



Are you prepared for a flu pandemic?

It is inevitable that a flu pandemic will occur at some point. No one can absolutely state when this will occur, nor how severe it will be, nor which virus will cause it. Whenever it is, is your business prepared for the inconvenience it may cause?

The H5N1 virus is currently the most likely contender for an influenza pandemic, and it appears to be steadily evolving towards becoming a human pathogen, although there is no certainty that this will occur. What is certain however, is that a pandemic influenza will occur at some point in the future. These are recurring outbreaks of disease that take place approximately every 28 years, with the last such event in 1968. It is clear that statistically speaking, we are overdue for another influenza pandemic.

If the present H5N1 virus should become sustainably transmissible between humans, at the very worst case such a pandemic H5N1 virus will continue its present behaviour and maintain a 58% mortality rate of those humans infected, and will be likely to infect 50% of the population over the course of a pandemic.¹ The (hoped for) case is that the virus will lose virulence to produce a repeat of the mild 1957 or 1968 style pandemics, but experts fear that a 1918 style of pandemic, in which mortality was 2.5%, is most likely. Most initial government plans base their estimates and planning on a 'mild' 1968 pandemic but these assumptions are being revised at the highest levels following completion of the recent Treasury/ FSA/ Institutions simulations looking at the economic effects of a pandemic event, which have just been completed. Expect a great deal of action, because in this simulation, the banks ran out of money and the shops out of goods by half way through the 6 week pandemic simulation exercise.²

Whether the pandemic is bad or relatively mild, it must be assumed that the pandemic will occur in waves. Each of these will last for approximately 3 months, followed by an interval of relative normality, and whilst no-one can be certain, (but based on previous pandemic experience), the pandemic duration will be in the region of 2-3 years. During each wave, it must be assumed that as a small business, between 30-50% of your workforce may be off sick, caring for children (schools are likely to be closed if the mortality rate is high i.e. above 1968 levels) or caring for sick relatives.

¹ WHO Table of confirmed human H5N1 infections
http://www.who.int/csr/disease/avian_influenza/country/cases_table_2006_11_13/en/index.html

² Sunday Telegraph Report <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/11/05/nflu05.xml>

This will be a global event.

All countries in the world will be affected simultaneously, and therefore “just in time” supply lines will be disrupted for the period on a global scale. Borders may be closed for a period, which will affect raw materials supply if imported.

All businesses, everywhere, will be subject to the same disruptions, and therefore goods and materials production may be affected. The general public's behaviour will be drastically altered, especially if the pandemic is caused by the Highly Pathogenic H5N1 virus, and large numbers of people aged 0-40 die, i.e. if the present mortality pattern is maintained. At present there are relatively few recorded cases or deaths from H5N1 infection in persons aged over 40; for an unknown reason, the H5N1 virus attacks the young and fit, not the elderly. This may change.³

It is critically important for businesses of all sizes, to consider their resilience to withstand such an event. The present risk of a pandemic is very high.

Whilst scientific opinion is divided, many scientific experts feel that the final stages of viral evolution required to cause a pandemic may occur ‘soon’ ie anytime over the course of this winter/spring to a 2-3 year timeframe; however this event is completely unpredictable with any certainty. Large businesses have continuity planners, or their insurers are being especially active to ensure that their risk liability is limited. SMEs however are not being considered in this activity and therefore, combined with the lack of media and public discussion, are blissfully unaware of the issues. It will be too late to make plans when the pandemic is already underway.

The simple facts.

There will not be a vaccine for at least a year for most persons, and possibly longer. By this time the worst waves of a pandemic will have been and gone, doing their damage. Simply put, global vaccine manufacturing capacity annually against a single viral strain is 900million doses under normal circumstances.⁴ There are presently at least 5 circulating substrains of H5N1 that are considered to have pandemic potential, and seed vaccine has been developed against one of them. This requires 2 shots six weeks apart, which means that annual global capacity is actually closer to 450m persons who can be vaccinated. However, added to this is the fact that present manufacturing capacity is using 1950s technology, and this requires specially produced sterile fertilized eggs to grow the virus. Not only does the virus kill the eggs in a high proportion of uses, but the egg manufacturing capacity is limited and at present there are no actions underway to increase this. Therefore in reality you can probably halve the global manufacturing capacity again using present manufacturing techniques, and under present circumstances.

³ Epidemiology of WHO-confirmed human cases of avian influenza A(H5N1) infection <http://www.who.int/wer/wer8126.pdf>

⁴ Pandemic influenza: science to policy. The Royal Society & The Academy of Medical Sciences November 2006 http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/20_11_06_bird_flu.pdf

Moreover, the present stockpiled vaccine does not work against the latest evolution of the H5N1 virus, the Fujian-like strain, at all⁵, therefore Governments, the WHO and vaccine manufacturers are working to develop other seed vaccine strains and stockpile limited supplies in advance of an outbreak. Cell based manufacturing process development is also underway, but these projects are some years away from completion. Bearing in mind the worlds population is 6.2billion, you can swiftly see that even the developed western world and richer nations will only have adequate vaccine supplies to protect key workers i.e. health workers, critical infrastructure staff, police and army for quite some time into an outbreak if this event should happen within the next couple of years.

Therefore preventative/control measures will be based around treatment within the home (assuming that Tamiflu stocks are still effective – there are possible issues here), closure of public places, quarantine of infected households, social distancing (maintaining 3 feet from the nearest person at all times), improved personal hygiene and disinfection of the work place and home on a daily basis.

What is being done?

Apart from extensive NHS planning to manage the health impacts of a pandemic, the Chancellor has appointed a ministerial committee specifically for the purpose of national pandemic resilience planning and he is expected to sign off a £3bn spending plan to cover the costs of pandemic preparation.⁶ This includes money for vaccines when they become available, masks for the general population and other measures. This level of spending should indicate just how seriously those who are fully informed believe the risks are of this event occurring.

What can you do?

It is clear to see that there are a significant number of issues that a pandemic will cause for businesses, individuals and society. However, mitigation strategies can be planned for – from office planning (social distancing), cross training of staff (where possible), remote working (where possible/ applicable) to financial resilience, raw materials supply, and resilience of trading itself. If you are a restaurant you clearly are going to have big problems – but you could look at home delivery or ‘take away’ options as a temporary measure. Internet capability will be more important than ever. There is a long list of possibilities to consider and prepare for.

⁵ Emergence and predominance of an H5N1 influenza variant in China. G. J. D. Smith †, X. H. Fan †, J. Wang †, K. S. Li †, K. Qin †, J. X. Zhang †, D. Vijaykrishna †, C. L. Cheung †, K. Huang †, J. M. Rayner †, J. S. M. Peiris †, H. Chen †, R. G. Webster †††, and Y. Guan ††† [Proc Natl Acad Sci U S A](#). 2006 Nov 7;103(45):16936-41. Epub 2006 Oct 30.

⁶ Healthcare Today <http://www.hc2d.co.uk/content.php?contentId=1046>

Julia Pendower MCIM, DipM, BSc(Hons) has been researching the possibilities for small businesses. She proposes:

1. Site visit to the SME premises / place of work
2. Briefing meeting – balanced presentation detailing
 - What is a pandemic
 - Why is this a risk over and above ordinary flu
 - What effects there may be of a mild, moderate and severe pandemic
 - What local and national government planning has provided for, and what issues will have to be managed and dealt with on a local basis
3. To facilitate a meeting with management/staff to consider what the issues/ vulnerabilities will be for the individual business
4. Brainstorm action plan with management to limit/ minimise risks
5. Post meeting, to write up outputs in report form and make recommendations for individual business resilience with regards to a pandemic flu, along with marketing ideas that the business can explore as its backup plan for operations and resilience during a pandemic. If it is felt to be useful, further days exploring strategies and business development can be booked.

Julia estimates that a business with less than 10 employees should be 'doable' within a day. However, larger businesses will need more time to really brainstorm the business operations properly and therefore to carry out points 3&4 adequately.

SMEs are particularly vulnerable to the effects of a pandemic but do not have the funds to bring in specialist risk management and continuity planning organisations such as Marsh, but also do not have the resources for a 'Continuity Planner' who considers such risks and plans how to survive them. Given that 80% of employees are working in SME organisations, the consequences could be exceptionally dire if no action is taken now. There are plenty of measures that SMEs can take, at low cost and low commitment, now. It will be the difference between survival and not – possibly at both a personal and commercial level.

Large scale planning activity appears to be focused primarily on direct liaison with large corporates and institutions, and local government planning mostly considers maintaining critical infrastructure rather than ensuring local business continuity planning occurs. Little direct activity with SMEs has occurred to date, and Julia is one of the few consultants to specialise and focus on the issues that will be faced by SMEs, with a view to finding SME resilience solutions.

To contact Julia to arrange a Pandemic Risk Assessment & Management day, ring 01306 646 522 or email jp@vibrantlife.co.uk

Food Solutions is being run by a group of people who have many years experience of the food sector and dealing with smaller businesses. We also have an excellent understanding about Food Regulations and work closely with the various agencies both in the UK and Europe. For more information visit www.food-solutions.org