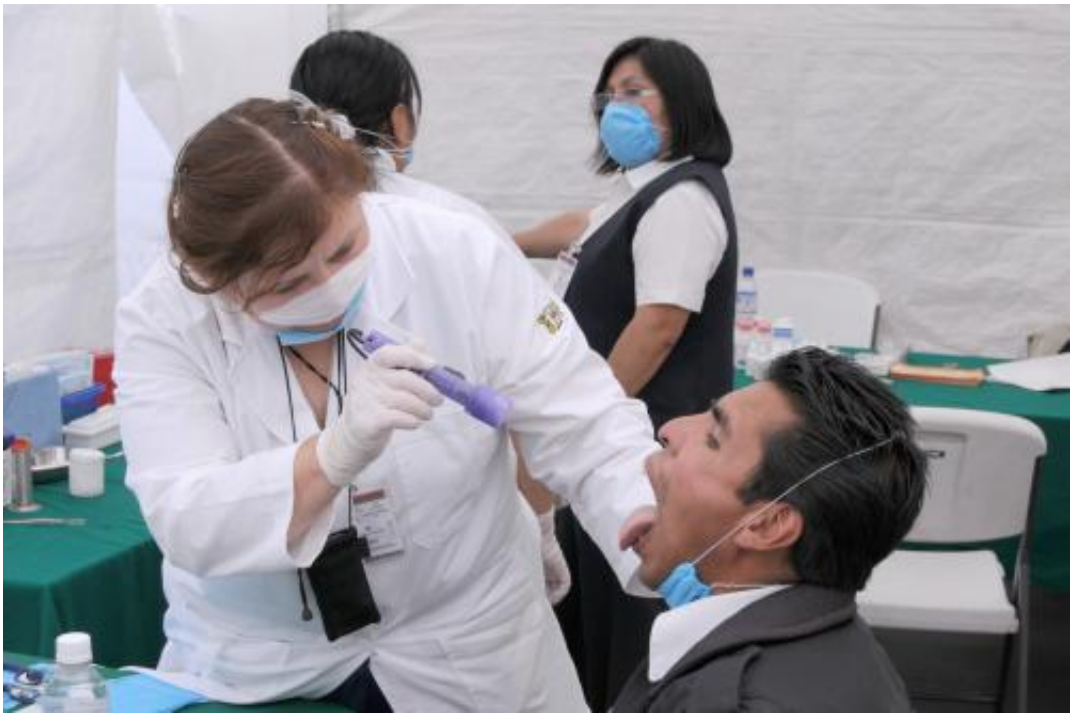
Technology against a flu outbreak

November 18 2014



Contrary to what one might think, influenza epidemics are a natural occurrence, as they are produced by the constant mutation of the viruses leading to the appearance of new subtypes formed from recombination of whole areas of genes. Therefore, Mexican scientists designed a platform that assesses the knowledge that people have about the disease, which provides the necessary tools to prevent contagion.

This initiative is part of the project "Hunting viruses: influenza zero,"

which is led by Anjarath Lorena Higuera Iglesias, head of the Department of Research in Clinical Epidemiology at the National Institute of Respiratory Diseases (INER). This project is part of the portal "Science that breathes" (www.cienciaqueserespira.org).

Sponsored by the Institute, it is characterized by making available to the general population a set of online tools and applications that calculate the risk of infection and the knowledge that people have about the condition, in addition to providing medical advice to users to prevent contagion.

"If users of the platform seek the recommended measures, we call them at home, which ensures that they have the necessary information to prevent both the disease and the possibility of hospitalization due to complications," detailed the researcher.

According to Higuera Iglesias, through the project "Hunting viruses: influenza zero", users will know the symptoms of an influenza infection, which include a fever greater than or equal to 38 degrees centigrade, and an intense headache, which may be accompanied by malaise, a runny nose, joint, chest and abdominal pains as well as nasal congestion and, in some cases, diarrhea.

"However, we can also identify a person who has been in direct contact with a confirmed influenza patient and presents suggestive signs and symptoms. Thus, the association of several people presenting the symptoms (in the family, school or office, among other places) is called an epidemiological outbreak," the scientist says.

She also says that the INER conducted a study with 500 people (patients and families), which consisted in providing adequate and accurate information about what influenza is, how it spreads and the means of prevention. "Having such data has decreased severe hospitalization by 15 percent," said Higuera Iglesias.

Notably, the infection is caused by one of three types of influenza viruses that are known: A, B and C. From the standpoint of public health, the most important is the influenza virus type A, which has the ability to infect humans and some animal species.

"Since 2009, when the influenza pandemic occurred in Mexico, there has been an increased incidence during two periods of the year. One is from March to April and the second from September to December," Higuera Iglesias relates.

She also notes that in both periods, the incidence of hospitalization also increases due to influenza pneumonia, which is one of the complications of the disease.

Often, influenza pneumonia is complicated by other bacterial infections requiring a combined treatment with antiviral and antimicrobial drugs for a long period of time. Hence, preventive measures acquire a particular relevance, together with the annual vaccine.

Provided by Investigación y Desarrollo