



# INTRODUCING **STOP** Spillover

ore than 70 percent of emerging and re-emerging infectious diseases originate from animals, and the COVID-19 pandemic has demonstrated the tremendous global risks that can be posed by zoonotic disease spillover to humans. For over a decade, USAID has invested in understanding risks presented by the spillover of zoonotic diseases into humans. USAID's extensive work has shown that outbreaks can start – and stop – at the country level, and that early country-level and country-led interventions are key to preventing and reducing the impact of outbreaks.

Strategies to Prevent (STOP) Spillover, a USAID-funded project led by Tufts University, is a global consortium consisting of experts in human, animal, and environmental health who will take the next step in understanding and addressing the risks posed by known zoonotic viruses with potential to spill over to humans and cause outbreaks, epidemics, and pandemics.



STOP Spillover provides a critical opportunity to enhance global understanding of the complex drivers of viral spillover and to augment sustainable national capacities in risk analysis and mitigation, spillover intervention, and behavior change. To do this, the consortium will strengthen capacity in priority countries to:

- Monitor, analyze, and characterize the risk of priority zoonotic viruses spilling over from animals to people.
- Develop, test, and implement interventions and policies to reduce the risk of priority viral zoonotic spillover.
- Mitigate the amplification and spread of priority zoonotic viral diseases if spillover occurs.

### WHERE WE WORK

STOP Spillover is launching in countries at high risk for emergence and re-emergence of known zoonotic viruses with pandemic potential. We will work directly at suspected spillover points – or interfaces – places where zoonotic viruses are likely to make the jump from animals to humans.

This five-year project will strengthen capacity in priority countries to reduce the risk of viral spillover from animals to humans, and is currently working in six countries: Bangladesh, Cambodia, Liberia, Sierra Leone, Uganda, and Viet Nam.

#### **HOW WE WORK**

Human behavior drives the evolution and epidemiology of infectious diseases, and we share pathogens with species we contact most closely and consistently. Some of our shared pathogens – typically viruses – can cause outbreaks, epidemics, and pandemics that may leave indelible marks on our societies. Human behaviors are fundamentally linked to planetary changes and our globalized economy, and are deeply embedded in cultural beliefs, practices, and preferences.

In our approach it is not enough to know what to do to reduce spillover and amplification risks. We must also help partners gain and institutionalize knowledge in existing local systems, adapt learning to their context, and continuously expand upon their expertise. Our consortium's vision is for priority countries across Africa and Asia to gain critical knowledge about Spillover Ecosystems and to refine and use that knowledge effectively, efficiently, and sustainably to reduce the risk of zoonotic viral spillover and spread.

We will achieve our goal through equitable partnerships with local communities and institutions.

#### LED BY REGIONAL AND LOCAL PARTNERS

We will work in partnership with the Africa One Health University Network (AFROHUN), the Southeast Asia One Health University Network (SEAOHUN), icddr,b, and other



partners to promote national commitment, to empower local expertise, and to facilitate South-South collaboration.

#### **IMPLEMENTED BY LOCAL TEAMS**

Our model depends upon grassroots Country Teams and One Health-Design Research and Mentorship (OH-DReaM) Working Groups that partner with high-risk communities and local stakeholders. These implementing partners are supported by Resource Hubs that offer expertise, tools, and mentorship to enable identification of priority pathogens and mitigation of viral spillover, amplification, and spread.

#### PARTNERED WITH GOVERNMENTS

Government engagement and partnerships are key to achieving STOP Spillover's objectives and sustainable reduction of country and community risk. We will work with governments to enhance evidence-based, diverse surveillance approaches for targeted priority viral pathogens. STOP Spillover will build on existing systems, including routine country-level surveillance and will collect information required to strengthen country capacity to develop, test, and implement spillover interventions.

STOP Spillover also welcomes collaborative relationships at all levels with existing projects, groups, governments, and other stakeholders.

#### **COMMITTED TO SUSTAINABILITY**

STOP Spillover will prioritize sustainable approaches that help ensure partner countries are well-prepared to respond to and prevent outbreaks, both now and in the future. We will integrate and institutionalize capabilities through in-country training, the creation of risk analysis and mapping tools, and by working with public health officials to strengthen surveillance and research. And while STOP Spillover will focus on priority viral threats that continue to pose the greatest public health risk — including Ebola, Lassa, Marburg, Nipah, animal-origin coronaviruses, and animal-origin zoonotic influenza viruses — the capacities developed over the life of the project will help ensure partner countries are better prepared to prevent the spread of these and future zoonotic viruses.

#### **OUR PARTNERS**

The consortium brings deep technical and community engagement expertise, experience working across USAID's priority countries, and proven success implementing USAID-funded programs. Through its distinctive constellation of schools, Tufts University forms the

foundation of the consortium's demonstrated global strength in infectious disease forecasting and epidemiology, virology, virus ecology, surveillance, prevention, food and water safety, risk analysis including gender-associated dimensions of risk, social and behavior change, global health diplomacy, and One Health programming and education.

The consortium's strengths are built upon partner expertise in outcome mapping, risk identification and management, zoonotic pathogen ecology and modeling, participatory epidemiology, and local wildlife conservation.

# The consortium's expertise includes:

- Risk analysis University of Washington Institute for Risk Analysis and Risk Communication
- Participatory community and outcome mapping Right Track Africa and Humanitarian OpenStreet Map Team
- Approaches to wildlife and climate risk management, agriculture and land use, risk forecasting, institutional and private sector partnership, and strengthening local wildlife conservation capacity – Tetra Tech
- Zoonotic pathogen ecology and mathematical modeling

   University of Glasgow Institute of Biodiversity, Animal
   Health and Comparative Medicine
- Disease ecology and quantitative epidemiology UCLA
- Innovative pathogen detection Broad Institute
- Sentinel case management for high-consequence pathogens University of Nebraska
- Public health interventions in resource-poor settings icddr,b
- Health information systems strengthening, social behavioral change, measurement, evaluation and learning, and strategic operational support JSI Research and Training Institute, Inc.
- Media capacity building for hard-to-reach and marginalized communities – Internews

## **GET IN TOUCH**

Questions about how you and your organization can work with STOP Spillover? Contact StopSpillover@tufts.edu or call +1-202-674-8757.

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