

Pandemics can lead to severe economic losses and mortality with significant repercussions for the (re)insurance industries

Pandemics

In contrast to an epidemic, which describes a disease affecting an exceptionally high proportion of the population in a localised area and over a limited period of time, it is understood that a pandemic is a cross-national or world-wide outbreak of a disease. In contrast to an epidemic a pandemic is not limited in time or place.

Pandemics have been observed throughout history. In the Middle Ages devastating plague pandemics raged over Europe. In particular the outbreak from 1347 to 1352 is well known. It affected all European areas and killed 25 million people, which represented about one third of the European population at that time. In the last 300 years 7 pandemic outbreaks have been observed. Looking over longer periods a pandemic outbreak is likely to occur every 30 to 40 years.

In the 20th century three pandemic outbreaks were observed:

- Spanish flu, 1918, death cases: approx. 50 million
- Asian flu, 1957, death cases: approx. 2 million
- Hong Kong flu, 1968, death cases: approx. 1 million

A realistic forecast related to severity of a future pandemic outbreak is impossible. There are only indicators that allow some conclusions on possible scenarios. From scientific analyses we know that a possible H5N1 pandemic outbreak might lead to a severe course as there are several similarities between the H5N1 structures compared to H1N1 which caused the Spanish flu in 1918. We also know that H5N1 fulfils all preconditions to generate a pandemic outbreak.

According to the World Bank, “there’s a high probability that the world will experience a severe outbreak in the next 10 to 15 years that could destabilize societies and economies. Recent economic work suggests that the annual global cost of moderately severe to severe pandemics is roughly \$570 billion, or 0.7 percent of global income. The cost of a severe pandemic like the 1918 Spanish flu could total as much as 5 percent of global GDP”. (World Bank, September 2016).

Pandemics can occur at any time of the year and, in contrast to seasonal influenza, are not limited to wintertime. Experience shows a flu pandemic usually spreads in two or three waves, where the main phase lasts between two and four months. The main risk for the population in this phase is from insufficient medical care due to capacity overload of the whole healthcare system (hospital care and outpatient care) and disturbances in public and private life with possible supply shortfall.

The crucial factors in determining the extend of these disturbances, the endangerment to individuals and the economic consequences are the severity of a pandemic outbreak and whether medical science will be able to mitigate the course of a pandemic by development of antiviral drugs and / or vaccines. The course of a pandemic outbreak can also be attenuated by effective infection control measures. All relevant national and international health authorities (e.g. World Health Organisation (WHO)) have prepared detailed plans for prophylaxis and control.

The presence of the 2009 H1N1 (“swine flu”) doesn’t decrease the probability of another pandemic outbreak in the future. Pandemics are inevitable and their economic impacts can be significant, with significant insured losses. Fast pandemic spread poses significant risks to the insurance industry. Despite modern medicine and fast communication and surveillance there still is a substantial risk of uncontrolled fast spreading fatal diseases. SARS may be an example for the successful intervention of the international community. Measures to control and contain the outbreak lead to serious business interruptions and contingent economic losses. The H1N1 outbreak in 2009/2010 showed the potency of viral diseases to spread around the world due to worldwide air traffic before any measure or vaccination could contain it.

Influenza as the most prominent and most probable example serves as model-disease for a fast spreading potentially fatal pandemic. Beneath economic losses following severe business interruption, excess mortality will affect life and health insurances.

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