Mitigating Emerging Zoonotic Risks in the Exotic Pet Trade

Policy Statement

Rue Victor Oudart 7, 1030 Schaerbeek, Belgium

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Introduction

The global increase in exotic pet ownership has raised significant concerns regarding the emergence and transmission of zoonotic diseases. According to the World Organisation for Animal Health (WOAH), 60% of existing and 75% of emerging or re-emerging infectious diseases are zoonotic, with 70% of emerging zoonoses originating from wildlife, highlighting the significant role wildlife plays in their transmission. Exotic animals, including reptiles, birds, and small mammals, can carry pathogens such as *Salmonella spp.* (reported in up to 90% of captive reptiles), *Chlamydia psittaci* (a major cause of psittacosis in bird owners), and various zoonotic viruses, posing risks not only to pet owners but also to broader public health [1-8].

The exotic pet trade moves millions of animals globally each year through both legal and illegal channels. Even within legal markets, health screening protocols and regulatory oversight are often limited or inconsistently enforced, creating substantial gaps in zoonotic disease prevention.

Studies estimate that over 75% of emerging zoonotic viruses originate in wildlife, underscoring the public health risks associated with all forms of trade involving exotic species. Unregulated trade and improper husbandry practices further exacerbate these risks. Many exotic species are housed in suboptimal conditions that facilitate disease transmission. Additionally, illegal wildlife trafficking accelerates the spread of novel pathogens, highlighting the urgent need for stronger regulatory frameworks and preventive measures [1-10, 14-16].

The exotic pet trade moves millions of animals globally each year, often with minimal health screening and inconsistent regulatory oversight, creating significant gaps in zoonotic disease prevention. Some estimates suggest that the exotic pet trade, in the United States alone, is valued at about $ 15 Billion annually, importing over 200 million animals each year. Many of these animals, from both legal and illegal trade, are sold without any health checks or disease testing. This dramatically increases the chances of spillover of any zoonotic diseases that these exotic pets may carry [14-16].

The International Veterinary Students' Association (IVSA) is a global non-profit and non-governmental organisation dedicated to uniting veterinary students worldwide. It is the largest veterinary student organisation in the world, with 190 member organisations across 84 countries and approximately 38,000 members. The IVSA's mission is to: "*Benefit the animals and people of the world by harnessing the potential and dedication of veterinary students to promote the international application of veterinary skills, education, and knowledge*" [11].

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The IVSA Pathology Network (PN) is the IVSA's latest Network and serves as a platform dedicated to veterinary students who are enthusiastic about veterinary pathology, complementing the global network of IVSA members. By facilitating collaborations with specialists, the PN aims to present the diverse interdisciplinary aspects of veterinary pathology and enhance significant youth engagement in this field, fostering a strong connection between veterinarians. In doing so, the PN actively contributes to the IVSA's diversity by introducing the first Network focused on the paraclinical field of Veterinary Medicine. The IVSA Pathology Network aims to raise awareness about Veterinary Pathology and help veterinary students explore potential career paths. The PN does so by connecting like-minded IVSA members and providing collaboration and knowledge exchange opportunities [12].

The IVSA Wild and Exotic Animal Network (WEAN) is another IVSA initiative committed to enhancing knowledge, responsible ownership, and health management of wild and exotic animals. The aim of IVSA Wild and Exotic Animals Network is to enhance the impact of veterinary students in this field and to connect students with resources and opportunities in wild and exotic animal medicine. Together, these Networks aim to address pressing issues in veterinary medicine and advocate for policies that safeguard both human and animal health [13].

The PN and the WEAN jointly advocate for a proactive, multi-faceted approach to reducing the risks of zoonotic disease transmission linked to exotic pet ownership. Existing regulations are often insufficient, resulting in gaps in disease surveillance and limited public awareness. The IVSA calls for improved risk assessment, the promotion of responsible pet ownership, and the implementation of stricter regulatory frameworks to address these emerging zoonotic threats effectively [12-13].

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Call to Action

Policymakers, regulatory bodies, veterinary organisations, pet owners, breeders, researchers, and public health authorities must prioritise zoonotic disease control within the exotic pet trade. The increasing risks associated with exotic pet ownership demand urgent and coordinated action to prevent future outbreaks, as demonstrated by past public health crises linked to wildlife species such as SARS and monkeypox [1-10].

By implementing robust health screening measures, clear ownership regulations, targeted education, and collaborative research, we can significantly reduce the threat of zoonotic diseases and protect both human and animal health. Immediate steps are essential to mitigate emerging risks and promote a responsible and sustainable exotic pet trade worldwide [1-10, 14-15].

Key recommendations by stakeholder:

1. **For policymakers and regulatory bodies:**
    - **Require** mandatory health screenings and pathogen testing for all imported and traded exotic animals to enable early detection of zoonotic pathogens;
    - **Implement** standardised testing protocols across borders to ensure consistent disease detection and prevention;
    - **Enforce** species-specific ownership guidelines, licensing requirements, and restrictions on high-risk species;
    - **Mandate** accurate documentation of animal origin (e.g., wild-caught vs. captive-bred) and impose quarantine measures for all imported exotic animals;
    - **Develop** a risk-based classification system to determine appropriate regulatory measures for each species;
    - **Strengthen** enforcement mechanisms, including penalties for non-compliance and illegal trade.
2. **For veterinary organisations and professionals:**
    - **Mandate** veterinary inspection and certification prior to sale or transfer of exotic pets to verify health status;
    - **Integrate** exotic pet disease management into veterinary curricula and continuing education programs;
    - **Promote** collaborative research on zoonotic risks associated with exotic pets, focusing on emerging pathogens and epidemiological trends;
    - **Encourage** international cooperation with public health sectors to strengthen global zoonotic disease monitoring and response.
3. **For pet owners and breeders:**
    - **Participate** in targeted education campaigns on zoonotic risks, safe handling, and routine veterinary care;

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- **Complete** accessible online certification programs to promote responsible exotic pet ownership and disease prevention.

4. **For public health authorities and researchers:**
   - **Establish** a centralised, publicly accessible database to track health screenings, pathogen presence, and case reports;
   - **Expand** public awareness initiatives to discourage high-risk exotic pet ownership based on zoonotic concerns;
   - **Foster** international cooperation for global surveillance and rapid response to zoonotic threats.

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Conclusion

The rising demand for exotic pets, alongside insufficient regulatory oversight and limited public awareness, represents a growing threat to global public health. The risk of zoonotic disease transmission from exotic species highlights the urgent need for coordinated, evidence-based interventions. Addressing this issue requires comprehensive action through enhanced regulation, public education, standardised health protocols, and international collaboration [1-10, 14-15].

Policymakers and relevant authorities are encouraged to treat zoonotic risk mitigation in the exotic pet trade as a critical public health priority. Implementing the measures outlined in this document will contribute to reducing the likelihood of future zoonotic outbreaks and promote a more responsible, informed, and sustainable approach to exotic animal ownership and trade. Immediate action is essential to protect human and animal health and to uphold global health security [1-10, 14-15].

Key priorities for action include:

1. **Strengthening** regulation of exotic animal trade;
2. **Enhancing** health screening and surveillance systems;
3. **Promoting** responsible ownership through education;
4. **Advancing** international collaboration and data sharing.

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Resources

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