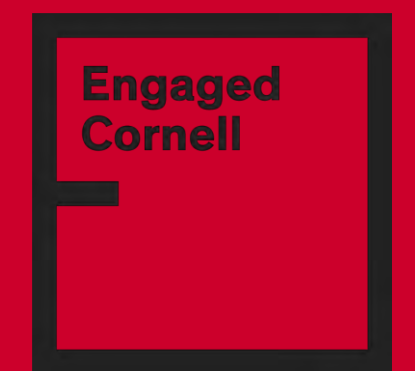
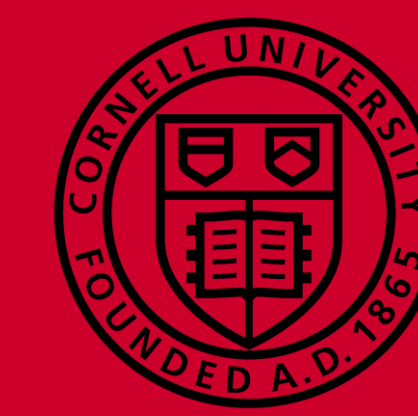


Conservation in Uganda:

A One Health Approach to Wildlife Preservation and Public Health



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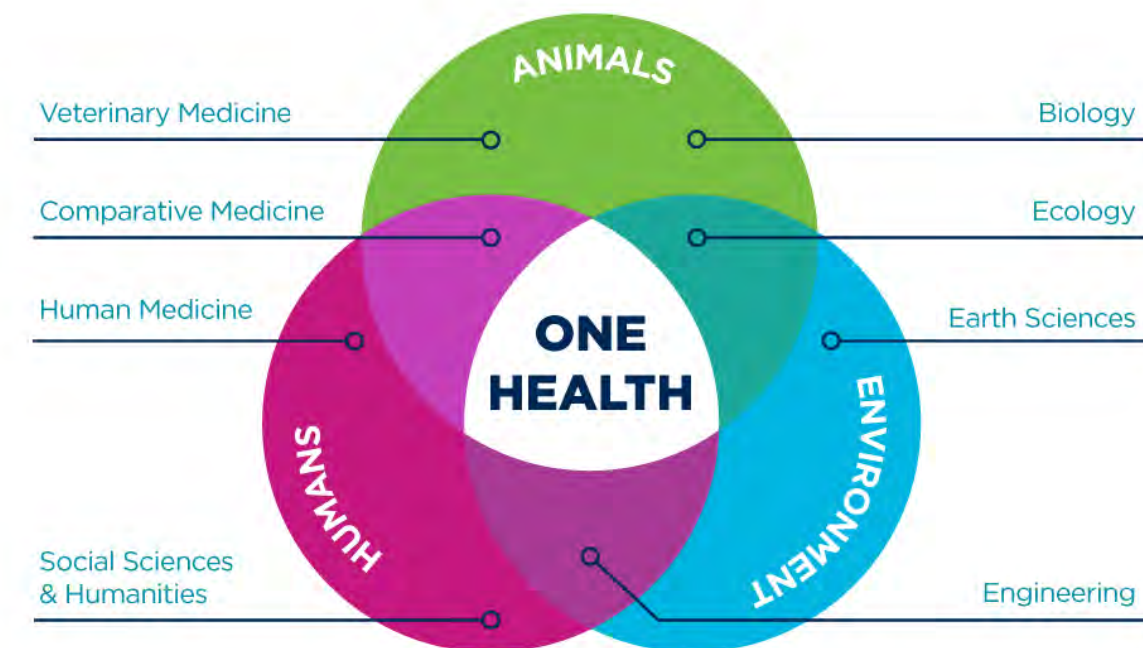


Figure 1. What is One Health?, Adapted from University of California, Davis <https://www.ucdavis.edu/one-health/collaborations/>.

ABSTRACT

Uganda, as a country colored by high population growth, large family structures, and a lack of sustainable financial resources, relies on alternative, and sometimes illegal, sources of basic livelihood. This is especially apparent in rural communities that juxtapose national parks or habitats of endangered organisms. Our project focuses on key elements of One Health approaches in order to promote lasting conservation efforts. By ensuring effective family planning measures, providing sustainable alternative livelihoods, fostering bottom-up/community-based leadership, and guaranteeing sanitation and hygiene standards within communities, conflicts between human and wildlife are mitigated and overall dependence on forest and other limited environmental resources, are lessened.



Picture 1: Promoting herd health by providing veterinary care to community members in Buhoma District of Uganda

INTRODUCTION

Conservation Medicine has evolved over the years, from a centralized wildlife health and habitat focus, to a more general environment and community focus effort. It's been widely understood that efforts are unsuccessful and lack longevity without the necessary community engagement or sensitization. Though our project involved working with the conservation of wild or habituated chimpanzees and mountain gorillas in woodland habitats surrounding sugar cane plantations or Bwindi Impenetrable National Park of Uganda, the main focus revolved around community work. Furthermore, a larger goal was understanding the social and cultural structure that would help us work *with* the community members while empowering them to take full ownership of their projects. Implementing projects under this new scheme of conservation medicine will further efficacy and sustainability of future community work.



Picture 2: Completion of WASH training with teachers and sub-district officials

METHOD

KEY: Use the one health approach

- FAMILY PLANNING
 - Depo Provera shots (provided by USAID), Condoms, IUD, and birth control pills
- ALTERNATIVE LIVELIHOODS
 - Livestock, Seedlings, Seed banks monitored by Budongo County village leaders, Village Savings Loans Association
- COMMUNITY HEALTH MONITORING
 - Collect fecal samples from livestock, primates, and community members
- WASH
 - Focuses on partnership with local governments (District Health Officer [DHO] and Inspector [DHI])
 - Analysis of community prior to implementation of program specifically personalized for its needs **and** capabilities

OBSERVATIONS

- Sanitation and hygiene efforts that empower and include school teachers and district officials lead to a more engaged community
- Successful formation and development of Kasenene - Nyatonzi Environmental Conservation Association (KANYECODA) that serves as a community organization for the empowerment of farmers, sustainable livelihoods, and the environment
- It is increasingly understood that when women are educated about family planning, the family generally does better financially and overall
- Empowering community leaders draws more community members and allows them to take ownership of the project
- Fecal sampling showed that parasites from community livestock affected nearby mountain gorilla families
- Seedling program experienced difficulty as crop yield saw variations in harvest due to abiotic factors



Picture 3: Villagers from Rujunguay come for their scheduled Depo Provera shots administered by VHCTs (Village Health Conservation Team) trained by Conservation through Public Health

SUSTAINABILITY

- Bottom-up, community based implementation of alternative livelihood measures
 - Farmers have their own seed banks and must return the amount they borrowed, not in cash but in seeds
 - After receiving livestock, farmers must provide an animal in return after birthing season
- Building projects with the primary intention to promote ownership by the community

IMPACTS

- When women are empowered, educated, and practice family planning, children have higher chances of obtaining primary and secondary education
- Alleviate problems related to WASH (Water, Sanitation, Hygiene). When the community engages in more sanitary practices, the spread of communicable diseases decreases and children are less likely to miss school for health related issues
- A more financially stable family via the loan programs or family planning relies less on the forest or other limited natural resources, thereby having less pressure on the forest and wildlife.



Picture 4: Engaging community leaders from multiple districts to create KANYECODA

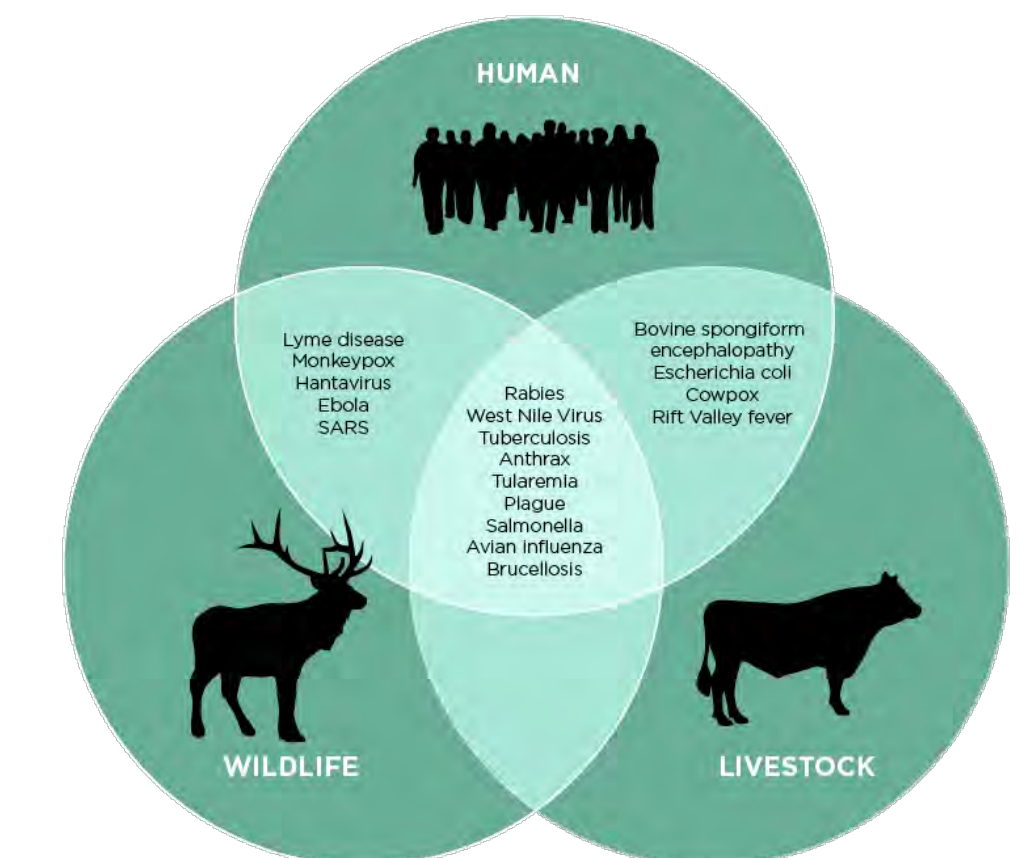


Figure 2: Highlighting disease transmission between humans, wildlife, and livestock. Adapted from Foodsource <https://foodsource.org.uk/book/export/html/108>

CONCLUSIONS

Full community engagement and empowerment of village leaders, female figures, and children are critical for the sustainability of conservation projects

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