change often is launched in response to a crisis.

Three proposed changes

Preserving animal health gains and preventing backward momentum requires substantial re-imagining of how to inspire and sustain the organizational and individual changes to concurrently care for the health of animals, societies, and ecosystems. Below I propose 3 actions that must occur to position animal health professional as socially relevant actors in the war against global health threats.

Focus on health

To be healthy, an individual or population needs to have a minimal set of resources, functions, and capabilities that operate within an environment that enables them to access their needs for daily living and cope with challenges to meet expected end points. Given the growing number, frequency, and interconnections between threats to health, future-ready animal health programs must ensure that animals can remain healthy in an uncertain future. This is more than responding to and preventing disease. A focus on the determinants of animal health requires attention to a wide suite of mechanisms to promote and protect health. Health, therefore, is beyond the scope of one organization or discipline to fulfill all requirements for healthy animals.

Animal health professions must strive to understand why some populations are healthier than others. They need perspectives, skills, and capacities to deploy four key strategies to fosters conditions conducive to health; (1) build management and health policies that protect the determinants of animal health; (2) focus on creating healthy environments that support sustainable access to the determinants of health; (3) strengthen collaborative action; and (4) reorient animal health from only disease management to a providing a continuum of care (Stephen 2022).

Animal health as collective action

It is hard to argue against the proposition that animal health is utterly dependent on a healthy biosphere and that many of the most pressing health problems shared by people and animals, like climate change and pandemics, cannot be addressed without partnerships and collaborations. Given that extreme weather, emerging infections, declining air quality, and food security crises are now commonplace, it is equally hard to argue against the need to reimagine how animal health practice creates and applies intersectoral means to move beyond its preoccupation with diseases and economic productivity.

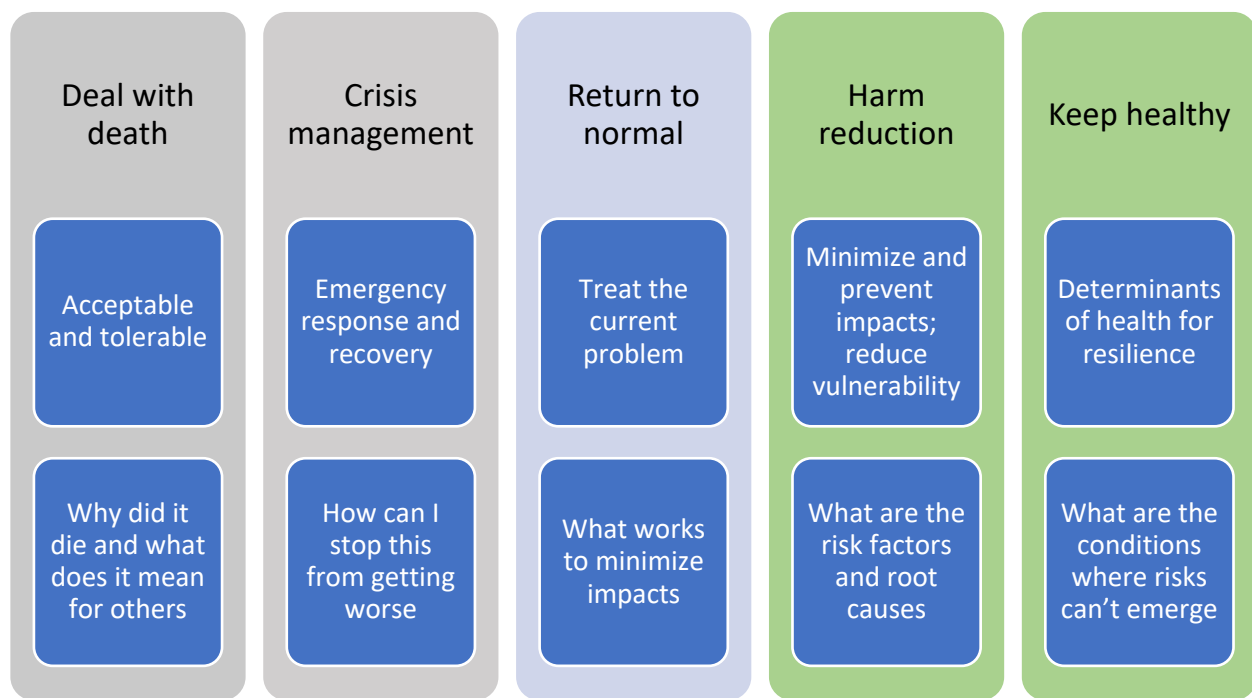
The challenge for animal health professionals is to identify the roles and responsibilities they can credibly fulfill to remain socially relevant as the global changes affecting animal health become more pervasive, impactful, and locally relevant. If there is a gap between their desired impacts and their legitimate scope of practice, there are two options; expand training or expand partnerships.

An animal health department cannot single-handedly achieve interspecies health equity, eliminate global health threats, or address all determinants of animal health. It is important to recognize and acknowledge the extent of a problem’s causal web. This opens you up to looking at the multiple factors that influence the problem and helps identify the partners able to be part of the problem-solving process.

To effectively tap into the diverse skills and knowledge that influence animal health, we will need to reframe how we do animal health. We need to start talking about animal health care systems rather than the roles and responsibilities of professions isolated from each other. Animal health professions cannot, and should not, be defined by legislated roles set out in Veterinary Acts or professional licensing bodies. A useful starting point for action revolves around the question, “what needs to be done?” rather than “how can I fix it”? Creating an ethic of intersectoral cooperation and developing skills for effective collective action are essential for training 21st century animal health professionals. ‘Boundary people’ (those trained and interested in building intersectoral alliances) are needed to enable and empower collective action on collective animal health goals.

Create an animal health system that provides a continuum of care

The following figures sketches an animal health continuum of care. It outlines 5 categories of action, each with their focus own and guiding questions.



The levers for action in each of these themes are controlled by different expertise and legislation which operate through a network of differing roles, relationships, and interactions. All these entities contribute to animal health and the contributions it makes to ecosystems and societies. Veterinarians are major players in this continuum of care, but they do not provide the full spectrum of essential health services alone. Future-ready animal health workers need to be able to recognize the multiple factors that influence a health problem, understand how their contributions affect progress on goals and identify the partners able to be part of the problem-solving process. The goal is not to establish strict boundaries,

but instead to reflect on the nature of the problems, how standard approaches may fail and how new collaborations may help. Currently, we rely on informal arrangements to ensure coordination across this continuum; and even these are rare occurrences. A systematic, coordinated, and sustained approach to delivering a coordinated animal health care system is a pre-requisite for efficient use of resources, to avoid unintended consequences and to get ahead of the onslaught of new problems.

Conclusion

Until the animal health community highlights the critical influence of global changes on long-term animal health it will continue to miss the real point—actions to maintain the complex social and ecological systems that support health and life is not someone's else's concern, but instead it a foundation responsibility of those charged by society to care for animals' health. Animal health professionals will need to embrace a dual loyalty to both animals, and to struggles occurring outside of their workplaces on the surrounding communities and ecosystems. They will need to combine holistic health literacy (which includes environmental awareness and interest in the state of the world) with ecological citizenship that focusses attention on the duties and responsibilities to ensure sustainable ecological footprints and a just distribution of ecological space to human and non-humans alike. They will need to reframe animal health as a collective activity rather than a legislated speciality.

References

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