



Pandemic: Business Continuity Threat, Impact and Response

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EXECUTIVE SUMMARY

Situation

It's impossible to accurately predict the likelihood of disease outbreaks and pandemics, but we do know that when a pandemic strikes the workplace it can have a tremendous impact, causing widespread employee absenteeism and interrupting productivity and business continuity. When a pandemic threatens the public, information is readily available for preparation, prevention and treatment of the disease, but when it comes to protecting your business, many decision makers don't know where to begin.

Need

It's not only important to create a business environment where disease can't readily spread, but to plan and prepare for those times when an outbreak is unavoidable. Pandemics can cause business stresses and delays from absenteeism, reduced productivity, value chain interruptions, reduced demand for goods and ultimately, falling revenues. Pandemic preparation must be considered an integral part of business continuity planning.

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Challenge

As a site where people congregate, the workplace is particularly vulnerable to the spread of disease and is the place where disease can have the greatest impact. Your challenge is to first consider the health and safety of your people, then dig deeper and anticipate how a pandemic could affect your value chain, from partners to suppliers, from vendors to customers. You can then use that information to prepare so that when an outbreak does occur, your business will suffer the least possible interruption.

Solution

This paper studies the history of pandemics with an eye towards using lessons learned in the past to construct a plan to reduce the impact in the future. It explores the many ways a pandemic is likely to affect your business, and guides you in prioritizing your business processes, developing contingency plans and including pandemic planning as one of the cornerstones of your business continuity plan.

Result

If your business has a solid pandemic plan in place it will weather the disruption that an outbreak can bring and will be poised to recover quickly. You'll be better able to protect your workers, helping them to stay healthy, productive and equipped to deal with the inevitable interruptions that are caused by pandemics. Once the pandemic has passed, your company will be prepared to recover any losses quickly and efficiently.



A pandemic is similar to an epidemic but is much more widespread, with the likelihood of infecting people around the globe, even touching those in remote places. Either event has the potential to cripple a business in its path, but because the swath of a pandemic is so broad, it's likely to leave almost no businesses untouched. It's wise to prepare for such an occurrence.

The Threat

Influenza and other pandemics have come and gone for centuries, with the world suffering three influenza pandemics in the last century (1918, 1957 and 1968). The 1918 influenza pandemic lasted three years, spreading even to the Arctic and remote Pacific islands. Between 50 and 100 million people died, making it one of the deadliest natural disasters in human history. Even using the lower estimate of 50 million people, three percent of the world's population (1.8 billion at the time, according to the US Census Bureau), died of the disease. Estimates of those infected were as high as a half million; more people died from influenza than from World War I.

In June 2009, the World Health Organization declared the latest strain of H1N1 (Swine Flu) infections had reached pandemic proportions. By February 2010, the U.S. Centers for Disease Control (CDC) estimated that 57 million Americans had contracted the virus and over 250,000 had been hospitalized due to complications. Following a typical pandemic cycle, by August 2010, the World Health Organization (WHO) declared that although the H1N1 influenza was still spreading, it was no longer a pandemic, and that worldwide flu activity had returned to normal seasonal patterns.

Some of the current models, based on seasonal influenza and the three 20th-century flu pandemics, suggest that a new and highly contagious virus strain could spread across the U.S. in about five weeks. It would affect communities for six to eight weeks before receding. There would probably be at least two waves, separated by months. At least a third of the population would be likely to become ill in each wave, with peak

absenteeism somewhat higher (about 40 percent of the workforce). Depending on the strain's virulence, 900,000 to 10 million people might be hospitalized, and 200,000 to two million might die.

Influenza isn't the only potential pandemic. Severe acute respiratory syndrome (SARS) emerged in China in November 2002. By the following July it had spread to at least 28 countries, infected 8,437 people and killed 813, including nearly 350 in China (300 of those in Hong Kong).

Canada lost 40 people to SARS, but the outbreak caused a 14-week emergency in Toronto, where 30,000 people were quarantined at home or in hospitals. The city lost nine conventions and 12,000 jobs, suffering \$39 million in lost revenues during the month of April 2003 alone.¹ Though it took two years to fully recover, in public health terms the city's response was a nearly unqualified success. Globally, the SARS outbreak was a bullet dodged.

FACT:

Between five and 20 percent of the U.S. population gets the flu each season.²

According to the medical journal *The Lancet*, the cholera epidemic that struck Haiti shortly after a 7.0 magnitude earthquake in January 2010 came with the potential to sicken as many as 800,000 people by the time it had run its course. Before the earthquake, cholera had not been seen in Haiti for 100 years. As of March 2011, US researchers predicted that Haiti could have close



to 800,000 cholera cases and 11,100 deaths that year, more than three times the 250,000 cases counted since the epidemic began last the preceding fall.³

Understanding the potential impact of a pandemic has been subject to considerable discussion. There is a wide variety of scenarios and each can influence the speed with which a disease agent can spread. Today's emphasis on lean operations and just-in-time supply chain management places businesses at risk during a pandemic. A disruption in the labor force or supply chain can trigger a domino effect with widespread impact on businesses and the economy.⁴

Is your company prepared for a pandemic? Consider how your company would manage the following situations:

- Fifteen percent of your workforce is absent for eight weeks due to school closures, which require working parents to stay home to care for children
- Forty percent of employees who remain at work become ill at some time during the first eight-week pandemic wave
- The pandemic wave will mimic the pattern that is expected in the general population, so many people will be out at the same time
- Every person who becomes ill has a minimum of seven shifts of missed work
- There is a 100 percent relational absence rate, meaning that for every person in the workforce who gets ill, another will not come to work because of the need to look after a sick spouse or children, or a disinclination to travel or work
- Three percent of workers who become ill from pandemic infection will die

Though each organization must consider its own unique needs and circumstances, employers should prepare to do business with far fewer staff members

FACT:

It is estimated that more than 200,000 people in the U.S. are hospitalized from flu-related complications on average each season, including 20,000 children younger than five years old.⁵

than usual. It's wise to plan for a 25 percent reduction in staff with a contingency plan for a 50 percent reduction to cover the entire span of a pandemic.

It's clear that another pandemic is likely, if not inevitable. Will improvements in medical care and technology reduce the impact of the next pandemic?

The Impact

Since a pandemic can't be stopped, it's important to consider the potential impact one could have on your organization. A prolonged reduction in your workforce because of illness, fear or the need to care for one's family could have a significant impact on business. This could spread across business partners and value chain members as well, and you may not have the option to outsource or use alternative production means and channels that you would in other scenarios.

The good news is that physical assets like plants, equipment, offices and infrastructure are not likely to be affected. But the availability of the people needed to run and maintain them could erode your ability to support operations. The rate of erosion would depend on each asset, its dependencies, the maintenance it requires, and what backup resources are available.

Operating in this environment would be different from what you are used to. Your organization's survival will depend on being prepared and adapting to the new reality a pandemic would present. Your planning team should look carefully at external and internal operational dependencies to understand the underlying infrastructure needs and the roles played by value chain members. All of these can be impacted, although the degree of impact and number of options available will

vary and will change over time as a pandemic unfolds. Planning and preparation can reduce the overall impact by reducing the severity of the pandemic waves on operations and staff, with employee protection being the primary focus.

In the face of a severe pandemic, market demands for products and services will change from being “nice to have” to “critical” or “not relevant.” This change in demand may not follow the normal product life cycle, so clear communication and an ability to understand and accurately project the market’s response will be invaluable. It will take a keen understanding of this dynamic situation to be able to navigate the uncertain times a pandemic presents.

To prepare, businesses need to identify and prioritize essential business functions. Management must be prepared to suspend or reduce nonessential functions and manage the results. This includes both immediate and future consequences to the organization, others in the value chain, and customers and constituents. Everyone will be affected by both the incident and organizations’ responses.

The Response

Developing your response to a pandemic requires understanding and answering the following questions:

- At what point should your pandemic response measures be invoked?
- How would your organization function with a 40 percent reduction in staff, suppliers or customers?
- How might the demand for your products and services fluctuate during wave cycles of a pandemic?
- How might your outsourced functions and supply chain members be affected during a pandemic?
- What should you do now to protect your staff and minimize the impact on operations in the event of a pandemic?

- How do your existing business continuity plans address a pandemic event?
- Who should lead your pandemic planning efforts?

Answers to these questions will give you the foundation for your organization’s pandemic response plan.

Incident Response Planning

Development and implementation of a pandemic response plan should follow standard business continuity best practices as outlined below.

1. Program Initiation Phase

- Plan the scope and assumptions for your plan
- Choose a project sponsor and identify a leader
- Outline your project plan and define a schedule

2. Analysis Phase

- Prepare a pandemic business impact analysis
- Assess and document your business risk
- Identify the opportunities for mitigation

3. Strategy Phase

- Develop your operational strategy
- Develop your vendor strategy
- Develop your company pandemic policies

4. Plan Development Phase

- Establish pandemic alert procedures
- Prepare a pandemic incident response plan
- Integrate all of this into your existing business continuity plan

5. Implementation Phase

- Plan publication and orientation
- Alert and response measure verification
- Personnel training activities
- Resource acquisition and installation
- Monitoring measures activation



Mitigation and Response Strategies

Once the business impact analysis is completed and you fully understand the impact on customers, suppliers and operations, strategies for addressing the incident should be identified. Areas and concerns to consider:

Human Resources

The health and safety of an organization's employees will obviously be a major concern. Employees who become ill or who must tend to ill family members will refer to absence and leave policies, as well as dependent care and safety policies for guidance. You should anticipate questions about payroll and benefit programs while schedules are disrupted.

Operations

Operating in a pandemic environment is very different from normal operations. Give special consideration to employee isolation and shifting schedules, production schedule flexibility, personnel cross-training and succession, production automation where possible, backup and alternative processes, and, ideally, remote-access options like telecommuting.

FACT:

It is estimated that the 2009 H1N1 pandemic resulted in more than 12,000 flu-related deaths in the U.S. In contrast to seasonal flu, nearly 90 percent of the deaths occurred among people younger than 65 years of age.⁶

All of these bring an organization's technology infrastructure capabilities into question. The infrastructure may need to be expanded or adapted to provide not only for remote access to systems and data, but also for expansion in the volume of activity from remote access. Additional support may be required for remote access

FACT:

The U.S. Centers for Disease Control (CDC) estimates that flu-associated deaths in the U.S. ranged from a low of about 3,000 to a high of about 49,000 between 1976 and 2006.⁷

users to handle any technical problems that arise as users adjust to working remotely.

Consider delivery service alternatives as well as substitute products and services (because a pandemic will affect every organization, even your suppliers). This, in turn, will have an impact on inventory and stock-level management, billing and collections, cash management and security administration.

Finally, once a pandemic runs its course, decontamination procedures will be required to return the organization's facilities to its pre-pandemic state.

Supply and Delivery Chain

If your business relies on other businesses, you'll need to coordinate plans, communicate directives, oversee pipeline management and make priority arrangements. It's likely that you'll have to depend on alternative arrangements during a pandemic, as one supplier may be substituted with another. Product and schedule flexibility will be crucial, as suppliers' problems become your problems.

Legal, Regulatory and Contractual Requirements

Though your customer, employee and supplier contracts were executed before a pandemic, the signers may not be able to follow through with the agreements due to absenteeism, travel restrictions, or product availability, on their end. Workers' Compensation will become a common and major concern for both recipients and providers, as the number of claims and appeals will likely escalate dramatically during a pandemic.

Americans with Disabilities Act (ADA) accommodations, control compliance (Sarbanes-Oxley (SOX) and Federal Financial Institutions Examination Council (FFIEC), record security and access (Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley Act (GLBA), and filing requirements (Securities and Exchange Commission (SEC), State Commissions, Financial Industry Regulatory Authority (FINRA) will all still apply.

Customer and Public Service

Finally, you must consider your essential public services and products, the demand for which is likely to fluctuate during a pandemic. Health officials may determine whether you can continue to serve your customers, if your operating hours must be modified, or even if you must close for a period. This means that you'll need to prepare effective communications for stockholders and the general public.

Pandemic planning success means having processes and procedures in place before an incident occurs. No one strategy will satisfy every organization's risk and impact profiles. Two similar businesses may have very different response strategies (i.e., care for children at home versus have them come to work with employees). Both strategies are correct if developed around a sound process, but choosing the right strategy is a subjective determination based on management perspective and philosophy.

Plan Development and Implementation

Once your response strategies have been determined, your plan should be developed using the following approach:

- Finalize your business recovery alternatives and develop written agreements with service providers, suppliers, vendors and subcontractors regarding support during a potential pandemic
- Structure your pandemic incident response management team

FACT:

... a nationwide poll found that 84% of American workers feel that the current recession increases pressure on them to show up for work even when sick ... and also showed that 69% of workers reported getting no communications from their employers about policies related to [a] pandemic.⁸

- Document your plan assumptions and expected impacts on personnel, suppliers and markets
- Prepare detailed business unit response and recovery procedures
- Develop plan testing processes and procedures
- Establish methods for maintaining the pandemic incident response plan
- Test the pandemic incident response plan for accuracy and update it accordingly
- Review the plan and get senior management approval
- Include testing exercises for a pandemic incident in your organization activity schedule

Activating and Sustaining

Once your pandemic plan has been developed and implemented, it must be maintained. First, manage mitigation measures and infrastructure changes. For example, purchase and install automated backup or failover systems to keep operations up and running in the event primary functions fail from lack of personnel.

Second, establish monitoring and alert procedures. The monitoring systems should provide meaningful and actionable indications of the level of apparent risk and response, including the following:

- No immediate risk apparent
- Potential for incident exists
- Initial response measures to be deployed
- Incident response plan activated



- Peak response
- Response interlude

Use color codes to easily communicate the status response to personnel (such as code yellow, code blue, code red).

Third, finalize your pandemic business operations alternatives and develop written agreements with service providers, suppliers, vendors and subcontractors regarding support for activities during the pandemic period.

Finally, after carrying out response plan testing, maintain the plan by implementing operations options, changes and mitigation measures. Set a schedule to conduct regular pandemic response team briefings on actions, the status of preparedness and approval of the detailed pandemic incident response plan.

Now is the time to prepare. Before an incident occurs, plan and implement your incident identification and response measures. When a pandemic threatens, you can ramp up your response team with new information as the event develops.

SUMMARY

Hurricane Katrina, the earthquakes in Haiti and Chile in 2010, the 2009 H1N1 pandemic, and the 2011 earthquake and tsunami in Japan have all been potent reminders of the importance of properly planning for impending disaster. One significant difference is that a pandemic comes with some degree of warning, so if you make your plans now and review them regularly, you stand every chance of faring well in the event of an outbreak. It's worth the time it takes to make sure your organization and employees are properly prepared for a potential pandemic incident.

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