

NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION: POSITION PAPER ON “ONE WORLD-ONE HEALTH”

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The public health challenges of the 21st century demand that multidisciplinary groups of professionals work together to address new and re-emerging issues affecting global health and ecologic stability. Urbanization, globalization, climate shift, and terrorism have brought the need for a more diverse public health workforce to the forefront of public planning (Pappaioanou, 2004). Many emerging health issues are linked to increasing contact between humans and wildlife, intensification and integration of food production, and the expansion of international travel (World Health Organization, 1999). A rise in antimicrobial resistance, the growth of the immunocompromised population, and a changing global environment calls for an integrated response from medical, veterinary, and public health professionals.

The “One Health, One Medicine” initiative has been developed as a response to the need for integrated interaction between medical, veterinary, and public health fields. Also known as the “Manhattan Principles”, the One Health initiative calls for recognition of the essential link between human, animal, and environmental health and an increased investment in global health infrastructure to support surveillance and detection of emerging threats to human health from wildlife, domesticated animals, and the environment.

“One Health”:

- Builds on commonalities across species, using medical or veterinary knowledge gained in one species to benefit all species;
- Recognizes that human health, animal health, and ecosystem health are inextricably linked; and
- Seeks to foster greater cooperation and collaboration across all health disciplines, creating synergies that benefit the health of people, animals, and the environment as practitioners improve effectiveness and efficiency in addressing public health challenges.

Proponents of the One Health initiative have focused mainly on the relationship between medicine and veterinary health. It is time for public health, and especially environmental health, to become a part of the One Health triad. Changes in land use, creation and operation of large terrestrial and marine food production units, and microbial and chemical pollution of land and water sources have created new threats to the health of both animals and humans (Zinsstag, Schelling, Wyss, & Mahamat, 2005). The intensive responses to the intentional release of anthrax, the periodic contamination of seafood production beds, the spread of West Nile virus, the importation of monkeypox, the widely publicized occurrence of large foodborne-disease outbreaks, and the threat of pandemic influenza all serve as recent models illustrating the impact and burden of disease on the

resources of public health infrastructure (Kahn, 2006; King, 2006). The need for integrated environmental, animal and human health surveillance, diagnostic laboratory systems, and delivery of effective health interventions among animal, human, and public health professions has never been more essential.

Medical doctors are turning to environmental health scientists and practitioners to help them track disease outbreaks to the source, prevent chronic disease caused by chemical exposure, and create healthier living environments. Veterinarians are also turning to environmental health scientists and practitioners to develop their understanding that many outbreaks and public health emergencies are failures of veterinary prevention infrastructure. Doctors, veterinarians, and public health professionals must work together to investigate the environmental antecedents that lead to adverse health outcomes.

One Health is the perfect unifying concept to bring together doctors, veterinarians, and public health professionals under the umbrella of environmental health. By strengthening epidemiologic and laboratory investigations that assess the role of environmental influences, this partnership can help to develop and apply sustainable and effective community health interventions.

References

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It is therefore **RESOLVED** that NEHA:

1. Improve member awareness of the “One health” initiative and endeavor to strengthen collaborative program partnerships in applied “One health” research and technical interventions;
2. Actively promote that Environmental health specialists bring knowledge, skills, and experiences linking the science of clinical care, laboratory/diagnostic sciences, epidemiology and health surveillance, and applied environmental health practice which are foundational to the practice of “One health”;

3. Support an initiative designed to promote collaboration between human and veterinary medicine, and environmental health practice, through formal engagement and interaction with the organized medical (AMA), veterinary (AVMA) and public health (APHA) communities;
4. Support joint educational efforts between accredited human medical and veterinary medical schools, schools of public health and schools of environmental health sciences;
5. Encourage joint efforts in human and animal clinical care as well as public health protection and improvement through the assessment, treatment, and prevention of cross-species disease transmission;
6. Support cross-species disease surveillance and control efforts in public health;
7. Support joint efforts in the development and evaluation of new diagnostic methods, medicines, and vaccines for the prevention and control of diseases across species (Directive to Take Action);
8. Engage in a dialogue with the American Veterinary Medical Association and American Medical Association to discuss strategies for enhancing collaboration between the environmental health, medical and veterinary medical professions in health education, clinical care, public health, and biomedical research by supporting legislation designed to support this, and by actively participating in multidisciplinary workgroups, development of technical reports, community needs assessments, action plans, cooperative research agreements, and governmental grant and contract activities.

