

GOING VIRAL

According to the World Bank, a severe flu pandemic could cost 4.8% of global GDP – or more than \$3 trillion. The statistic is a sobering reminder that, beyond the deadly human toll, pandemics pose a serious economic threat – and preventing them should be a priority, not just for health and agriculture experts, but insurers too

A virus from an unknown source is infecting humans in an unidentified way, with an alarming mortality rate. But just how quickly will this virus spread and, if it becomes a pandemic, what toll will it take on the social and commercial fabric of the world?

Middle East Respiratory Symptom Coronavirus, or MERS-CoV, came to public attention a little over a year ago and since then it has spread from its Middle Eastern roots to register deaths in both France and the United Kingdom. How the situation develops from here remains to be seen, but the World Health Organisation (WHO) is under no illusions about its deadly potential.

Dr. Margaret Chan, the Director-General of the WHO, believes the virus is a “threat to the entire world” and, addressing the annual World Health Assembly in Geneva earlier in the year, she went on to say: “It is not a problem that any single affected country can keep to itself or manage all by itself. We do not know where the virus hides in nature. We do not know how people are getting infected. Until we answer these questions, we are empty-handed when it comes to prevention. These are alarm bells. And we must respond.”

The world got a glimpse of the toll a serious pandemic could take in 2003, when the SARS outbreak killed 800 of the 8,000 people infected and cost the world a staggering \$54bn.

The World Bank estimates that, in a worst-case scenario, a novel flu virus could infect 30–40% of all people. Business and consumer confidence would plummet, worker absenteeism would rise sharply, and public services would falter. Says Olga Jonas, Economic Adviser for the World Bank Health Team: “Disruptions would propagate across economies, and could include

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ORGANISATION

breakdowns of food distribution and public order in megacities.”

Indeed, according to the World Bank, a severe flu pandemic could cost 4.8% of global GDP, or more than \$3 trillion, as livestock and human densities increase alongside weak veterinary and public health systems in developing countries.

MERS-CoV might not mutate into an outbreak as costly as this. However, what is certain is that others will follow, and the priority must be in

creating a response that is both swift and effective. And investment is essential: veterinary and human health systems in developing countries will require \$3.4bn annually, believes the Bank, compared with less than \$450m currently. It argues that this sustained level of investment is justified in view of at least \$37bn in annual expected benefits from prevented pandemics and other major outbreaks.

PANDEMIC PREPAREDNESS

One of the major problems in preparing for the next pandemic is identifying where it will come from and what it will look like.

Nita Madhav, Senior Scientist at catastrophe modelling firm AIR Worldwide, says: “A pathogen that has both high transmissibility and high virulence would be most likely to cause a severe pandemic. Influenza has the capability for both, as was seen during the 1918 ‘Spanish Flu’ pandemic.”

Until a virus actually shows itself and scientists understand its make-up and its mode of transmission, there is little they can do to create the drugs required to treat those who are infected and to vaccinate those who are not. Even where antiviral drugs can be developed – and this cannot be guaranteed – supplying them to enough people in a wide enough geographical area to outpace the spread of the pandemic is immensely difficult.

The ongoing trend towards globalisation also speeds up the likely spread of any virus, making it more difficult to contain. Airport hubs play host to millions of passengers ▶

each year, while train stations, tube systems and ferry terminals are busy virtually 24 hours a day. Goods are transported around the world, food is sourced from all four corners of the planet and there are few if any populous regions that are truly isolated.

Although this modernisation increases the ability of a virus to spread, Neil Smith, Manager of Emerging Risks and Research at Lloyd's, comments: "On the other side, you have to take into account developments in medical technology. Improved communication is also helpful as an

outbreak can be communicated very widely, very quickly, and that can create changes in behavior and help contain the spread of a virus."

However, Smith is sceptical as to whether the world has the ability to stay ahead of a fast moving virus: "Whether it is enough... I would have my suspicions, particularly in terms of getting any resistance developed in time. By the time antibody vaccine is developed, the pandemic is likely to have spread quite widely."

In addition to the speed at which a virus can spread, there is then the fact that the response to restrict its movement and mitigate its impact is far from consistent across the world. The WHO represents 194 member states, and while they are all bound by the International Health Regulations (2005), there is a wide divergence in their individual ability to meet the core

capacities set out in these regulations.

Following the H1N1 Influenza pandemic in 2009, the WHO commissioned the report *Strengthening Response to Pandemics and Other Public Health Emergencies* to examine the effectiveness of the International Health Regulations and how they helped in responding to this pandemic. Its findings, released in 2011, stated: "The world is ill-prepared to respond to a severe influenza pandemic or to any similarly global, sustained and threatening public health emergency."

BUSINESS IMPACT

In the absence of a reliable, resilient and consistent global framework to mitigate the impact of a pandemic, it

becomes even more difficult for international businesses to accurately assess how hard they would be hit. Even where businesses operate in a single country or location, assessing the potential impact of a pandemic is extremely complicated.

Madhav at AIR Worldwide says: "One of the largest impacts to the economy would come from employee absenteeism. For preparedness planning, absenteeism of around 30% is often assumed, although the experience during the 2009 Swine Flu pandemic was not this high. Employee absenteeism could have significant effects on business continuity, especially in industries that require employees to be physically present." However, businesses need to look beyond the problems created by absenteeism and begin to examine both the flexibility and ultimately the viability of their model in the worst-case scenario.

Gary Lynch, Managing Director and Global Leader, Risk Intelligence and Supply Chain Risk at Marsh Risk Consulting, says businesses really need to question not only how hard they would be hit, but whether they could actually survive and what they would have to do to stay afloat. Companies, he says, need to ask: "Can I recover, will I recover, and if I can, how do I expedite that through a recovery or resilience strategy? Do I close my doors? Do I realise that I am going to be out of business, and is it time to get rid of the stock and think about starting from scratch if the pandemic goes past a certain point?"

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UNDERWRITER, TALBOT
SYNDICATE, SINGAPORE

the flexibility in their model and how they could use it to their advantage. "What is it that I can do and what competencies do I have as a firm that may enable me to benefit from this type of disruption, and how should my strategy change?"

INSURABLE RISK

For insurers, the impact of a pandemic would also create major problems and generate significant losses. Perhaps the most obvious market to suffer would be the life sector. To put a number on the potential losses, Gen Re Life Health carried out some research.

It remodelled the Spanish Flu of 1918/1919 on today's population structure and calculated what affect it would have on a German life insurance portfolio. It found that the pandemic would generate net expense claims of €4.6bn for the German market as a whole. Depending on the scenario used, this figure fluctuates between €2.3bn and €9.1bn, and would soar to €43.5bn if calculated using the SARS scenario.

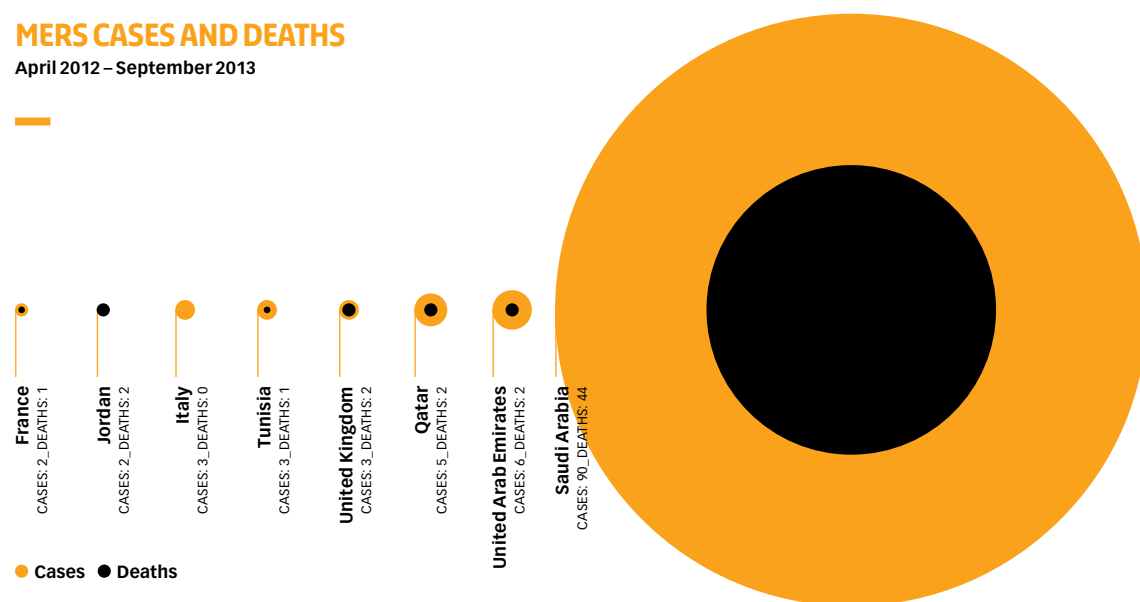
In the general insurance market, the status of a pandemic will have a major bearing on the losses borne by carriers. In the travel insurance market, for example, formal notice of an outbreak will no longer allow it to be classified as an unforeseen event, and this would effectively limit the losses sustained. Insurers would also put exclusions on cover to the most affected areas, further curtailing their exposure.

Meanwhile, in specialist lines of businesses underwritten specifically for the risks posed by pandemics, the potential losses are pretty well quantified and understood.

Simon Wilmot-Smith, Specialist Lines Underwriter for Talbot Syndicate, Singapore, comments: "Event organisers are very aware of the potential impact a pandemic would have on future events. Communicable Disease cover is available from the Lloyd's contingency market, but underwriters carefully aggregate their exposures and charge premiums, which fully take into account not only the region and past history, but also the uncertainty regarding risk exposure, such as the complexity of a virus. Asia has been hit badly by SARS and Avian Flu in the past, so the populations of Asian countries understand the potentially disastrous effects of a pandemic. It is therefore surprising how few ▶

MERS CASES AND DEATHS

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SOURCE: NATIONAL CENTER FOR IMMUNISATION AND RESPIRATORY DISEASES, DIVISION OF VIRAL DISEASES

insureds actually take up the cover.”

For carriers in other lines of business, coping with the wave of claims that a pandemic would generate is likely to create severe problems.

Employers' liability claims would jump as employees questioned the practices and procedures their firm had in place to safeguard them, while D&O cases would also come to the fore, questioning everything from a company's procedures to the impact that poor planning had had on its share price and underlying value.

If those affected could prove that the design of a building enabled a virus to spread more quickly or that the air filters in place were faulty or not up to the job in hand, then professional indemnity and product liability products could be triggered.

The list of possible claims is almost endless, although insurers may be protected by specific exclusions that relate to pandemics in their wordings. Similarly they may avoid certain losses such as business interruption because of the need for physical damage to trigger this aspect of a property policy.

However there is little doubt that such exclusions would be stress tested to exhaustion in the storm of litigation that would follow any pandemic.

Commenting on exactly which claims would be repudiated, Lynch says: “We just do not know, as it comes down to how something is detected, how pervasive it is, and whether the policy has any sorts of exclusions. Organisations have to take a good, hard look at the wordings of their cover, and ask their brokers and carriers whether this is an event that sits outside of the cover offered by the policy.”

The experience of recent pandemics has given governments, health organisations, insurers and commercial companies more experience of what might happen. Unfortunately, that

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MANAGING DIRECTOR
AND GLOBAL LEADER,
RISK INTELLIGENCE
AND SUPPLY CHAIN
RISK AT MARSH RISK
CONSULTING

does not mean they will react more effectively when it does.

Madhav concludes: “Preparedness levels vary from company to company and country to country. The world is increasingly recognising the importance of pandemic risk. Events such as SARS, H5N1 Avian Influenza, and the 2009 Swine Flu pandemic have prompted the creation and revision of pandemic preparedness plans. More could be done to test the robustness of these plans. Although great strides have been made in preparedness efforts, we must not take a complacent attitude to the risks posed by a severe pandemic.” ■

PANDEMICS: THROUGH THE AGES

The Antonine Plague, thought to be smallpox, hit the Italian peninsula between 165AD and 180AD. It claimed the lives of an estimated five million people.

The Plague of Justinian occurred between 541AD and 750AD, and is the first outbreak of bubonic plague on record. It is accredited with killing between 25% and 50% of the population of the known world in those 200 years.

The Black Death hit Europe in the mid-14th century and within six years this outbreak of bubonic plague had killed between 20 million and 30 million people. Over the next 500 years, bubonic plague pandemics continued to strike the world right up until The San Francisco Plague of 1900–1904.

Influenza pandemics were described in ancient history, and since the 16th century they have been recorded every ten to 30 years. The most serious was in 1918 when the ‘Spanish Flu’ claimed 50 million people.

AIDS is an ongoing pandemic and has claimed the lives of 35 million people since it came to light a little over 40 years ago.