One Health and Why it Matters to Fish and Wildlife Agencies

Sara Parker Pauley June 26, 2023



One Health...

- Is a collaborative, multisectoral, and transdisciplinary approach
- Works at the local, regional, national, and global levels
- Has the goal of achieving **optimal health** outcomes recognizing the interconnection between **people**, **animals**, **plants**, **and their shared environment**.

Wildlife Disease with a One Health lens



The number of infectious disease outbreaks related to wildlife has dramatically increased.

The number of human health challenges are also increasing.



Health is a basic human concern:

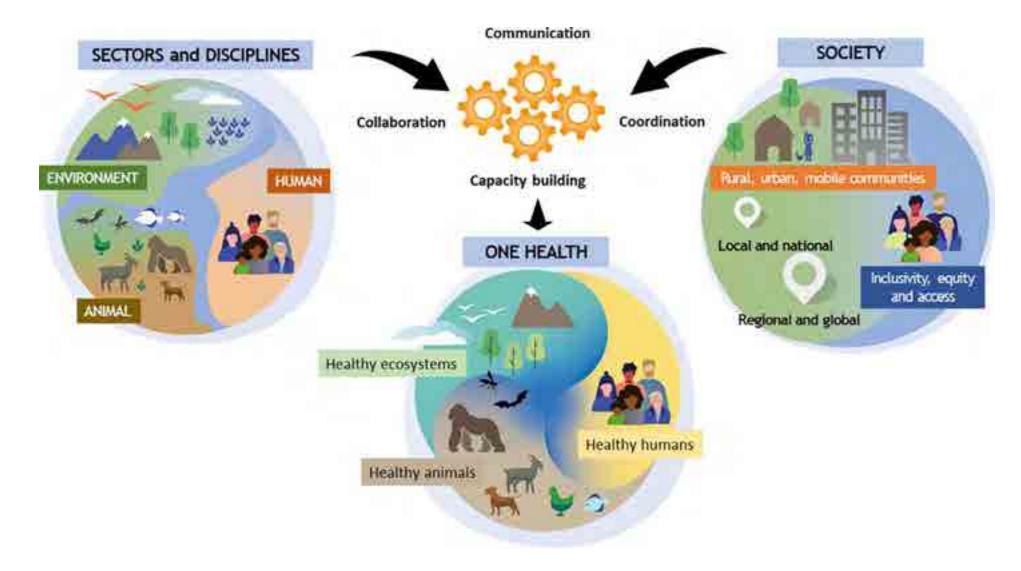
- Compelling experiences with nature change attitudes regarding conservation.
- Nature is a bridge to health.
- Healthy people need healthy environments.
- Healthy environments produce healthy people.

Linking human health to conservation creates a relevant message.



This "health" is not the job of one group or one agency. Collective problems require collective action.

One Health toward a sustainable healthy future



One Health High-Level Expert Panel (OHHLEP), Adisasmito WB, Almuhairi S, Behravesh CB, Bilivogui P, Bukachi SA, et al. (2022) One Health: A new definition for a sustainable and healthy future. PLoS Pathog 18(6): e1010537. https://doi.org/10.1371/journal.ppat.1010537



One Missouri Approach

Missouri's vision as a leader in ONE HEALTH

Enhancing quality of life for a more independent Missouri: Healthy lives, economies and communities





Missouri Department of Anticulture Animal Health Laboratory



Natural Resources

Environmental Services





Missouri Department of Conservation dille nisease

The One Health Laboratory Campus will be located near the existing Missourl State Public Health Laboratory and allow for many benefits to our citizens, if approved. This will be achieved by bringing four agency laboratories under one roof so we will all have access to BSL-3 laboratory functions and share more resources.

Shared Health Outcomes

90% of Missourians said the outdoors and wildlife are important for the mental and emotional benefits



Science confirms that nature is good for us

- Greater psychological well-being
- Reduced anger, stress, sadness, and aggression
- Improved attention and cognition

- Improved psychosocial function
- Better sleep
- Increased resilience

Partnering with Physicians

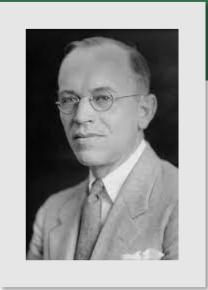
- Connect People to Nature
- Get Patients Outside for Improved Health
- Physician Wellness

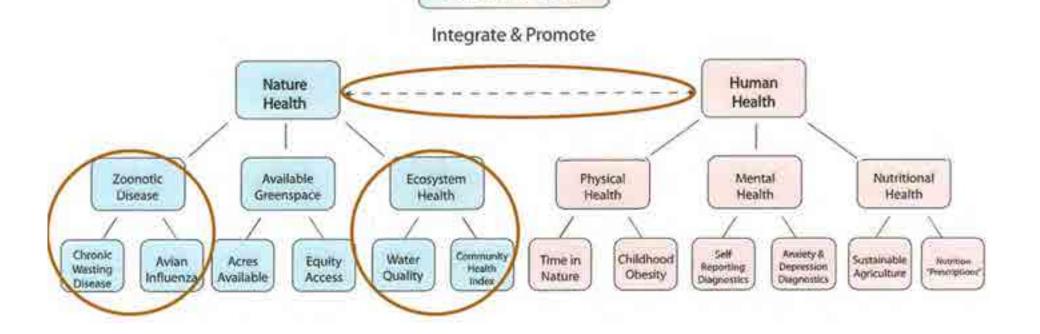
Fish and Wildlife agencies are changing the vision of their role because of a change of reality.

Our Conception of One Health



Land ethic Aldo Leopold





One Health

Emphasizing Community conservation





Human Microbiome and Mental Health – the biodiversity link

