

# ONE HEALTH:

*CHANGE our Paradigm CHANGE our Lives*

The One Health Triad

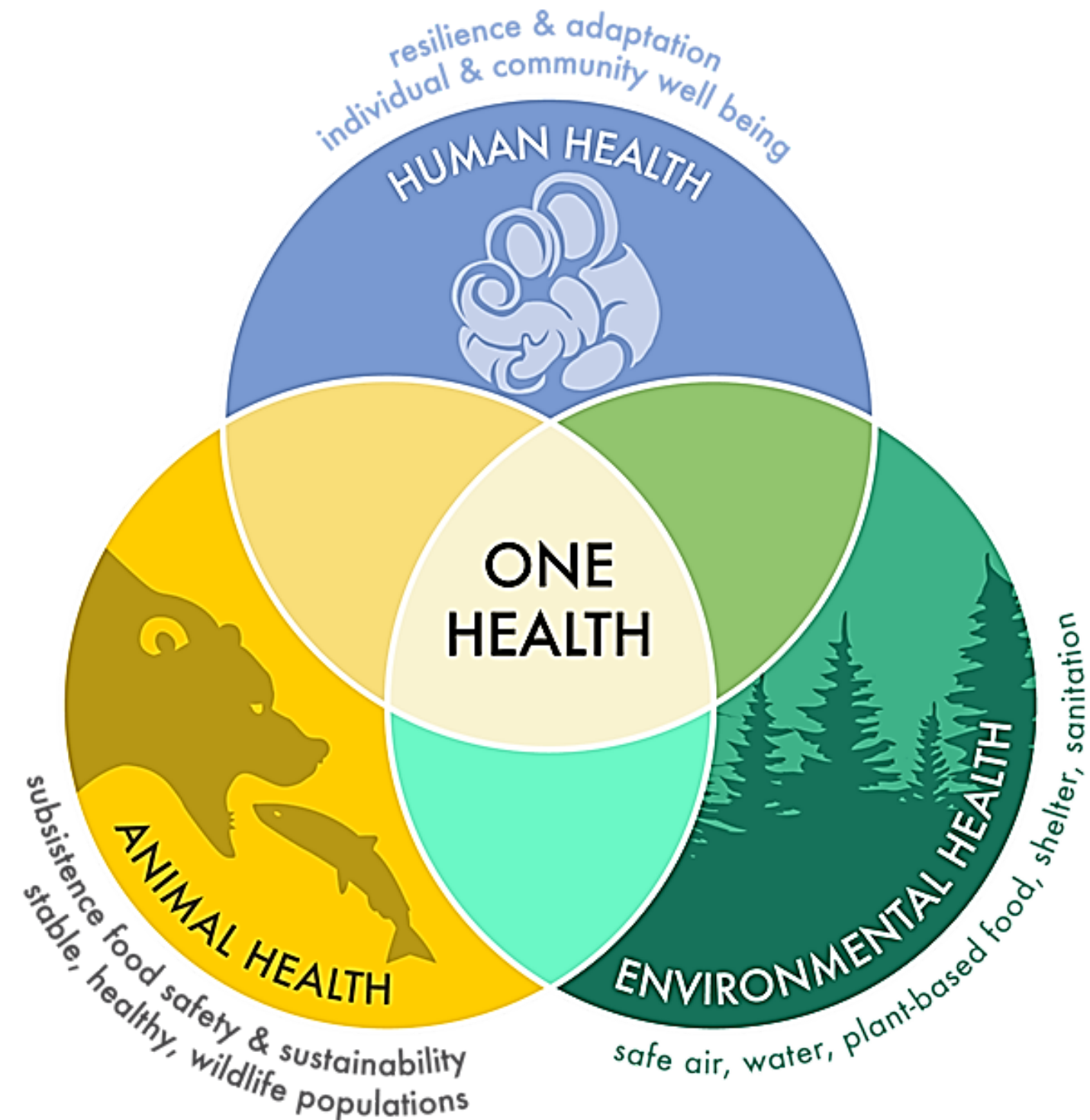




## What is One Health?

*One Health recognizes the interdependence of human, animal and environmental health, and that a holistic approach to the well-being of all will lead to improved health outcomes and enhanced resilience.*

[\[What is One Health? | Center for One Health Research \(uaf.edu\)\]](https://www.uaf.edu/center-for-one-health)



# ***Why the environment and environmental change matter to One Health***

(<https://dev.onehealthinitiative.com/why-the-environment-and-environmental-change-matter-to-one-health/>)



- In 2016, as much as 24% of all deaths worldwide were attributable to the environment (World Health Organization)
- The potential health impacts of climate change will be broad and significant, including: heat and cold effects; wind, storms and floods; drought, nutrition and food security; food safety and disease; water and disease; air quality and disease; allergens and disease; vector and rodent-borne disease; occupational health; and UV radiation (Intergovernmental Panel on Climate Change)
- More specifically, changes in temperature, precipitation and seasonality will influence infectious disease emergence, incidence and spread (e.g., dengue, malaria and cholera)
- Other environmental drivers, such as land use changes and deforestation, also contribute to the loss of biodiversity and the spread of infectious diseases, as has been seen with malaria and Lyme disease
- Human and animal well-being relies upon ecosystem services provided by the environment. Ecosystem services include supporting services (nutrient cycling, soil formation, primary production), regulating services (climate and flood regulation, disease buffering, water purification), provisioning services (food, water, fuel) and cultural services (aesthetic, spiritual, mental health) that make the persistence of human and animal life possible.
- Many of these ecosystem services rely upon the maintenance of biodiversity (including species, ecosystems, populations and genes), which makes possible the growth of food, healthy diets, the development of new medicines, and the regulation of the emergence of infectious diseases

**Escalating human pressure on global environment**

**Environmental changes and ecosystem impairment**

Climate change

Stratospheric ozone depletion

Forest clearance and land-cover change

Land degradation and desertification

Wetlands loss and damage

Biodiversity loss

Freshwater depletion and contamination

Urbanisation and its impacts

Damage to coastal reefs and ecosystems

**Examples of health impacts**

**Direct health impacts**

Floods, heatwaves, water shortage, landslides, increased exposure to ultraviolet radiation, exposure to pollutants

**'Ecosystem-mediated' health impacts**

Altered infectious diseases risk, reduced food yields (malnutrition, stunting) depletion of natural medicines, mental health (personal, community), impacts of aesthetic/cultural impoverishment

**Indirect, deferred, and displaced health impacts**

Diverse health consequences of livelihood loss, population displacement (including slum dwelling), conflict, inappropriate adaptation and mitigation

[Expedition Earth: Harmful effects of ecosystem change on human health \(expeditiearde.blogspot.com\)](http://expeditiearde.blogspot.com)



## The contribution to good health and well-being from other sectors

(F. Ssengooba, SN Kiwanuka, E. Rutebemberwa, E. Ekirapa-Kiracho (2017), Universal Health Coverage in Uganda: Looking Back and Forward to Speed up the Progress. Makerere University, Kampala Uganda)

A successful strategy must be based on educational activities that emphasize the vital importance of interdependencies between animals, humans and their shared ecosystems.

These early interventions are paradigm shifts and key to fulfil the UN SDG, particularly # 4.

