Scaling-up the ASIDE surveillance systems to other infectious diseases

Given the strength of the systems set up by the ASIDE project for influenza surveillance, the logical step forward is to use these systems as basis for the surveillance of other diseases.

To this aim, representatives of the ASIDE local teams of the Institut Pasteur de Bangui, Institut Pasteur de Dakar, Institut Pasteur de Cote d’Ivoire and the Pasteur Centre in Cameroon met in Dakar in October 2017 with the ASIDE project manager to define the common basis for the extension of the surveillance to other pathogens, notably arbovirus infections and diarrheas. Two of the most important public health infectious threats in the African region. They also addressed the central question of being able to compare data concerning virus circulation in different countries in the region by using harmonized sentinel surveillance protocols.

The ASIDE team present at the 6th ANISE meeting in Madagascar

The African Network for Influenza Surveillance and Epidemiology (ANISE) is a network of experts working together to improve detection, case management, control and prevention of influenza and other respiratory viruses in Africa.

Representatives of the ASIDE local teams and the ASIDE project manager participated to the ANISE meeting to share the project outcomes and findings via six posters and one oral presentations.

More than 160 biologists, epidemiologists, public health officials, clinicians, veterinarians, researchers and students from 38 countries in Africa, Europe and the United States of America attended the three-day conference on influenza research and surveillance in Africa on March 2018.
From September to November 2017, a dramatic outbreak of highly virulent pneumonic Plague, with more than 2300 suspected cases, occurred in Madagascar.

With the support of ASIDE funding, the Institut Pasteur in Madagascar was able to buy reagents and to recruit staff to ensure the continuity of diagnostic activities.

Furthermore, members of the Laboratory for Urgent Response to Biological Threats, the Plague National Reference Center and the Mathematical Modeling of Infectious Diseases Unit of the Institut Pasteur in Paris, were able to travel to Madagascar to support the Central Laboratory for Plague and the other teams at the Institut Pasteur in Madagascar, on the front line on the response to the epidemic.

In particular, faced with the multiplication of pulmonary samples, for which the traditional diagnostic techniques proved to be less effective, the experts helped to establish a new, more specific and faster diagnostic method.

A portrait of Dr. Mamadou Aliou Barry was published, highlighting his career and his work at the core of the ASIDE project in Senegal. Since January 2015, Dr. Barry coordinates the syndromic sentinel surveillance network at the Institut Pasteur in Dakar. This network enables to detect epidemics of febrile illnesses almost in real time thanks to an early warning system.

Read the complete article on Institut Pasteur website

An article describing the work performed by the Institut Pasteur du Cambodge ASIDE team in the surveillance of Avian influenza was published. As a hub for slaughter and sale as well as transit, Asian live poultry markets fuel the circulation of avian influenza viruses. In terms of public health, these markets are therefore strategic locations where to monitor virus circulation, to quickly detect any viral emergence in order to alert the authorities to prevent the spread in animals and potentially in humans.

In order to better understand how the bird flu virus circulates, the ASIDE team asked for the collaboration of middlemen that transport poultry to and from the markets. By putting GPS on their motorcycles and combining spatial and virological data, the team hopes to identify virus sources and way of dissemination, with the final objective to propose prevention and awareness strategies for the most exposed populations.

Read the complete article on Institut Pasteur website