Novel coronavirus disease (COVID-19) outbreak: Now is the time to refresh pandemic plans

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Lisa M. Koonin

Founder and Principal, Health Preparedness Partners, LLC, United States

Lisa Koonin is the Founder and Principal of Health Preparedness Partners, LLC. Dr Koonin is an international expert in emergency preparedness and response, especially for pandemic influenza and was the originator of private sector pandemic preparedness and emergency response programmes during her 30+ year career at the US Centers for Disease Control and Prevention. She has clinical experience as a family nurse practitioner and earned master of nursing and master of public health degrees from Emory University and a doctorate degree in public health leadership from the University of North Carolina at Chapel Hill.

ABSTRACT

This article outlines practical steps that businesses can take now to prepare for a pandemic. Given the current growing spread of coronavirus disease 2019 (COVID-19) around the world, it is imperative that businesses review their pandemic plans and be prepared in case this epidemic expands and affects more people and communities. Preparing for a potential infectious disease pandemic from influenza or a novel corona virus is an essential component of a business continuity plan, especially for businesses that provide critical healthcare and infrastructure services. Although many businesses and organisations have a pandemic plan or address pandemic preparedness in their business continuity plans, few have recently tested and updated their plans. Pandemics can not only interrupt an organisation's operations and

compromise long-term viability of an enterprise, but also disrupt the provision of critical functions. Businesses that regularly test and update their pandemic plan can significantly reduce harmful impacts to the business, play a key role in protecting employees' and customers' health and safety, and limit the negative impact of a pandemic on the community and economy.

Keywords: pandemic, business continuity, corona virus, COVID-19, SARS-CoV-2, influenza, social distancing, emergency preparedness



Lisa Koonin

INTRODUCTION

Since December, 2019, health officials in China have reported a growing number of pneumonia cases caused by a novel corona virus (the disease called COVID-19 from the virus named SARS-CoV-2) that was first detected in Wuhan City, Hubei Province, China. Since that time, tens of thousands of people have been infected with this new virus and thousands of deaths have been reported in China. A growing number of cases, and deaths, have also been identified in other parts of Asia, Europe, the USA, and other parts of the world. On 30th January, 2020, the World Health Organization (WHO) determined the rapidly spreading outbreak constituted a Public Health Emergency of International Concern (PHEIC). On 28th February, 2020, WHO advised that

Health Preparedness Partners, PO Box 88926, Atlanta, GA 30338, USA Tel: +1 404 435 2551; E-mail: lisakoonin@ healthpreparednesspartners.com

Journal of Business Continuity & Emergency Planning Vol. 13, No. 4, pp. 1–15 © Henry Stewart Publications, 1749–9216 'we have now increased our assessment of the risk of spread and the risk of impact of COVID-19 to very high at a global level'.² The USA reported the first confirmed person infected with this virus on 21st January, 2020, and since that time, additional cases have been identified and the first death related to COVID-19 was reported on 29th February, 2020.^{3,4}

Although initially, most cases were associated with travel from Wuhan City or Hubei Province, China, person-toperson spread of this virus in China has been detected in multiple provinces, and person-to-person spread has been reported outside China, including in the USA and other countries. Continued spread of this new virus continues around the world and cases without known exposures to geographic regions with outbreaks or persons ill with COVID-19 are being identified in the US and other countries. This onward community transmission has been noted and public health officials are concerned that continued spread will spark a pandemic.5

The outbreak has already impacted businesses, healthcare systems, economies and global travel. Forecasts of adverse economic impacts from this outbreak have been predicted to be greater than that of the 2003 SARS outbreak.⁶ The World Economic Forum's Global Risks Report in 2020 includes outbreaks of 'infectious diseases' in a list of the top ten conditions that will have the greatest societal impact over the next ten years.⁷

Many businesses have been planning for a pandemic, particularly one from influenza, for years and have established pandemic plans as part of business continuity planning. These efforts started in the mid-2000s when multiple outbreaks of 'bird flu' in Asia caused tremendous concern among scientists and sparked global, national and corporate pandemic preparedness planning activities. The

US Centers for Disease Control and Prevention (CDC) issued its 'Business Pandemic Influenza Planning Checklist' in 2005 to encourage preparedness, and most large businesses created plans. Currently, although many businesses likely have a pandemic plan (or as part of a broader infectious disease plan) as part of their business continuity efforts, many of these plans have been sitting on the shelves for years and have not been recently refreshed or tested.

Because a severe pandemic can have a devastating impact on business and community functions, private sector businesses, especially those that provide critical community services, must actively plan and prepare. In the event of a COVID-19 pandemic, businesses will need to maintain continuity as well as play a key role in protecting employees' and customers' health and safety, limiting the negative impact to their communities, and protecting the economy. Description

WHY SHOULD BUSINESSES PREPARE FOR A PANDEMIC?

Currently, COVID-19 is spreading within countries outside of China, and shows no signs of abating. Cases of COVID-19 that have no apparent links to travel or exposure to sick persons are growing in communities in many countries, therefore additional community outbreaks are likely. In addition, and unrelated to the COVID-19 outbreak, influenza (A) viruses with pandemic potential, including H5N1 and H7N9, as well as H5N6, H9N2 and H3N2v, continue to circulate in birds and other species globally. 11,12 A pandemic flu virus that results from a genetic shift in one of these viruses (or another virus) could emerge anywhere without notice, and spread rapidly to almost every country. As a result, the threat of a pandemic influenza also remains very significant. The CDC

rated the 2017 Asian lineage A(H7N9) influenza bird flu virus that was detected in China as 'having the greatest potential to cause a pandemic, as well as potentially posing the greatest risk to severely impact public health if it were to achieve sustained human-to-human transmission'. ¹³ Given these immediate and potential risks, pandemic planning should be a priority for private sector entities.

A response to a pandemic is complex, takes time and resources, and cannot be adequately developed 'on the fly'. Once a pandemic begins, it may not be possible to acquire needed materials, formulate multiple strategies, policies and plans, and/or execute those plans without prior preparation.

Therefore, immediate preparation is prudent to protect business continuity.

Although it is not possible to predict when a pandemic will emerge, it is possible to anticipate the potential impact a pandemic could have on businesses. A pandemic can cause many interrelated challenges that can jeopardise business functioning, including:

- Disruptive absenteeism of up to 30–40 per cent;
- Risk of illness for employees and customers in the workplace;
- Shortages of supplies and supply chain interruptions;
- Transportation disruptions;
- Telecommunications slowdown;
- Increased expenses;
- Need to reduce or eliminate some services;
- Potential for harm to brand/reputation;
- Possible civil unrest in communities.

It is imperative that businesses that deliver critical goods and services, such as healthcare, utilities, food, transportation, financial services and others, plan and prepare in advance of a pandemic so they can remain operational, provide their needed products, and continue to provide ongoing employee compensation and benefits. Planning is especially important for businesses that operate globally, as borders may close during a pandemic, and resources from headquarters may not be available. Planning may also help to reduce the spread of a pandemic virus in the workplace, which will decrease the number of people who get sick or die. Finally, pandemic planning can strengthen businesses' preparedness for other types of infectious disease emergencies and disease threats.

UNIQUE ISSUES FOR PANDEMIC BUSINESS CONTINUITY PLANNING

Many of the business continuity constructs that apply to natural disasters or other emergencies are relevant for business continuity planning for a pandemic. These include ongoing planning to mitigate escalating absenteeism and supply chain disruptions. However, there are a number of key issues and impacts that are different and require additional preparation. Unlike a natural disaster or other emergency that affects a single city or region, a pandemic, as spread accelerates, is likely to affect almost the entire country at about the same time, so marshalling personnel or resources from another location is unlikely to be possible.¹⁴ In addition, some natural disasters can be predicted in advance, albeit with short notice. In contrast, a pandemic will likely emerge unannounced and it will not be possible to predict when an outbreak or emergence of a novel virus will shift to becoming a global pandemic.

In contrast to a natural disaster, where the impact and damage are immediately visible, there will likely be uncertainty about the severity of a pandemic when it first arises, with the most severe cases being

recognised first. Therefore, there may be an initial overestimation of the severity of the pandemic by public health officials, and as response recommendations will be linked to the severity of the disease, public health guidance may change as more accurate information becomes known. In addition, pandemic mitigation and response strategies recommended by public health authorities will vary depending on the severity and impact of the disease, the numbers of affected people, location of illnesses, timing within a pandemic wave, transmission dynamics, and duration of the pandemic. Therefore, access to timely and accurate information and planning strategies that include multiple scenarios are needed, so responders can adapt to the severity level of a future pandemic. This means that business pandemic plans need to include response strategies for both a mild-to-moderate severity level as well as a pandemic with greater severity. Scalable plans need to be developed with flexibility in mind, and exercises should include the opportunity to practise responses to situations with significant uncertainty and shifting guidance.

During a pandemic, some types of businesses could experience a large influx of customers (eg healthcare facilities, pharmacies, big box stores); other businesses may see a sharp decline in customers (eg travel agencies, airlines, entertainment venues). Depending on the severity of the pandemic, these threats can compromise the economic and long-term viability of an enterprise.

Importantly, pandemics may affect communities for a longer time than natural disasters, with multiple waves of disease that could last about 8–12 weeks or more in a community, likely affecting the country (and world) in multiple waves for 12–18 months. ¹⁵ Sustaining a long response will be difficult for most businesses, especially in the face of high levels of absenteeism and supply chain interruptions.

KEY DOMAINS FOR BUSINESS PANDEMIC PLANNING

There are four important domains (the four 'C's) of business pandemic preparedness that are relevant for a pandemic of any severity level (Figure 1). These include planning for *continuity*, protecting *crew* (ie the workforce), protecting *customers* and engagement with the *community*. As with any business continuity plan, it is important to regularly test each component of the pandemic plan with exercises and update it based on the lessons learned from workshops, tabletop exercises and drills.

Protect business continuity

Although many businesses have specific business continuity plans for a natural disaster, few businesses (of any size) have upto-date infectious disease and/or pandemic plans as part of their overall continuity plans, and very few have recently tested their plans to ensure they are feasible and operational. 16,17 Notably, a recent survey found that infectious disease threats/pandemics were not mentioned among the top risks for business operations that business executives and owners worry about most.¹⁸ The reasons stated for not having a specific plan were related to the belief that the risk for a pandemic has subsided and that other more pressing business continuity concerns had emerged. 19 However, the current COVID-19 outbreak has triggered planning among many businesses and reminded planners to refresh their plans.

Businesses that include pandemic preparedness as part of their business continuity efforts tend to be larger businesses and financial institutions. Regulatory authorities for the financial services sector have recommended the inclusion of pandemic planning in overall business continuity planning. ²¹

Key business continuity strategies such as plans for response leadership structure,

These pandemic planning considerations are in addition to a general business continuity plan strategies.

CONTINUITY

- Create a plan to monitor and respond to high levels of absenteeism
- Cross train staff for back-up roles
- Develop contingency operational plans for severe shortages of personnel
- Be prepared to operate if community transportation services are disrupted
- Support remote operations
- Streamline administrative procedures
- Ensure telework IT support
- Plan for potential financial impact/loss of business
- Establish alternative supply chains ask vendors about their pandemic plans
- Identify priority services in context of an infectious disease outbreak
- Plan for need to increase security

CUSTOMERS

- Consider alternative ways of delivering goods/services
- Create ways to minimise close contact between employees and customers
- Develop plans to use telephone messaging and signage to educate customers
- Plan to post signage asking sick persons not enter (unless healthcare facility)
- Be ready to respond to customers' fear/anxiety and community disruption

CREW (WORKFORCE)

- Allow sick workers to stay home until recovered
- Develop emergency non-punitive sick leave, leave for quarantine, and other leave policies
- Be prepared to identify a sick worker and send home
- Plan to provide hand hygiene supplies
- Become familiar with 'social distancing' practices and plan to increase physical distancing between staff in workplace
- Plan for frequent workplace surface cleaning
- Engage occupational health staff in planning (if relevant)
- Plan to conduct meetings virtually and cancel all non-essential travel
- Develop alternate work sites/policies for staff who may be at higher risk
- Create plans for staff working abroad
- Establish an emergency communications and information plan
- Be prepared to provide employee assistance
- Encourage vaccination (when available)

COMMUNITY

- Reach out to local Public Health & Emergency Management to create connections, especially if business produces/delivers critical community services
- Identify credible sources of local information
- Collaborate with other businesses as part of community planning
- Explore access to community resources for response and recovery

Figure 1 Business Pandemic Planning: Four 'C's

responding to high levels of absenteeism, succession planning, identifying alternative or backup physical locations, employee and stakeholder communications, data backup, and plans for mitigating vendor and supply chain disruption, can serve as key components of a pandemic plan.²² Although typical business continuity planning elements can serve as a backbone for a pandemic response, there are additional and unique planning issues that need to be included. These include those described below.

Leadership for planning efforts

Pandemic planning requires a focused and time-dedicated effort from multiple parts of a business. Therefore, company leadership must embrace this undertaking and serve as a champion for these preparedness activities, as the team will need time and resources to plan and prepare. To ensure a plan will be developed adequately, a pandemic coordinator should be appointed and a team with participation across the organisation and defined roles and responsibilities for preparedness and response planning should be identified. This team should determine planning goals and objectives, devote time to planning, meet regularly to update leadership on progress and challenges, and collaborate to exercise and test plans regularly. An executive-level 'champion' will likely be needed to ensure the team has the time and resources to develop and test the plan.

Potential for sustained, high levels of absenteeism

As discussed, absenteeism is one of the major threats to a business during a severe pandemic. Whereas most business continuity plans address absenteeism, this issue can be more complex during a pandemic. Estimates of absenteeism during a severe pandemic range from 20 to 40 per cent at the peak of the outbreak, and elevated

absenteeism can span weeks to months during a pandemic.²³ For some businesses, such a level of (unmitigated) absenteeism may be so disruptive that it may force the business to discontinue some services or shut down. The concern is not only for the individual businesses and their employees but also for the community(ies) where the business provides services. As a pandemic accelerates, and unlike with other threats, companies could experience high levels of absenteeism due to employee illness and quarantine, as well as from family care responsibilities, school closures, travel restrictions or fear of infection. It is important to have a mechanism to monitor absenteeism to assess and intervene when absenteeism approaches disruptive levels.24

As with other business continuity planning efforts, it is important to identify essential business functions and critical personnel inputs required to maintain business operations, and create plans to prioritise these critical elements if absenteeism is high. Cross-train employees for backup roles to ensure that vital business operations can be executed by more than one person. It may be necessary to streamline administrative procedures, focus only on essential services, or scale down production. Disruption of transportation in the community can also increase absenteeism. Planning should include multiple options to alter selected business processes if needed.

Information technology capabilities

Companies that can operate by having some or most employees work remotely will need to plan for increased demands on equipment and connectivity. Teleworking is likely to increase substantially during a severe pandemic (when feasible) when public health authorities recommend the adoption of protective social distancing measures. Planning ahead for 'last mile'

connectivity needs, server capacity and sufficient IT support will be critical factors in maintaining business continuity during a pandemic.²⁵

Supply chain vulnerabilities

As with other threats, planning for supply chain vulnerabilities is an important part of pandemic planning because some goods that will be in high demand and/or are produced off-shore may be unavailable or in very short supply during a pandemic. Multiple news reports of facemask, N-95 respirator, and non-medical supply chain disruptions related to the COVID-19 outbreak in China have been released.²⁶⁻²⁹ To plan for continued disruptions and shortfalls, businesses can immediately identify multiple sources for critical goods and services, establish alternative supply chains, develop plans to procure alternative goods, and maintain some reserves of critical materials and supplies. As with other threats, businesses could also be at risk for continuity disruption if critical suppliers/ vendors do not have a well-developed plan.

Plan for potential financial impact/loss of business

Financial losses may be another impact of a severe pandemic for businesses that experience marked absenteeism, reductions in demand for their services, or supply chain interruptions that could curtail the production of certain products. Downturns in the economy of China and other global economic trends and effects on markets can impact international and domestic businesses. As part of pandemic planning, it is important to determine the potential impact of a pandemic on company financials under multiple possible scenarios. Discuss pandemic planning with insurers to see how/if pandemic impacts are covered under current business insurance protection policies.

Plan for the need to increase security in the case of local civil unrest

With the 24-hour news cycle, some information provided to the public during a pandemic could be inaccurate or incendiary. Providing accurate and timely information to employees and customers can help dispel rumours and misinformation. Civil unrest could occur if there is significant community-level fear and anxiety about the pandemic, if the death rate is rising and hospitals are overwhelmed with patients, and/or if there are shortages of life-saving medications, personal protective equipment, or other valued supplies. Scarce supplies may also be at risk for loss. Consider how the business can protect property and employees and discuss business security plans with corporate leadership and local officials as part of the planning process.

Protect the workforce 'crew'

An influenza or novel coronavirus pandemic will not directly affect the physical infrastructure of a business; rather, it will have an impact on an organisation's people.³⁰ It is therefore critical that businesses anticipate the potential impact of a long-duration pandemic on the workforce and focus on planning efforts to protect staff.

During the 2009 H1N1 pandemic, the US CDC advised that 'All employers should be ready to implement strategies to protect their workforce from flu while ensuring continuity of operations'.³¹ This advice is currently a key CDC recommendation during the COVID-19 outbreak and will be a central part of guidance for any future pandemic caused by a respiratory virus, regardless of its severity level.³² Businesses that take actions to protect employees' health during a pandemic will decrease the likelihood that disease will spread at the workplace, increase the likelihood that employees would be willing to

come to work, and allow their facilities to stay open.

Initial efforts to 'contain' an outbreak when it first emerges will include isolation of sick persons and possible quarantine of those exposed. After the disease is efficiently spreading in communities, public health officials will likely transition to a 'mitigation' strategy that includes the use of nonpharmaceutical interventions to slow the transmission of disease. These interventions include simple but effective measures such as covering coughs and sneezes and regular hand-washing. Other strategies include 'social distancing', which are actions to keep people physically apart during a pandemic. Specific recommendations to isolate sick persons and keep sick people and well people physically apart to limit onward transmission of the disease will be a central public health recommendation for any severity level of pandemic. Other protective measures aimed at reducing opportunities for exposure (eg closing schools and childcare facilities and cancelling mass gatherings) may also advised.³³

Key planning actions for protecting employees during a pandemic include the following.

Sick workers stay home and away from the workplace

Currently, in light of the COVID-19 outbreak and during a future pandemic,³⁴ regardless of the level of severity, CDC and local and state public health authorities will strongly recommend that sick persons stay home (or be isolated in a hospital setting if needed) and away from the workplace to prevent the spread of infection from sick workers to others.³⁵ Although specific information about the transmission of COVID-19 between people is still being determined, it is thought that sick people are most contagious when they are having the most symptoms.³⁶ There have been

reports of spread of coronavirus disease from people who have not had symptoms; but this is not thought to be the main way the virus spreads.³⁷ This rapid spread of the illness could jeopardise the continuity of a business. Scientists propose that spread from COVID-19 from person-to-person occurs mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread.³⁸

Sick employees may feel they have to come to work for financial or other reasons; however, it is in the best interest of the business to allow them to stay out of the workplace until they have recovered. As part of pandemic planning, at any time of the year, businesses can allow staff who have a febrile respiratory illness to stay home until they have recovered. Although information about persons recovering from COVID-19 is still being analyzed, in general, workers who have recovered from a viral respiratory illness may become immune to the disease and may provide workforce stability when they return to work during a pandemic.³⁹

While many large businesses offer sick leave benefits to some employees, fewer small businesses and businesses with hourly workers provide this benefit. A US study conducted during the 2009 pandemic found that 74 per cent of the more than 1,000 businesses surveyed offered paid sick leave for at least some workers. 40 Another survey found that salaried workers were more likely to receive paid leave during the pandemic versus hourly employees. 41

During the 2009 H1N1 influenza pandemic, the Society for Human Resource Management (SHRM) issued a guide to assist businesses in altering their human resources policies to include non-punitive sick leave for staff. ⁴² Although a business may not offer paid sick leave as a routine benefit, businesses can consider drafting non-punitive 'emergency sick-leave' policies that would only be announced and

used in a pandemic. Other strategies could include allowing workers to donate sick leave to others, and/or allowing workers to obtain 'advances' on future sick leave. Businesses can reduce the spread of disease at work by aligning their human resources policies with public health recommendations and incentivising employees to 'do the right thing'. Some staff may be fearful to come to work if they know sick employees can come into the workplace. It is important to educate employees about the signs and symptoms of the illness and the business's non-punitive sick-leave policies during a pandemic.

Sick employees at work should be asked to go home

During a pandemic, although an employee may feel well and be asymptomatic when entering work, they may later develop symptoms. Policies will be needed to manage employees who become sick during the workday. Sick staff should be promptly separated from others and asked to go home (and seek medical care if needed).

Establish other non-punitive leave policies for use during a pandemic

Public health officials are currently advising that those who live in a household with a person who is ill with COVID-19 or who have recently travelled from countries with widespread community outbreaks to stay away from the worksite and be monitored by public health authorities for signs of symptoms.⁴³ During a severe pandemic, local jurisdictions may close schools, childcare centres and educational establishments.44 Policies that allow non-punitive leave for employees who are quarantined, need to care for an ill family member, or stay home to mind their child(ren) if schools are closed during a pandemic, will be critical to a successful business response strategy. These workers may be able to telework at least part-time, and consideration

of flexible off-site work hours may benefit both the employee and the business.

Because of the time it takes to develop, vet and approve alterations in employee leave and alternative worksite policies, businesses may want to develop contingency policies in advance of a pandemic so they can be implemented rapidly. Pandemic leave policies should be flexible, non-punitive and well communicated to staff when they are to be implemented. Business planners should also engage labour relations contacts (if applicable) and review collective bargaining agreements that may affect union workers.

Be aware of travel warnings, travel restrictions, and guidance on returning travellers

Although travel to and from China and several other countries experiencing widespread outbreaks is currently curtailed by the USA and other countries, there continue to be outbreaks of COVID-19 in other countries. Ensure human resource leaders and supervisors are aware of travel advisories and quarantine guidance for when it may be appropriate for some returning business travellers to stay away from the workplace, based on specific exposures. These governmental and public health recommendations will likely change as the outbreak evolves, so ensure that reliable sources are checked daily for current guidance.

Social distancing at the workplace

Business pandemic planning should include procedures for social distancing measures to modify the frequency and type of face-to-face contact among employees. Plans should include strategies to reduce crowding in the workplace and plans to create more physical distance between staff. Large face-to-face meetings or conferences should be postponed during a pandemic to reduce potential exposures. It is also likely that public health officials

will warn against non-critical travel during a pandemic, so most business travel may need to be cancelled or rescheduled.⁴⁷

For many businesses, teleworking will be a practical way of creating social distancing and maintaining business operations during a pandemic. Reducing the number of workers at the worksite can reduce disease transmission. Increased use of teleconferencing and videoconferencing can replace some face-to-face meetings. Flexible work hours and creating staggered shifts can reduce the number of workers who must be at the worksite at the same time. Allowing some business processes to be performed remotely or by telework could be a viable way of managing routine functions, such as customer service, billing, record keeping and ordering supplies.

For some businesses, teleworking will be impractical or infeasible. In this case, it will be essential that no symptomatic employees enter the workplace and that employees know to report to their supervisor if they become ill at work so they can go home.

Businesses will also need to be prepared to provide resources to ensure a work environment that promotes personal hygiene. For example, plan to provide tissues, notouch trash cans, hand soap, hand-sanitiser, as well as disinfectants and disposable towels for workers to clean their work surfaces. Increased environmental cleaning of frequently-touched surfaces (eg stair banisters, door handles, elevator buttons, shared work spaces) will be important to minimise the risk of disease transmission.

Establish an emergency communications plan

Clear and accurate communications will be an essential part of a pandemic response plan. Communicating with the entire workforce whether they are at the worksite or another location, will be a critical capability. This plan should also identify mechanisms to communicate

with vendors, suppliers, stakeholders and other important contacts. Employees will need to hear from leadership regarding ways the business will protect staff as well as plans for keeping the business operating. Business planners should establish and regularly update telephone, text and e-mail rosters for staff, so they can rapidly communicate protective measures (such as advice about staying away from the workplace if they are ill and information about alterations in leave policies), whether the workplace is open for business, and other critical information during a pandemic. Businesses should make efforts to educate their employees about the pandemic, including sharing protective health guidance. During a severe pandemic, anticipate the possibility of heightened employee fear and anxiety, as well as rumours and misinformation circulating on the news or social media; educate staff and plan communications accordingly. Federal, state and local public health agencies can be credible sources of information for dissemination to employees, customers and stakeholders. To reduce concerns, key stakeholders should also be kept informed about plans for keeping the business operating.

Encourage vaccination (when available)

A pandemic vaccine will offer the most durable protection against a pandemic virus. Although the production of a wellmatched pandemic vaccine will begin immediately after a pandemic virus is recognised, a large supply of vaccine may not be available for many months after a pandemic starts. CDC has released planning guidance that, based on pandemic severity, outlines which populations should be targeted for the first doses of pandemic influenza vaccine. 48 For any level of pandemic influenza severity, pregnant women, young children, public health and front-line healthcare providers, emergency services personnel, deployed and mission-essential personnel,

and manufacturers of pandemic vaccine and antivirals would be targeted for early receipt of the vaccine. Currently there is no available vaccine for the COVID-19 outbreak, although development efforts are underway.

If the pandemic is severe and has the potential to disrupt society, public health officials, based on recommendations made by expert federal advisory groups, would likely recommend vaccinating specific essential personnel who work in selected critical infrastructure sectors.49 These workers would include those with critical skills, extensive training, experience, certification or licensure, or whose absence would create severe problems or the failure of essential business and societal functions. Employers who provide critical infrastructure services should have a thorough understanding of this vaccine targeting guidance and as part of pandemic planning, work collaboratively with local public health officials to plan for targeted vaccination of some of their workforce. When the pandemic vaccine is widely available in the community, businesses should promote vaccination as a key protective measure and consider granting employees time off from work to get vaccinated.

Plan for providing additional services to employees

Businesses can reach out to entities that provide health insurance and other benefits to employees as part of pandemic planning to explore what services may be available to their staff during a pandemic. Payors may want to emphasise and boost the availability of telehealth and other non-face-to-face care services that reduce surge on medical facilities and align with social distancing. Employees may need additional social, behavioural or other services as a result of personal illness or the death of a loved one during a pandemic emergency. Connecting employees to the business's

employee assistance resources and identifying additional community resources can improve recovery after a pandemic.

Protect customers

Businesses that have retail or other settings where customers enter to receive services or goods have an important responsibility during a pandemic to minimise exposure to illness. People who are afraid of becoming infected may be less likely to go to public spaces or retail settings during a pandemic. Customers will need to feel confident that they can enter a business without exposing themselves to illness.

Healthcare facilities have specialised infection control procedures they will use during a pandemic to protect staff and patients. Other businesses can take steps to protect those who enter their settings. In addition to asking sick employees to stay home and away from work while they are ill, businesses can also ask customers who are ill to avoid coming into business locations by posting signs and using social media messages. Companies can consider alternative ways of delivering services during a pandemic, including asking ill customers to send someone else to pick up their goods; delivering products to the home; delivering services via telephone, video or web; and other mechanisms. Creating increased spacing and physical barriers between customers and staff to minimise close contact may also be used (eg use of partitions or drive-through services). However, not all businesses can service their customers using these methods, and some non-essential services may have to be postponed or discontinued.

Businesses can also provide tissues and hand-sanitisers for customers' use and educate them about the pandemic and the steps they are taking to reduce disease transmission (eg hand hygiene, covering coughs and sneezes, asking sick workers and customers to stay home).

In extreme cases, there may be community disruption and high levels of fear and anxiety among customers. As mentioned, addressing security and maintaining order in the work setting may be needed to protect customers and employees.

Engage with local community

Many businesses prioritise their role as a key community stakeholder as part of their mission. Corporate citizenship benefits both communities and corporations, and community involvement and corporate policies consistent with public health recommendations can improve community response to disasters and outbreaks. Numerous businesses of all sizes have aided their communities during a disaster. Having a pandemic preparedness and response plan is a critical component of corporate social responsibility to ensure that services and functions needed by communities are not impaired.

Establish partnerships

It is important to establish linkages with public health and emergency management leaders in communities where each business unit has a physical location. Because it takes time to build communication and trust between partners, creating alliances in advance of a pandemic is a critical part of preparedness. Collaboration with state and local public health agencies and emergency responders will provide businesses with a connection point for accurate information during a pandemic, create opportunities for participation in community-level planning processes, and inform business planning.

Collaborate and share best practices with other businesses

Creating alliances and networks with local and state governments as well as other businesses for pandemic response in communities can strengthen a local response, especially if businesses produce and deliver a critical service or product. While businesses are cognisant of the legal ramifications of certain types of collaborations, there is ample opportunity for businesses in a community to plan collectively for emergencies under the auspices of local public health or emergency management authorities. The Federal Emergency Management Agency (FEMA) supports the concept of 'whole community' disaster planning, specifies businesses as key participants, and advises that 'Preparedness is a shared responsibility; it calls for the involvement of everyone - not just the government — in preparedness efforts'.51 Because of the crucial cross-sector interdependencies between businesses in a community, it is important to collaborate on pandemic planning for the continued operation society during a disruptive pandemic.

Explore access to community resources for response and recovery

Investigate available community services that could benefit employees and businesses during and after a pandemic, especially social supports and mental health services. If the pandemic is severe, there may be a long recovery needed to establish normal routines.

SUMMARY

The current outbreak of the novel corona virus (COVID-19) sets the imperative for businesses to 'dust-off' their pandemic plans and update them in earnest. Businesses that develop, and test and update their pandemic plan regularly can significantly reduce the future harmful impacts, play a key role in protecting employees' and customers' health and safety, and limit the negative impact of a pandemic to both their business and their community. The cost of being unprepared is incalculable.

This cost goes beyond profound absenteeism and the inability to serve customers and protect employees — it can diminish an entity's brand and reputation, or ultimately, force the closure of the business.

Although the timing of a future pandemic is uncertain, and although spread of COVID-19 in communities is increasing, disruption to businesses and communities from a pandemic remains a distinct possibility. Even though companies may face many challenges during a pandemic, there are steps they can take in advance to maximise continuity and minimise harm. Well-prepared businesses will be more resilient and have a better chance of preserving their business and contributing to communities and the nation during a future pandemic.

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