

Public Health Calls for Public Participation

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In the current global context of economic and social integration, people move so frequently that it is impossible to block cross-border epidemics and disease importation is thus inevitable. If we can quarantine it and treat it in timely manner, it could not cause a major public health hazard. Here, for this issue of disease importation, our biggest concern is that imported cases would cause local massive outbreaks. So we will not put efforts to go blocking disease importations that could be imported sporadically, but instead to put efforts to block local massive outbreaks.

Reporter: You had mentioned in a previous interview that the Ebola virus had been found as early as the 1970s, but due to no commercial interests, the vaccine development has made no progress. So, in your opinion, should public health problems be solved based on market forces?

Yu Hongjie: Vaccine development and commercialization are two different concepts. We can say that governments have always played a role in guiding development of

vaccines. The research and development of vaccines, including the Ebola vaccine, has previously been dominated by the US government.

But in terms of commercialization of vaccines, it is always driven by the market. The impact of the commercial interests on vaccine development is for sure. If an epidemic outbreak is just limited in a small vicinity of population, the demand for the vaccine will be smaller. In contrast, many infectious diseases, such as influenza, are out-breaking perennially worldwide, so the influenza vaccine development is generally successful.

There is a big gap between vaccine development and clinical application, as it needs a series of clinical trials and experimentations before clinical application. In the Ebola vaccine development process, there have been no clinical trials, because there is greater correlation between clinical trials and severity of the outbreaks. However, vaccine research against Ebola has never stopped since 1976 when the virus was found the first time, but because of no commercial interest, the researches made no success. Today, after the massive outbreak of the Ebola, clinical trials are accelerated, and have got some achievements.

Reporter: Public health is not just a medical issue but also a social problem. You had mentioned before, for older people the chance to contract H7N9 virus is higher than the other groups, because they got the habit to visit live bird markets. So, do traditional lifestyles have negative impacts on some epidemics intervention?

Yu Hongjie: Yes, older men go more often to live bird markets, and are more exposed to influenzas, so the odds for them to get infected are higher. Indeed, certain habits and lifestyles will worsen the spread of some infectious diseases. For example, Chinese people like eating fresh taste and tend to kill live poultry, and people of West Africa are customarily to touch dead body at funeral. These certainly are risk factors

for outbreak of infectious diseases. Thus, as time goes on, people need to change these bad habits and traditions. But this is a long process that will consume very longtime to get it changed. We cannot make it overnight.

Reporter: You had warned seasonal risks of H7N9 to be out-breaking once again in upcoming falls and winters. Shanghai was ever a hardest hit area of this bird flu. So do you have any advice for people in Shanghai to take prevention methods?

Yu Hongjie: In fact, Shanghai has done a terrific good job. It closed live bird markets from the start of each Spring Festival and re-opened until the end of April, so the incidence in Shanghai is also on the way to decline. Our advice is to gradually and thoroughly abolish live bird markets in big cities, boycott the habit to kill birds for fresh food, and build a centralized slaughter house just like what Beijing did that is essential for prevention of H7N9.

Reporter: Just at the forum, Professor Jiang Qingwu mentioned that the epidemic prevention and control experience of Hong Kong and Macao can be some of good lessons we can draw. In fact, in Hong Kong, a place near to Guangzhou geographically, dengue outbreak there is not as massive as that than in Guangzhou, in your opinion, what are the reasons behind?

Yu Hongjie: Why the dengue was massively broken out in Guangzhou last year, while it didn't in places that are similar with Guangzhou in terms of ecology and densities of population and mosquito? We cannot fully answer this question today. Scientifically speaking, we have no justifiable answer sufficiently to explain yet, but we believe the result is resulted from multi-factors, certainly not just one individual factor playing behind.

Reporter: So now what is obvious factor we can see?

Yu Hongjie: It should be said that the density of mosquitoes and the weather condition are the major factors, particularly the kind of mosquito, called *Aedes albopictus*, is the main media to communicate dengue in the country. Correspondingly, our measure and policy now is mainly focused on control of mosquitoes. However, the mosquito control requires multiple levels of cooperation and collaboration. Although various levels of controls are led and guided by the government, the specific implementation, however, calls for individuals' participation. *Aedes* mosquitoes is an indoor parasitic, in other words, they are mainly grown in residential houses. People in southern China are fond of culturing things like flowers, trees, fish and insects, so water spots inside the rooms are places that can easily breed parasitic mosquito. In this case, we need people to take active measures to clear indoor parasites. Of course, some handbooks or manuals publicized by the government are helpful for the efforts.

Reporter: You just mentioned in the speech that now there are two new factors that may affect public safety. One is the increasing density of population, and the other is the long-distance air travel that has become a daily lifestyle in today's society. Then, how can we effectively block the impact of imported cases that could cause public health issues arising?

Yu Hongjie: In the current global context of economic and social integration, people move so frequently that it is impossible to block cross-border epidemics and disease importation is inevitable. If we quarantine it in time and treat it timely, it could not cause a major public health hazard. Here, what we concern most is that imported cases would cause local massive outbreaks. For example, dengue fever breakout is imported overseas. When the time, weather, temperature, and density of mosquito come right, it would cause local outbreak. So we will not put efforts to block disease importation that could be sporadically imported, but put efforts to block local outbreaks with different strategies to treat different case of epidemic.