

Wave I pandemic exercise

Introduction

Organisations preparing to face a pandemic need to appreciate that they are dealing with a threat to their staff and stakeholders such that human resources departments should be primed to play a leading role. Moreover, it also presents a potential threat to both their customers and suppliers and could have significant implications on all aspects of an organisation's supply chain. Within the UK, pandemics have been classified by the government as a tier one threat to its security and it is ranked alongside terrorism, cyber attacks, natural hazards and military conflicts.

History warns us that we can expect pandemics to occur in the 21st century. However, we just do not know when they will strike, what precise characteristics that these contagions will present, or whether any particular sections of society will be especially vulnerable. But what we do know is that by their very nature pandemics are unpredictable and can have severe health risk implications. Moreover, they can come in waves with intervals of several months between each wave.

A number of pandemics occurred in the 20th century including Asian flu in the late 1950s and Hong Kong flu in the late 1960s. Between them it is estimated that more than four million lost their lives. However, this almost pales into insignificance when compared to the Spanish flu outbreak that followed World War I. Fatality estimates vary but many exceed the 50 million mark (circa four percent of the world's population) and up to 500 million were infected.

Since the turn of the century, the human race has been threatened by Severe Acute Respiratory Syndrome (SARS), Avian Flu, Swine Flu, Ebola and Middle East Respiratory Syndrome (MERS) among others. We must also remember that every year seasonal influenza infects many millions of people across the planet causing around half a million fatalities. Now in 2020 we are witnessing the latest novel Corona virus, Covid-19, spreading rapidly while presenting a real threat to both humans and the global economy.

Despite the variety of novel viruses that mankind has had to face so far during this century, we are yet to be confronted by the 'Big One', when we can realistically expect the number of global fatalities to be measured in the millions. Expanding the debate, one southern European country chief medical officer (CMO) that I recently had the chance to speak with at a seminar, expressed concern regarding the ever-increasing number of immigrants trying to reach Europe from Africa. The CMO told me that it was possible that some of the immigrants could be carrying serious contagions for which European citizens may have no immunity.

"SARS was already spreading even before the World Health Organisation knew of its existence."
(Feeney, 2014, p. 154)

What has become clear is that with global travel ever expanding and international tourism numbers predicted to reach 1.8 billion by 2030, organisations may receive little or even no notice of a pandemic heading their way. That said, many have already seen the 'writing on the wall' and have begun developing pandemic plans which are being incorporated and validated as an integral part of their business continuity management systems.

The following is a case study based upon an exercise that was run to validate a mail order organisation's pandemic plan. Although the actual exercise only ran for a matter of hours, it simulated a timeframe covering twelve weeks.

Pandemic Exercise Scenario

The first wave of a life threatening and highly infectious mutant version of Avian Flu is rapidly proliferating around the globe. Seventy-seven countries have already reported infections to date. With the infection count rising at an alarming rate and the death toll mounting, the World Health Organisation (WHO) has declared that the outbreak has reached its highest classification level – ‘Phase 6’ indicating that a global pandemic is officially underway. A number of countries have already declared public health emergencies.

This validation case study looks at a London based mail order company that runs a 24/7 operation which receives around 70% of its orders via the Internet, with the remainder procured via telesales. Its crisis management team (CMT) has been convened and its pandemic plan has been activated. Although the exercise lasted only a few hours, the simulated duration covered several weeks. To add a degree of realism, the organisation’s doctor had been invited to join the crisis management team to act as a pandemic subject matter expert.

This section includes only a subset of some of the activities that occurred during this exercise. In one instance, the ‘clock’ was advanced by up to four weeks. Even so, the study provides a substantial amount of data to reflect upon for organisations looking at their own pandemic planning arrangements.

Simulated duration: 12 weeks

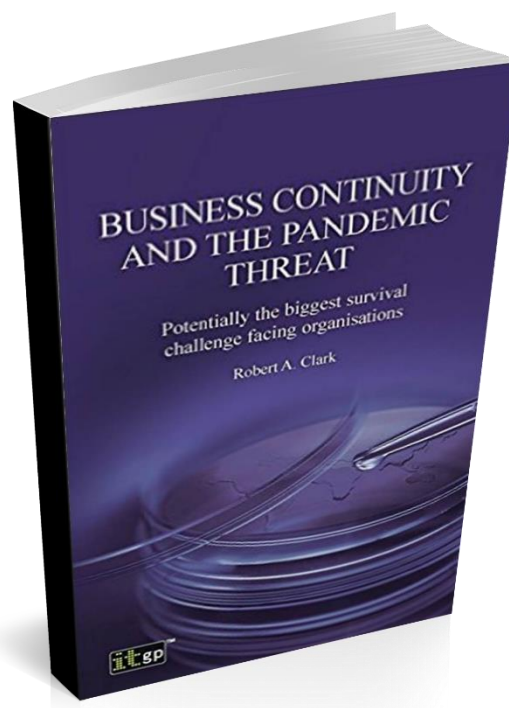
Detail

Week one:

One of the first observations made by the crisis management team (CMT) was that the pandemic plan remained in a draft format and it had never been signed off. Even so, it was decided to proceed with the exercise and validate what was in front of them.

The human resources (HR) department informed the CMT that they believed that absenteeism was higher than normal for the time of year. However, as several members of the HR team had reported feeling unwell and had been sent home, it was not possible to provide a precise number at this time.

The company doctor briefed the CMT on how the pandemic was likely to develop, basing his comments upon both what was known already about the current pandemic, along with historical information about previous outbreaks. He warned that a pandemic can occur in a wave-like pattern, as illustrated in *Figure* , with the potential of several months respite between waves.



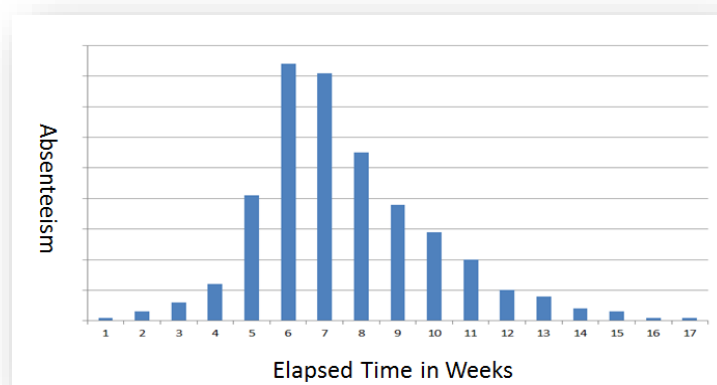


Figure 1: Likely profile of influenza infections wave over four months

At this time, the average recovery time that could be expected from the disease was unclear. Even so, people may well suffer with post-viral fatigue and not be fit enough to work for several weeks after they are no longer infectious. Even though many associated deaths had already been reported globally, no statistical data was yet available regarding the case fatality ratio (CFR). This indicates the proportion of symptomatic cases that result in fatalities. Estimations of CFR are particularly difficult to calculate during the early stages of a pandemic. But the doctor warned the CMT that based upon the table of historical data provided by the WHO (The WHO, 2013, p. 19) which is illustrated in Figure 2, fatalities within the company were a distinct possibility.

Pandemic year of emergence and common name	Area of origin	Influenza A virus sub-type (type of animal genetic introduction/recombination event)	Estimated reproductive number (27, 28)	Estimated case fatality	Estimated attributable excess mortality worldwide	Age groups most affected (29)
1918 "Spanish flu"	Unclear	H1N1 (unknown)	1.2-3.0	2-3% (30)	20-50 million	Young adults
1957-1958 "Asian flu"	Southern China	H2N2 (avian)	1.5	<0.2%	1-4 million	All age groups
1968-1969 "Hong Kong flu"	Southern China	H3N2 (avian)	1.3-1.6	<0.2%	1-4 million	All age groups
2009-2010 "influenza A(H1N1) 2009"	North America	H1N1 (swine)	1.1-1.8 (31)	0.02% (32)	100 000-400 000 (33)	Children and young adults

Figure 2: Characteristics of the past four influenza pandemics

The doctor reminded the CMT that the sick bay facilities were very basic and had only one bed. It would be sensible to temporarily expand these to accommodate employees taken ill at work while arrangements were made to transport them home or to hospital. He also suggested that the company may like to look at ways of allowing staff to work from home if they have a pre-existing condition, such as asthma which makes them particularly vulnerable to influenza. He added that there are over four million adult asthma sufferers in the UK alone. He reminded the CMT that during the SARS outbreak in

2002-3 tens of thousands of people were quarantined in Beijing, Toronto and Hong Kong in order to stop the spread of the virus. He believed that it was entirely possible that similar measures could be adopted again.

He concluded his briefing by emphasising the importance of total compliance with all recommendations from the Ministry of Health, particularly with respect to preventing the spread of the disease. These are likely to include, although are not necessarily limited to, hand and respiratory hygiene, along with the avoidance of all unnecessary travel. Moreover, employees that use public transport have a greater probability of being exposed to the disease.

The organisation should also be prepared to accept that the government may encourage people to stay at home if they have come into contact with the disease but are not necessarily presenting any symptoms (e.g. one of their close family members has been diagnosed with influenza, etc.). The pandemic plan had anticipated much of what the doctor covered and it included actions to identify which employees travelled to the London office using public transport, along with the creation of a list of employees who could work from home¹.

It was not clear how long HR would take to respond to this action as they were already short staffed. However, the HR director anticipated that absenteeism could rise during the pandemic for any one of a number of reasons including no access to transportation, fear of infection and illness. If the government decides to close schools, some employees may be absent while they are taking care of young dependants. Moreover, employees with infected elderly parents may also feel duty bound to provide care for them. The director also acknowledged the doctor's warning regarding potential fatalities amongst employees and advised the CMT that a counselling service had already been arranged for dealing with any resultant trauma amongst staff.

The administration director was asked to check if the company's business interruption insurance included pandemics, or was there some small print that meant they were not covered.

The CMT next turned its attention to identifying critical and non-critical business activities and each member of the CMT was tasked with drawing up a list for their respective sections. They were also charged with creating a list of those employees who were in non-critical roles but had the skills and experience to undertake a key role if required².

The final three decisions made by the CMT were that:

- The company would immediately:
 - Replace the hand towels in the toilets with paper towels
 - Sanitising hand gel dispensers were to be situated throughout the company's premises and employees would be encouraged to use them regularly
 - Face masks and disposable gloves were to be made available for all employees, along with instructions for their use. A replacement supply was also to be kept on site for use when

¹ There is no reason why lists of this nature cannot be prepared in advance of an incident or crisis as part of business continuity planning and then periodically reviewed. With the possibility of absenteeism rising, this is an additional task that could be avoided. This is also something of importance, not just for dealing with a pandemic threat, but for addressing other potential threats, such as transport strikes or terrorist attacks that affect the transport network.

² This information should already be available as a deliverable from the business impact analysis process.

needed. All telemarketing staff were to be allocated their own personal headsets and they would be positively discouraged from lending their headset or using anyone else's

- A rigorous programme of sanitising stair handrails, lift buttons, door handles, telephones, computer keyboards, cafeteria chairs and tables, plus any other potential source of infection in the company's premises, was to be introduced with immediate effect. However, the building services director reminded the CMT that while he appreciated the importance of these additional measures, more staff would be required to undertake these extra duties
- All future CMT sessions were to be held using the company's teleconferencing facility, to reduce the risk of cross infection amongst the team
- CMT deputy members were to be kept apprised of all decisions and actions in case any of them needed to replace the primary CMT members

Week two:

The building services director reported that he was having difficulty in sourcing sanitising gel dispensers and face masks due to the demand.

The CMT concluded that the critical aspects of the business that had to be kept running were the:

- Warehouse operation including upstream supply chain management, order picking and shipping
- Customer services
- In-bound telemarketing calls
- The payroll process, and
- The position on statutory reporting obligations was unclear and should continue unless the company was advised to the contrary

All other activities would be performed on a best efforts basis and even though it would be disruptive, in a worst case scenario, these other departments could be temporarily suspended.

Preliminary figures were now available and it was estimated that around 79% of the workforce travelled to work using public transport. Some 12% either walked or cycled, and with the limited number of car parking spaces only allocated to disabled employees and the management team, very few used their own vehicles.

The ICT director said that the technology was already in place to enable customer services and telemarketing staff to work remotely and providing they had an Internet connection, they could work from home. However, some CMT members expressed concern that there could be employees who try and exploit the situation if they are not being constantly monitored by their supervisors. The director reassured the CMT that individual performance measuring software was now available, so each employee's activity could be remotely monitored. He suggested that they should be made fully aware that if they did work from home, 'Big Brother' would be watching.

Absenteeism was estimated to be 5% of the workforce. Randomised absenteeism modelling (RAM) was used to establish which employees were not at work and which departments were affected, although the reasons for each absent employee were not recorded³.

³ While clearly needing to observe employment law, each organisation may well choose to adopt a different approach to absenteeism. While some may allow unpaid leave of absence (assuming employees are not actually sick) others may opt to keep them on full pay. For this, establishing the reasons of absenteeism could be important.

The HR director agreed to communicate with staff on how working practices would be affected by the pandemic. Section heads would be briefed on the specific changes to their respective areas which they would disseminate to their staff.

Week four:

Absenteeism was now at 22% and the RAM approach dictated that two members of the CMT had been infected and had to be replaced by their deputies.

In response to a rise in customers enquiring about the status of order deliveries, the communications and media department are asked to prepare a statement which was to be issued via the company website and social media. When placing new orders, customers should also be advised of potential delays. While apologising for any hold up in order processing resulting from the effects of the pandemic on the workforce, the statement should assure clients that the company will strive to ensure that orders will be delivered as quickly as possible. It should also reassure the clients of the company's continuing commitment to customer service.

The CMT decided to ease overtime constraints and section managers would be instructed to encourage staff to volunteer but there was to be categorically no attempt to pressure staff into working extra hours. The HR director warned against the potential health effects of working excessive overtime over a prolonged period. He proposed that a cap of 16 hours per week should be applied.

The outsourced ICT supplier contacted the company to say that staff shortages caused by the pandemic meant that they were obliged to activate the *force majeure* clause in the contract. They could no longer guarantee to meet the agreed service levels for incident resolution for the foreseeable future. This meant that any vital maintenance required to address failures in the company's online services, regardless of severity, could remain unresolved indefinitely.

In light of this, CMT asked the ICT director whether they should invoke their disaster recovery plan and transfer the ICT operation to the fall-back site. The director advised against this because at this time there would be no benefit as the service was still functioning. In fact, activating the disaster recovery plan could create unnecessary problems, particularly with the number of absent staff growing by the week. Moreover, if an outsourcing failure did occur, such as a software failure or a cyber attack, then it was possible that it could be replicated at the disaster recovery site.

The CMT learned that the RAM had also dictated that a member of the accounts department had died in hospital and a number of her colleagues were in a state of panic. The HR Director contacted the pre-arranged counselling service but was told that, at best, it would be several days before they could attend, due to their current case load.

The deceased was a young mother with two small children and the director was asked if he would be visiting the family on behalf of the company to pay his respects. He felt that as it was possible that her family could also be infected, he was not prepared to put himself or any other member of his team in a situation where they could be unnecessarily exposed to the disease. Instead, he would write a personal letter to the family and offer both his and the company's condolences. At this point discussions became very heated and the director's intentions were challenged, and he was accused of being totally heartless by one of his colleagues. But when asked if he was prepared to go instead and put himself, and possibly his work colleagues and his family at risk, the irate colleague apologised and

backed down⁴. On checking, it also transpired that no next of kin contact details had been recorded for the deceased.

Week six:

Absenteeism was now at 43% and the RAM approach dictated that a third member of the CMT had been infected and had to be replaced by her deputy. However, the deputy was also sick and, with no other suitable candidates available, the CMT agreed to absorb the missing director's responsibilities amongst the rest of the team.

Trains, buses and London Underground services were being frequently cancelled due to staff sickness. Many employees were arriving noticeably late for work. Warehouse activity was being especially affected.

With staff due to be paid this week, both the payroll clerk and her assistant had gone sick. No one else knew how the payroll process worked and there were no written procedures for someone else to try and follow – how will staff be paid? The HR director responded by advising the CMT that an agreement sanctioned by the chief financial officer had already been reached with the company's bank. Staff would be paid the same as they were paid last month and any appropriate reconciliation would be addressed after payroll staff had returned to work. This agreement would remain in place until the bank was asked to discontinue it.

A number of non-essential staff who were currently working at home had been instructed to report to the warehouse to backfill for absenteeism in that section. Three declined while four others demanded extra compensation because of the increased risk of infection they believed they would be subjected to, both at work and travelling to and from work. The CMT decided to consider their response.

The outsourced delivery company had not arrived to collect the orders ready for dispatch. When contacted, their office manager apologised and said they were short staffed. He assured the CMT that a collection would be made tomorrow.

Two more employees have died and the Evening Standard has requested an interview about how the pandemic is affecting the company and how it is rising to the challenge. After much debate, the CMT decides not to comment on the deaths and to refer the reporter to the statements already made. It was argued that after all it is only one of many organisations caught up in a common crisis⁵.

Week ten:

Absenteeism was down from its week eight peak of 58% and was now back down to 31%. CMT opted to monitor the situation and react to any negative changes as and when they occurred.

⁴ Here we face a moral dilemma – do we or do we not? Normally, many companies would want to show a caring side and support the family of a deceased employee. However, in this situation, by so doing they could put the health of other employees and their families in jeopardy.

⁵ Normally I would expect a company to have a media plan in place and be able to issue meaningful statements and respond effectively to media questions. However, a pandemic is something that is likely to have a serious effect on many thousands of organisations around the globe and each could choose to react differently if they find themselves in the glare of the media spotlight.

Week twelve:

Absenteeism is now down to 9% and the effects of the pandemic's first wave appear to be drawing to a close. As with week ten, the CMT opted to continue monitoring the situation and react as necessary.

Key lessons learned:

- Ensure that your plan has been completed, signed off and is regularly reviewed
- Much of the work, such as creating lists and identifying critical parts of the organisation, should have been done in advance of this exercise as part of the BCM process. This is information that could be needed in a number of different scenarios and not just restricted to a pandemic
- Items, such as sanitising gel dispensers and face masks, need to be procured before a pandemic starts, to ensure an adequate supply is secured
- Sick bay facilities should be reviewed for suitability for temporarily accommodating staff who are taken ill on the premises
- Both your upstream and downstream supply chain will invariably be affected by a pandemic, as will your customers. Employees of this particular company are also heavily dependent upon public transport to get to work, so any disruption to the transport network will have a detrimental effect on their ability to get to work
- Human resources policies need to be carefully thought through. Due consideration needs to be given to how to deal with situations, such as requests for paid or unpaid leave, employees demanding extra compensation⁶ or employees refusing to undertake certain tasks, as it may increase their exposure to the disease
- Having a set of documented procedures available could make the difference as to whether an organisation survives or not, especially if you need to bring in untrained staff. In the case of payroll, while there were contingency measures in place, there could be a substantial amount of reconciliation work waiting for the payroll team to return to; work which could take some time to clear
- Do not assume that because you have business interruption insurance that you are covered for pandemics – read the small print
- Have a communications and media response plan in place, as they will be required for many of the situations that organisations may find themselves facing. Ensure you keep your stakeholders informed of the situation
- Considering the delay for trauma counselling, unless you have an agreement in place for the provision of a dedicated service, you will have to accept that you will be competing with other companies for resources. Even then, counsellors can also become victims of the pandemic
- Although this was a pandemic scenario, employees' next of kin details should be on record. Other incidents, such as fires or explosions that result in injuries or fatalities, even a simple accident at work, could necessitate the need to contact them

Remember, this was only an exercise and yet the situation became very tense over the HR director's intentions of how to deal with the bereavement. Be warned, being in a real crisis situation can feel like being in a pressure cooker.

⁶ If you make allowances for one employee and grant extra compensation, you may find it generates similar demands from other employees, so try and avoid creating precedents of this nature.

Glossary

CFR	Case Fatality Rate – the number of deaths that are attributed to a contagion
CMT	Crisis Management Team
Corona Viruses	A family of viruses some of which can be lethal to humans although the common cold is caused by a corona virus.
HR	Human Resources
ICT	Information Communication Technology
MERS	Middle East Respiratory Syndrome. Sometime referred to as ‘Camel Cough’, this a member of the corona virus family and was first identified in Saudi Arabia in 2012.
RAM	Randomised absenteeism modelling
SARS	Severe Acute Respiratory Syndrome. First identified in 2003 as a member of the corona virus family.
WHO	World Health Organisation

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