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## How can gender considerations be better integrated into animal health emergency preparedness and response?

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### ABSTRACT

Global and national authorities have not historically approached animal health emergencies through a gendered lens. Yet these events almost certainly have gendered dimensions, such as differential engagement of women or men depending on their culturally accepted or assigned roles for animal care; risk of exposure to zoonoses; and access to emergency resources during response and recovery. Despite the role that gender seems to play with respect to animal health emergencies, little research has been conducted to better understand such dynamics, and little policy has been promulgated to address it in a way that optimizes response while ensuring equitable outcomes. This piece summarizes 3 key themes that emerged from a panel discussion on gender and animal health emergencies at the World Organisation for Animal Health Global Conference on Emergency Management in April 2023. These themes were differential gendered exposure to pathogens; a lack of equitable gender representation in animal health decision-making; and enhancement of pathways for recognizing gender in national and international actions in preparing for, detecting, and responding to animal health emergencies. Beyond increasing opportunities for women to engage in leadership, the animal health and veterinary communities will benefit from connecting practitioners with gender experts to develop more integrative approaches to emergency preparedness and management. Animal health professionals should also advocate for further research to elucidate gender-specific dynamics in human populations in the context of animal emergencies and the promulgation of evidence-based policies. Such transformative efforts will lead to better outcomes for all people who depend on and provide care for animals.

**Keywords:** preparedness, emergency response, zoonoses, gender, equity

Animal health emergencies can result from geophysical hazards, infectious disease outbreaks, or crises such as conflict, agro-crime, and agro-terrorism. Such emergencies may pose substantial risks not only to the animals at risk themselves but also to human populations. These risks can be direct, such as when an outbreak in animals is caused by a zoonotic pathogen, or indirect, through negative economic and social impacts like lost income or the culling of animals for disease control.

Human health emergencies are associated with well-understood gender inequities.<sup>1</sup> During health

emergencies, women's existing burdens can become exacerbated, and women are more likely to be vulnerable to the health, social, and economic consequences of these kinds of health crises. Women experience the secondary effects of health emergencies, which manifest through challenges such as increased burden of unpaid (and paid) care, which women disproportionately undertake; increased risk of unemployment or financial insecurity, noting the feminized sectors of the economy which are most affected by social restrictions (eg, hospitality, tourism, and education); and increased risk of gender-based violence and challenges relating to access to health services, notably those of sexual and reproductive health.<sup>2</sup> Animal health emergencies may also have dimensions that relate to gendered roles, cultural expectations, and norms. One may see differential engagement of women or men depending on

Received October 27, 2023

Accepted December 26, 2023

doi.org/10.2460/javma.23.10.0589

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their culturally accepted or assigned roles for animal care; unique exposure risks to zoonoses depending on occupation or species cared for; and inequitable access to emergency resources during response and recovery. Social power relationships and gender-based violence are documented features of human health emergencies and may also have roles in animal health emergencies.<sup>3,4</sup>

Some global standard setting organizations are beginning to integrate equity goals into policies related to animal health aims. The World Organisation for Animal Health (WOAH) has established a Gender Taskforce to inform how WOAH understands gender across its mandate.<sup>5</sup> The WHO is supporting advancement of Sustainable Development Goals through research on health equity and establishment of gender-responsive health service provision and delivery guidance and standards.<sup>6</sup> WHO has also established a gender working group in its health emergencies program,<sup>7</sup> whose main activity has been to introduce gender indicators into the organization's Joint External Evaluations, a health preparedness tool. There remains a small evidence base, however, on which to build enduring policies and ensure their effectiveness and success.

This piece summarizes 3 key themes that emerged from a panel discussion in which the authors participated or helped plan at the WOAH Global Conference on Emergency Management in April 2023.<sup>8</sup> The session, titled "Gender and Animal Health Emergencies," was moderated by a gender expert who specializes in the gendered impacts of infectious disease policy, and invited commentary from practitioners in animal health, international law, and law enforcement and biosecurity. The dominant themes that emerged from these presentations and conversations were: gendered exposure to disease creates differential risk; a lack of equitable representation is present in animal health decision-making for all gender identities; and pathways for national and international action can be utilized to reconcile such gender disparities.

Here we offer recommendations for advancing progress on research and policy development in this complex intersectional area. By advocating for more research that reveals complex gender-specific dynamics in human populations in the context of animal emergencies, and more evidence-based policy informed by such research, we can achieve more optimal outcomes for all people who depend on and provide care for animals. The global community of animal health professionals cannot make these changes alone but can be a force for enabling such transformative efforts.

## **Gendered exposure to zoonoses**

For many zoonotic diseases, women are on the front lines of exposure due to how gender roles influence interactions with animals. This dynamic has been notably at play in the context of avian influenza outbreaks, as in many countries women are primarily responsible for backyard poultry farming, a setting

in which biosecurity protections may be negligible. The European Commission noted in a 2008 study on gender aspects of the avian flu crisis in Southeast Asia that women were more affected by the crisis as they were the population most directly involved in poultry handling, particularly in small-scale backyard operations.<sup>9</sup> The researchers interviewed farmers and government officials, many of whom offered that women faced more risk of disease transmission than men due to their lower level of access to information about avian influenza and how to prevent transmission to people.

Influenza is only 1 example—differential zoonotic risk can be present in any husbandry systems where there is potential for zoonotic transmission and where there are different roles for different genders. In many countries and settings, women are more likely to interact with raw meat, raw milk, milk products for cooking or sale, and with animal bones, all increasing their risk of exposure to foodborne illness from these animal products. There may be some contexts in which men have higher exposure to zoonotic risks, for example as workers in slaughterhouses or abattoirs,<sup>10</sup> or in caring for large animals in nomadic pastoralist populations.<sup>11</sup>

Gendered exposure can be contextually and culturally specific and differ across country and regional settings. Once exposed to a zoonosis, there are often gendered differences in disease progression, clinical manifestation, knowledge of options for and access to treatment, and health seeking behavior. For example, hepatitis E is typically a transient and self-limiting infection, but can be fatal for pregnant women<sup>12</sup>; likewise, certain antibiotics used commonly to treat zoonotic diseases such as borreliosis, tularemia, and plague are not recommended during pregnancy or breastfeeding.<sup>13</sup>

## **Equitable representation**

Processes to address gendered risks in exposure are driven, in part, at the governance level. Ensuring that all gender identities have equal access to participate at all levels of policy implementation fully and effectively is critical across all aspects of governance, as defined by the United Nations (UN) Sustainable Development Goal 5 on Gender Equality<sup>14</sup>; animal health governance is no exception.

Even as representation in the veterinary sector becomes increasingly the purview of women in many countries, empowering all gender identities to succeed in leadership positions may require more than just lowering access barriers. It may also necessitate promoting cultural change and acceptance of women in decision-making roles, as well as encouraging women to aspire to leadership, through efforts like gender sensitivity training and peer-peer networks. This may be particularly true in sectors seen as traditionally occupied by men, such as police or military, who are often key responders in animal health emergencies.

Beyond the intrinsic importance of gender equality in decision-making, policy makers must account for the diverse gendered implications of all

proposed legislative, regulatory, and programmatic endeavors to build animal health systems that are resilient to crises. It is insufficient to assume that women, simply by being women, are equipped with gender expertise. “Gender expertise” is complicated to define, but may for our purposes be viewed as specialized knowledge about gender differences and how they influence decisions or outcomes; Kunz and Prügl<sup>15</sup> provide an extensive discussion of different approaches to understanding gender expertise. For animal health concerns, such expertise could take the form of a gender studies professional such as a sociologist, economist, or political scientist who analyzes power relations through a gendered lens; or a veterinarian or paraveterinarian who has received training in gender equality through an academic institution or a nongovernmental organization. The key point is that legitimately integrating women’s leadership into emergency response functions requires not just the procedural presence of women on an emergency response team or task force, but the substantive integration of gender expertise in the policy process. This ensures that gender obligations are not performative, but rather a meaningful commitment to reconciling gendered risks and advancing equity in outcomes.

## National and international action

Gender transformative approaches seek to counter gender inequality and discriminatory norms and practices, while also working to redistribute power and influence more equally among all gender identities.<sup>16</sup> At the international level, gender transformative policy has begun to take a central role, particularly in the Global South where it is often driven by broader gender transformative development agendas.

A gender-equitable future is also starting to be reflected at the multilateral level. Progress can be observed in everything from the international development agenda to arms control treaties that include biological agents that could be used for agro-terrorism. For example, UN Security Council Resolution 2663<sup>17</sup> explicitly encourages the full and equal participation of women in all of its activities. Such action falls short of being gender transformative, as it does not attempt to address underlying causes of gender disparities, but is an important step nonetheless.

Addressing gender disparities will require an approach that facilitates coordinated international action in several ways. Decision-making power is a mainstay of gendered relations<sup>18</sup>; women can be empowered to advocate for themselves if they are included in decision-making processes related to animal health and health emergencies. This can be advanced not only by “counting” women to make sure they are represented in higher numbers in decision-making levels at national, regional, and international institutions as called for by UN Security Council Resolution 1325,<sup>19</sup> but also through ensuring that these women’s voices are heard and that biased structural power relations within meeting spaces do

not prevail, leaving women silent. Governments can employ gender experts to author thoughtful and evidence-based planning and response documents that better incorporate knowledge of gender differentials. Further, decision-makers should undertake regular consultations with women practitioners and gender-oriented organizations. Finally, animal health professionals can advocate for incorporation of gender perspectives in national veterinary laws and regulations, such as by ensuring that national preparedness and response plans for animal health emergencies are gender sensitive, if not gender transformative, with clearly articulated recommendations for how to mitigate gendered effects of an outbreak. This could mean delineation of how reimbursement policies will ensure fair access and uptake for smallholders to reclaim lost earnings regardless of gender; or greater consideration for management of emergency response rotas for veterinary professionals who may also be primary caregivers at home. To do this effectively will require a stronger evidence base that demonstrates that a lack of gender planning is indeed inhibiting rapid outbreak management and optimal human and animal health outcomes.

## Recommendations

When gender is discussed (if at all) in the animal health domain, it usually pertains to the potential economic impacts on women when traditional paid positions are jeopardized by emergencies, or as advocacy for the introduction of gender parity in positions of power and leadership within the paid workforce. There is seldom consideration of wider gendered impacts, namely unpaid labor, gender-based violence, household decision-making, or social power relationships, let alone impacts related to people with diverse or non-binary gender identities.

To mitigate gendered impacts of animal health emergencies, and the national and international responses to them, it is paramount to first understand how gendered harms manifest. This process begins with research; all organizations operating within the animal health emergency landscape must prioritize funding explicitly gender-transformative research initiatives. In addition, all research—regardless of an explicitly gendered focus—must disaggregate data by identity characteristics. We must also recognize the need to go beyond gender as the sole variable of interest and acknowledge intersectional factors. Social inclusion across all identity categories, as well as consideration of socio-economic, geographical, and other factors that may intersect with gender to influence outcomes, is the only way to build truly resilient systems.

Fundamentally, gender impacts everyone. Most government officials and policy makers simply lack knowledge on the gendered effects of emergency intervention strategies. This naivety leads to the propagation of inequity, delayed recovery, and gender erasure. Beyond increasing opportunities for women to engage in leadership, the animal health and veterinary communities will benefit from connecting practitioners

with gender experts to develop more integrative approaches to emergency preparedness and management. Studying the unique ways diverse genders interact with animals, how their economic power is mobilized through livestock, and how social power can be re-negotiated in the face of emergencies can improve equitable outcomes and make communities more resilient to animal health emergencies.

## Acknowledgments

None reported.

## Disclosures

The authors have nothing to disclose. No AI-assisted technologies were used in the generation of this manuscript.

## Funding

CW, EC, EH, and CS received funding for a separate original research project through the World Organisation for Animal Health that inspired the commentary. All authors who traveled to the World Organisation for Animal Health conference received travel funds.

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