

# Who's Who in One Health



# **Wildlife Conservation Society**

https://oneworldonehealth.wcs.org/

https://www.wcs.org/

#### **Description and Scope of One Health Activities:**

Recognizing that intact, functional, and resilient ecosystems provide the foundation for life, health, and well-being for all on our planet, WCS helped to pioneer the One Health movement, highlighting the links between biodiversity and global health. In 2004, WCS convened an international symposium to discuss global health challenges at the nexus of human, animal, and ecosystem health which gave rise to <u>the Manhattan Principles</u>, calling for the recognition of "the essential link between human, domestic animal and wildlife health and the threat disease poses to people, their food supplies and economies, and the biodiversity essential to maintaining the healthy environments and functioning ecosystems we all require".

In October 2019, shortly before COVID-19's emergence, WCS and the German Federal Foreign Office, led a follow-up meeting with global health leaders and issued the <u>Berlin Principles on One Health</u>: an "urgent call for a united effort to stop diseases threatening all life on Earth".

WCS uniquely leverages global conservation, multidisciplinary research, and practice paired with policy expertise to protect wildlife and wild places while reducing health risks to animals and humans across our land- and seascapes, and on a global scale. WCS's One Health approach is rooted in a collaborative, dynamic, trans-disciplinary, and cross-sectoral systems approach — working at local, regional, national, and global levels— to achieve optimal health outcomes for all.



#### The 5 core elements of the WCS One Health approach are:

- Monitor and Improve Wildlife Health: Apply tools such as the <u>Spatial Monitoring and Reporting Tool</u> (<u>SMART</u>) for health; build wildlife health networks (e.g. <u>WildHealthNet</u>)
- Reduce Risk of Emerging Zoonotic-Origin Pathogens

- Mitigate Threats to Wildlife at the Interface with Livestock, Poultry, and Domestic Animals:
- Build Local Veterinary and One Health Capacity
- Catalyze National, Regional and Global Change

With wildlife pathogens relevant for biodiversity, livestock and humans, a key focus of our Health Program at the current time is the <u>WildHealthNet</u> initiative, which we have been piloting alongside the <u>SMART for Health</u> tool (for ranger "frontline" wildlife morbidity/ mortality reporting) in Laos, Cambodia and Vietnam. Building on long-standing wildlife health programs in these countries, we're supporting our government partners to build sustainable, locally relevant wildlife health surveillance systems and link them with One Health platforms and networks for reporting and response. So far, <u>WildHealthNet</u> has facilitated detection of HPAI, ASF and Lumpy Skin Disease outbreaks in wildlife, facilitating rapid response to mitigate further spread to humans and livestock. SMART for Health will soon be rolled out in Madagascar, Mongolia and Guatemala: their first systematic wildlife health monitoring efforts. Having developed protocols and processes based on lessons learned, and training materials, the next step is to expand the initiative to additional countries and ultimately build a global WildHealthNet consortium to grow, systematize and support these wildlife health surveillance networks.

In the Republic of Congo, Ebola virus disease remains a concern for humans and great apes. We continue our work of over two decades studying Ebola virus ecology, implementing <u>novel field diagnostic tools</u>, and supporting a <u>community-based carcass monitoring</u> network which, combined with outreach in these communities reliant on bushmeat, has helped to reduce health risks.

WCS is working with frontline enforcement officers in Latin America and Southeast Asia to improve handling and management of confiscated wildlife to reduce health risks (to animals and people), alongside improved welfare, conservation and prosecution outcomes.

WCS is collaborating with partners to support the development of the World Health Assembly's international pandemic treaty. Pandemic preparedness is critical, but governments must ensure that this agreement also addresses prevention at source. A critical first step is the recognition of the intrinsic links between human, animal, and plant health, and the foundational importance of an intact and functioning environment for our health and wellbeing. A fully integrated trans-sectoral "One Health" approach will provide the necessary framework for recovery from COVID-19 while generating co-benefits across a globalized world pommeled by climate change, biodiversity loss, and social injustice. A new international treaty can help catalyze this change.

Read More: <u>WCS One Health in Action</u> and https://oneworldonehealth.wcs.org/

#### **Key One Health Milestones with WCS**

**1989** Field veterinary program established- the first and largest of its kind of any conservation organization.

**1999** As New Yorkers suffer an encephalitis outbreak of unknown origin, <u>WCS discovers the causative West Nile Virus</u> in <u>Bronx Zoo birds</u> – the first record of the virus in the United States. A Bronx Zoo bird West Nile Virus isolate resulted in a new animal vaccine for West Nile Virus.

2002 WCS begins critical research on Ebola virus, believed to have killed as many as one-third of the world's gorillas

**2004** WCS coins the term "One World – One Health" at a WCS-organized symposium that brought together human, animal, and infectious disease experts to address global health challenges, and resulted in <u>the Manhattan Principles</u>.

**2006** At the request of the US Agency for International Development (USAID) and the US Centers for Disease Control (CDC), WCS leads a cutting-edge network for monitoring diseases in wild birds in 20+ countries, helping to stem the spread of a deadly, zoonotic H5N1 flu outbreak.

**2006** In partnership with the National Laboratory of the Congolese Ministry of Health, WCS initiates a <u>community-based wildlife mortality monitoring network</u> covering more than 30,000 km2, originally <u>designed for early detection of Ebola Virus Disease epizootics</u> and combined with an educational community outreach programs to protect communities in northern Congo reliant on bushmeat for protein.

**2009-2019** WCS is a lead partner in the USAID PREDICT and EU LACANET projects, through which we train over 1,000 professionals in wildlife disease surveillance and One Health approaches; support national laboratories to identify over 140 novel and 50 known viruses, and publish research <u>highlighting the scale and zoonotic disease risk of wildlife trade</u> in markets in Lao PDR. These findings prove instrumental in guiding policy changes and the creation of pandemic prevention and wildlife surveillance networks.

**2010** WCS establishes a <u>molecular laboratory</u> to elevate animal care at WCS's zoos and aquarium, and more quickly respond to global disease outbreaks and conduct health assessments.

**2013** WCS leads the HEAL consortium of more than 25 public health, conservation, and other organizations, representing the first rigorous attempt to systematically measure the human health impacts of changes in the state of natural systems, to build scientific understanding of critical conservation-public health connections and help inform policy and natural resource management decisions. HEAL has gone on to become the influential Planetary Health Alliance, of which WCS remains a partner.

**2016-2017:** WCS successfully responds to the first Peste des Petits Ruminants (PPR) virus in wildlife in Mongolia, identifying etiology, with genetic sequencing and, with key ecological and pathologic findings, <u>demonstrating likely</u> <u>domestic livestock origin</u>.

**2019** On October 25, just one month before the emergence of COVID-19, WCS, together with global health leaders, issues the Berlin Principles on One Health: an "Urgent Call for A United Effort to Stop Diseases Threatening All Life on Earth."

**2020** WCS publishes evidence from Viet Nam that <u>the prevalence of coronaviruses increases along the wildlife trade</u> <u>chain</u> from field to restaurant; With the onset of the COVID-19 pandemic, WCS issues a new policy, backed by science, on the actions that governments and societies around the globe need to take in order to reduce the risks of future pandemics and end commercial trade in wild animals; When the Bronx Zoo's Nadia the tiger contracted COVID-19, WCS provides guidance about what we learned with both animal and human health professionals in the US and abroad—helping advance the world's understanding of the novel coronavirus, and protecting other cats in zoos worldwide.

**2020** WCS publishes a report on <u>the links between ecological integrity, emerging infectious diseases originating from</u> <u>wildlife, and other aspects of human health</u> - an overview of the literature

**2021** A wildlife health surveillance network (<u>WildHealthNet</u>) that WCS has been developing with the governments of Lao PDR, Cambodia and Viet Nam <u>detected the first outbreak of ASF in wild boar in Southeast Asia</u>. Declines of wild pigs can trigger cascading ecological impacts for endangered carnivores, plant communities, and the livelihoods of millions of people.

**2021** "One Health" concept formally accepted by the G7 at June summit, recognizing at the highest political levels the essential connection between human, animal, and environmental health- a key success for all of us in the One Health community.

#### **Key Collaborators and Participants**

- National Veterinary and Environmental Ministries and their staff
- National Institutes of Health
- United States Agency for International Development
- United States Department of State
- United States Department of the Interior, U.S. Fis, and Wildlife Service
- United States Geological Survey National Wildlife Health Center
- United States Defense Threats Reduction Agency, Biological Threats Reduction Program, Department of Defense
- United States Strategic Environmental Research and Development Program (Department of Defense, Department of Energy, and the Environmental Protection Agency)
- Canadian Wildlife Health Cooperative
- University of California, Davis
- Montana State University
- University of Veterinary Medicine, Vienna
- University of Calgary, Alberta
- Smithsonian Institution
- EcoHealth Alliance
- The French Agricultural Research Centre for International Development (CIRAD)
- The Norwegian Institute for Nature Research
- Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU), Germany
- German Federal Foreign Office
- The German Agency for International Cooperation (GIZ)
- French Development Agency (AFD)
- WWF
- Conservation International
- Wildlife Alliance
- Institut Pasteur, Cambodia
- Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit (LOMWRU)
- Angkor Center for Conservation of Biodiversity

#### Key Multilateral partners

- Food and Agriculture Organization of the UN (FAO)
- World Organization for Animal Health (OIE)
- World Health Organization (WHO)
- United Nations Environment Program (UNEP)
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

#### Type of Organization

• NGO

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#### Contact(s) (with check box to agree to share)

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Agree to share contact information on the One Health website - Yes

## **Organization/Group Website Address:** <u>https://oneworldonehealth.wcs.org/</u>

(and <u>https://www.wcs.org/</u>)

### **Additional Information**

One Planet, One Health, One Future Medium Page

https://oneworldonehealth.wcs.org/About-Us/Publications.aspx

https://twitter.com/WcsHealth