



VINCENT TITANJI: A FOCUS ON DISEASE PREVENTION

Vincent Titanji is a prominent African epidemiologist at the University of Buea in Cameroon. He is a 2004 TWAS Fellow, and has worked extensively on helping control infectious diseases in Africa, including river blindness, tuberculosis and malaria.

Here he describes vaccine research in response to the Ebola outbreak that captured global attention. And he explores disease prevention efforts in the developing world.

The Ebola epidemic that began last year in West Africa has killed more than 11,000 people and led to horrible suffering and worldwide apprehension and fear. But I was excited by the recent study of a new vaccine that appears extremely effective against the virus. This vaccine was also a signal on how to improve Africa's struggling health systems.

The early trial for the vaccine, called rVSV-ZEBOV, was conducted in an area of Guinea where Ebola was actively infecting people. It indicated that the vaccine is 100% effective, which is very rare. On top of that, it worked quickly and had few side effects. Health workers are now conducting another, bigger trial.

When the Ebola epidemic erupted, all of us were looking forward to a day when we would have such a tool in our hands to control this dreadful disease. Even though the outbreak did not reach Cameroon, it was still a major concern here because it could be spread by a traveler from a nearby country where health workers are still actively fighting the disease. But just as important as the good news, there are lessons that Africa and the rest of the world can draw from it about the importance of

vaccines and researchers working with communities.

The speed at which the vaccine was developed is a reflection of how much progress has been made in the science of immunology, and I hope the success of the Ebola vaccine will lead to further vaccine development for other infectious scourges. But medical scientists and health administrators should not *react* to disease outbreaks so much as *anticipate* that they may happen – and be better-prepared when they do. After all, how many lives might have been saved had the vaccines been available sooner?

In Sub-Saharan Africa, many countries give in to the temptation to imitate the North by focusing their health systems on the expensive, curative kinds of medicine that dominate developed countries. But building health centres and pharmacies doesn't solve a country's most pressing needs when it's staring down a threat from perfectly preventable, neglected tropical diseases. It's important to instead focus on developing and distributing the preventative tools, as well as water and sanitation.

Health planners, governments, multilateral organizations – I think



▲ Top, Vincent Titanji. Below, progress on Ebola research and policy have provided the world with cause for hope. [Photo: European Commission DG ECHO]

we need to put all this expertise together to design and customize health systems that can take care of prevention. The key is to involve everyone in the preventative efforts, from drug companies to researchers to local communities that can help on the ground. ▣