

## **The H1N1 pandemic in Hungary**

**Outbreaks of infection by the H1N1 virus involve approximately 2,000 people already and healthcare professionals are expecting a serious epidemic during the fall of 2009. Absenteeism resulting from the epidemic may cause substantial economic losses to companies that have neglected timely and appropriate preparations for the spread of the infection. This article summarises the most important facts related to the pandemic.**

The H1N1 virus, a new influenza virus pathogenic for humans, appeared on the North American continent in April 2009 and has infected almost 100,000 people worldwide since then. This pathogen is often referred to as "swine flu" because laboratory studies have shown that many of its genes are very similar to those of influenza viruses customarily present in pigs in North America. However, additional studies have established that H1N1 is very different from the pathogens usually circulating in the North American pig population. Specifically, the new mutation is carrying two genes of influenza viruses present in European and Asian pigs, along with genes from avian and human influenza viruses. Therefore, H1N1 has been defined by experts as a "quadruple reassortant", recombinant virus carrying an extraneous gene.

This virus is transmitted from human to human through droplet spread – just as is the case with conventional seasonal influenza viruses. Coughing and sneezing by infected individuals expel infected droplets into ambient air and contaminate the hands of other people as well as the surfaces of fomites. Others may inhale the contaminated air, shake hands with an infected person or expose themselves to the risk of infection by touching contaminated surfaces. In order to prevent propagation of the infection, the nose and mouth should be covered with tissue or a facemask when coughing, and hands must be washed regularly. Some people may get infected by touching a fomite contaminated with influenza viruses and then their mouth or nose. Similar to the symptoms of seasonal influenza, the manifestations of the new H1N1 strain include fever, cough, sore throat, nasal discharge and congestion, aching occurring in various body regions, headache, chills, and fatigue. A substantial proportion of people infected by the virus also reported diarrhoea and vomiting. Additionally, similar to seasonal influenza, severe illnesses and even deaths have occurred because of viral infection.

Although H1N1 vaccines are currently being developed and produced throughout the world, immunisation against the new pandemic is not yet in use for the prevention of massive outbreaks. Patients are treated with either of two antiviral preparations, in conformity with the recommendations of international health authorities. In its communiqué issued on 8 July, however, the WHO called attention to the fact that pathogens resistant to antiviral drugs containing oseltamivir have been isolated. However, the communication also states that these resistant H1N1 viruses are notwithstanding sensitive to antiviral agents containing zanamivir. Currently, both antiviral products are available from pharmacies in Hungary. Additionally, facemasks may prove useful and are completely safe; and masks impregnated with an antiviral agent are now available in Hungary as well.

The cost of the pandemic already amounts to several millions of dollars worldwide. In addition to increased healthcare expenditure, this cost comprises the substantial negative impact of the pandemic on the economy. Mass illness vitiates the productivity and efficacy of companies. Therefore, responsible actors of the economic sector are recommended to take enhanced precautions in preparation for the pandemic, which might flare up anew in the northern hemisphere during the autumn influenza season. Essential preparatory measures include the stockpiling of antiviral drugs, along with facemasks and hygiene products. More information on corporate preparations for the pandemic is available on [www.pandemia.hu](http://www.pandemia.hu).

In order to help your company maintain business continuity during the H1N1 pandemic, the BCCH, along with GlaxoSmithKline Ltd., AmCham, DUIHK, and FirstMed Centers, is organising a seminar on the subject, which will be held on 24 September 2009, at the Budapest Marriott Hotel. For more information on the event and registration details, please visit [www.bcch.com](http://www.bcch.com).