

Inclusion of local community members and hunters in surveillance of Emerging Infectious Diseases Pathogens of zoonotic potential: example of the USAID-EPT PREDICT project.

Prime Mulembakani, Placide Mbala, Ipos Ngay, Joseph Atibu, Brad Schneider, Corina Monagin, Maria Makuwa, Joseph Fair, Emile Okitolonda, Jean-Jacques Muyembe.

USAID-EPT PREDICT Project, Kinshasa School of Public Health and National Institute of Biomedical Research of Kinshasa.

In the past decade, 60 % of emerging infectious disease (EID) events were zoonosis and of those 72% of the pathogens involved were of wildlife origin. Activities like subsistence hunting, butchering and trading of wild animals are key factors for the risk of zoonotic infections in humans.

The USAID Emerging Pandemic Threat (EPT) PREDICT project, in collaboration with the Institut National de Recherche Biomedicale and the Kinshasa School of Public Health, implemented a surveillance system for zoonotic pathogens at the Human-Wildlife interface in geographic hot spots. Local community members, especially hunters were recruited, sensitized and trained in prevention technics of zoonosis. They participated to the surveillance effort by collecting dry blood spots (DBS) from hunted animals, under the supervision of trained field staffs.

From December 2010 to September 2012, a total of 14,779 samples were collected from wild animals under the PREDICT project. Of these samples, hunters and other community members collected 5,395 (36,5%) on DBS. From those DBS, 285 tested positive for known or new viral pathogens of zoonotic potential using PREDICT protocols.

Community members who participated to the PREDICT project collected good quality samples that were used to identify known and new zoonotic pathogens. Their inclusion on a national base can improve disease surveillance for EID.