One health approach: collaborative solutions for veterinary public health challenges.

Zemy Pull*

Department of Family Medicine, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Introduction

In the realm of public health, the interconnectedness of human, animal, and environmental health has become increasingly evident. The "One Health" approach recognizes this interconnectedness and emphasizes collaboration across disciplines to address complex health challenges. Within this framework, veterinary public health plays a crucial role in safeguarding both animal and human populations from diseases and other threats. By integrating expertise from veterinary medicine, human health, environmental science, and other fields, the One Health approach offers collaborative solutions to mitigate emerging infectious diseases, antimicrobial resistance, food safety issues, and other pressing challenges.At its core, the One Health approach recognizes that the health of humans, animals, and the environment are intimately linked. Diseases can easily jump between species, as seen in zoonotic diseases like avian influenza, Ebola virus, and COVID-19. Understanding and addressing the factors driving these disease transmissions require a holistic approach that considers the interactions between animals, humans, and their shared environment. Veterinarians, with their expertise in animal health and disease control, are essential partners in this effort [1,2].

One of the key areas where the One Health approach is making significant strides is in the surveillance and control of zoonotic diseases. By monitoring disease trends in both animal and human populations, veterinarians can identify emerging threats early and implement targeted interventions to prevent outbreaks. For example, veterinarians working alongside public health officials played a crucial role in containing the spread of Ebola virus during outbreaks in Africa by implementing measures such as animal vaccination campaigns and community education programs [3,4].

Additionally, the One Health approach is instrumental in addressing antimicrobial resistance (AMR), a global public health threat fueled by the overuse and misuse of antibiotics in both human and veterinary medicine. Veterinarians play a vital role in promoting responsible antimicrobial use in animal agriculture and companion animal care to preserve the effectiveness of these life-saving drugs. Collaborative efforts between veterinarians, physicians, pharmacists, and policymakers are essential to develop strategies for stewardship of antimicrobials across all sectors [5,6].

Food safety is another area where the One Health approach offers valuable insights and solutions. Ensuring the safety of the food supply requires a coordinated effort to monitor and mitigate risks at every stage of production, from farm to fork. Veterinarians contribute their expertise in animal health and welfare to prevent and control diseases in livestock, reducing the risk of foodborne pathogens entering the food chain. By working together with food scientists, epidemiologists, and regulatory agencies, veterinarians help implement science-based practices that safeguard public health [7,8].

Furthermore, the One Health approach recognizes the importance of environmental health in shaping disease dynamics. Environmental factors such as climate change, habitat destruction, and pollution can influence the emergence and spread of infectious diseases. Veterinarians, ecologists, and environmental scientists collaborate to understand these complex interactions and develop strategies to mitigate environmental drivers of disease. By promoting sustainable practices that protect ecosystems and biodiversity, the One Health approach aims to create healthier environments for both humans and animals [9,10].

Conclusion

In conclusion, the One Health approach offers a holistic framework for addressing the complex public health challenges at the intersection of human, animal, and environmental health. Veterinarians play a central role in this collaborative effort, leveraging their expertise in animal health, disease control, and food safety to protect both animal and human populations. By fostering interdisciplinary collaboration and implementing evidence-based interventions, the One Health approach holds great promise for safeguarding public health in an increasingly interconnected world. Embracing this approach is essential for building resilient health systems capable of addressing emerging threats and promoting the well-being of people, animals, and the planet.

References

1. Coovadia H, Jewkes R, Barron P, Sanders D, McIntyre D. The health and health system of South Africa: historical roots of current public health challenges. The lancet. 2009 Sep 5;374(9692):817-34.

***Correspondenceto: Zemy Pull,** Department of Family Medicine, University of Sarajevo, Sarajevo, Bosnia and Herzegovina.E-mail: Zmypul@mf.unsa.ba

***Received:** 29-Feb-2024, Manuscript No. AAPHPP-24-130263; **Editor assigned:** 01- Mar -2024, PreQC No. AAPHPP-24-130263 (PQ); **Reviewed:** 15- Mar-2024, QC No. AAPHPP-24-130263; **Revised:** 19- Mar -2024, Manuscript No. AAPHPP-24-130263; **Published:** 25- Mar -2024, DOI: 10.35841 /aaphpp-8.2.230*

***Citation:** Pull Z: One health approach: collaborative solutions for veterinary public health challenges. J Public Health Policy Plan .2024;8(2):230*

2. Lima-Camara TN. Emerging arboviruses and public health challenges in Brazil. Revista de saude publica. 2016 Jun 27;50:36.
3. Landrigan PJ, Kimmel CA, Correa A, Eskenazi B. Children's health and the environment: public health issues and challenges for risk assessment. Environmental health perspectives. 2004 Feb;112(2):257-65.
4. Alonso PL, Tanner M. Public health challenges and prospects for malaria control and elimination. Nature medicine. 2013 Feb;19(2):150-5.
5. Trochim WM, Cabrera DA, Milstein B, Gallagher RS, Leischow SJ. Practical challenges of systems thinking and modeling in public health. American journal of public health. 2006 Mar;96(3):538-46.
6. Bonell CP, Hargreaves J, Cousens S, Ross D, Hayes R, Petticrew M, Kirkwood BR. Alternatives to randomisation in the evaluation of public health interventions: design challenges and solutions. Journal of Epidemiology & Community Health. 2011 Jul 1;65(7):582-7.
7. Gushulak BD, Weekers J, MacPherson DW. Migrants and emerging public health issues in a globalized world: threats, risks and challenges, an evidence-based framework. Emerging health threats journal. 2009 Apr 11;2(1):7091.
8. Gebbie KM, Turnock BJ. The public health workforce, 2006: new challenges. Health Affairs. 2006 Jul;25(4):923-33.
9. Ting DS, Cheung GC, Wong TY. Diabetic retinopathy: global prevalence, major risk factors, screening practices and public health challenges: a review. Clinical & experimental ophthalmology. 2016 May;44(4):260-77.
10. Nastasi BK. Meeting the challenges of the future: Integrating public health and public education for mental health promotion. Journal of Educational and Psychological Consultation. 2004 Dec 1;15(3-4):295-312.

Citation: *Pull Z: One health approach: collaborative solutions for veterinary public health challenges. J Public Health Policy Plan .2024;8(2):230*